

TO THE CULTIVATORS OF ROSES.

R. B. BIRCHAM, Hedenham Rosery, Bungay, Suffolk, begs to offer the following choice PERPETUAL ROSES. Good dwarf plants, own roots, suitable for pot culture or transplanting into the open borders.

Table listing various rose varieties such as Aricie, Aubernon, Augustin Mouchelet, etc., with prices in shillings and pence.

Cloth of Gold (Noisette) strong plants, 7s. 6d. Choice Roses selected from various classes: Dwarf Standards, 12s. per dozen; do., superior kinds, 18s.; Standards, 15s. per dozen; do., most superior, 30s.

THE FILBY, or FASTOLFF RASPBERRY.—At the request of some gentlemen living in the neighbourhood of Yarmouth, T. RIVERS begs to submit the history of this really excellent Raspberry to the public. In the year 1814 Colonel Lucas, of Filby, a place lying between Norwich and Yarmouth, discovered a Raspberry plant growing under an old Laurel hedge in his garden.

Canes are sold at 30s. per 100, or 6s. per score, carriage paid to London. Charge for package, for small parcels, 6d., for large do., 1s. to 1s. 6d. Orders to any amount can be executed. The Trade price will be given on application. Sawbridge worth, Herts, Nov. 23, 1844.

The Gardeners' Chronicle.

SATURDAY, NOVEMBER 23, 1844.

Table listing meetings for the two following weeks, including dates and times for Royal Botanic, Botanical, Society of Arts, etc.

WHEN we, a few weeks since, invited the attention of our readers to some supposed cases of the TRANS-MUTATION OF CORN, we were not aware that so many such instances were on record. Thanks, however, to our correspondents, we have now before us several statements as to one kind of plant changing to another, so that the inquiry seems more than ever to be worth following up.

Mr. Darwin, who agrees with us that so curious a subject is well worth investigation, "even if it should prove to be only a history of error," points out a passage in Dr. J. Anderson's "Recreations," &c. (vol. ii. p. 238) for the year 1800, where he remarks on an extract from a Dutch journal, in which it is said, that a countryman sowed Oats and cut them green three times, and that "in the ensuing spring only a few stalks set out any fresh shoots, and these were good Rye."

Another correspondent finds the following in the "Million of Facts," by Sir Richard Phillips, p. 153:—"Barley in rainy seasons or years degenerates into Oats; and Oats in dry seasons change into Barley. These facts, related by Pliny, Galen, and Matthiolus, have been confirmed by the experiments of naturalists.—St. Pierre."

Of all the statements, however, which have been made upon this subject, the most remarkable are those of a Dr. Weissenborn, which were published by the late Mr. Loudon in his "Magazine of Natural History," in the year 1837, and from which the following are extracts, with some verbal alterations:—

"Within the last few years two experiments of this sort have been made with more than common care. One was in Livonia. In the middle of a Cabbage-garden, a bed of 12 feet square was carefully dug and pulverised, and sown about the end of June, 1836, with picked Oats. The blade sprang not particularly well, and was thin, as the seed had suffered from frost in the preceding autumn. It was cut, for the first time, when part of it had already begun to form a shoot. The second mowing took place in autumn. This year, the second of the experiment, the bed is covered with healthy Rye-stalks, though fewer in number than the Oat-plants, which stood on the bed last year."

The other case is that of a Lieut.-Col. de Schau-roth, who five years previously had found this experiment succeed seven times, and that in every case Rye had sprung from Oats, when the latter, during the first season, had been prevented forming stalks. Col. de Schau-roth had been averse to publish his observations, from his dislike to controversy; but as he was fully satisfied about the truth of the phenomenon, "he asked me," says Dr. Weissenborn, "to repeat the experiment; I delayed doing so till I could have an opportunity of sowing Oats on ground which had neither yielded a crop of Rye, nor had been manured with litter for a long time previously. Three years ago, however, I ploughed up a paddock in which there had been nothing grown but Grass for the last 15 or 20 years. It was planted with Potatoes for two years, and the third spring, sown with Oats and Lucerne, which were fed off by sheep, so that none of the Oat-plants could run to ear. During the severe spring of the present year, the greater part of the Oats were destroyed; but when the Lucerne had attained a sufficient size to be fed by sheep, it was found intermixed with a great many healthy Rye-plants, just in ear. It appears unnecessary that the Oats should be sown about midsummer day; and it is very natural that the Rye-plants should be fewer than those of the Oats, because all summer Corn is, in a great measure, destroyed during winter."

