

who principally fabricate large and small tubs, pails, churns, and other household utensils, as well for export as for home consumption. This ware, instead of becoming dull like that of other wood, becomes whiter and smoother by use. It is esteemed the best wood in which to preserve oils. Charcoal, highly esteemed in the manufacture of Gunpowder, is made of young stocks about an inch and a half in diameter, deprived of their bark. The seasoned wood affords a beautiful lamp-black, lighter and more intensely colored, though less abundant than that obtained from the Pine.

ARBOR VITÆ.--Genus *Thuja*.

There is but one species of the Trees of the genus *Thuja*, in New Brunswick, which have ever been confounded with the White Cedar, owing to their both being found in swamps, the similarity of their foliage, their general resemblance when growing, and the equal durability of their wood.

AMERICAN ARBOR VITÆ—*Thuja Occidentalis*.

Description.—This species of *Thuja*, the only one that has been found in America, is considered the most interesting of the genus, for the valuable properties of its wood. It abounds in favorable situations in New Brunswick, and is found as far north as latitude $48^{\circ}50'$. South of latitude 45° it becomes rare, and solitary stocks only are seen on the sides of torrents, and the banks of a few Rivers in the Northern States of the Union.

Two varieties have been noticed in New Brunswick, which have been designated "Striped-leaved," and "Sweet-scented."

The Arbor Vitæ is sometimes upwards of forty feet in height, with a diameter of two feet and more at the base. Usually however it is not more than ten or fifteen inches in diameter at five feet from the ground. From the number of concentric circles in stocks of this size, its growth must be extremely slow. They are more compressed near the centre, as in the Cyprus and White Cedar, which is contrary to the arrangement observed in the Oaks, the Beeches, and the Maples.

The foliage is evergreen, numerously ramified, and flattened or spread. The leaves are small, opposite, imbricated scales; when bruised they diffuse a strong aromatic odour. The sexes are separate upon the same tree. The male flowers are in the form of small cones; to the female blossom succeeds a yellowish fruit about four lines in length, composed of oblong scales, which open through their whole length for the escape of several minute seeds, surmounted by a short wing.

A cool soil seems to be indispensable to its growth. It is never seen on the uplands among the Beeches, Birches, and Maples, but is found on the rocky edges of the innumerable streams and small lakes scattered over New Brunswick. It frequently occupies exclusively, or in great part, swamps from fifty to one hundred acres in extent, some of which are accessible only in the winter, when they are frozen and covered with deep snow. It abounds exactly in proportion to the degree of humidity, and in the driest marshes it is mingled with the Black Spruce, Hemlock Spruce, the Yellow Birch, the Black Ash, and a few stocks of the White Pine. In all these marshes the surface is covered with a bed of *Sphagnum* so thick and surcharged with moisture, that the foot sinks half-leg deep, while the water rises under its pressure.

The full grown Arbor Vitæ is easily distinguished by its shape and foliage. The trunk tapers rapidly from a very large base to a very slender summit, and is laden with branches for four fifths of its length. The principal limbs, widely