

In small mills there is usually found a breaking-down bench, with double circular saws working one above the other so as to cut deep logs; a circular saw with rack-bench; a small circular saw adapted for cutting small stuff as palings, &c., and a small American planing-machine fitted with revolving cutters. In the larger mills the machinery is mostly of a similar kind but is more powerful and of a more varied character, comprising moulding-machines and occasionally others for special work. All breaking-down work is effected at the circular-saw bench. The breaking-down frame-saw, so common in the Auckland District, is quite unknown in Southland; the logs being of small dimensions its need has not been felt at present. Its general use, however, would prove economical with regard to power, and greatly diminish the waste which is inseparable from the mode now adopted.

The tramway is an important adjunct to the mill, and forms a material item in the sawmillers' plant. It is constructed of split or rarely of sawn sleepers, placed from 24in. to 30in. from centre to centre, and sawn rails 3in. by 4in., which are laid in notches cut in the sleepers and secured by wooden wedges tightly driven home. The flat nature of the lowland bushes in Southland renders the construction of tramways very easy—probably from 16s. to 19s. 6d. per chain may be taken as a fair average of the cost of construction. Cases were named in which the actual cost was much lower, but it is to be feared that the results were hardly satisfactory. The highest amount mentioned to me was £1 2s. 6d. per chain. I was, however, assured that, even with wages at 10s. per day, any tramway, with wooden rails in the district, might have been constructed at the rate of £1 1s. per chain. Wooden tramways are worked by horse-power, but in two or three cases, where the mill is at a considerable distance from the railway, light iron rails are used so as to allow of traction by steam-power. The cost of rails alone was stated to be £300 per mile.

Felling is now generally effected with the saw, a small scarp being first cut on one side of the tree with the axe. This mode has come into general use since 1877, and is attended with a considerable saving of timber in felling, while it is more economical than the axe. The trunk is cross-cut into suitable lengths for the mill, but the branches and tops are left to rot on the ground. The logs are hauled by horses or bullocks to a loading-place alongside the tramway, but it is rarely found profitable to haul logs from a greater distance than ten chains on each side the tramway. This fixes the maximum proportion of tramways actually required at half a chain per acre.

In one or two instances the millowner contracts for the felling, logging, and haulage to mill, and conversion at a fixed rate, but usually the felling, logging, and haulage alone are contracted for, or conversion may be effected under a separate contract. A few mills are worked entirely by day-labour.

In a bush worked in a systematic manner and under favourable circumstances the entire cost of production from felling to conversion need not exceed 3s. per 100 superficial feet loaded on the railway-trucks; in all probability the actual cost would be found to range from 3s. to 4s. To this must be added a percentage for interest on cost of machinery and plant, depreciation for wear and tear, accidents, loss of time, and bad debts. As good red-pine has been recently placed on the railway-trucks at 4s. 6d. per 100 superficial feet, it is clear that the sawmillers' profits are at times of an attenuated character. Even accepting the general average of 6s. per 100ft. inclusive of dressed stuff, they can scarcely be considered commensurate with the capital involved, the risk incurred, and the skill required for efficient working.

The Southland timber-trade is certainly in a depressed state at this time, but this depression is caused simply by over-production. The facilities for the production of manufactured timber at a cheap rate, the large extent of country opened up by direct railway communication, with the low rates of freight charged, and the facilities afforded for shipment to more distant districts attracted many persons to invest in the business, so that the supply is in excess of the demand, and timber has occasionally to be sold at unremunerative prices. The depression, however, is only comparative. I was informed that the average rates of wages for benchmen were 9s. per day of eight hours, for bushmen and labourers 8s. per day. The mills were working full time at the date of my visit.

The rapid development of the Southland trade has closed the mills in Catlin's River, annihilated the coastal timber export of Westland, and greatly restricted that of Marlborough and Nelson. The timber converted in the Otago District does not amount to more than one-fourth of the annual output of Southland; so that Southland practically supplies the markets of the southern portion of the colony, from Invercargill to Ashburton, with red and white-pine, and exports cargoes to Lyttelton and other ports farther north. Here, however, she has to compete with the mills of Queen Charlotte Sound, the Wairarapa, and the Manawatu.

The quantity of timber shipped from Southland ports coastwise during the year ending the 31st March, 1885, was 1,659,038 superficial feet; to foreign countries, 1,107,674 feet. There can be no doubt that the foreign trade is capable of considerable expansion. One of the most important factors in the extension of the Southland timber-trade has been unquestionably the great extent of railway-communication in the South Island, and the low rates charged for freight. For instance, timber is carried from Invercargill to Ashburton, a distance of 340 miles, at 6s. 11d. per 100 superficial feet. The gradual extension of railways in the interior of Otago and in South Canterbury will afford new openings for the Southland sawmillers.

In no other part of the colony are the conditions of production so favourable to the sawmiller as in Southland; he has an unlimited supply of excellent timber, at a merely nominal charge for royalty; ample areas of forest-land are reserved for his exclusive use; he has the command of railway-carriage at low rates, to an extent far surpassing that enjoyed by any other timber-producing district, while he possesses great facilities for shipping timber coastwise or to foreign ports. The total area of forest-land granted for sawmill leases during the three years ending the 30th September, 1885, is 5,901 acres, so that, including mills working on private land, over 2,000 acres of forests are denuded yearly in Southland alone.