Miro, *Podocarpus ferruginea*, is frequently cut and sold as red-pine, from which it may hardly be distinguished when sawn and stacked. This timber takes the borer readily.

The common supplejack (*kareao*) was formerly cut in the North Island for basketwork, the cutter receiving 8d. per 100 canes, 10 ft. in length.

Fancy-figured timbers can be frequently obtained from nearly every variety of tree.

WALTER FRANCIS ROBINSON,
Assistant Surveyor.

(4.) SOUTHLAND DISTRICT.

A sawmiller's first object is to secure, within a reasonable distance of a railway or water-way, an area of forest land or bush, carrying sufficient timber to warrant the erection of a mill. This area varies very much in different parts of the Dominion, but an 800-acre block is usually considered an average, though in the south of this Island and in Stewart Island, it is sometimes not extensive enough owing to the land being so sparsely timbered. The selection of a mill-site is most important, as it must suit the best tramway-grade for working out all the timber in the bush, and for conveying it to the railway-siding or shipping port, and it must also be in a position to command a constant supply of water. A plan and specification of the contemplated mill should then be made, the power and extensiveness of which must necessarily depend on the quantity of timber already secured, the size of trees to be operated on, and the class of trade expected to be done during the working of the mill. The site, if in the bush, must then be cleared of all trees, stumps, &c., and the foundations for machinery and buildings laid out; also tramway routes marked ready for construction. The cost of erecting a mill and constructing the necessary tramways may vary from £1,000 to £4,000, according to the output required, the nature of the country through which the tramways must go, &c. In erecting a mill, a sawmiller should bear in mind that solid foundation, good substantial material, up-to-date machinery, ample power, and the best mechanical skill procurable are all indispensable commodities for the successful carrying-out of the industry. If the timber-distribution be by a railway, a siding must be secured. Usually this has to be constructed specially for the miller: the Railway Department does the work at the sawmiller's expense. The cost runs from £200 up to £700, according to length of siding and nature of the ground. The miller must also construct a timber stage or yard where the timber may be stored ready for loading into railway-trucks. If the distribution be by water, a wharf has to be built where the timber may be stored ready for loading into vessels. The cost of constructing a wharf runs from £350 up to £3,000, according to the dimensions of wharf and class of harbour. If the harbour be well sheltered, and deep water close inshore, the expense of construction is low; but if it be badly sheltered and deep water a distance from the shore, the wharf must be costly. Tramways must then be constructed from railway-siding or wharf, as the case may be, to the mill, for the conveyance of sawn timber, and from mill to bush for conveyance of logs to mill. In cases where the bush-area is a long distance—say, four miles or over—from a railway-siding or wharf, iron rails are used in construction, and very probably a locomotive engine for hauling; but if under that distance horses and wooden rails are generally used. The cost of constructing tramways varies according to the nature of the country to be worked and the class of trawmay required. Iron-railed locomotive tramways cost from £5 to £20 per chain, and wooden horse-trams from £1 5s. to £8 per chain.

The cost of constructing a sawmill is rather difficult to define; but, take an area of 800 acres, carrying 15,000 ft. of sawmilling-timber per acre, situated four miles from a railway, the following mill with all appurtenances would work this bush to the best advantage, and deal direct with the builders:—

| | £ |
|---|---|
| 1 mill-engine, 30-horse power nominal | 650 |
| 1 planer, to areas 24 in. wide | 185 |
| 1 moulder, to areas 5 in. by 5 in. | 125 |
| 1 breaking-down bench, with feed gear | 140 |
| 2 rip benches, with feed gear | 40 |
| Intermediate shafting, with pulleys and bearings complete | 110 |
| 3 60 in., 3 42 in. saws | 78 |
| 2 30 in. crosscut saws and frame | 7 |
| 4 saw-spindles with pulleys and bearings | 30 |
| Belting | 45 |
| Cost of erecting machinery and mill-shed, including material | 300 |
| | 1,710 |
| 4 miles wooden horse-tram | 640 |
| Loading-bank at railway-siding, including all material | 40 |
| Railway-siding | 300 |
| 6 horses, and harness | 230 |
| 7 trolleys, complete | 70 |
| | 2,990 |
| 1 hauling-engine, with blocks and ropes complete | 400 |
| Men's huts | 60 |
| Stable and store | 40 |
| | 3,490 |