

WHITE-PINE (*Pinus strobus*, Linn.).—The white-pine is by far the most valuable of Canadian trees, and, notwithstanding the reckless waste that characterized lumbering operations until very recently, there still remains in Canada an immense quantity of growing timber, from which vast quantities of lumber will be made. The white-pine ranges from the maritime provinces westward through Ontario and Quebec to the extreme eastern edge of Manitoba. White-pine is exported principally in the form of square timber deals and boards. Its chief uses are in construction work of all kinds, and, as the slabs and edgings are made into shingles and laths, there is now little waste of material. The wood is light, soft, and not strong, but it is suited for a great variety of purposes, as it is easily worked and free from resin. Average price per 100 sup. ft. at seaboard, £1 5s.

WESTERN WHITE-PINE (*Pinus monticola*, Dougl.).—None of the western pines are found in quantity near the coast, and so far they have been utilised for local purposes only. The best of these is *Pinus monticola*, Douglas, which is little inferior to the white-pine of the east.

BLACK-PINE (*Pinus Murrayana*, Balfour).—The black-pine replaces the preceding species on the eastern slopes of the Rocky Mountains. It is abundant in the northern part of the interior plateau of British Columbia, where it covers great areas. In the southern part of the province it is most abundant at altitudes ranging between 3,000 ft. and 4,000 ft. It is much used for mine-props and other construction-work in the mining districts of British Columbia. It is admirably suited for this purpose, as the wood is very tough, and when not exposed to the weather does not easily decay.

WHITE-SPRUCE (*Pinus alba*, Link.).—The white-spruce ranges from Nova Scotia north-westward to within twenty miles of the Arctic Ocean, near the mouth of the Mackenzie River, and with the black-spruce it forms a great part of the subarctic forest which extends from Labrador across the continent. The wood is tougher, stronger, and more elastic than that of pine. It is now more used than formerly as lumber as well as very largely as railway-ties, fence-posts, piles, telegraph-poles, and sounding-boards in pianos.

MENZIES' SPRUCE, SITKA SPRUCE (*Picea sitchensis*, Carr.).—This spruce grows chiefly in the immediate vicinity of the coast, ranging in British Columbia from the international boundary north to Alaska. It is in great demand for the manufacture of doors, window-sashes, boxes, shelving, and interior finishing. The wood is very white, is elastic, and bends with the grain without splitting, so that it is much used in boat-building, the making of light oars, staves, woodenware, &c. It resists decay for a long time, and, like the Douglas fir, is not attacked by insects.

HEMLOCK (*Tsuga canadensis*, Carr.).—The hemlock grows in the maritime provinces, Quebec, and Ontario. It is one of the best woods for wharves and docks, and great quantities are used annually for piles.

DOUGLAS FIR, "OREGON-PINE," RED-PINE, YELLOW-FIR (*Pseudotsuga Douglasii*, Carr.).—This is the most abundant, as it is the most valuable, tree in British Columbia. Its range on the mainland is from the international boundary north to the Skeena River, in latitude 54°, on the coast, and in the Rocky Mountains from the international boundary north to latitude 55°, though its northern and north-eastern limits are not well defined. It is not found in the Queen Charlotte Islands. It attains its greatest size on Vancouver Island, or along the shores and in river-valleys near the coast on the mainland. There, trees 300 ft. in height are not rare, the average height of those felled for lumber being over 150 ft. Trees of a greater diameter than 7 ft. are rarely cut, though those of 8 ft., 10 ft., or 11 ft. in diameter are not rare. The fact that the largest trees are found near the coast greatly facilitates the transport of the logs from the woods to the mill, and, as the majority of the mills are so situated that the largest ships may load within a few yards of the saws, the cost per 1,000 ft. of handling Douglas fir and other west-coast lumber is small.

Mr. George Elley writes about the Douglas fir as follows:—

"Douglas fir (or Oregon pine, as it is sometimes termed) ranks first in importance. This tree has been known to attain a height of 300 ft., ranging from 6 ft. to 8 ft. in diameter at the butt, its only rival in size being the redwood of California.

"Fir forms from 60 per cent. of our marketable timber, and, although confined to no particular belt, attains its greatest sizes in the valleys of those rivers emptying into the Gulf of Georgia, and on the eastern part of Vancouver Island, the latter being the most densely wooded area in British Columbia.

"The age of a full-grown fir averages about five hundred years, but specimens six and even seven hundred years old are not rare. In the early stages of the tree's growth the foliage is very thick, branches spreading out from the trunk in all directions; these gradually disappear, however, until nothing remains but a few stunted limbs at the top, the lower portions being comparatively free from knots. The bark-growth is heavy, of a reddish appearance, and extensively used for tanning purposes.

"The commercial value of this wood is too well known to merit extensive mention. For general all-round purposes it has no equal, especially in heavy construction-work, owing to its ability to withstand enormous strains; and in this respect it is equal if not superior to oak, which wood it is rapidly displacing, especially in the building of cars. Tests have recently been made by railway engineers on several of the large systems, with a view to comparing the relative strength of the two woods, and in most instances their reports have been favourable to fir, particularly where long timbers are required. In one instance ten pieces of each wood were selected, and a lift made until they broke, with the result that the fir withstood some 600 lb. greater strain than oak, conclusively proving its superiority in this regard, not to mention its advantage in lightness. Fir is also well adapted for house-construction, being used in every portion of the building. Mention should be made of the excellent spars and masts procured from this tree."

GIANT ARBOR-VITÆ, RED-CEDAR (*Thuja gigantea*, Nutt.).—The giant arbor-vitæ is next to the Douglas fir in importance in British Columbia, where it attains its greatest size on Vancouver Island, along the coast, and in the lower parts of the rivers of the Coast Range. It is rarely found in the dry