

Potash in the outer wood, 8.77; in the inner, 4.21 per cent. Specific gravity, 0.6; weight of cubic foot, 38 lbs.; value for heating purposes, 80, but mostly used for fuel, and generally preferred to all other woods.

15. **SOFT OR WHITE MAPLE** (*Acer dasycarpum*).—This species much resembles the last, but its leaves are larger, and its winged fruit larger. It is common in all low, damp, rich soils; sometimes attains a diameter of 4 feet, and a height of 80 feet. Not so abundant as the hard maple, nor so valuable; the wood is white and soft; the bark is used for dyeing. As an ornamental tree, it is preferred to the hard maple, as having a denser foliage, and being of more rapid growth.

16. **WHITE ASH** (*Fraxinus Americana*).—Grows abundantly throughout Canada, and attains an average height of 110 feet, and 60 feet to the first limb, and 26 to 36 inches in diameter. The timber is much valued for its toughness and elasticity; excellent for works exposed to sudden shocks and strains, as the frames of machines, wheel carriages agricultural implements, the felloes of wheels, &c., handles of implements, and for numerous similar purposes. The young branches serve for hoops of ships' masts, tubs, for coarse basket work, &c., It grows rapidly, and the young or second growth wood is more valuable than that of the old trees. Can be furnished in almost every part of Canada for 35 $\frac{1}{2}$ sterling per 1,000 cubic feet, and at Quebec for about 45 $\frac{1}{2}$. Specific gravity, 0.616; weight of cubic foot, 40 lbs.; value for heating purposes, 70.

17. **RED ASH** (*Fraxinus pubescens*).—A smaller tree than the white ash, of much rarer occurrence, and not so valuable, but still a very valuable timber, resembling very much the white ash, and often confounded with it. The wood is also used for the same purposes. Specific gravity, 0.7; weight of cubic foot, 40 lbs.

18. **BLACK ASH** (*Fraxinus sambucifolia*).—Found in moist woods and swamps, grows to the height of 60 to 70 feet, with a diameter of 2 feet; the wood is tough and elastic, but much less durable than white ash; the young saplings are in great requisition for hoops, and mature trunks for baskets. The timber is very durable under water. Specific gravity, 0.7; weight of cubic foot, 40 lbs.

19. **RIM ASH** (*Celtis occidentalis*).—Grows to the height of 30 to 40 feet, and 1 foot in diameter. The trunk has a rough but unbroken bark. The wood is very tough, and used for hoops of barrels.

20. **ROCK ELM** (*Ulmus racemosa*).—Found in most parts of Canada, and grows very large in the western counties, averaging 150 feet in height, and 80 to the first limb, with a diameter of 22 inches. Is abundant in the western part of Upper Canada; preferred to even white ash by some carriage and waggon makers for the poles and shafts of carriages and sleighs. The wood bears the driving of bolts and nails better than any other timber, and is exceedingly durable when continuously wet; it is, therefore, much used for the keels of vessels, water-works, piles, pumps, boards for coffins, and all wet foundations requiring wood. On account of its toughness, it is selected for the naves of wheels, shells for tackle-blocks, and sometimes for gunwales of ships. It can be laid on board of vessels at the ports of the lakes for 40 $\frac{1}{2}$ sterling per 1,000 cubic feet; freight to Quebec about 11 $\frac{1}{2}$.

Specific gravity, 0.59; weight of cubic foot, 35.75 lbs.

22. **AMERICAN OR WHITE ELM** (*Ulmus Americana*).—A majestic tree, attaining a diameter of 60 inches in some of the western counties of Upper Canada, and of great height, with wide spreading branches. Grows in most woods and along rivers, in rich soils. The wood is tough and strong, used for the naves of wheels, and preferred by wheelwrights to the English elms. Can be furnished at the same price as the rock elm.

23. **WHITE BEECH** (*Fagus sylvestris*).—Grows in almost every part of Canada, of an average height of 110 feet, height to the first limb 50 feet, and diameter 18 inches. It is distinguished from the red beech by its size, the lighter colour of the bark and wood; it is also of more difficult cleavage, of greater compactness and strength, and is much used for planes and other tools of carpenters; also for lathe-chucks, keys and cogs of machinery, shoe-lasts, toys, brushes, handles, &c.; in architecture, for in-door work; common bedsteads and furniture; for carved, moulds for picture frames, and large letters used in printing; it is easily worked and may be brought to a very smooth surface. Vast quantities of it are used for firewood. Specific gravity, 0.672; weight of cubic foot, 41 lbs.; outside wood contains 12 per cent., inside 4 per cent. of potash. Value for heating, 65.

24. **RED BEECH** (*Fagus ferruginea*).—The red beech is regarded by many as only a variety of the beech, with the wood softer and of more easy cleavage than the white, with also a slight difference in foliage. The timber is not so valuable as that of the white beech, but used for the same purposes. It is also abundant throughout Canada. The nuts of both kinds are small, two together in the four-lobed burr, oily, sweet and nutritious.

25. **BLUE BEECH** (*Carpinus Americana*).—Common along streams; grows 10 to 20 feet high, with ridged trunk; an exceedingly hard, whitish wood; excellent for cogs of wheels and for purposes requiring extreme hardness. The trunk is also made into brooms by being peeled by a knife, and is the most durable and soft of the splint brooms. Specific gravity, 0.79; weight of cubic foot, 47 lbs.; value for heating, 6.5.

26. **WHITE BIRCH** (*Betula alba*).—Grows on the hill-sides and the banks of rivers; a slender and beautiful tree of from one to two feet in diameter and 50 feet high, but usually not so large. The trunk is covered with a tough cuticle, consisting of numerous laminae, the outer of which is snow-white. The wood is of a fine compact texture, tough but not durable, and is used in turning and furniture. Specific gravity, 0.5; weight of cubic foot, 32; value for heating, 48.

27. **PAPER BIRCH, WHITE BIRCH** (*B. papyracea*).—A large tree, with fine grained wood, and a very tough, durable bark, splitting into paper-like layers. It is of the bark of this birch that the Indians make their canoes; hence the name, Canoe Birch. The wood is very similar to the last, and used for similar purposes. There is also a dwarf mountain variety.

28. **BLACK BIRCH** (*Betula lenta*).—The largest of the birches, two to three feet in diameter, and 60 to 70 feet in height; found over an extensive area,