varieties. Such tree-planting may be useful from an aesthetic point of view, a deterrent to erosion, and may be the means of maintaining a more even flow of water in the valleys; but I am so convinced that the injurious influence of elevation and aspect on tree-growth generally demands still more consideration being exercised in choosing an area for afforesting than has been hitherto looked upon as necessary.

The proposition frequently advanced by enthusiasts during the past few years regarding tree-planting in Central Otago at altitudes exceeding 3,000 ft. cannot be recommended, excepting where the object, by surface-covering with stunted trees, is to regulate water-drainage and enhance appearances. No reliable conclusion of returns from a specified expenditure in tree-planting generally at each centre of New Zealand has been arrived at, and it can only be concluded that the more suitable a locality for timber-development is—with, of course, a reasonable local demand for the product—the greater profit from the undertaking might be expected, and thus the expenditure of a greater sum on afforestation in districts possessing the more favoured conditions is justified.

Another important phase is the accessibility of an area and its proximity to railway connection and industrial centres. Suitable planting-areas that may be regarded at present as inaccessible will likely enough be linked up with light lines sufficiently early for transporting any produce raised therefrom. On such areas, however, the wisdom of planting trees such as *Pinus Laricio*, *P. ponderosa*, Douglas fir, &c., requiring a longer rotation period, is apparent, whilst provision should be made to form plantations solely of the faster-growing trees—eucalypts, *Pinus radiata*, poplars, &c.—on waste lands more conveniently situated.

Sand-dunes in France.

Although compelled to hurriedly withdraw from the sand-dune district in the western portion of France, owing to the unsettled state of the country, it was nevertheless possible to acquire a fair amount of useful knowledge regarding the wonderful reclamation of thousands of acres of country between Bordeaux and northern Spain. What was once a barren sandy waste, apparently incapable of adding to the resources of the more favoured surroundings, has been converted into a magnificent forest in various stages of development, and providing remunerative employment to many hundreds of persons. Although a fair variety of trees has been introduced, the maritime pine, *Pinus maritima*, constitutes the principal timber, resin, and reclamation tree. The upright habit of growth of the species and continued rapid vertical development would indicate that, generally, the recognized *Pinus maritima* now growing in New Zealand possesses different characteristics. This, however, may be attributable to the less suitable atmospheric conditions. I have arranged with a French official at Bayonne to forward a parcel of seed procured from some of the finest standing native trees (the seedlings of which, I understand, are exceptionally sturdy), and it will thus be possible to conduct an interesting experiment, the result of which may be helpful in simplifying the more complex forms of dune-reclamation.

Uses of Pinus maritima.

In New Zealand we have been educated to look upon the maritime pine as being a somewhat low-growing bushy tree, the timber of which possesses little or no commercial value; but these opinions of the pines growing naturally on the west coast of France are quite contrary to fact. The timber is used extensively for sleepers, poles, flooring, &c., and quite a number of mills and creosoting plants are kept almost constantly employed in operating solely with the timber removed from sand areas. It is interesting to note, however, that a preservative treatment is essential if durability is desired, but the French people have so specialized in creosoting methods that this is neither a difficult nor costly operation.

Extraction of Resin.

A particularly profitable industry which is undertaken by the Government is resin-extraction, which utilizes much peasant labour, especially during the spring and summer periods when sap is in a more active state. Arrangements had been made with an official for the collection of details regarding the financial and other aspects of the work, but again we were compelled to cancel the meeting for reasons previously mentioned. The following points of interest, however, will show in what direction investigations were made:—

(1.) Resin-extraction is commenced when trees are about fifteen years old, and by the subsequent extent of tapping the life of the tree is partially regulated.

(2.) Branchy trees are tapped more vigorously and continuously, as the commercial value of timber from such trees is not so great as from straight-boled specimens.

(3.) Extraction of resin naturally has a deteriorating effect upon both the timber and the development of the tree, but generally trees are felled before the timber becomes badly affected.

General Remarks.

The process of reclamation has been exceedingly simple, and may be summarized as follows:—

(1.) Planting of marram-grass (*Psamma arenaria*) at about 3 ft. apart fringing the sea-coast, and continued at various distances inland according to the severity of the prevailing sea-winds.

(2.) Having formed protective dunes, which at times extend half a mile or more from the beaches, several outer lines of *Pinus maritima* at about 4 ft. apart are planted, whilst individual trees throughout the main forest stand at from 5 ft. to even 8 ft. apart, which distance is evidently sufficiently close for the development of useful boards, &c.