

A mill of this class will produce about 1,500,000 feet superficial per annum, and will require twenty-six men to work it, the daily cost of running it being shown in the following table:—

<i>Bush.</i>						£	s.	d.
4 bushmen, at 9s. per day	..	..	..	..	..	1	16	0
1 tracker, at 9s. per day	..	..	..	..	..	0	9	0
1 shoe-man, at 11s. per day	..	..	..	..	..	0	11	0
1 winch-man, at 9s. per day	..	..	..	..	..	0	9	0
2 trolly-men, at 9s. per day	..	..	..	..	..	0	18	0
2 tram-layers, at 9s. per day	..	..	..	..	..	0	18	0
<i>Mill.</i>								
2 sawyers, at 12s. and 10s. per day..	..	..	..	..	..	1	2	0
2 tailers-out, at 10s. and 9s. per day	..	..	..	..	..	0	19	0
2 slab-men, at 9s. per day	..	..	..	..	..	0	18	0
1 machinist, at 12s. per day	..	..	..	..	..	0	12	0
1 assistant machinist, at 8s. per day	..	..	..	..	..	0	8	0
1 engine-driver, at 10s. per day	..	..	..	..	..	0	10	0
1 labourer, at 9s. per day	..	..	..	..	..	0	9	0
<i>Yard.</i>								
3 yardmen, at 9s. per day..	..	..	..	..	..	1	7	0
1 clerk and manager, at 14s. per day	..	..	..	..	..	0	14	0
1 blacksmith, &c., at 12s. per day	..	..	..	..	..	0	12	0
						12	12	0
Horse-feed	..	..	..	..	..	0	10	0
Oil, files, coal, iron, &c.	..	..	..	..	..	0	15	0
						13	17	0
<i>Additional.</i>								
This return shows a cost per 100 ft. of	..	..	..	..	..	0	3	10½
Royalty	..	..	..	..	..	0	0	6
Wear-and-tear, ropes, blocks, belting, &c.	..	..	..	..	..	0	0	6
Insurances, fire and accident	..	..	..	..	..	0	0	6
Travelling-expenses	..	..	..	..	..	0	0	6
Rents and taxes	..	..	..	..	..	0	0	1
Interest on capital	..	..	..	..	..	0	0	4½
Depreciation	..	..	..	..	..	0	0	4
Discounts and allowances, and bad debts	..	..	..	..	..	0	0	3
						0	6	11

This mill, as already mentioned, should produce 1,500,000 ft. of timber per annum, and manufacture close on 50 per cent.

The method adopted for working sawmills differs very little throughout New Zealand, with the exception of the rafting kauri-mills in the North Island. The canvasser forwards orders from the builder or other customer to the mill-clerk or manager, who posts the portions not already in the timber-yard on a blackboard in the mill, to direct the sawyers and machinist, and if necessary he sends a list to the leading bushman. This bushman has usually a standing order for certain lengths, and only receives instructions when some extraordinary length or class of timber is required.

When the bushmen start to work a new piece of bush, a loading-bank is built adjacent to the tram, and the hauler or winch set in position for work. A main track for log-hauling is cleared from the loading-bank to the far end of the block of bush to be worked—a distance of perhaps 15 chains—the back rope is then hauled from the winch to the end of this track, passed through a block or pulley, and hauled right back again to the winch, where it is made fast to the hauling or big rope; by this means the winch not only hauls in the logs, but takes the hauling-rope back for the next pull of logs. If the track is not straight, a block is placed at each bend, and the rope passed through in order to fetch the logs round the corner. The bushmen fell all trees to suit the hauler. The tree is scarfed or notched on the side on which it is required to fall; then two men, with an ordinary crosscut, saw on the opposite side of the tree, and by this means, with the assistance of a maul and wedge, the tree is felled. It is then crosscut into suitable lengths, and the logs, made fast to the hauling-rope by means of a dog or spike, are hauled on to the log-bank, which is slightly higher than the trollies, so that the logs may be easily loaded.

The logs are conveyed by means of trollies hauled by horses from the bush bank to the mill-skids, where the sawyer commences his operations. The logs are rolled by hand or lifted by a crane on to the breaking-down bench, which consists of two ½ in. iron plates, 1½ in. apart, coupled at one end, and travelling on cast-iron rollers. The slit between the plates of the bench allows the saw to work freely while the bench travels past, carrying the log which is being operated on. The saws used are 60 in. twin saws, one revolving over the other. A bench of this class can fitch logs up to 60 in. in diameter, and suits all mills in this island; but in the North, where logs 6 ft. in diameter are common, a vertical saw has to be used to break down before the circular saws can operate. The ripping-bench saws up into boards,