

ponderating; but not unfrequently the different kinds form small clumps, rarely consisting of more than a dozen trees. Forest of the latter kind is usually of a dense character, the better portions averaging from 20,000 to 60,000 superficial feet per acre, especially where totara is the prevailing tree.

In what may be termed the upland forest, occupying the slopes of low hills, the forest is often so completely mixed that it is not easy to find two trees of the same kind growing close together. Except in beech and rata, as a rule the trees are decidedly smaller than those in the valleys; but the forest is more dense, so that the total yield per acre is very large, and forest of this kind is often of great value to the saw-miller.

Mountain forests consist chiefly of beeches, mixed in varying proportion, or comprising a single species only, up to 3,000ft.; above that altitude they are restricted to mountain beech. I have not seen the silver beech below 1,500ft. in the district; tooth-leaved beech descends to 800ft., and entire-leaved beech occurs at the sea-level in Lowry Bay. All the beeches appear to be absent from the south-west corner of the district, between Port Nicholson and Porirua Harbour.

In many cases, however, the upland and lower mountain forests contain but little timber of any value for conversion, and in some places are altogether destitute. An example of this kind is afforded by the State forest reserve on the Tararua Range, at the Manawatu Gorge. With the exception of a few medium-sized ratas, and very rarely indeed an occasional rimu on the lowest parts of the range, the forest is composed of small whitewood and scrubby growth, of no value except for firewood. The greater part of the climatic reserves on the Tararua Mountains appear to be of this character.

The totara forest, on the other hand, is the most valuable of all: much of this timber in the Wairarapa is excellent, both with regard to quality and dimensions, but large totara groves are becoming very rare, although a considerable quantity is undoubtedly scattered through the forest in the north-eastern corner of the district. In the valley of the Manawatu it is equally rare: two or three saw-millers informed me that it was practically cut out in that district, but this is not literally correct, even in the immediate vicinity of the river, while in the upper part of the Oroua I am assured that a large quantity is still available, although in places difficult of access. With the exception of a few limited areas in localities where it could not be profitably converted at present rates, I have no actual knowledge of any large extent of totara forest.

The forests of the Pourewa and Mangaone Valleys, Rangatau, and Waimarino have been described in the first part of this report under the Forests of the North Island Central Railway, so that it is not necessary to offer a detailed description of other forests in this district. The chief timbers used for conversion are the totara, rimu, kahikatea, matai, tooth-leaved beech, entire-leaved beech, rata, black maire, and occasionally the towai and miro. Rewarewa and some other ornamental timbers are occasionally converted for the purposes of the cabinetmaker. Tawa, although occurring in great abundance, receives no attention except for firewood.

Compared with Hawke's Bay, totara occupies relatively a less important position, the proportion of rimu and other timbers passing into consumption being much larger: this arises from no disposition to undervalue totara, but from the greater abundance of ordinary pines. Rata and black maire are more largely used for bridge-building and other constructive works in this district than elsewhere. Towai is often called "red-birch," and converted in mistake for tooth-leaved beech, to which it is greatly inferior. Tooth-leaved and entire-leaved beeches are largely used for bridge-building, railway-sleepers, fencing, &c. Walnut-leaved cedar (*Dysoxylum spectabile*), although of rather soft texture, is frequently utilized for fencing-posts and stakes, especially in sandy soil, where it exhibits much greater durability than other timbers, the totara not excepted.

THE TIMBER INDUSTRY IN WELLINGTON.

The Wairarapa and Manawatu valleys have long been important centres of timber-conversion. Prior to the construction of railways the Wairarapa timber had to be forwarded to Wellington by timber waggons, which crossed the Rimutaka Range at an elevation of about 1,800ft., so that haulage was costly, and the output small notwithstanding the high prices that prevailed. The mills in the Manawatu had their outlet at Foxton, and were able to send timber by coasting craft to Wanganui, Wellington, and Lyttelton. Waiting the completion of railway communication with Wellington, Foxton still continues to be the chief outlet for these mills, although the extension of the railway system has opened the markets of the settled district between Halcombe and Hawera, and has led to a large and increasing development of the Manawatu trade. Conversion in the Wairarapa has increased in a still greater ratio, fostered partly by direct railway communication with Wellington, and partly by the increasing demand for totara, which occurs in larger quantity than in the Manawatu.

The total number of saw-mills in the district is thirty-five, affording employment to about 550 men and boys. The annual output is fully 35,000,000 superficial feet per annum, so that it is second only to Auckland in this respect, although Southland employs a larger number of men.

All the mills obtain their supply of logs from freehold land: in some places a portion of the supply is obtained from settlers, a payment of 3d. or 4d. per 100 superficial feet being made as royalty for red- and white-pine. In one instance a saw-miller whose own land is nearly cleared stated that he expected to obtain a supply for his mill in this way for five or six years longer from settlers resident along the line of railway, although two mills in the immediate vicinity had ceased working owing to the scarcity of timber. In a few instances the logs are given by the settlers on account of the benefit derived by the partial clearing of the land, but as a rule logs in the vicinity of the railway always find purchasers at the rates named. Totara fetches a higher price—never less, I believe, than 9d. or 1s. One saw-miller informed me that he considered totara would not be dear at 2s. 6d.