Matai.—The next timber in importance is matai, or black-pine, which is a very heavy but short-grained timber. It is used for building purposes, and especially for weatherboards and flooring; also for small bridges and fencing purposes. It is second only to totara for durability, but is inclined to brittleness. It is found all over the Dominion in fairly large quantities.

The only other timbers in New Zealand which are used to any extent for general purposes are—

Puriri, a very hard and tough wood, which makes good sleepers and posts, and is very durable. It is largely used for railway-works, bridge-stringers, and truck-frames. In weight, colour, and texture it somewhat resembles rosewood, but the figured varieties are marked like walnut. It is also largely used as veneers.

Rata, which is mostly used for firewood, is a hard, heavy, tough and very strong wood, mostly straight-grained, and used to a limited extent by wheelwrights, and as arms for telegraph-posts.

The various "*Birches*" (or "beeches," as they should be designated), which grow plentifully all over the Dominion, are being used for railway-sleepers very extensively in the Wellington District. *Fagus fusca* has also been exported to Australia from the Westland and Southland Districts.

The other trees are used to such a limited extent, and chiefly for limited local requirements, that they do not meet the growing demand for superior timbers.

The peculiar characteristics of these trees must be carefully taken into account when considering the possibility of relying on their perpetuation, whether by way of natural regeneration or systematic reafforestation. First and foremost is the great drawback that all the indigenous trees suitable for conversion into marketable timber require such an inordinate length of time to grow and arrive at maturity; although, owing to the comparatively recent settlement of New Zealand by Europeans, it is impossible to arrive with absolute accuracy at the exact length of time required by each tree to mature under average conditions, the approximate times previously given are as nearly correct as it is practicable to insure. Secondly, in consequence of nearly all our native trees being surface-rooters, their adaptation for general afforestation in open lands is practically prohibited through the damaging effects of exposure to sun and wind. Thirdly, most of these trees require special treatment to be raised with success, and need considerable shade from the seedling to the adult stage, which can only be afforded by planting them amongst partially cleared forest land, where the natural undergrowth provides the requisite amount of protection. In such a case, the annual clearing of undergrowth tending to suppress the tree-plants would be of such an exhaustive and expensive character as to prohibit the economical growth of native tree-plants. Fourthly, the principal exotic trees suited for commercial purposes take from one-fourth to one-tenth the time to attain maturity that the local product does, so that it is possible to raise on an average from three to five crops of larch or pine during the same time that it would take to raise one crop of totara or rimu.

Under these circumstances, it has been generally recognized it is out of the question to attempt to renew the indigenous trees for future commercial purposes, except to a very limited extent, and all that can be done is to conserve the remaining supply as far as practicable so as to allow sawmilling to proceed under conditions that will insure the greatest possible use being made of the existing timber. The timber-cutting and forest regulations for years past have been devised with the utmost care to accomplish this result, and, considering the remarkable increase that has taken place of late years in the timber industry, no adverse criticism can justly charge the administration of our native forests with any undue locking-up of natural resources. To assist the progress of settlement, it has been imperative that every facility should be afforded the building and allied trades to obtain cheap and accessible timber; and, as the periodical fires—that it has been impossible to prevent—continually ravage the portions of the forests nearest to settlement, it has been a wise policy to permit as much marketable timber to be used as was needed by the farming community and the building trades, and so serve a twofold purpose—viz., the gradual clearing of forest country adapted for settlement, and its opening for occupation and farming, and the development of the building and constructive trades to cope with the unceasing demand that a growing population constantly makes upon their resources.

Moreover, it must not be overlooked that some of the most fertile and productive soil and country in the Dominion was to be found in those very forests that contained the most valuable timber. The vanished Seventy-mile (or Forty-mile) Bush, in the southern part of Hawke's Bay, and extending to and around Pahiatua and Eketahuna; the Awarua Forest, between Taihape and Mangaweka; and the numerous stretches of forest in the Auckland District all at one time stretched across and occupied mile upon mile of country that now supports a large and thriving population; and it would have been as useless and as difficult a matter to preserve these magnificent forests in their entirety, whether for aesthetic, sentimental, climatic, or commercial reasons, as it would have been to have prohibited the spread of settlement and the onward march of civilization.

But the Government, whilst permitting the gradual conversion of these forests, has never lost sight of the fact that it was necessary to maintain the timber-supply of the country, and to provide for its needs in the future. One of the earlier methods of inducing the planting of suitable trees was by means of "land-grants," a settler being given a free grant of Crown land if he planted a certain portion of his freehold land in suitable trees. This system was chiefly confined to the Canterbury District, though it was partially adopted in the Auckland and other districts, but only to a very limited extent. In Canterbury, where the system came into force in the early seventies, as much as 2 acres of Crown lands for 1 acre put down in plantation was sometimes granted, and every inducement was offered to the settlers to put down part of their farms in plantations. Several large plantations may now be seen in North Canterbury that were established by means of this method. As, however, it did not meet the growing needs of the country, the system was discontinued, and it came to pass that the methods of State afforestation that had proved so successful in older countries eventually came to be adopted in New Zealand.