

twenty years in the ground. For New Zealand the species has the immense advantage of being adapted to a climate with cold winters. It is easily propagated and a great cropper. Splendid plantations of it may be seen in the Waikato, at Rotorua, in Marlborough, and in northern Canterbury. For poles it must be matured in close stands to prevent excess in diameter. A noble species closely similar to *E. viminalis*, and believed to be still more resistant to cold, has recently been made known to science under the name of *E. Dalrympleana*. Both are inland trees, and must be protected by screens of pines when planted near the sea. *E. Dalrympleana* should be introduced and tested in cold localities without delay.

(5.) *E. Gunnii*.—The dead bark is scaly and deciduous; leaves in juvenile stage round, sessile, on adult trees narrow, short; seed-cups in threes, long, narrow; mature wood pale, hard, said to be durable in the ground. The native home of the species is in the mountains of Tasmania. Away from the reach of frost and snow *E. Gunnii* remains small and feeble; at altitudes between 1,000 ft. and 2,000 ft. in the North Island, and on the lowlands of Southland, it becomes a vigorous and beautiful tree of medium dimensions. We cannot yet say that this tree will yield satisfactory poles; but the promise is fair and experiments well worth while.

WOOLLY-BUTTS.

The dead bark in this group is sub-fibrous or wholly non-fibrous; usually thick; on some species spongy, on others hard. It clings to the stem and in some cases also to the large branches.

(1.) *E. botryooides*.—The dead bark on old trees is very coarse and thick; leaves broad, shiny on upper surface; seed-cups $\frac{1}{4}$ in. to $\frac{1}{2}$ in. long, angular at base, sessile; mature wood red, coarse in texture, very durable in ground. In its native home—eastern Australia—it is a warm-country species, and at its best in localities not very remote from the sea. As an exotic in our North Island it is showing wonderful capacity for acclimatization. Near the coast and as far inland as Piako and Cambridge it has endured the frosts and attained a good pole-timber size in twenty-five to thirty-five years. It is a very beautiful tree and strongly resistant to insect enemies.

(2.) *E. longifolia*.—The dead bark on saplings is finely divided, on older trees coarse and thick; leaves on vigorous young trees long, on old trees medium; seed-cups in threes, up to $\frac{1}{2}$ in. long and $\frac{5}{8}$ in. wide; mature wood dark red, very durable. The species comes from coastal regions in south-eastern Australia. From Auckland southward as far as Papakura it has grown to a pole-timber size in about thirty years.

(3.) *E. Macarthurii*.—The dead bark is thick and brittle; leaves in juvenile stage sessile and lance-shaped, on adult trees narrow; seed-cups very small, less than $\frac{1}{4}$ in. in diameter; mature wood pale, coarse in grain, liable to crack radially, very strong, long-lasting in ground. The native home of the species extends from eastern New South Wales westwards up the mountains. It is strongly resistant to frost and easily propagated. In the Waikato it has yielded very heavy crops and supplied many thousands of lasting fence-posts. It is a fair inference to expect that it will do well in Nelson, Marlborough, and