

## ARBORICULTURE.

No. 41.

Mr. D. McARTHUR, Inspector of Forests, to Mr. Commissioner J. W. Bain.

SIR,—

Invercargill, 16th April, 1880.

I have the honor, agreeably to your request, to report as follows *re* the saw-mill industry in Southland, as reduced to some system under regulations for properly utilizing and conserving the native forests as far as this can be done through the very limited powers conferred by existing Acts.

After I was appointed Inspector of Forests the regulations for their management were altered and extended so as to suit the saw-mill industry, which sprang up suddenly and extensively after the public works scheme came into operation; previous to which hand-sawyers, fencers, and firewood-cutters were those mainly using the bush, under monthly, quarterly, and yearly licenses. The result of this was the destruction of the forests.

The timber regulations were revised from time to time as experience and circumstances dictated, and now the saw-mill industry is one of the most important in the colony. At the same time it is a matter for great regret that hitherto no steps have been taken to fill up the denuded forest-ground with young trees.

There are at present twenty-three mills cutting on Crown lands, besides several on private property. The former employ 575 men, representing a population of between 3,000 and 4,000 individuals, who receive in wages upwards of £77,000 per annum, which accounts for the prosperous condition of Southland during the last year or two of general depression in other parts of the colony. The most of the above large sum is received from other districts and colonies.

It is much to be regretted that so great an extent of forest-lands has already been sold—for the following among other reasons—viz., that it will now be next to impossible, without expensive fencing, to successfully plant open lands, in consequence of the barking propensities of the rabbits. The present forest area ought therefore to be retained and replanted; and the underwood coming up after the saw-mills would protect the young plants from high winds and extremes of climatic influences, and one-fourth the number of plants required in open lands would be sufficient. Besides, there are great numbers of native seedlings which ought to be protected from cattle by rough fencing, for which the sawmillers leave abundance of material. Many thousands of acres of otherwise useless land in Scotland have within the present century been converted into valuable property by having been planted with larch, Scotch fir, oak, elm, &c.—land then not worth a shilling, but now valued at between £40 and £50 per acre, the annual thinnings of which more than cover the expense of the foresters. Railway-sleepers and coalpit-props for Great Britain are supplied chiefly from these plantations. The Dukes of Athol and Argyle, the Marquises of Breadalbane and Queensberry, Lord Lovat, and the Duke of Sutherland are among those who increased the value of their estates through these plantations. I have seen in Scotland larch trees from one and a half to two feet in diameter, the growth of thirty years. This tree very much resembles the New Zealand red birch in strength and durability, and is nearly all “heart,” and thrives well here. The New Zealand timber is very slow of growth. I counted 500 rings on the planed stump of a black pine lately cut in the Seaward Forest; hence the desirability of planting some varieties of quicker growth.

In 1872 I planted a garden-breakwind with *Pinus insignia*, some of which are now from one and a half to two feet in circumference and upwards of twenty feet high.

The direct revenue from the forests is but small compared with the indirect through the expenditure of the above large amount paid in wages, and laid out mainly in the purchase of a variety of dutiable goods. The direct revenue for the year ending 1879 amounted to £1,711 2s. This sum, however, if judiciously laid out annually in replanting the denuded forest-lands, would, I think, clothe them with a variety of useful and quick-growing plants, any quantity of which can be had from the nurseries here.

I have, &amp;c.,

D. McARTHUR,

Inspector of Forests.

No. 42.

Mr. J. ROBIN to Mr. A. Grant, Secretary to the Dunedin National Industrial Association.

SIR,—

Dunedin, 29th April, 1880.

I have been requested, and have given to the Commission, my views. I would now, however, strongly urge upon them, through you, the great advantage to the country (as has already been pointed out to them) in the planting of hardwood trees on land unfit for aught else, such as ash, oak, hickory, beech, and elm, all valuable timber, which, if planted, would in some instances in fourteen years yield a good revenue.

I have, &amp;c.,

J. ROBIN.

No. 43.

Evidence of HENRY RAFTON, taken before the Commission at Auckland.

Auckland, 8th May, 1880.

My name is *Henry Rafton*. I am a perambulator and basket maker, 245, Upper Queen street, Auckland. I have been nearly four years in Auckland. I was two years in the colony before I could commence my trade, for the want of the necessary materials, which was a very serious matter to me; and even now the material is not plentiful, although I have introduced eleven varieties of the osier-plant. It requires 20,000 osiers to an acre. I have secured a lease of half an acre of suitable land, for which I pay at the rate of £10 per acre per annum rental. I have planted half of it at a cost of £16 10s. for labour. It would require at least three acres of land to give me osiers enough to supply my business. It would be of great assistance to my business if Government would lease to me for a