

coal. Seeing, then, that most of our large towns have timbered lands close to them, it seems strange that people use wood fuel so little. The taking of wood fuel from a forest would not, of course, destroy the forest, for under proper management its perpetuity could be ensured.

FOREST FIRES.

It is satisfactory to state that though last summer was very dry no milling forest was damaged to any serious extent; however, a very serious fire that started in the Raetihi farming areas spread so rapidly during a cyclonic storm that, in addition to several settlers' houses, nine timber-mills were destroyed. A fire that was started by lightning in the Dusky Hill Plantation during a thunderstorm, being soon discovered, was put out before any considerable damage was done. People in this Dominion are undoubtedly very careless in the matter of fires. In former years settlement was scattered, and forests by most people were considered to be too plentiful. Under such circumstances people set fire to felled bush, scrub, or fern, and never bothered to consider where the fire would end. Milling forest has now become scarce and more valuable, whilst settlement has extended. It is time, therefore, that this indifference as to fires should be checked, and it may be advisable to introduce some of the restrictive measures with regard to firing that are in force in Canada and the United States. Both those countries employ large staffs of men as fire rangers to protect their forests. Look-out stations, which are connected by telephone, are built in the forest, and should a fire occur assistance is at once procurable. The rangers have motor-boats on the lakes and rivers, gasoline fire-pumps, and apparatus for tapping the telephone-wires. They have the power of special constables, and may call on any civilians to help them in putting out fires. In Canada after the war it is proposed to employ airplanes in connection with forest-protection. The different Provincial Governments spend considerable sums in erecting conspicuous placards which set out the commercial and other values of forest to a country, and which quote the number of lives lost and the property that has been destroyed in previous years; people are taught that fire is their enemy, and that it is easily prevented, but difficult to overcome when started. It is considered that money spent on fire-ranging is merely an insurance of the forest.

FOREST PESTS.

For the purposes of sport in this country there have been introduced various animals, some of which are now threatening to become serious pests. The opossum eats the berries and seedlings of many trees, and where these animals are abundant they would have an appreciably deterrent effect on natural regeneration. They yield, however, valuable skins, and as they are easily trapped the damage they do may be compensated for by the return from the skins. A more serious pest are imported deer. These animals afford a good sport, no doubt, but it is enjoyed by a very limited number of people, and the animals yield no revenue worth speaking of. On the other hand, they are becoming a serious nuisance in our artificial plantations, and where present in our native forest they destroy a large amount of young growth—in fact, if not kept down they will entirely prevent regeneration of the forest, as Professor Somerville has proved they have done in Scotland.

In my travels through the Dominion I have observed in many places that many varieties of imported trees are being attacked by fungoid and insect pests. Even the vigorous *Pinus radiata* is frequently seen affected with a leaf-shedding disease (caused by a minute fungus); the disease from which the valuable *Cupressus macrocarpa* suffers is seen from north to south; the silver-wattle is often defoliated by a small fly; and many of the gums are seriously affected with a scale insect; chestnut and other trees are also seen affected by disease. Seeing that an increasing amount of money is being invested by the State, local bodies, and private persons in tree plantations, it seems advisable that some action should be taken to institute measures for the control or prevention of forest-tree pests. Most valuable forests of Weymouth pine in Europe and America have been ruined by a blister-rust. As the black currant and gooseberry and their relations are the intermediate hosts for this rust, all these plants should be prohibited from being imported into New Zealand.

NEW FOREST RESERVATIONS AND WITHDRAWALS FROM RESERVATIONS.

During the year a total area of 9,496 acres was proclaimed State forest, and 3,724 acres were withdrawn from reservation for the purposes of settlement.

APPROXIMATE AMOUNTS OF OUTPUT OF TIMBER FOR THE YEAR 1917-18, AS OBTAINED FROM REPORTS OF THE COMMISSIONERS OF CROWN LANDS.

Provincial District.	Kauri.	Rimu (Red-pine).	Kahikatea (White-pine).	Matai (Black-pine).	Totara.	Beech.	Tawa.	Miscellaneous.
	Sup. Feet.	Sup. Feet.	Sup. Feet.	Sup. Feet.	Sup. Feet.	Sup. Feet.	Sup. Feet.	Sup. Feet.
Auckland ..	20,890,359	24,494,401	23,251,524	5,194,579	11,916,123	..	..	1,412,001
Taranaki ..	..	2,600,000	..	..	..	..	..	900,000
Hawke's Ba ..	..	4,039,200	1,235,500	..	..	..	..	175,300
Wellington ..	..	..	..	..	..	..	..	69,120,000*
Marlborough ..	..	2,374,200	1,189,100	192,100	11,940	59,400	..	..
Nelson ..	..	3,893,100	..	..	..	762,100	..	9,100
Westland ..	..	38,360,100	8,000,000	..	..	400,000	..	..
Canterbury ..	..	..	..	..	..	..	..	1,000,000
Otago ..	..	2,200,000	82,500	550,000	82,500	1,485,000	..	1,100,000
Southland ..	..	13,000,000	4,000,000	500,000	300,000	2,160,000	..	40,000
Totals ..	20,890,359	90,961,001	37,758,624	6,436,679	12,310,563	4,866,500	..	74,756,401

\* Amounts of each separate kind could not be obtained; probably 70 per cent. rimu.