

Such prosecution and fine of the employé should in no way absolve the pastoral tenant of his liability to similar fine and forfeiture of license. The action of the servant to be the action of his employer, and separate prosecutions to lie against both as co-offenders.

I have here indicated roughly the measures I think necessary to protect the forests of the colony, more especially that grand national source of wealth and employment, the kauri of New Zealand.

THE REGENERATION OF THE KAURI FORESTS.

There is no subject in the State economy of New Zealand of more vital importance than the conservation and perpetuation of the immense kauri forests of the North Island. Unfortunately, the major portion of these forests has passed out of the hands of the Government, and is held by syndicates and private individuals—a terrible mistake, since, being sources of great wealth to the colony, these areas should have been permanently reserved many years ago. Nor is there the slightest excuse for the alienation of these forests, because Captain Campbell Walker twenty years ago pointed out the course which should have been adopted, and indicated even then the disastrous results which must follow neglect to conserve these valuable timber-trees on scientific lines. Professor Kirk has, I feel assured, done his best to carry out the principles laid down in Captain Walker's report, and if he has not been successful in achieving a full measure of success I am equally sure he is not to blame. The fact, however, being as stated, unless the Government adopt the French, Swiss, or German system of State control over private forest-lands, the measures I am about to suggest can only be applied to such portions of the kauri forests as still remain national property; unless, indeed, the Kauri Timber Company will themselves adopt a rational scheme of forestry on similar lines to the system proposed for the State.

At the Wellington Conference of sawmillers and others it was stated, quite as a matter of course, that it was only a question of time when the kauri forests would be exhausted, and, though opinions differed as to the period when this would take place, the main fact that "the kauri is doomed to total extinction" was unanimously accepted.

The principal factors in menace of the kauri forests are these: (1.) The slow and uncertain growth of young trees when deprived of their natural shelter of scrub and forest cover, consequent upon the opening-up of the forest. (2.) The carelessness of sawmill employés in lighting fires and clearing the bush in operations connected with the transit of logs down creeks and watercourses, also in guarding against the spread of fires lit for cooking purposes, and the habit of smoking in the bush during working-hours. (3.) The firing of trees for the purpose of obtaining resin, or by accident, through the carelessness of the gum-digger and bush-hands.

I have no means of estimating the number of persons employed in the kauri timber trade, but it must be considerable; and possibly not less than five thousand people are directly, and one thousand more indirectly, concerned financially in the continuance of this industry. It is therefore no light matter for the Government to stand idly by, and with a go-as-you-please policy shirk the proper control and encouragement of so extensive and profitable an enterprise as the kauri trade. During the past forty years the waste and destruction of these trees has been enormous, and has resulted, for the most part, from fires for which the gum-digger must be held mainly responsible.

It is, indeed, very evident that any attempt to put matters right must commence with a measure to control this arch-destroyer of forests, and teach him that the property of the State must be respected in the interests of the people who really own the forests, which apparently he imagines belong solely to himself and the sawmiller, because they hold a license at a small royalty. Next should be undertaken control of sawmill operations, and here I may remark that my experience in four colonies has shown the sawmillers as a body are quite willing, and even anxious, to conform to reasonable regulations, though chafing under those of a harassing and irritating character. The sawmill hands, perhaps, are not so amenable to control, but in New Zealand these are a splendid body of men, and in most cases more intelligent than the average bushman. If, then, the arguments in favour of forest conservation and the grave interests at stake are explained to and understood by these men they will readily fall into line with regulations honestly framed to control waste, extravagance, &c., and to insure proper conservation of valuable property. Yet any Government taking in hand forest reform must be prepared to face at the outset opposition more or less strong, according to the voting-power of the interests which such reform will be imagined to assail. Nor do I doubt that the gum-digger will be the loudest in complaint, whenever his particular industry is brought more into line with the usages of modern forestry. It is better though, however loud the complaints of individuals, or however much the interests of individuals may actually suffer, that these should be endured rather than that five or six thousand people should be thrown out of employment by the extinction of the kauri, which must result unless the present wanton destruction by gum-diggers is checked.

The operations of the gum-digger and sawmiller having first been regulated, those of minor forest vandals can easily be dealt with in a scheme of reform.

The kauri-forest lands appear to me fairly open—i.e., comparatively free from the undergrowth so common in New Zealand generally. This is a great factor in the question of regeneration, as it makes easier and less expensive the work of the forester.

I may say here that I do not agree with the "great age" theory, as applied to the kauri and other New Zealand timber trees. Counting the rings to calculate annual growth cannot be depended upon. Very often the growth is checked by frost, and exceptional rainfall is a factor which affects "ring" production. Severe frosts are also factors to be reckoned with. There is, of course, no doubt that many kauri-trees of large size are three or four hundred years old, but when these hundreds are stated by *savants* to run into thousands then I am sceptical. I was only, however, three months in New Zealand, and three days in the kauri forests, so that I tremble at my own temerity in thus attacking fables of hoary antiquity.