

## CASTANEA—Chestnut.

The American Chestnut is a fine tree and one which attains great size. An old tree on the Centennial grounds, in Philadelphia, is 6 feet in diameter. It is highly ornamental, when in blossom, and bears nuts in large quantity, for which alone it would be well worth growing. Unfortunately we are rather beyond its northern limit. It is not hardy in Minnesota, but, in Ontario, as may be seen in that most valuable map by Messrs Bell and Drummond, published in the fourth report of The Montreal Horticultural Society, it crosses the line of the black walnut, west of Hamilton, and continues along the northern shore of lake Ontario as far east as Port Hope.

In central Iowa, even, the forestry manual of the Iowa Hort. Soc. recommends that the nut be always planted where the tree is intended to grow, and that it be mulched very heavily for 3 years. Our only chance of growing it seems to be in our finding increased hardiness in our most northern trees. In New Hampshire it must approach very near to Lat. 44.

*C. Vesca. Spanish Chestnut.*—Is a native of the central and milder parts of European and other countries; named Spanish, because the nuts were largely imported from thence into England.

It bears a larger fruit, but is not as hardy as the American, nor does the tree seem to be found in Europe in as severe climates as our native species.

*C. Japonica. Japan Chestnut.*—A dwarf tree, and young bearer of large fine nuts, and has been considered a new introduction of great value. I have seen terminal buds nipped a little on Long Island; but last winter was very severe there, and we must not consider it tender without some further evidence.

## CATALPA.

This tree I have already called attention to in the Journal. As an ornamental tree, it has large heart-shaped leaves (I have measured a leaf on mine on young growth, fourteen inches long). It is of rapid growth, attains good size, and bears a profusion of white blossoms in summer. A singular fact about it is the difference of hardiness of species which look so nearly alike. As an ornamental tree, it was planted in the South Eastern States and then Northward into the Southern parts of New England, and followed the demand for ornamental trees westward.

Its value as a timber tree was just looming up, and it was being planted as far north as the northern boundary of Iowa, when the severe winter of 1865 revealed the fact that there were two species, a Western and a Eastern.

*Var. Bignonioides.*—The northern limit of this tree is some distance to the South of us. Rochester is considered north of its usual range. It is thought to be hardy there only because subject to lake influence. Arthur Bryant, in his little book on "forest trees", a little book brim full of facts seen by himself, speaks of the Bignonioides as hardy at Princeton, Illinois. This was written in 1871, and it is since then that, it has been traced that the trees from which Mr. Bryant gathered his seed were of the Western or hardy kind. Mr. Auguste Dupuis, at St. Roch des Aulnaies, 70 miles below Quebec, finds this trees hardy, but it would be difficult to prove his tree Bignonioides, unless the two kinds were growing side by side.

*VAR. SPECIOSA.*—Hardy Catalpa. This has been found indigenous in the West, as far north as Lake Minnetonka in Minnesota, and is the kind that stood the severe winter of 1865 in northern Iowa, and which since then has been known as the Hardy Catalpa. In the spring of 1878, I planted 150 young trees, which have shown such proofs of hardiness in my bleak exposure, that I hope it will have further trial

for ornamental purposes. In the West it is in great demand for timber plantations, as it is a rapid grower and easily transplanted, and the wood is as indestructible as Mulberry or Locust. A gate post has been found sound enough to reset after 90 years. Railroad companies are planting it, and inducing farmers to plant it, for sleepers and fence posts, and for inside finish of passenger cars. Only by its introduction for ornament can we ascertain its farther uses in this climate. I should like to refer those interested to "Relations of Forestry to agriculture", by Dr. J. A. Warder, in the Journal of Am. Ag. Assoc. 1881, and "Additional facts in relation to the Catalpa", by E. E. Barney, Dayton, Ohio, which latter may be had, per mail, for 6 cts.

## CEDRELLA SINENSIS. SATIN WOOD (SO CALLED).

Is a tree of rapid growth, and dark butternut-like leaves, lately introduced from China, which my attention has been specially drawn to, but as I have seen it killed back somewhat, during the last two winters on Long Island, it is not likely to be of use to us.

## CERASUS.—Cherry.

Most of the ornamental varieties of the cherry are grown for the sake of their beautiful bloom. In testing any of them let us avoid those of the Bigarreau family as not likely to prove hardy.

*Cerasus pumila pendula. Dwarf weeping cherry.* This seems to be a variety of the Morello and, therefore, of probable hardiness. Grafted six feet from the ground, it forms an umbrella-like top, like a Kilmarnock Willow, though much more graceful. It has been used in the public gardens at Boston and is worthy of its place there.

*Large double flowering cherry.*—With Mr. Brown, this bore a profusion of large double flowers like little roses and grew to a height of 7 feet. The foliage seemed of Morello type and quite hardy. Mr. Brown prized this highly.

*The Mahaleb.*—Is very ornamental when young, but is said to become too branchy as it attains age. It seemed pretty hardy with Mr. Brown, and is quite hardy enough for a dwarf stock to graft upon.

## C. PADUS—European Bird Cherry.

I am not aware that this has been tried here. It is of a hardy species indigenous at St. Petersburg, or near there.

*Var. Aucubifolia. Aucuba-leaved bird cherry.*—The foliage of this is dotted with white and in the early part of the season is quite pretty.

*Var. Variegata. Variegated-leaved bird cherry.*—Less distinct in its marking than the above and so loses beauty earlier in the season.

## CERCIDIPHYLLUM.

This is one of the late introductions of Prof. Sargent at the Busy Institute, Jamaica Plain, Mass., from the mountains of northern Japan, where it attains great height, with a trunk from six to ten feet in diameter. The foliage is quite small, and the twigs exceedingly slender.

I have seen a number of little trees of it about Boston and other places unhurt by last winter; more, I cannot say, the coming winter will give a clue to its hardiness here.

## CERCIS.—Judas Tree or Red Bud.

*C. Canadensis.*—A very ornamental flowering tree, native of the milder climates to the South of us.

At St. Catharines, Ont., it has not been quite hardy, and with Mr. Brown, not hardy above the snow.

*C. Japonica.*—Was hurt a good deal in Boston last winter.

## CLADASTRIS.—Yellow Wood.

*C. Tinctoria.*—Is one of the finest of American flowering trees—but its hardiness I rather doubt. However, Busy Institute has lately received a variety from Amour, which may yet be of interest to us.

Amour is that province of Siberia, which is North of the