

The White Spruce has a more tapering trunk than the Black Spruce, and is inferior in stature, rarely exceeding fifty feet in height, and sixteen inches in diameter at three feet from the ground. Its summit, like that of the Black Spruce, is a regular pyramid, but less branching, and tufted. The bark is lighter colored, and this difference is most striking upon the young shoots.

Both the Black and the White Spruce are easily propagated by their seeds, or by transplanting into proper soils; they afford one of the most dense and compact screens, or shelters from the wind, that can be made by trees. They are cleanly, and although of slow growth, durable, living to a great age. They abound in thick masses, of stunted growth, on the rocky shores and inlets of the Bay of Fundy. Their dark green, but conical tops, contrast strongly with the snow during the cold season, and they form one of the most striking characteristics of a Winter scene on the sea-board, living and thriving as they do, where other trees could scarcely obtain foothold, and seeming to bid defiance both to the ocean and the storm, even during a combination of their utmost strength.

Properties and Uses.—The wood of the White Spruce is employed in nearly the same uses as the Black, but it is somewhat inferior in quality; although the Deals made from this species are mixed with those of the other species, without distinction.

The fibres of the roots macerated in water, are very flexible and tough; being deprived in the operation of their pellicle, or their covering, they are used by the Indians to stitch together their Canoes of Birch bark, their dishes, and water-pails, of the same material. The seams of the Canoes, and of the water-pails, are rendered water-tight by a resin, improperly called *gum*, which exudes from knots and wounds on the trunk of this tree, whence it is gathered, melted, and boiled, to free it from impurities. The branches are not used for Beer, because the leaves, when bruised, diffuse the unpleasant odour already mentioned, which is communicated to the liquid.

3. HEMLOCK SPRUCE—*Abies Canadensis*.

Description.—The Hemlock Spruce is generally known by that name throughout North America; in Canada, the French call it *Pruche*. It is natural to the coldest regions of America, and begins to appear about Hudson's Bay, in latitude 51° north. In New Brunswick, it forms a large proportion of the ever-green forests, and is found abundantly multiplied in every favorable situation. Moist grounds appear not to be in general the most favorable to its growth. When mingled with Black Spruce, it predominates less, as the soil is more humid, and large stocks are often seen among the Beeches and Sugar Maples, or soils proper for the culture of grain. The writer observed a very considerable tract of level land, rather dry and sandy, almost exclusively covered with large trees of the Hemlock Spruce, and the Red and White Beech, on the banks of the River Tabasintac, in Northumberland.

The Hemlock Spruce is always larger and taller than the Black Spruce. It frequently attains the height of seventy or eighty feet, with a diameter from two to three feet, and uniform for two thirds of its length. If the number and distance of the concentric circles afford a certain criterion of the longevity of trees and the rapidity of their vegetation, it must be nearly two centuries in attaining these dimensions.

The leaves are six or eight lines long, flat, numerous, irregularly disposed in two ranks, and downy at their unfolding. The cones are a little longer than the leaves, oval, pendulous, and situated at the extremity of the branches.

In a favourable soil this tree has an elegant appearance, while less than thirty feet high, owing to the symmetrical arrangement of its branches, and to