

for general building-purposes, cabinet-making, fencing, &c. This plant is often confused with *Thuya gigantea* (T. Lobbi).

L. tetragona (Endlicher). "Alerze." Magellan Straits to Valdivia.—Trunk from 80ft. to 100ft. high, affording one of the most imperishable timbers known, although, like all its congeners, of a light quality. Used for general building-purposes, railway-sleepers, &c. The inner bark is manufactured into tow, which, on account of its durability in water, is used for caulking the joints of boats and small sailing-craft.

THUYA (Linne). The Arborvitæ.

Thuya gigantea (Nuttall). "Oregon Cedar." North-west America, from the Rocky Mountains to the Pacific.—Trunk from 150ft. to 200ft. high, or even higher in alluvial districts, and of large diameter. Timber extremely durable, adapted to a great variety of purposes. This fine tree is, perhaps, better known in gardens as *Thuya Lobbi*; it flourishes in all parts of the colony, and, from its rapid growth and the high quality of its timber, ought to be widely planted. It makes excellent breakwinds, and bears clipping freely when planted for hedges.

T. occidentalis (Linne). "American Arborvitæ," "Swamp Cedar." Canada and Middle States of North America.—Trunk 60ft. in height. Timber extremely durable, and of great value for many purposes. Adapted to moist situations, and might be employed to replace the kahikatea.

T. Lawsoniana (Bentham and Hooker). Oregon and California. (*Cupressus Lawsoniana*, Murray).—Height, 80ft. to 100ft., affording a durable timber, of great value for general purposes.

T. Nutkaensis (Bentham and Hooker). Oregon, Vancouver Island, &c. (*Cupressus Nutkaensis*, Lambert).—Similar to the preceding species.

CUPRESSUS (Linne). The Cypress.

Cupressus macrocarpa (Lambert). "Californian Cypress." California.—Attains 120ft. in height, and affords valuable timber when close-planted. Isolated specimens develop wide-spreading branches, which are liable to curious swellings and distortions at their junction with the trunk. These affected branches die out sooner or later, and ultimately lead to the death of the tree. One of the best trees for shelter, and will bear clipping well. It flourishes in almost any soil if moderately dry.

C. torulosa (Don). "Bhotan Cypress." Northern India.—A small tree, but affords one of the most durable timbers known. Not suitable for planting in the South Island.

C. sempervirens (Linne). "Upright Cypress." Southern Europe, Asia Minor, Mount Lebanon, &c.—From 60ft. to 80ft. in height. Timber extremely durable, adapted for a great variety of purposes. Specially suited for planting in cemeteries.

TAXODIUM (L. C. Richard). Deciduous Cypress.

Taxodium distichum (Richard). "Bald Cypress." Southern States of North America.—A deciduous tree, with feathery foliage. Height, 70ft. to 100ft.; trunk from 6ft. to 15ft. in diameter. Timber extremely durable, smooth-grained, but rather light; used for building-purposes, railway-sleepers, fencing, &c., as well as for furniture. Requires a moist soil.

SEQUOIA (Endlicher).

Sequoia sempervirens (Endlicher). "Redwood." California.—Attains the height of 200ft. and upwards, with a diameter of from 6ft. to 12ft. Timber durable and smooth-grained, although light; largely employed for general building-purposes, cabinet-making, railway-sleepers, fencing, &c.; but not suitable for constructive works. Flourishes in New Zealand, but grows rather late in the autumn, so that the leaves are occasionally injured by frost or by cutting winter winds. May be planted to replace the kauri in the North Island. On the west coast of the South Island its rate of growth exceeds 2ft. per annum.

S. gigantea (Torrey). "Mammoth Tree." California. (*Wellingtonia gigantea*, Lindley).—The trunk has the largest diameter of all known trees, although inferior to certain eucalypts in height; a few specimens are known upwards of 300ft. in height, and fully 30ft. in diameter at 6ft. from the ground; but usually they are of smaller dimensions. The timber is light and somewhat brittle, but possesses considerable durability. The tree flourishes in all parts of the colony, and, at an elevation of 2,500ft. in the Southern Alps, makes an average growth of nearly 2ft. per annum. It seems specially adapted to the moist climate of the west coast of the South Island.

PHYLLOCLADUS (Richard). Celery-topped Pine.

Phyllocladus trichomanoides (Don). "Tanekaha." New Zealand, chiefly in the Auckland and Hawke's Bay Districts.—A handsome tree, 60ft. high. Wood white, tough, and strong; easily worked. Bark of great value for tanning, and as an organic mordant for certain shades. Of rapid growth when planted in good soil.

PODOCARPUS (L'Heritier).

Podocarpus Totara (A. Cunningham). "The Totara." New Zealand.—A fine tree, 40ft. to 70ft. high, or more; 2ft. to 4ft. in diameter. Timber light, elastic; easily worked, and of extreme durability; highly valued for railway-sleepers, ground wall-plates, general building-purposes, shingles, bridges, and constructive works; unequalled for marine piles. When established, the average growth of young trees is about a foot per annum; but in specially favourable situations the year's growth is over 2ft. The totara forms an excellent shelter-fence, and will bear clipping as freely as the English yew.