These statements were made in 1837. In the following year Dr. Weissenborn again brought the subject before the public, in the second volume of the "Magazine of Natural History." "With reference," he says, "to the transformation of Oats into Rye, this remarkable phenomenon has not only been verified by new experiments, but we have caused beds to be sown with Oats, in order that we may be able to convince disbelievers, by producing Rye stalks which have sprung from the crown that still shows the withered leaves of the Oat plant of the previous year. I repeat that this transformation does take place, if Oats are sown very late (about midsummer-day), and cut twice as green fodder before shooting into ear; the consequence of which is, that a considerable number of Oat-plants do not die in the course of the winter, but are changed in the following spring into Rye, forming stalks which cannot be known from those of the finest winter Rye. We must expect that this fact will be considered by many as a mere assertion, and there are others who are still in doubt about it; the latter, however, own that they either have not made the experiment, or have sown their Oats too early, and, therefore, had cut them oftener than twice, in order to prevent their running to ear, whereby the plant loses the power of surviving the winter, and of being transformed into Rye. I cannot notice such adversaries as reject the result without having put it to the test of experiment, or who rest their opposition on experiments that have not been conducted in the right manner. Let any one sow Oats during the latter half of June, and the transformation in question will certainly take place! The time of sowing the Oats did not formerly appear of paramount importance, nor was it believed that it could make any difference whether the Oats were cut more than twice; in consequence of which a few experiments have failed. Now, however, we must conclude, that if the transformation occasionally takes place with Oats that have been sown too early, that is merely an accident depending on a peculiar state of the weather, or other accidental circumstances; whereas the result is quite certain if the Oats are sown towards the end of June. If the soil is too dry about that time, one of the reporters on the subject, to the Agri. Soc. of Coburg (Lieut. Donauer), concludes from an experiment he made in 1837, that one watering, so as to enable the Oats to germinate, may be recommended; although if this be done repeatedly, the high temperature of the season will cause the plants to grow so luxuriantly, that it becomes necessary to cut them three times when about 1½ foot high, to prevent their forming their ear, whereby the object would be wholly or partially lost. If, however, among those who doubt the fact, there be found people who pity us because we trust more to actual experiment than to theory, we should almost feel tempted to pity theorists, whose self-sufficiency has prevented them from thoroughly investigating an

important phenomenon which was noticed so many years ago. Nor can we commend the discernment of such as are unable to discover in the plants in question, both the preceding year's dry stubble, and leaves of the Oats, and the fresh stalks and leaves of the Rye, which latter form in May upon the crown of the Oat plant, and produce fine winter Rye. The Society takes credit to itself for perseverance, in having struggled against the opinion of the public for several years, in order to establish a fact which no physiologist would believe, because people are always apt to confound the laws of Nature with those of their systems."

Such is the state of the case, as far as is at present known. We cannot conclude our relation of these strange stories better than in the words of Dr. Weissenborn himself. "It is not," he says, "with a view of engaging anybody to believe the alleged transformation, that I call the attention of the English reader to the above observations, but merely from a wish to relate a curious phenomenon whose frequent recurrence can hardly be doubted, on account of the mass and respectability of the evidence now before the public; and the cause of which, for the same reason, it appears not altogether irrational to inquire into, by repeating the same experiment in various localities."

We wish we could persuade a few gardeners to bear these statements in mind, and to make the trial next year, when midsummer arrives. It is a question much more likely to be answered satisfactorily in a garden than in a farm.

ON PRUNING FRUIT TREES.

As the pruning season is at hand, I beg to offer a few remarks on Pear pruning, more especially the new Flemish kinds; as also a brief account of their general management as pursued by me for the last eight or ten years.

It is notorious to all who are in any way conversant in gardening affairs, that by the old method of close spurring, the trees on walls became gradually barren with their advance in age: this barrenness proceeding from the centre of the tree to the extremities, until at last some three or four hundred feet of walling would be occupied for the sake of a few dozens of Pears, hanging at the extremities of the shoots.

Now the loss of walling, which of itself is no trifle, was not all in this case. The tree had to undergo a thorough revision every year, at stated periods, not with any hope of inducing the tree to become in any way more prolific, but to keep up the decent appearance of the wall.

The habits of the Pear being duly considered, and the circumstance of such limited powers of leaf, with unlimited powers of root, being taken into consideration, who could wonder at such results? A wall of trees treated in this way, if it could be placed on the ground in a horizontal position (with the trees attached), would be no bad representation of a coppice in miniature; and, indeed, the principal points of management bear no small resemblance. To excite the woody principle is the sure result in both cases; but change the case with regard to the Hazel coppice; let the trees grow up free from the pruning knife, and consequently suffer the elaborating powers to reach or overtake the absorbing ones, and the result will be Nuts, instead of crate-wood or faggot-ties.

In the case of wall Pear-trees, an objection of a serious appearance seems to stand in the way: I mean the exclusion of light by suffering the tree to remain unpruned. There is, however, no real difficulty in the affair, as I have proved by experience. The root must be limited—the power of making shoots placed under control. It is well known that the absorbing powers of the Fig are so great in our humid climate, that all good cultivators take care to limit its roots, without which, it is in vain to expect success; and the leaf by this process being much reduced in size, the exclusion of light is by no means so great. Now the tender Flemish Pears are in precisely the same predicament as the Fig, if left uncontrolled at the root; the elaboration of the tree, and fructifying sap is ever in arrears.

In stating my practice, I will begin with the young trees from grafts. I make it a rule to transplant them annually, if possible, commencing with the young plant in the autumn succeeding the grafting season. My object is to exchange tap roots for fibrous ones, and consequently prepare them for a system of complete root-control; thoroughly ripened and short-jointed wood here the object to be obtained; and the next and important object with me is to prepare mounds of brick or stone on which to place them in their final destination.

The subsoil must of course be free from any lodgement of water, and if not naturally so, I of course introduce drainage. The soil I use, and which seems to be the best adapted, as coupled with my shallow border system, is a strong and rather clayey loam from old pastures, which, if the pasture abound in soil, may be dug, turf, soil and all, about six inches in depth.

My platforms are about six feet square, and the fresh dug loam is rough chopped, and tumbled in without farther ceremony; no manure or vegetable matter of any kind is mixed with it, and, indeed, it would be quite superfluous—nay, injurious. The surface of my platforms, before I introduce the soil, is about nine inches below the ground level, and the soil when filled in is one foot in depth, and consequently elevated three inches