

as it has few technical qualities which would recommend it for any other use as lumber. The purpose for which the wood is best suited is the manufacture of wood-pulp for paper making. The tree occurs in the forest mixed with spruce and it is cut and marketed with that wood. Balsam fir has the requisite length and toughness of fibre for pulp-making, and, in spite of the fact that it gives a slightly lower yield of pulp per cord and contains a higher percentage of resin than spruce, its use is increasing.

There are three western balsam fir species, the wood of which is very similar to that of the eastern tree. The most important of these at present is probably the Alpine fir (*Abies lasiocarpa*). Where the wood of these western species is utilized it is put to uses similar to those of the eastern species. These western balsams are confined to the Rocky mountains and the Pacific slope.

Cedar.—There are only two species of the genus *Thuja*, commonly called "cedar" in Canada. They are both of great commercial importance, each in its own region, as their ranges do not overlap. The wood of the cedars is the most durable coniferous wood grown in the Dominion. The eastern tree, white cedar (*Thuja occidentalis*), is found from the Atlantic to the southeastern part of Manitoba. It does not extend as far north as some of the other conifers and is nowhere very plentiful, being confined to moist situations. Cedar is preferred to all other native woods for shingles and for all structural work exposed to moisture. In spite of the fact that the wood is not strong, its great durability in contact with the soil makes it a valuable railway tie material. It is used in enormous quantities both locally and for export for poles and fence-posts, and its use for this latter purpose is largely responsible for the increased scarcity of the lumber, as young trees are used before they have time to reach sawlog sizes. The western red cedar (*Thuja plicata*) is one of the giants of the Pacific Coast, being surpassed in size only by Douglas fir. Its wood is sawn into lumber of large dimensions and is made into shingles to a greater extent than any other wood in Canada.

Tamarack or larch.—Of the three native tamarack or larch species, two are worthy of note. The eastern tamarack (*Larix laricina*) is found in every province in the Dominion in swampy situations. Its wood is hard, strong, and durable, being similar to that of Douglas fir and the southern hard pines. The western larch (*Larix occidentalis*) is more important commercially. It is found only in the interior of British Columbia, but grows on better sites and reaches greater size than the eastern tree. The wood of these two species is cut into lumber and also used for railway ties and mining timbers.

Birch.—Birch is Canada's most important hardwood, and one of the few woods of this class where the exported material exceeds that imported. There are at least seven native species, but only two are worthy of any detailed discussion. The yellow birch (*Betula lutea*) is the source of the most valuable birch lumber, used for flooring, furniture, cabinet-work and vehicle stock. The tree grows only in Ontario, Quebec and the Maritime Provinces, and does not reach commercial dimensions north of the Height of Land between the St. Lawrence river and Hudson bay. Its wood is hard, heavy, strong, and tough, but is not durable in contact with moisture.

The paper birch (*Betula alba* var. *papyrifera*) has a much wider distribution, being common from the Atlantic to the Rocky mountains, and is more abundant throughout its range than the yellow birch. Its wood is softer, weaker and less durable, and is not at present of great commercial value, except for spoolwood