

Foreign Correspondence.

COCAL.—Probably the most magnificent Cocoa-nut plantation in the West Indies is that established along the semicircular sea-beach on the eastern coast of Trinidad, extending 14 miles, and designated the Cocal. About 12 miles of this belong to the public, containing some 27,000 bearing trees, which yield upwards of 1,000,000 nuts a year. This sea-beach averages in width about one chain, and at the back of it is a continuous swamp. It appears evident that this narrow beach, a few feet above the level of the sea, at the junction of the swamp with the sea, has been created by the aggregation of drifted sand from the incessant surge and strong sea-breeze prevailing here. On the lonely side of an island far removed from civilisation, this extended grove has an imposing effect, demarcated by the uninterrupted surrounding forest. The supposed origin of the Cocal—for miles of Cocoa-nuts were found growing on the beach, according to the earliest historical accounts, some 150 years ago—is that during last century an East Indian vessel, laden with Cocoa-nuts, was wrecked near this part of the island, consequently the nuts were washed ashore, germinated, and gradually spread along the beach. Another supposition, by the gentleman who wrote the history of the Cocal for 150 years, is:—“Could we not adopt the more probable theory that the Cocoa-nut tree is indigenous to that locality, as it is to some of the islands on the Pacific and Indian Oceans?” Notwithstanding the popular opinions thus entertained, it is remarkable that the almost certain agency by which the Cocoa-nut was introduced has been overlooked, namely, their having been brought from the mainland by the wide-spread current of the Orinoco in exactly the same manner that Kingsley, in his *At Last*, when writing about the same place and on the same subject, says:—“We rode along mile after mile wondering at many things; first, the innumerable dry fruits of the Timit Palm, which lay everywhere. They have been brought down the lagoon from the inland by floods; but the common belief is that most of them came from the Orinoco itself, as do also the mighty logs which lie about the beach in every stage of wear and tear, and which, as fast as they are cut up and carried away, are replaced by fresh ones.”

On the occasion of my visit I observed thousands of the seeds of this said Palm (*Manicaria saccifera*) being washed ashore by the waves at high tide mark; indeed they were innumerable, and, on examination, I found them quite fresh, and capable of germination. These seeds are also frequently carried by currents to the shores of other islands. I also observed many huge trunks of trees being driven ashore. These, of course, had been brought by the Orinoco; and in like manner Cocoa-nuts are no doubt frequently brought by the current of that great river. Again this narrow sandy formation was exactly suited for their reception, as compared with the opposing barrier everywhere presented by rocky precipitous cliffs, and in other places where this is not the case, the equally strong one of rank vegetation defying the encroachment of exotics. *Report of Jamaica Botanic Garden.*

TONELAVEGA, MOGRO, PROV. SANTANDER, SPAIN: Feb. 12.—*Quercus humilis* and *Encina-wood*.—In the Holy Scriptures we are told that among many councillors there is wisdom. The article in the *Gardeners' Chronicle* of January 24 seems to make clear to me that which I have for some years been endeavouring to unravel, namely, the proper name for what is there styled the *Quercus humilis*, about which there appears to have been some difference of opinion. Not professing to be a botanist, and with scarcely sufficient knowledge of timber and trees to keep me even at par with other people, I shall merely state my practical knowledge of this *Quercus*, or, as I had hitherto considered, *Ilex*, and with pleasure I think that most probably I may prove the three eminent botanists quoted are all right according to the species of which they were treating.

The Spanish familiar names are Chaparro, Encina nana, Encina dulce, the acorns being edible; and the common or Encina amaiga. The nana or dwarf Encina is seen as a large evergreen shrub, and found flanking the mountains of the Sierra Morena, in Andalusia, the Montes of Toledo, and some parts of Estremadura, and is remarkable for making excellent charcoal. The roots generally weigh as much as the whole of the trunk and branches, and cover a great extent of ground considering that the Chaparro or dwarf Encina is rarely seen above 12 feet high, and frequently seven and ten separate sticks from the same mat of united roots are observed, and the branches from these sticks strike out from them within a few inches of the ground. The leaf is of a dull green colour, greyish on the under-side, oval in shape, indented and prickly on the edges, and about the substance and size of those of the British Holly.

