

Brown. Both of these are classed, even by Mr. Hooper, as tender. Lawson's cypress, a rare beauty from California, is somewhat tender at Rochester. The Nootka Sound cypress, (*C. Nutkaensis* or *Chamaecyparis Nutkaensis*), is said to be decidedly ornamental, and grows to larger size near the coast in British Columbia. One might not expect it to prove hardy here. However, Mr. Sargent has found it at an elevation of 4000 feet, and small ones at even 5,500 feet on Silver Mountain near Yale, B. C. Here, then, lies our hope of being able to grow this beautiful tree, when we are enterprising enough to obtain the seed from this high elevation. The *C. Thyoides* or "white cedar" is much like our native, so called, white cedar, but is much finer and more delicate. It is common in Virginia and Carolina, but is found here and there northwards, even as far as Lanark, Ontario, latitude 45. This tree was identified by Vilmorin, of Angers, France, to whom Mr. Brown had been sending seed collected in the county of Lanark.

JUNIPERUS.—Juniper.

We must not over-look the ornamental value of this race of plants.

J. Communis. Common Juniper.—Is a native of Europe and Asia, and of this continent. I see that in Prof. Schübler's map, it is noted as growing wild in Norway, as high as latitude 71. It usually grows from 3 to 10 feet in height, sometimes much higher, and assumes all sorts of shapes. Mr. Brown had bushes 4 or 5 feet high, imported from Scotland, and grew hundreds of little plants from them. They seemed to be pretty hardy, perhaps quite so, but were well covered with snow, and far more so than the Irish.

Var. Hibernica. Irish Juniper.—Is highly ornamental, feathery in leaf, and in form resembles a green column. It is highly ornamental, but needs protection in our climate.

Var. Succica. Swedish Juniper.—Proved perfectly hardy with Mr. Brown, and more satisfactory than the English or common kind. He had plants 30 years old, most of these were very recumbent on account of the habit of growth impressed upon them, while young, by the heavy snows. One of these plants was six feet in diameter. It seeded freely, and thousands of young plants were raised from it. Its hardiness without snow-coverings, which we now so often miss, is a thing we must not assume too positively.

J. Sabina. Common English Savin Juniper.—Is another of the trailing junipers, which proved perfectly hardy with Mr. Brown. The foliage is not feathery like the Swedish, but is more yew-like, and more dense and glossy.

J. Virginiana. Red cedar.—Though we are north of the usual range of the red cedar, as a timber-tree, yet, as a shrub, Mr. Drummond says it extends high northward. In the Ottawa valleys there was one island where it had grown to large size. Mr. Sargent says it extends southwards to Florida, and from the Atlantic to the Pacific, and is the most widely distributed of American trees.

Its foliage is decidedly ornamental, feathery, and unlike any other tree here. I have seen it in Minnesota of a rich glaucous tint, singularly beautiful. Leaving New York by rail and entering the Hudson, the traveller is often struck by the many dark cypress-looking trees growing on the hill sides. This is a local fastigate form of this tree, usually it is more spreading.

PICEA.—Balsam or Fir.

Those who have only seen our native balsams have no idea of the beauty of some of the foreign piceas.

P. Amabilis. Lovely Silver Fir.—This is perhaps the most lovely of all the piceas. It has long, soft, softly tinted foliage of surpassing beauty. In northern California, it grows to a height of 250 feet, and is found at elevations of 4000 feet, and has also been found by Mr. Sargent on Silver Mountain,

near Yale, B. C. The specimens I have seen about Boston and on the Centennial Grounds at Philadelphia, stood last winter well. Like all balsams it is suited to moist soils. Its great beauty should induce some one to try it.

P. Apollinis. Apollo Silver Fir.—Struck me as a great beauty and one that was not injured upon the Centennial Grounds. It is a native of Greece, Mr. Hoopes says, found at elevations of 1500 to 4000 feet, and growing to a height of 60 or 70 feet.

P. Engelmanni.—Formerly known as *Abies Engelmanni*, is a native of the Rocky Mountains from the sub-alpine to the alpine districts, says Dr. Engelmann, as quoted by Mr. Hooper. In Colorado it occupies a belt between 8000 to 12000 feet of elevation. It is one of those whose appearance takes away all doubts as to its hardiness. It has been said to be one of the only three conifers that will endure the winters of St. Petersburg. But, while I can readily expect it to do well there, yet there are very many other conifers that would resist their cold winters equally well. In appearance it is a spruce, not a balsam, and some of the grafted varieties are of remarkable beauty. A little plant I have is somewhat the color of frosted silver, not green. This tint is especially worthy of trial.

P. Firma.—From Japan. Two specimens in the Centennial Grounds, killed back 3 or 4 feet last winter. No other evergreen suffered so severely.

P. Fraseri. Fraser's Balsam Fir.—A native of the east and middle States. No improvement upon our other species.

P. Grandis. Great Silver Fir.—One of the coast flora of British Columbia, says Dr. George Dawson, adapted to moist localities. No assurance of its hardiness.

P. Hudsonica. Hudson's Bay Silver Fir.—Is a dark velvety green shrub, as dense as a clipped hedge. It may grow 2 or 3, or even 4 feet high, and is decidedly ornamental.

P. Lasiocarpa. (Abies Subalpina of Engelmann.)—Seems to be confused with *P. Amabilis*. All I can say is that they are equally ornamental, growing side by side. This however, has been found by Dr. George Dawson in rainy, yet severe districts of British Columbia, in its interior plateau, at elevations of 4000 feet. It also occurs on the Rocky Mountains in the Peace River district, and grows in cold damp situations between Lesser Slave Lake and Athabasca River, when at times it must be subject to a temperature of 50 below zero. It is however a tree suited to moist soils, and to cool moist summers, not the hot, dry summers we have here. At least it is so in British Columbia.

P. Menziesii. (P. Pungars or P. Sitchensis; Menzies' Spruce.)—"The blue spruce of the Rocky Mountains," says Dr. Engelmann, "is entirely sub-alpine, occurring between the limits of 7000 and 9000 feet in low or marshy soils, especially along the borders of streams. The plants grown from the first seed brought from California proved quite tender at Boston. Those from Colorado have proved quite hardy and decidedly ornamental, and quite hardy, I believe, with R. Douglass at Waukegan, Ill., on the border of the Wisconsin. Dr. George Dawson finds it in many parts of British Columbia, but so far, not in the very severe climates. It delights in partial shade and moisture.

P. Nobilis.—Mr. Hoopes quotes this as growing in California to the height of 200 feet, at elevations of from 6000 to 8000 feet. Its foliage too, is said to be very beautiful. At the Centennial, the Hon. H. G. Joly, when noting the annual rings of the different woods exhibited, found this the fastest grower from the Pacific coast.

P. Nordmanniana. Nordman's Silver Fir.—This has been found, says Mr. Hoopes, on the Adshar Mountains at an elevation of 6000 feet, and growing to a height of 80 to 100 feet, in some places, in high alpine regions intermingled with