The chief timber of Southland is the red-pine or rimu, which is converted to a greater extent than in any other part of the colony at the present time. White-pine is not unfrequent, but, on the whole, is less plentiful than matai or black-pine; totara is not uncommon, but seldom occurs in any large quantity; kamai is abundant in all the bushes, but is seldom converted; miro is coming any large quantity is abundant. into demand for marine piles; silver-beech occurs in abundance on the western side of the district and sparingly in the Forest Hill and Winton District. Mountain-beech is found at the head-waters of the Oreti, but tooth-leaved beech, the most valuable of all, appears rare and local.

With the object of affording a more definite idea of the character of the forests of Southland it will be advisable to give detailed descriptions of three separate areas, each of which may be taken

as a type of a class.

## SEAWARD FOREST.

This was originally one of the largest tracts of forest-land in the district; but, from its proximity to Invercargill, and from the advantages afforded by the railway to the Bluff, it has been so extensively worked by sawmillers that not more than 18,000 acres remain untouched, and of this only a

limited portion affords timber of the first quality.

Nine sawmills are now in operation in this bush; some of them being amongst the largest in the district. In all probability the total annual yield amounts to nearly one-half of the entire

quantity converted in the Southland District.

The great bulk of the timber is rimu or red-pine; next in quantity comes kamai (Weinmannia racemosa), sometimes termed red-birch by bushmen. Kahikatea or white-pine, matai or blackpine, and totara occur in varying quantity in different sections of the forest, but are rarely plentiful. In addition, fine specimens of miro are not unfrequent in some places, but are seldom converted, although the timber is of considerable value for inside work. Broadleaf occurs but sparingly, together with horoeka or lancewood, pokaka, toatoa, and occasionally tea-tree of sufficiently large

dimensions to be used for small piles.

Red-pine is the chief timber converted in the Seaward Forest, and in the Southland District generally. It varies somewhat in quality. The Seaward Forest is remarkable for the straight, clean growth of this timber, although the dimensions attained are not so large as in other places: the average being from 30ft. to 40ft. in length, and from 16in. to 30in. in diameter. Trees of less than 12in. in diameter are not allowed to be used. The timber is straight-grained, close, and silky, so that it is easily worked, but the proportion of sap is sometimes rather large. Massive trees are occasionally met with, sometimes with trunks 40ft. long, and from 3ft. to 4ft. in diameter, affording timber of durable quality, as it contains a large quantity of resin. The sawmillers are of opinion that timber from these large specimens is equally durable with matai, and might be advantageously utilized for railway-sleepers and similar purposes. As a general rule, the timber produced by trees of smaller dimensions is preferred by the carpenter, on account of its being more easily worked.

The great abundance and regular growth of red-pine of moderate dimensions is most remarkable, and greatly facilitates profitable conversion. It might be expected that sawmillers would be able to give some definite estimate as to the average yield of converted timber per acre, but they are by no means agreed on the subject, as their estimates varied from 3,000 to 25,000 superficial feet. Mr. Murdoch, who is regarded as the founder of the Southland timber-trade, and who is the largest millowner in the district, stated that he considered the average amount of royalty ought to be £2 per acre or rather more, at the low rate of 3d. per 100 superficial feet, paid by the Southland millers. This would require a yield of 16,000ft. of manufactured timber. My own estimate, based upon the actual measurement of standing timber, leads me to consider the average minimum. yield per acre between 20,000ft. and 21,000ft. It will be necessary to consider the subject at greater length in another part of my report.

Compared with the red-pine, totara and black-pine and other convertible timbers are rare; they usually sell at more than double the price of red-pine, but the sawmillers pay the same low rate of

royalty as on the red- and white-pine, 3d. per 100 superficial feet.

White-pine sometimes occurs in greater abundance and of larger dimensions, usually of excellent quality. It sells at the same rate as red-pine. Miro may often be found of good dimensions; although seldom converted, it is now in demand for marine piles, and fetches a fair price.

At present nothing has been done in the way of utilizing the tops and waste branches for the manufacture of charcoal, tar, or pitch, &c., and no attempts have been made to extract the resin which is so abundant in the red-pine that it forms solid masses in any shakes or cracks that may be developed during the growth of the tree.

The Seaward Forest is of a remarkably level character, so that the construction of tramways is rendered easy and inexpensive. In some places it is swampy, and everywhere sufficiently moist

and cool to encourage a most luxuriant growth of arborescent ferns.

## LONGWOOD FOREST.

The Longwood Forest is by far the largest in Southland: it extends from Jacob's River to the Waiau; its extreme length from north to south being about eighteen miles, and its breadth about sixteen; so that, although of irregular outline, its boundaries include half a million acres, but the timber on certain portions is of indifferent quality, and a considerable acreage has been alienated. About 120,000 acres have been reserved for sawmill leases; at the present time five mills are working on Crown land and two on freehold. The gradual exhaustion of the Seaward Forest, combined with the increased facilities for cheap transport afforded by the opening of the railway from Riverton to Orepuki, will speedily lead to a large development of the timber-trade in this district.

The Orepuki Railway traverses the forest from Riverton to the Orepuki Goldfield and Coal-mines, a distance of about eighteen miles, thus affording a ready means of transport to other parts of the colony, and facilitating shipment coastwise from Riverton, Invercargill, and the Bluff.