

its tufted foliage. When arrived at its full growth, the large limbs are usually broken off, four or five feet from the trunk, and the dried extremities are seen staring out through the little twigs that spring round them. In this mutilated state, by which the tree is easily recognized, it has a disagreeable aspect, and presents, while in full vigour, an image of decrepitude. This accident, which is attributed to the snow lodging upon the close, horizontal, tufted branches, and breaking them off, never happens to the young trees whose fibres are more flexible. The woods are also filled with dead stocks, but it is not known whether their destruction is occasioned by an insect which attaches itself to the Hemlock Spruce in preference to other trees of the Fir tribe, or arises from some other cause. The dead, moss-grown trees, which stand mouldering for twenty or thirty years, frequently deform the forests of New Brunswick, and give them a gloomy and desolate appearance.

The Hemlock Spruce is distinguished by the peculiarity of sometimes ceasing to grow at the height of twenty four or thirty inches. In this state it has a pyramidal shape, and its compact, tufted branches, adhere to the ground.

*Properties and Uses.*—The properties of this species of Spruce are such as to give it only a secondary importance, notwithstanding its abundant diffusion; and it has hitherto been considered among the least valuable of the large resinous Trees of North America. Yet it is well adapted for mining, for wharf building, or for use in situations where it is constantly wet. It gives a tight hold to nails, and iron driven into it will not corrode, in or out of water. Within a very short period it has risen so much in public estimation, that large quantities have been exported to England for Railway Sleepers, and contracts have been entered into for the supply of still larger quantities. Heretofore it has only been exported in the shape of lath-wood, of which large quantities have been shipped to Great Britain, where split laths have been made from it.

The old trees frequently have the concentric circles separated at intervals, or, in the language of the country, are *shaky*, which greatly impairs the strength of the wood. This effect is produced by the winds, which have a powerful hold upon a large compact summit, exposed above the heads of the surrounding trees. It has been recommended to cut off the lower part of the trunk of trees thus defective, and to use only the upper part, which is generally more perfect.

The wood of Hemlock Spruce is firmer than that of White Pine, although coarser grained, gives a better hold to nails, and offers more resistance to the impression of other bodies. As two-inch plank, it is frequently employed for thrashing floors, and also for oat-bins, because, as is alleged, rats will not gnaw the wood. As inch-boards, its most common use is for the first covering of the frames of houses, called "rough boarding," which is afterwards covered either with clap-boards, siding, or shingles of White Pine. When guarded from humidity, the wood of the Hemlock Spruce is as durable as any other species of Spruce, or even Pine. In Maine, Hemlock is usually taken for the posts of rural fence, which last about fifteen years.

This species contains but little resin; the trunk is but slightly coated with turpentine where large pieces of bark have been removed a long time. The bark is extensively used in tanning; half the epidermis is shaved off before it is thrown into the mill for grinding. It is inferior to Oak bark, but tanners in the United States say that both united are better than either. Small consignments have occasionally been made to London, but the tanners there could not be induced to adopt it.

The fibres of the wood of the Hemlock Spruce is sometimes so oblique, that it makes the circuit of stocks fifteen or twenty inches in diameter, in ascending five or six feet.