largest growth and are most valued by the proprietor, Mr. Richard Reynolds, are the stringy-bark (*E. eugenioides*) and a eucalypt now identified by Mr. J. H. Maiden, F.L.S., Government Botanist of New South Wales, as *E. Macarthuri*. It is this latter tree that here demands special description and report. It has its stem and larger branches covered with a rough but non-fibrous bark. Its buds, flowers, and fruits are small, and usually in sevens. The foliage is abundant, dark-green, and often drooping. In close plantations it develops a tall stem free from branches and of even thickness. Some of the trees at "Trecarne" have reached a girth of 8 ft. to 10 ft. and a height of 100 ft. The timber is sufficiently fissile to be easily split with maul and wedges. The heart-wood is of a pale-red colour, and from an early stage in the tree's life forms 75 per cent. of the whole bulk of the stem. Fencing-posts split out of this eucalypt fifteen to twenty years ago still have the heart-wood quite sound. From a thinly planted area of less than 3 acres there have already been taken 3,000 fencing-posts, 250 stock-yard rails, and 200 gate-posts, besides saplings and firewood; and the still standing trees will yield twice as many more. Had the whole area been planted with *E. Macarthuri* and the trees placed closer together, the crop would have been much heavier.

Mr. Richard Gillett, of "Peach Grove," Kirikiriroa, Hamilton, has two plantations of "gums," one dating from 1881 and the other from 1884. The seed was sown *in situ*, the sod having been previously turned where each tree was to grow. The seed in each case proved to be mixed; but it fortunately happened that the predominating species in both was *E. Macarthuri* as just described. An average tree in the older plantation has a girth of over 6 ft. and a height of 125 ft. Fencing-posts split out when the trees were only fourteen or fifteen years old still have the heart-wood quite sound. From the trees of this species in the younger plantation, which has an area of only ¼ acre, there have been taken out and sold 4,000 fencing-posts, ten piles 75 ft. long for bridge-construction, and some other large trees, the net receipts for which have amounted to £120; and it is estimated that the trees still standing will yield an equal product. From this experience Mr. Gillett infers that an acre of *E. Macarthuri* properly planted and grown would, when thirty years old, be worth £1,000 on the stumps, while long before that the thinnings would have paid working-expenses. Growing so rapidly, the timber of this eucalypt is liable to crack radially in drying. If by special care in felling and seasoning this one defect could be overcome, there seems to be no reason why these magnificent trees should not be converted into street-blocks, railway-sleepers, or girders and planking for bridges. Mr. Gillett would in future plant *E. Macarthuri* 6 ft. apart, and thin out as soon as the young trees are large enough to be useful. Other eucalypts represented by noble specimens in Mr. Gillett's grounds are *obliqua* and *viminalis*.

On the eastern railway reserve at Papakura there is a splendid little forest of eucalypts, consisting mainly of trees that are included by botanists in a specific group called *regnans*. These trees look like stringy-barks, but the persistent outer bark is only subfibrous, white the seed-cases are small. To realize the size and beauty of the trees it is necessary to leave the train and walk through the plantation, It is then seen that the stems are large enough for the sawmill. Some of them run up to a height of 50 ft. without a branch, and had they all been planted under forest conditions this would have been the case with the majority. Seven trees carefully measured for the writer by a friend give the following averages: Total height, 100 ft.; height to first branch, 37 ft.; girth, 8 ft. The age of the plantation is said to be twenty-nine years. Reports on the timber of *E. regnans* lead us to believe that if these trees were properly milled into boards and scantling the timber would, for house-building, be of excellent value. The species is very hardy, and is widely represented. The variety at Papakura is distinguished by Mr. Maiden as *fastigiata*, and is the best for cultivation.

So far as the writer is aware, the true stringy-barks have not been planted in large numbers in any one locality in New Zealand; but scattered about in various situations there are sufficient single trees and small plantations of *E. eugenioides* and *E. obliqua* to show that these valuable trees could be successfully grown over a wide range in the North Island, and probably also in milder districts of the South Island.

Mr. Robert Glasson, of Linwood, Drury, recently had some stringy-bark trees sawn up for the framework of a new house. In answer to inquiries, he now writes to say that the timber has given him entire satisfaction. It is interesting to further learn from his letter that the house is lined throughout and partly ceiled with *Pinus insignis* boards, some of which are 16 in. wide; and that, large though the pines were, the stringy-bark eucalypts planted about the same time had attained an almost equal size.

Of the red-gums *E. tereticornis* and of the ironbarks *E. sideroxylon* have both been noted in the Waikato and in Piako. Fair specimens of *sideroxylon* may also be seen on the western railway reserve at Papakura. On the Auckland isthmus *E. tereticornis* is hardy and fairly rapid in growth. About forty-five years ago the late Dr. Kinder had a number of eucalypts planted on his property in Arney Road, Remuera. Measurements of surviving trees recently taken are as follows:—

	Girth.	Height.	Condition.
Tereticornis	6 ft. 3 in.	85 ft.	Healthy and vigorous.
Longifolia	6 ft. 6 in.	90 ft.	,,
Punctata	6 ft.	80 ft.	,,
Eugenioides	7 ft.	100 ft.	,,

Tereticornis, *longifolia*, and *punctata* all yield valuable hardwoods durable in contact with the ground, while *eugenioides* is probably the best of the stringy-barks.

The writer has just had an opportunity to closely inspect the eucalyptus plantations of the Forestry Department at Whakarewarewa and Waiotapu. There are altogether 1,715 acres under