

## Afforestation in New Zealand

The following paper (continued from our April issue) by Mr. S. I. Clarke, was read to members of the industrial Corporation o. N.Z. at its Annual Meeting in Auckland last month. It is the first of a series of articles to be published by this Journal as a stimulus to Local Industries. Mr. Clarke clearly warns us of the seriousness of this question of our future timber supplies, and quotes many authorities in other countries showing how the question is viewed abroad.



## ROYAL COMMISSIONS IN N.Z.

Full particulars of the nature, the extent, and the treatment of our native forests are given in the reports of the two Royal Commissions which have reported to the New Zealand Parliament on these questions. Of the first "Commission on Timber and Timber-Building Industries 1909," it may be said that three fourths of its members were at the time members of the Dominion Parliament, and that the names of three of the number are now on the lists of the present, or of past Ministries, the remaining fourth being men of long experience in various branches of the timber trade.

The enquiry involved the examination on oath of 154 witnesses, and was held at all the important centres of the timber industries, the witnesses included representatives of all the timber industries, both as employers and workers, and including the builders on the list represented the employing of over 10,000 hands, and the working of many thousand pounds worth of machinery.

The report and evidence occupies nearly 900 pages of printed matter, which I may remind you, is not a collection of the views of armchair philosophers, or if incidental enquirers, but is the recorded experiences and hard earned knowledge of a large number of capable and practical men.

On page xxxvi. of the Commission's report, after urging in the strongest manner the systematic attention of the Government to the forestry question, the warning is added that:—"Unless some such steps as these are immediately taken, it follows that, although for a few years the demand can be fairly well satisfied, before long there would be no reserve of native timber, and the price would rise to a figure which would seriously embarrass many of the growing industries of New Zealand." One has only to look at the present retail price list of timber, and of stock articles made of that material to see how quickly that prophesy is being fulfilled.

The report of the later Royal Commission on Forestry of 1913 is more directly concerned with the economic phases of the timber problem, and does not go into industrial details, but its six members having been chosen for the special purpose of the enquiry, it may be assumed to be no mere random selection of names. There is every reason to hope that time and circumstances will prove that the conclusions and recommendations embodied in its report may well be taken as a basis of support by this, or any other organization whose wish and aim is to further the cause of forestry in New Zealand. As in the case of the earlier enquirers, the forecasts in the report are rapidly being shown to be on sound lines, and will, I believe, be more likely to be in error on the side of caution than on that of extravagance.

## TO OVERCOME THE DIFFICULTY

As we have dealt with the disease, we must at least devote a few minutes to the remedies suggested at various times and places. These may be reduced to about three propositions, which we will review briefly, and without committing any one to the several views and opinions which may be submitted for consideration. They are as follows:—

No. 1.—To aim at the regeneration and restoration of our natural forests, as near as may be with their natural situations and conditions, and with as much, or as little assistance and interference from man as Nature may be able to tolerate.

No. 2.—To seek to amplify and improve our forests by the intermixture of trees introduced from other localities and other countries.

No. 3.—To establish what are sometimes termed artificial forests by the afforestation of bare lands of a quality too poor for agricultural or pastoral profit.

Of the first proposal it is safe to say that a return of the forest to its virgin state can only be possible by a return to virginal conditions, which would exclude the presence of civilized man, and all his works. Common observation in our bush areas shows that although the cleared spaces rapidly fill up, the re-growth follows the great natural law of the survival of the fittest, which, from an economic standpoint may be quite the reverse of the fittest for purposes of trade. In no department of Nature is the struggle for existence more relentless and unceasing than in the natural forest, where every circumstance of wind and weather is a factor in favour of the tree or shrub, whose seeds are most readily transported by the wind or other agencies, whose germination and growth is of the quickest and strongest order, or whose endurance of light, or shade, may be the most suitable for the actual situation. The introduction of fresh native timbers by transplanting is made difficult from the fact that our best trees do not readily submit to handling and removal.

Of the second proposition we have to bear in mind that the imported trees would of necessity be of a different natural order from the indigenous growth, and only by continuous care and expense could the more susceptible native trees be preserved from suppression by the more vigorous and aggressive growth of the new comer. There is much to be said in favour of such methods of working forest lands as have been in operation for comparatively long periods of time in certain parts of Europe, but these have proved no more than a partial remedy for the complaint of scarcity, since both France and Germany (where such methods have been most systematically applied), find it still necessary to import timber in large quantities.