

very fat, and of fine quality. A narrow strip of seedling forest (6 ft. high) occurs along the margin of the sea-coast between the Rivers Waitoto and Arawata. Young isolated trees are to be found everywhere, intermixed with mature forest. Average diameter, 4 ft. 6 in.; barrel, 8 ft.: maximum diameter, 14 ft.; barrel, 12 ft. Trunks usually compounded of several growths, and these not solid right through; they are also, for the most part, very short, as a few feet from the ground they divide into huge irregular branches; hence it is difficult to estimate dimensions. It is not a durable timber, and frequently rotten logs are met with in the forest; nevertheless it lasts well under water. It was formerly used for bridge trenails, but is now discarded, owing to its liability to rot. It will not float. It is first-class firewood, and makes good mauls, handles for axes, picks, &c. Being very heavy, a segment is often used as a monkey for driving bridge-piles. Old matured logs cut up into fine furniture, panels, &c.; and take fine polish. Good for rollers for saw-benches, &c.; wooden bearings as good and smooth as iron. Used for arms for insulators on telegraph-poles.

20. *The Southern Rata*.—Occurs over the whole district; common for the most part, but sparse in some localities. It is found (dwarfed) about up to the "grass-line," 3,500 ft. above sea-level. It grows straight; keeps its barrel right up. Splits easily, and can be sawn into planks. It works well with tools; and is a first-class firewood. Trunk oval-shaped, or flat-sided. Finest quality usually along seaboard. Locally known as "iron-wood." Average diameter, 2 ft. 6 in.; barrel, 40 ft.: maximum diameter, 4 ft.; barrel, 60 ft. One in Upper Whitcombe Valley 9 ft. in diameter. It is not appreciated as a durable timber. Has the same uses as the northern rata.

22. *Manuka rauriki*.—Occurs only in isolated patches and strips throughout the district. A few scattered full-grown trees are to be found in the Poerua Valley and on an island in the Teremakau River abreast of Taipo; a third small patch of matured isolated trees grows in the Upper Kakapotahi Valley; and several others are growing in the Waitaha and in the Lower Haast. It is a very scarce timber in Westland, the above localities being the only instances we know of where mature trees are met with. Average diameter, 1 ft.; barrel, 20 ft.: maximum diameter, 2 ft. 6 in.; barrel, 30 ft. It is not durable. Used for skids, under-water skids for boat-landings, and paddles for canoes. Good firewood.

23. *Kowhai*.—To be found immediately adjacent to sea-coast in Westland, from extreme north down to Jackson Bay. Only grows as a small tree in a narrow fringe, and not plentifully, along the margin of tidal waters; it is never found inland. Average diameter, 6 in.; barrel, 9 ft.: maximum diameter, 2 ft.; barrel, 12 ft. (only large one known, at north mouth of Paringa River). Farmers report favourably of its durability. Used at times by settlers for fencing-posts.

*Timbers suitable for General Building Purposes or for Special Uses, but of less Durability than the preceding Kinds.*

25. *Rimu* (Red-pine).—Grows throughout the district, from the sea-coast to the foothills, and penetrates the inland valleys up to 2,000 ft. above sea-level. Is the chief milling-timber of Westland. It is usually found in forests, of greater or smaller extent. These forests mainly occupy the terraces, plateaux, and rolling country of the low lands easy of road and tram access, from the extreme north right down to the Arawata River. Large areas, especially in the great basin of the Grey River and its tributaries, and broad belts of excellent marketable timber along the seaboard. Large forests of rimu cover the hill-slopes and mountain-faces of the high lands, and are not commercially available at present, but doubtless in the future this timber will be sent down in shoots and milled, for it is a much tougher and finer variety than that in the low country, being full of "pattern," and therefore valuable for furniture-making. It is more or less mixed with other timbers. It is also found in strips right along the sea-coast, where the outward trees are somewhat wind-blown, but tall, and fit for the sawmill; likewise inland, along the river-banks, and sweeping up the adjacent mountain-faces to a height of 1,250 ft. above sea-level. Saplings and seedlings are widely distributed. Average diameter, 3 ft.; barrel, 40 ft.: maximum diameter, 6 ft.; barrel, 50 ft. At Hohonu there is a giant—diameter, 7 ft.; barrel, 100 ft. Used for house-building (for outside work and inside fittings), fence-pickets, palings, props in gold-mine tunnels and in coal-workings; blocks in sluice-boxes, for gold-saving; piles, stringers, and decking for bridges and culverts; and furniture, the figured timbers being in demand. It only makes a second-class firewood. The bark is sometimes used for tanning purposes. Old trees have often heavy "shakes," which are generally full of hard resin; a chemical firm in Sydney was furnished with a few pounds of it, but it is not known what use was made of it. Heartwood very durable in all situations; has stood well as marine piles. Sap-wood does not last well, but is much used for weatherboards, which rot quickly on ground contact, but do fairly well higher up.

26. *Kahikatea* (White-pine).—Is found throughout the whole length of the Westland District. Occurs wholly in low lands, and does not grow inland on the high lands; never found on high hills nor on mountain-slopes, but is frequent on the smooth-sided knolls and rolling uplands of the low lands; an immense aggregate acreage of choice marketable timber skirts the numerous lakes, lagoons, swamps and sluggish streams; scarce below Paringa River; none between Arawata and Cascade Rivers; a small patch of good timber between Pyke Valley and Big Bay; very rare between Big Bay and Cascade, only odd trees. Prefers damp location; isolated trees often grow in water on edge of lakes. The trees from drier country are of yellow colour, and hard; grows in detached areas, or varied acreage and shape; these, for the most part, covered with dense bush, wholly of white-pine, and again in clumps and narrow streaks of mature trees dotted amongst the other forest. A fair quantity of immature trees, saplings, and seedlings fringe the numerous tongues and belts of mature forests which project into the swamps. Average size, 45 ft. by 4 ft.; large, 80 ft. by 6 ft. Principally used in commerce for the manufacture of butter-boxes, for which purpose it is much esteemed, large quantities being milled and sent abroad; also for building and inside fittings. A stave-pipe mill, at Hokitika, turns out