The Encina dulce is a timber tree, in sheltered damp situations of the provinces of Santander and

Orense, Caceres, and Toledo, where the acorns are sold for domestic purposes, and much used in confectionery. There is one tree on this property (Mogro) which girths 13½ feet, and is 16 feet high in the trunk, besides which it has nearly 9 feet of timber in the branches; the crown is nearly as symmetrical as a button Mushroom, with the smaller branches very congregated and weeping; the leaf is of a brighter green and grey than the dwarf Encina (Chaparro), also of similar size. The bark is close, heavy, and of a reddish colour, also more esteemed than that of the common *Quercus*; the timber is very durable and lasting, either in wet or dry constructions. The tree arrives at maturity in between one and two centuries, and decays in from four to six centuries.

The common Encina has most of the characteristics of the sweet, but the leaf is rather larger, the wood has not so much of the red tint, but more of a yellowish red. I have measured one of 23 feet girth, now nearly hollow, with a capacity for six men to stand upright within its walls. Being in an exposed position, the trunk is short. In its vicinity are other similar trees, having 10 to 25 cubic feet of timber. The age of these trees is supposed to exceed seven centuries. In sheltered dales of the North of Spain I have seen sticks of 25 to 45 feet high in the trunk, evidently young trees of 20 to 30 years' growth. The wood of this timber is also remarkably durable, and when, as sometimes happens, there is a yellow-green tint with the red, it makes very handsome furniture, and in density is found a good substitute for Box. The best and largest trees are found in the North of Spain. In the west, as in Estremadura, there are extensive forests, the acorns, which are larger than those of the sweet Encina, being the food for large herds of swine; and so abundant is the supply, that my friend, Don Enrique Salamanca, runs between 6000 and 7000 among the woods, the trees of which average about 9 cubic feet of timber.

My experience induces me to believe that the Encina requires a warm wet climate, the rainfall in the provinces of Orense and Santander being 60 to 70 inches on an average of seven years; Estremadura, 16 inches; the Montes of Toledo, 14; the Sierra Morena, 13 to 26; Toledo and Talavera, 13. The Cork and Encina will generally flourish under the same atmospheric conditions. I have an opinion that the dwarf is the same plant as the common Encina, which had been frequently felled, partly uprooted, and allowed under a forcing climate to re-vegetate. In those districts where it is called Chaparro or dwarf Encina, the right to fell and appropriate has been accorded to those who wished, and the trees were to within the last 10 or 12 years Government or national property, subsequently sold at an average of 9s. per acre. The present Don Ruiz Zonella, being at the time Home Minister, was desirous to make over about 60 square miles to foreign emigrants, particularly wishing English navvies. Several times I have crossed these Montes of Toledo, where are to be seen wild Quince and Apricot, and not ten human beings in a ride of eight hours. Upon a few estates, such as those of the late General Prim and Don Alejandro Olivan, have been propagated tropical plants, also specimens of *Eucalyptus globulus*, of 47 feet high in 12 years' growth. In districts where the nana or dwarf Encina has been cared for, as those upon the estate of Conal Rubio, near Valdepena, on the Madrid and Cadiz Railway, it becomes more a timber tree, but here the rainfall is only 16 inches—the district being more suitable for wines, for which it is justly celebrated, than timber. This property, of about 10,000 acres, I am authorised to sell at £4 per acre—nearly the whole flat good land. *Thomas Fakes Burbury.*

Notices of Books.

THE second part of the *Flora of British India*, edited by Dr. Hooker, and published under the authority of the Secretary of State for India, has just been issued (Reeve & Co.). The work, when complete, is intended to comprise a condensed description, for systematic purposes, of the flora of the whole of our possessions in India. The present instalment contains the Polygalas, by Mr. A. W. Bennett; Frankenis, by Mr. Edgeworth; Caryophylleæ, by Mr. Edgeworth and Dr. Hooker; Portulacæ, Tamariscinæ, Elatineæ, Hypericinæ, Ternströmiaceæ, and Dipterocarpaceæ, by Prof. Dyer; Malvaceæ, Sterculiaceæ, and Tiliaceæ, by Dr. Masters; Lineæ and Malpighiaceæ, by Dr. Hooker, while Zygophylleæ and Geraniaceæ are treated by the same gentleman in conjunction with Mr. Edgeworth. Useful as the present publication will undoubtedly be, we cannot but look back with great regret to the volume of a similar character issued nearly twenty years since by Drs. Hooker and Thomson, the continuance of which was prevented by force of circumstances. That publication was not a mere conventional descriptive list, but contained also a series of essays on geographical and structural botany, which, had they been continued, would have formed an epoch, as the French say. The task, however,

