

trees squaring 30in. by 30in. were not unfrequent. In many cases these short logs were curiously fluted and gnarled without being actually distorted. If converted they would doubtless realize high prices for cabinet-making.

So far as my exploration extended red-pine was comparatively rare, and the same must be said of white-pine; both, however, were of good size and quality. Akamai, also, was comparatively rare, so that in this respect Dean Forest presented a strong contrast to Seaward Forest and others in Southland.

CATLIN'S RIVER OR TAUTUKU FOREST.

With the exception of Stewart Island this is the most southerly forest district in New Zealand, and is the largest forest-district on the eastern side of the Waiau River. Its extreme length from east to west is about forty miles, its greatest breadth from north to south is about fifteen; its approximate area is estimated at 560 square miles, but large deductions must be made before arriving at the actual area occupied by convertible timber. It lies on the sea-margin and has two safe harbours: Catlin's River, near its north-eastern boundary, and Waikawa, on its western side; so that it is easy of access from the sea. A good road traverses the country between Balclutha and the head of Catlin's River, and a railway is in course of construction; but west of Catlin's River roads have not been constructed, and tracks lead but a very short distance into the forest. The western portion, however, is now being explored with a view to settlement, and a pioneer-track has been recently cut from the Waikawa River to the north-east end of Tautuku Bay, a distance of eighteen miles and three-quarters. I believe the track is now in course of extension to Catlin's River.

My examination of the forest of this district was restricted chiefly to Catlin's section, Glenomaru, and Woodlands, which I found to vary in character to a considerable extent. The chief timber is red-pine, which, generally speaking, is sound and of good quality; old trees being charged with resin. White-pine is plentiful in certain places, and for the most part of superior quality to the white-pine of the Southland forests. Totara occurs in scattered patches or small groves; it is less abundant than either the red- or white-pine, and is restricted to smaller areas; usually it is found in valleys or on low rounded ridges. At the date of my visit the tramway of the mill working on the Owake had reached several patches of good totara, with trunks averaging 30ft. to 45ft. in length and from 30in. to 36in. in diameter, remarkably clean and well-grown, adapted either for piles or constructive purposes. Black-pine is of plentiful occurrence in many places, but occasionally is of rather small diameter, well adapted for piles where great lengths are not required. Kamai is abundant in some parts of the forest and retains unusual dimensions; in others it is comparatively rare. Ironwood is large and fine, in the forest often with long straight trunks 24in. to 36in. in diameter: at the heads and other places near the sea the trunks are short, gnarled, and distorted, sometimes from 4ft. to 5ft. in diameter. Broadleaf (*Griselinia littoralis*) is not unfrequent, and is split for fence-posts and sleepers.

In many places a long spur, or hill-side with a gradual slope, may be found occupied almost exclusively by red-pine, or white-pine, or totara, &c., but for the most part the forest is of a mixed character, so that it is difficult to say which kind predominates.

Much of the red-pine is coarse-grained and of rough texture, especially when growing on rocky hill-sides; but this is compensated for to some degree by the large proportion of figured wood, which is valued at £1 10s. per hundred superficial feet for the purposes of the cabinetmaker. I was informed that a shipment to Melbourne realized £2 per hundred superficial feet; at this time all furniture-wood is worked up in Dunedin by the proprietors of the mill.

The moki or makomako (*Aristotelia racemosa*) is utilized in Catlin's River, and affords the chief portion of the charcoal used in the manufacture of gunpowder at the Catlin's River powder-mills. In this district it is one of the first plants to make its appearance after the forest has been destroyed, and speedily forms an erect dense growth 10ft. to 15ft. high; the stems are from 2in. to 4in. in diameter, and are chopped, peeled, and cut into 4ft. lengths at £1 10s. per cord, delivered at the landing. I was assured that one man and two boys could prepare two cords per day, but the sticks have to be conveyed several miles by boats, and, in the event of meeting with a contrary wind or being stranded on a shoal, the trip may require three or even four days, including return: in addition a sum of £1 per acre has to be paid for royalty.

The mahoe (*Melicytus ramiflorus*) and the totara are also employed in the manufacture of charcoal for special kinds of gunpowder. Tooth-leaved beech is reported to be found in the southern parts of the forest, but none came under my own observation. I was assured also that totara was more plentiful farther to the south and west.

It is not easy to form any definite ideas as to the extent of forest, which has been cut out. Some years back licenses were issued at £5 per annum each, empowering the holder to cut wherever he pleased in the district, and to any extent, a system well adapted to spoil any forest. One result of this has been that a few of the best trees have been picked out here and there in places easy of access, the smaller and less valuable timber being left untouched; probably one thousand acres have been cut over in this fashion. Most of the area cut over by the millowners has been honestly cleared, the amount of waste being considerably less than in some of the Southland bushes. In all probability the total area of the forest more or less completely cut out, including sections alienated, will not fall short of 10,000 acres; but it must be remembered that this is only approximate. With my present imperfect knowledge I am unable to form a trustworthy estimate of the total area available for the sawmiller.

Catlin's River was formerly the seat of an extensive timber-trade; I was informed by Captain Haywood that at one time from six to ten timber-laden craft might be seen lying inside the heads during the prevalence of southerly winds. During my visit in 1876 the industry was in a flourishing condition, but on my recent visit only a single mill on the banks of the river was in working order,