

are eagerly sought for by settlers for fencing-posts, and even those of small size are made use of. On sandy ground along the sea-beach posts rot slightly at surface of ground, and it is also attacked there by a large grub. Palings set up fifteen years show no decay. Used for house-piles, telegraph-poles, railway-sleepers, fencing-posts, furniture (especially that made from the mottled pine), sash-frames, palings, and also cut by special machinery into staves for construction of water-pipes. The scrub is used for fascines.

10. *Yellow Silver-pine*.—Occurs from Nelson boundary down to Big Bay. Known often as "pink pine." Fine areas on the undulating country west of Lake Ahaura; also between Lake Haupiri and Crooked River. Grows principally on ridges, hills, and mountain spurs. Dark yellow heart, and heavy—twice the weight of Westland pine, and much tougher. Bark is red or light brown. Only averages 1 in. sap-wood. Streaks of seedlings grown on ridges between Waitaha and Wanganui Rivers. Grows stunted, on high plateaux and mountains. Shrinks slightly, but loses weight very slightly. Average size, 18 ft. by 16 in.; largest, 20 in. diameter and 30 ft. barrel. One of the most durable timbers known. The scrub, or young pine, is greatly valued for fascines, in connection with roadworks and drainage. Principally cut for railway-sleepers, fencing-posts, house-blocks, &c.

12. *Tawhai rauunui* (Tooth-leaved Beech).—In North Westland this timber occurs in upper valleys of Grey, Ahaura, and Teremakau; on eastern and western slopes of Paparoa Range; on Mount Tekinga; around Bell Hill; and across terraced lands to Ahaura River. In South Westland, grows in detached areas of considerable extent. A little is to be found in Upper Haast, Cascade, and Pyke Valleys. A considerable quantity of fine quality covers the inland slopes of Mount Delta up to 2,000 ft. above sea-level. The finest area occurs in the Upper Arawata Valley, commencing about two miles below Thomson Creek, but not very thickly thereabouts; it extends from the river back across the flat to the range, and up to 2,000 ft. above valley-floor constitutes the main timber, and goes right up to the Ten-hour Gorge. It extends similarly on northern bank of Arawata River, and goes up the Waipara Valley about a mile; here it is somewhat sparse on the north side, but fine forest on flat on south bank, and for 1,000 ft. up. This area is covered with splendid timber. The whole of this Arawata forest is in full vigour; no dead trees; only a few wind-blown trunks to be seen. It is reported that a few isolated trees occur in the Upper Arahura and Teremakau Valleys, but we cannot locate them at present. It is a noble-looking tree when growing isolated; a few such happen at Arawata. It is easily split if thin wedges are used. The trees are covered with thick bark, which is easily stripped in summer. Very little sap-wood. In this forest there is very little undergrowth, the ground being covered with a thick mat of dead leaves. It is doubtful if this timber could be floated down the Arawata River, which is a broad, shallow, shingly stream, although subject to great snow-floods in summer. The construction of a light railroad is quite easy, and cheap. A few seedlings grow on the outskirts of the forests, and are fairly plentiful on the adjacent islands and open lands in the riverbeds. Average diameter, 3 ft.; barrel, 80 ft.; maximum diameter, 13 ft.; barrel, 25 ft. (this tree branches out into several enormous limbs). Spars of 90 ft., with equivalent thickness, are common. Warps badly, and shrinks on end. Has the reputation of being one of the most lasting timbers in the Dominion. Trunks of fallen trees, with all sap rotted away, are otherwise perfectly sound. Extensively milled in Middle Grey Valley and adjoining country. Almost exclusively used in the coal-mines at Blackball, Brunner, and at the State coal-mine, Runanga, having great transverse strength; is also used for fencing. Very poor firewood.

13. *Tawhai rauriki* (Entire-leaved Birch).—This timber is much intermixed with *Fagus fusca* and other woods, and is to be found in Upper Grey Valley and Paparoa Range, but is not met with again until between Paringa Valley and Big Bay. It forms the main timber of the Upper Arawata Valley, above the Ten-hour Gorge. Grows generally on poor infertile soil; likes dry soil best. Is locally known as "black-heart." Sends out small branches; the lower ones decay rapidly, and, after easterly gales, litter the ground with small sticks. Little or no undergrowth. On sidelings fairly erect, and on flat ground very straight. No distinct forests, but occurs mixed with other forest; isolated groves or trees. Seedlings very prolific on ground bared of forest by wind. Average diameter, 2 ft.; barrel, 60 ft. It is not durable when young, but when fully mature is fairly lasting. Not used by settlers; very poor firewood. Miners use it in wet tunnels, where it is said to last, and to withstand heavy pressure.

15. *Tawhai* (Blair's Beech).—The "Official Year-book" for 1896, page 398, says this timber grows at Little Grey, but there is no record of where it exists.

19. *The Northern Rata*.—Is met with throughout Westland, but not plentiful in northern division. Grows on Bell Hill, Mount Tekinga, and stunted on sides of Teremakau Valley; grows from the sea-board up to the grass-line on the mountains, but is not plentiful far inland; plentiful north of Mahitahi River, but less frequent south of that valley; very extensive location on hills behind Okarito, also on sea bluffs and connecting inland ridges and terraces; grows plentifully on spurs and low hills adjacent to coast. A gnarled stunted growth often occupies the sea-faces of the numerous headlands. Is intermingled with the southern rata, and is difficult to distinguish at a distance. It does not grow as a forest, but in patches and as isolated trees. It grows full height on mountains up to 2,000 ft. above sea-level; thence the rata dwarfs until it reaches the "grass-line," where it is simply a scrubby bush, twisted and gnarled by storms and snow-falls, and in some localities it lies flattened along the ground like a creeper. Its flowers, intermixed with those of the southern rata in mass (very profuse every third year), redden the forest roof for months, commencing to blossom first along the seaboard, thence gradually blooming on the higher inland terraces, and at last flushing the gaunt ravined mountain-sides with a riotous crimson magnificence, especially splendid when outlined against the tints of the great glaciers. These flowers form luscious food for bees, and also for kakas, which follow up the recession of the blossoms right into the valleys of the high inland ranges. At this period these parrots become