fell through, in great measure by reason of its immensity, as any one may judge by glancing at the present “condensed” publication and its references to a hydra-headed synonymy, and a literature as extensive as it is widely scattered. Some fears might, indeed, be entertained that this undertaking, like its predecessor, may not be completed; but, on the other hand, it may be stated, we believe correctly, that a large portion of the ensuing volume is ready for the press, while the materials and the library at Kew are not only very extensive but pre-eminently well arranged. The collections at the British Museum and the Linnean Society are also made use of, so that the completeness of the work up to the time of publication is guaranteed.

— We have lately received a fourfold part of the *Illustration Horticole*, containing, in addition to much varied and interesting letterpress, the following coloured plates, to some of which we shall have occasion to refer at greater length at another time:—*Dracæna Reali*, a splendid variety, with clear red margins to the leaves; *Masdevallia Harryana*, *Cynoches maculatum*, *Calathea nigro-costata*, *Tydaea Lindenii* and *T. pardina*, a striped variety of *Miconia pulverulenta*, *Philodendron melanochrysum*, *Rapatea pandanoides*, a very curious Xyrid, with broad leaf-sheaths and spiny petioles, shown at the Royal Horticultural Society on Wednesday last; *Denrobium chrysotis*, and sundry *Camellias*. Those who were present at the Ghent show in the spring of last year will remember that several of the plants just mentioned attracted special attention on that occasion.

— The first number of the English edition of the *Illustration Horticole* is before us. It is published and conducted by MM. Linden and André, and the English translation is the work of Mr. W. B. Hemsley, who is specially fitted for that duty by his well-known attainments as a botanist and practical horticulturist. The form of the new series is a large quarto, in double columns, in clear, legible type, and with three coloured plates, representing respectively *Oncidium fuscum*—better known as *Miltonia Warscewiczii*—*Ceroxylon andicola*, and *Camellia japonica* var. *Don Pedro*. The letterpress comprises, in the first instance, a horticultural chronicle of the month, in which we note a flattering allusion to the British horticultural press and to ourselves; then follow articles descriptive of the plates, other articles on the kitchen garden, the Palms of New Caledonia, on the acclimatisation of plants, on the flora of New Caledonia, with special reference to the *Elæocarpi*. There are several species of this genus in India, as well as in New Caledonia, which would amply repay introduction as ornamental stove shrubs. We are glad to assure M. Poisson, the writer of the article in question, that the beautiful *Dubouzetia campanulata* of which he speaks is in cultivation in this country, and has been for some years, but unfortunately it appears to require a long time to get into the flowering condition. We cordially welcome this well-known publication in its new habiliments, and trust that the enterprise which has prompted its publication in English, and in an improved form, may meet with the success its merits deserve. Subscribers should communicate with M. Linden, 52, Rue de la Chaume, Ghent.

— Mr. Dimmick's notions as to the *Potato Disease and its Prevention* are contained in a pamphlet recently published by Messrs. Houlston and Sons. He maintains that the primary cause of the disease is a weakened constitution and not a parasite, oblivious of the fact that the disease attacks the strongest and healthiest kinds as well as the weaker ones, and that it has been produced by artificial implantation on sound Potatos without previous injury by insects or other cause. The cause of the debility Mr. Dimmick finds to be the rubbing off the shoots of the seed tubers, and very properly recommends more care to be taken in storing the tubers so as to arrest their premature growth. It is open to question, however, whether the injurious effect of rubbing off the shoots is not shown in the consequent diminution in the crops rather than in any absolute weakening of what is left behind.

— The illustrations in the last number of the Russian horticultural journal *Westnik* are *Tulipa Greigii*, *Psophocarpus tetragonolobus*, *Korolkowia Sewerzowi*, *Aphelandra nitens*, and *Odontoglossum Insleayi*.

— Under the title *Clusia* Professor Edward Morren has, following the habit of his father, collected together a series of papers on vegetable teratology, pathology, &c., communicated by the elder Morren to the Royal Academy of Belgium. An introductory chapter by the son, and which we regret not to find more extended, gives very briefly a general summary of the labours of the father in the field of teratology, and indicates the general results at which he had arrived, and which suffice to show the probable form Professor Morren's synthesis would have assumed had he been spared to complete it.