Abies concolor, lives here in good condition for many years but is a less valuable tree in this climate than the plants of the same species derived from Colorado. *Abies nobilis* can live here in sheltered positions but does not become a tree, although the beautiful *Abies amabilis* which grows with it on the mountains of Oregon and Washington does better but grows slowly and has now been in good condition in the Arboretum for several years. Another tree which is rarely seen in northern collections, *Libocedrus decurrens*, the Incense Cedar of California, is in good condition in the small collection of exotic conifers near the top of Hemlock Hill in an exceedingly sheltered position. The Incense Cedar is a tree of narrow columnar habit with bright green foliage, and in California sometimes grows to the height of one hundred and fifty feet and forms a massive trunk. There are good specimens in the District of Columbia and it may well be more generally planted in the middle and southern states. The two beautiful White Cedars of the northwest coast, *Chamaecyparis Lawsoniana* and *C. nootkatensis*, can just be kept alive in the Arboretum where they drag out a miserable existence. Jeffrey's Pine, *Pinus ponderosa*, var. *Jeffreyi*, lives but that is all that can be said of it. None of the other coast conifers of western North America are hardy here, but fortunately a few of the northern species range inland to the western slope of the northern Rocky Mountains, and when plants of these species are obtained from the interior cold region they can be successfully grown in Massachusetts. Thus the Arboretum is able to keep in good condition the so-called Red Cedar of the northwest, *Thuja plicata*, or as it is more often called, *T. gigantea*. This is one of the noblest trees of which North America can boast and, although it will never grow to its largest size or become an important timber tree here, it is an ornamental tree in the Arboretum of considerable value and another witness to the importance of raising trees for cold climates from seeds gathered in the coldest parts of the area such trees naturally inhabit. It is possible, too, to grow here in the Arboretum the White Fir of the northwest coast, *Abies grandis*, and the coast Hemlock, *Tsuga heterophylla*, raised from seeds gathered on the Rocky Mountains of Idaho as these two trees also range far inland.

Colorado Conifers. The Douglas Spruce, *Pseudotsuga mucronata*, from Colorado is hardy in this climate and promises to be long-lived here although this tree from the northwest coast, where it grows in its greatest perfection, is not hardy in New England. The other conifers from the interior of the continent are hardy but are not of much promise as ornamental or timber trees for the eastern states. *Picea pungens*, the well known Colorado Blue Spruce, which is still largely propagated and sold by European and American nurserymen, will disappoint many planters of trees for its beauty is comparatively short-lived. This tree growing naturally in small groves by some of the streams of the southern Rocky Mountains becomes at the end of a few years thin and scrawny in habit with a few short branches on the upper part of the trunk, and is as ugly an object as a tree can well be. In cultivation the Blue Spruce for several years is compact in habit with wide-spreading branches in regular layers, but as the trees grow older

the branches at some distance from the ground grow more rapidly than those at the base of the trunk, and overshadow and gradually kill them. The oldest of these trees in cultivation were raised from seed collected by Dr. C. C. Parry in 1862 and are thus only fifty-three years old. One of these original trees is growing in the Arboretum on the southern slope of Bussey Hill where, although it is a pathetic object, it is kept to show the planters of this tree what they may expect of it long before it attains half its natural size. For many years there have been growing in the Arboretum what have been considered the finest specimens in cultivation of the second of the Colorado Spruces, *P. Engelmannii*; they formed narrow and compact pyramids with slender trunks furnished to the ground with short branches, and it was believed until recently that this tree which is so handsome on the high slopes of the Colorado mountains would prove to be the most desirable of all Spruce-trees for this climate. In the last two or three years, however, the lower branches of these trees have begun to die and, although the trees appear otherwise perfectly healthy and are still growing rapidly, their beauty as specimen trees is much injured.

Exotic Conifers. The conifers of western and northern Europe are generally hardy here but often short-lived. The Firs, Spruces and Pines of Japan are nearly all hardy in this climate, and although we have had a much shorter experience with the Chinese conifers than with those from Japan there is every hope that many of them will prove hardy in this climate and that some of them may be valuable ornamental trees.

The Cedar of Lebanon. The Cedar of Lebanon (*Cedrus Libani*) in the Arboretum shows the importance of careful selection of the seeds from which to raise trees for any particular climate. One of the Fir trees of Asia minor, *Abies cilicica*, has been growing for many years in New England where it has proved to be one of the best of all conifers of its class to cultivate here as an ornamental tree. With this Fir the Cedar of Lebanon grows in Asia Minor on the Anti-Taurus, far north of the Lebanon Range in Palestine and in a much colder climate. As the Palestine Cedar is not hardy here in New England the Arboretum had seeds of this tree collected on the Anti-Taurus with the view of attempting to introduce a hardy race of Cedars into New England. The seeds were sown here in the spring of 1902 and a large number of plants were raised. They all proved perfectly hardy, not one having suffered from drought or cold. Some, however, have been lost in attempts at transplanting, for no other tree here has proved so difficult to move. The average height of all these young Cedars in the Arboretum is now about thirteen feet. The tallest is twenty-one feet high and there is another specimen twenty feet high. It is doubtful if any other conifer can be grown in New England from seed to the height of twenty-one feet in thirteen years.

Torreya nucifera. Of the genus *Torreya*, which is related to the Yews, there are four species found in Florida, California, Japan and China. The Japanese species *T. nucifera* is well established in the

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