

uncertain, but in all probability in this species is very short, and when full maturity is attained decay speedily ensues. Timber used before the period of maturation would speedily decay, and the same result would be experienced if decay is allowed to commence before conversion.

It is, however, worthy of note that the small trees on the highest slopes, when ripe, afford timber of equal durability with that grown on the lower levels. The difference in durability even when trees are grown in close proximity has long been recognized by the old settlers, who term the trees affording durability "old-man birch," and pay double rates for fencing stuff split out of them. Whenever trees are cut down in the Oxford Forest the open area is speedily covered with a dense crop of seedlings.

BEALEY FOREST.

This is a mountain-forest extending along the left bank of the Waimakariri from the valley of the Poulter to the Bealey, and thence to the source of the Waimakariri. The following remarks apply to the portion situated east of the Bealey, and clothing the slopes of the mountains from 1,800ft. to the limit of arboreal vegetation, 4,000ft.

This, like all alpine forests, is a beech-forest, and is composed of two species: mountain-beech (*Fagus cliffortioides*), and tooth-leaved beech (*Fagus fusca*). It is the only forest in the Canterbury District in which tooth-leaved beech occurs in large quantities. The bulk of the forest consists of mountain-beech of good quality, and of the largest size attained by that species, trunks from 30ft. to 50ft. long and from 15in. to 24in. in diameter being not unfrequent in level places in the lower and middle portions of the slopes. Usually they are of smaller dimensions, and at greater heights become dwarf and scrubby. The most remarkable feature of the forest is the occurrence of a zone or belt of tooth-leaved beech between 2,300ft. and 3,000ft. Occasionally this is interrupted, and the species represented by scattered clumps or even by solitary trees. The timber is of exceptionally good quality, dense and even in the grain, with an unusually small proportion of sapwood. The trees are from 50ft. to 70ft. high, with clean straight trunks 15in. to 36in. in diameter. A good proof of its durability was afforded by trunks cut down sixteen years ago and left in the forest: these are still sound and good, in one or two cases still retaining the wooden wedges which were driven to split them. Seedlings and young trees occur in profusion in all open parts of the forest. This forest contains a larger quantity of valuable timbers than is usually found in forests of a similar character. Its position renders it of great importance from a climatic point of view, and the destruction of any large portion would be speedily followed by evil results in the heavier floods of the Waimakariri.

THE TIMBER-TRADE IN CANTERBURY.

No timber is being cut in the State forests of Canterbury under license at the present time. The land is sold at £2 per acre, including timber. In view of the limited extent of forest in the Canterbury District, it is difficult to understand why such a one-sided arrangement should have received the sanction of successive Provincial Governments.

Twenty-one sawmills are in operation. The average output of each is less than 500,000ft. per annum, the total not exceeding 9,893,000 superficial feet. Oxford is the chief centre of the industry, nine mills being situated in the district, most of the timber converted consisting of entire-leaved beech, with a very small proportion of red- and white-pine, matai, and totara. Six mills are situated at Little River and other parts of Banks Peninsula,* which together yield fully two-thirds of the timber converted in the Canterbury District; but, while the produce of the former district is restricted almost exclusively to beech, the produce of the latter consists exclusively of pine, chiefly totara and red-pine, beech being exceedingly rare in that district. The forests of Banks Peninsula, however, are nearly worked out, so far as the sawmiller is concerned at least. The remaining mills, six in number, are chiefly situated to the southern portion of the district, and, with one exception, appear to be of small capacity.

The number of men and boys employed in the district is stated to be 263. The local trade has undergone some diminution of late years, and in one or two localities has died out altogether, as, for instance, at Alford Forest, a beech-forest of similar character to Oxford Forest. This is chiefly due to the competition of the Southland timber-merchants, facilitated by the great development of railways. As already stated, all the sawmills are working on private land. In some cases the sawmillers have acquired the freeholds, in others they have purchased the timber at a fixed price per acre; but most frequently a royalty is paid on the converted timber, a stipulation as to the minimum monthly payment being inserted in the agreement.

In the Oxford Forest the royalty is 1s. per 100 superficial feet; the actual cost of production is about 7s. 6d. per 100 superficial feet, inclusive of royalty. The average selling prices are 10s. 6d. to 12s. 6d. per 100ft. for boards and scantling of good quality, 6s. per 100ft. for inferior. The waste in the conversion of beech, especially into sleepers, is larger than with pine; but here, as elsewhere, the competition is so keen that, with the limited demand for timber of this kind, the sawmiller is unable to obtain an equitable return for his outlay of capital and labour.

The Oxford sections were mostly purchased at the upset price of £2 per acre. One instance was mentioned to me in which 300 acres had recently changed hands at £6 per acre on account of the timber. Another block leased to a sawmiller, with right to remove timber, was returning £6 10s. per acre for royalty. In another case a sawmiller was paying £3 10s. per acre for the timber on a large block. Before the development of the railway-system from £8 to £10 per acre was frequently paid for timber alone, and in one or two instances it is stated that £15 was given.

* Two of these are probably the largest in the provincial district. The total yield is nearly equal to that of the nine Oxford mills, Oxford and Banks Peninsula.