

venience to the saw-miller, who has possibly gone to the expense of constructing a tramway to the border of the section, when the holder, being afraid that the timber will not be cleared in time to enable him to comply with the regulations, has hurriedly felled the trees and proceeded to burn them off; the fire, not being confined to the felled timber, has run through the whole of the section, and not infrequently through some of his neighbours' sections also. Under these conditions it is not surprising that the saw-millers feel anxious about their future supply, and desire such a modification of the regulations in force as may tend to lessen the destruction inseparable from the present system. In this they are supported by the great bulk of the holders of deferred-payment sections, to whom the small sums received as royalty for the timber are often of considerable importance, while the large destruction of raw material reduces their opportunities of obtaining remunerative employment.

It is not easy to see in what way these modifications can be made without a violation of the letter and spirit of the deferred-payment scheme, the principal object of which is to insure the speedy settlement of the land. Any extension of the time allowed for clearing would lead to good-timbered sections being taken up solely for the sake of the growing timber, which would be cleared off as quickly as possible, when the sections would be thrown up. The remedy appears to be to place all timbered sections under Class III. of State forests, so that the timber would be preserved until required for conversion, and when cleared would at once revert to the waste lands of the Crown.

TAWA CONVERSION IN TARANAKI.

Tawa has been utilized to some extent for dairyware, tubs, buckets, butter-kegs, &c., in Christchurch for the past two or three years, the supply being obtained from Marlborough. It has also been used, although to a very trivial extent, in Hawke's Bay and Wellington; but in Taranaki its conversion is rapidly expanding, and already it forms an important item of the trade, being converted at all the mills where logs can be obtained in quantity. The logs usually sent to the mills vary from 6ft. to 15ft. in length, and usually from 16in. to 24in. in diameter. They are mostly cut into $\frac{1}{4}$ in. or $\frac{5}{8}$ in. boards. The boards for heads are 12in. or 14in. wide; those for staves are ripped into 3in. widths. The battens for staves are passed through a moulding machine, or through a small planing machine with special knives. They come out properly formed—concave on the lower surface, convex on the upper. Mr. Robson, the manager of the New Plymouth Sash and Door Company's mill at the Ngaire, by a simple contrivance fixes two knives in a planing machine, which enable one man and a boy to shape 4,000 superficial feet of stave battens per day. They are next cross-cut into suitable lengths—18in. for a 60lb. cask, 20in. for a 90lb. cask. When cross-cut the staves are tapered by a fine-toothed circular saw, a small triangular slice being taken from each side at both ends, so that the stave is 3in. wide in the middle and $2\frac{1}{4}$ in. at the ends. The heads are formed of a single piece 11 $\frac{1}{4}$ in. or 13 $\frac{1}{4}$ in. in diameter, according to the size of the cask. If formed in two or three pieces the cask would be improved, but this would increase the labour. The staves and ends are now ready for the cooper, who can usually put from twelve to fourteen casks together per day, and earns probably about 10s. per dozen. Tawa prepared for the cooper sells at about 14s. per 100ft. superficial; undressed boards, usually at 8s. Sometimes staves and heading are sold in sets at 1s. 6d. for a small-sized keg, 1s. 10d. for one of large size.

Mr. H. Brown informed me that orders for tawa boards had been received from Christchurch, but the low price offered—8s. 6d. per 100ft. superficial, delivered—did not allow of their being executed, as railway freight, sea freight, and wharfage would amount to 4s. 6d. per 100ft.; and, as the waste in conversion averages from 35 to 50 per cent. on log measurement, a considerable loss would have resulted.

Mr. Ward, cooper, New Plymouth, informed me that tawa was unsuitable for the heads of wine-casks, as the wine passes through the vessels of the wood; but that he had found casks constructed of tawa staves and kauri heads to answer the purpose thoroughly. He informed me that he kept his tawa in stock for nearly a year before working up, seasoning it for the first six months in the open air, and removing it to sheds on the approach of winter. He has utilized several of the New Zealand timbers, and is justly proud of the substantial character of his manufactures when compared with the perishable American tubs and buckets so largely in use.

It is not easy to form an exact estimate of the total quantity of tawa converted annually in Taranaki, but it must be considerable. One saw-miller assured me that he turned out on an average 13,000ft. per month. Fully eight thousand butter-kegs are made per annum in New Plymouth alone, in addition to a large number in Inglewood and other places. Perhaps the most remarkable feature in this speciality is that large orders for butter-kegs are received from Auckland every year, although tawa is abundant in most parts of that district.
