

trees, coffins, &c. The small tops are converted into the sides and ends of tin-plate boxes to an immense extent.

U. montana (Withering). "Wych Elm." Northern Europe.—Height, 50ft. to 80ft. Timber of stouter grain than the English elm, and more liable to split. This species is often used as a stock for grafting the English and other kinds, as it never throws up suckers. The bark is extremely tough, and was formerly twisted into ropes.

U. fulva (Michaux). "Slippery Elm." Eastern United States.—Height, 40ft. to 60ft. Timber used for hubs and other wheelwrights' work. Bark mucilaginous; largely employed in medicine, especially in America, forming the "slippery-elm powder" of the druggist.

CARYA (Nuttall). Hickory.

Carya alba (Nuttall). "White Hickory." New Hampshire, Carolina, Pennsylvania, Georgia, Louisiana.—Height, 60ft. to 80ft. Wood white, hard, even, tough, and elastic; not durable; used for axe-handles, implements, carriages, bendware. The edible fruits are the hickory-nuts of commerce.

C. porcina (Nuttall). "Hognut." Eastern United States, Canada.—Of similar qualities to the preceding. Wood frequently used for axe-handles, &c.

C. olivæformis (Nuttall). "Pecan-nut." Louisiana, Arkansas, Missouri, Texas.—Height, 60ft. Timber strong, elastic, more durable than either of the preceding. Chiefly cultivated for its nuts, which form an important article of commerce.

JUGLANS (Linne). The Walnut.

Juglans regia (Linne). "The Common Walnut." Greece, Central Europe, Black Sea, Burmah, China.—A variable tree, from 50ft. to 90ft. high, widely cultivated for its fruit. The timber in great demand for gun-stocks, furniture, pianoforte-cases, &c., and is largely imported into England from the ports of the Black Sea.

J. nigra (Linne). "Black Walnut." Eastern United States.—Wood extensively used for furniture. Nuts inferior to those of *J. regia*, but the tree is of more rapid growth.

J. cinerea (Linne). "Butternut." Eastern United States, Canada.—A smaller species than either of the preceding, and said to afford timber of greater durability.

CASUARINA (Forster).

Casuarina quadrivalvis (La Billardiere). "Sheoak." South-eastern Australia.—Suitable for planting on blown sand. Affords good firewood.

C. equisetifolia (Forster). Asia, Australia, Pacific Islands.—Valuable for planting on blown sand. Affords excellent firewood. A fine specimen of this species grew in the Auckland Domain, but was cut down for firewood.

BETULA (Linne). The Birch.

Betula alba (Linne). "White Birch." Temperate Regions of the Northern Hemisphere.—Height, 50ft. to 80ft. An elegant tree, the "queen of the woods." Timber even in the grain and compact, but soft; used for clogs, pattens, lasts, shoe-pegs, turnery; affords excellent charcoal for the manufacture of gunpowder. Numerous specimens are to be seen in the vicinity of Christchurch.

B. nigra (Willdenow). "Black American Birch." Canada, Carolina, Florida, Virginia, &c.—Height, 80ft. to 90ft., affording timber of larger dimensions than any other species. Wood used for similar purposes to the preceding; also for furniture and carriage-building. It is imported into Great Britain for cabinet-work under the name of "American birch."

B. lenta (Willdenow). "Cherry Birch." Canada, Northern United States.—Wood of a deep red colour, compact and even in texture, dense and heavy. Often beautifully curled, waved, or mottled. Extensively imported into England, where it is employed in the manufacture of furniture, under the same name as the preceding. It is the most durable of all birches, and is sometimes used in shipbuilding.

ALNUS (Tournefort). The Alder.

Alnus rubra (Bengard). "Red Alder." Vancouver's Island, California.—Height, 70ft. to 80ft. Timber used for piles, flooring, turnery, moulding-patterns, &c.

A. glutinosa (Willdenow). "Common Alder." Europe, and Temperate Regions of Asia.—Height, 50ft. to 60ft. Wood rather soft, but durable under water; utilized for pump-trees, turnery, moulding-patterns, brush-backs, clogs, pattens, and similar purposes. Suitable for planting on boggy land or by the sides of streams. Three or four fine specimens are to be seen in the Auckland Domain.

CARPINUS (Tournefort). The Hornbeam.

Carpinus Betulus (Linne). "Common Hornbeam." Temperate Parts of Europe and Asia.—A small tree, 40ft. to 60ft. high. Wood excessively tough, hard, and strong; used by millwrights, wheelwrights, turners, &c.; makes excellent charcoal for gunpowder. Valuable for forming shelter from high winds.

C. Caroliniana (Walt). "American Hornbeam." Canada to Florida.—A small species, rarely exceeding 30ft. in height. Wood valued for millwrights' work, &c.

QUERCUS (Linne). The Oak.

Quercus Robur (Linne). "The English Oak." Europe, Asia Minor, &c.—Two sub-species, each with numerous varieties, are generally recognized—1, *pedunculata*; 2, *sessiliflora*. The former has the acorns developed on a long fruit-stalk; in the latter the acorns spring directly from the