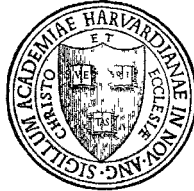

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Crataegus nitida belongs to the Virides Group of the genus. This is one of the most distinct of the natural groups into which the genus is divided, well marked by its small flowers in many-flowered corymbs with twenty or rarely ten stamens and yellow or occasionally rose-colored anthers, small usually red fruit and leaves with rare exceptions pointed at the ends. The species are trees with the exception of two or three which grow only in western Texas, and descriptions and figures of thirteen of them are found in the new edition of Sargent's Manual of the Trees of North America. The plants of this Group are distributed from the extreme southeastern part of Virginia, southward in the region east and south of the Appalachian Mountains to northern Florida, through the Gulf States to Texas and up the valley of the Mississippi River to Iowa and southern and western Illinois. Of the type of the Group, *C. viridis*, there are probably more individuals now growing than of any other Hawthorn in the world, for it is pretty generally distributed over the whole region in which species of this Group grow, and although rare in the Atlantic and east Gulf States it covers with dense thickets great areas of swampy ground in western Louisiana, the coast region of eastern Texas, southern Arkansas, and all the region adjacent to the Mississippi to the northern limits of its range. Its pale gray bark nearly as close as that of a Hornbeam and scarlet or orange fruit mostly persistent on the branches during the winter, and from an eighth to a quarter of an inch in diameter, make it an easy species to recognize. The large plants of *Crataegus nitida*, raised from seed gathered in 1880 on the bottom lands of the Mississippi in the neighborhood of East St. Louis, and growing in the

old *Crataegus* collection near the Forest Hills gate, are as handsome as any Thorns in the collection. They are trees some twenty feet high with horizontally spreading branches forming a rather flat-topped head broader than the height of the tree. The leaves are thick and coriaceous, very dark green and lustrous on the upper surface, from two to three inches long and from an inch to an inch and a half wide, and in the autumn turn bright scarlet and orange. The flowers are produced in broad, many-flowered clusters which cover the branches from end to end, and are about three-quarters of an inch in diameter with from fifteen to twenty stamens and yellow anthers. The fruit, which does not ripen until the end of October, hangs in drooping clusters, and is dull red, thickly covered with a glaucous bloom, and occasionally nearly half an inch in length. *Crataegus nitida* must find a place among the six most beautiful Hawthorns which can be grown in Massachusetts.

Crataegus punctata is the type of the Group which takes its name from this tree, and is represented by at least a dozen species. Of these five species are found in the region east of the Mississippi River and the others in the territory extending from Missouri to eastern Texas. The species are distinguished by short-stalked leaves wedge-shaped at the base, with prominent veins, flowers of medium size in wide, many-flowered clusters, with twenty or in the case of two species ten stamens, and yellow or rose-colored anthers, and by short-oblong to subglobose often punctate fruit. The type of the Group, *C. punctata*, is a tree often thirty feet high with a trunk occasionally a foot in diameter, and stout horizontally spreading branches forming usually a round-topped or flat head occasionally fifty feet across. The flowers are about three-quarters of an inch in diameter and are arranged in many-flowered hairy clusters; there are twenty stamens, and on some trees the anthers are rose-colored, and on others they are yellow. The fruit, which ripens and falls in October, is short-oblong to subglobose, flattened at the ends, marked by numerous white dots, up to an inch in length and dull red on some trees and bright yellow on others, the trees with yellow anthers producing the yellow fruit. *Crataegus punctata* is one of the most distinct and generally distributed Thorns of the northeastern states, although it has not been found in eastern Massachusetts. In Canada it is common from the valley of the Chateaugay River in Quebec to that of the Detroit River in Ontario, and westward in the United States to central Iowa, the only place where it has been found west of the Mississippi River; it is very common in the middle states, ranging southward along the Appalachian Mountains, and ascending in North Carolina and Tennessee to altitudes of nearly six thousand feet. Although one of the most distinct and perhaps more easily recognized at a glance than any other American Hawthorn, it escaped the attention of early American botanists or was entirely misunderstood by them, and was first distinguished by an Austrian botanist from plants cultivated in Europe. There are a number of plants on the southern slope of the Bussey Hill overlook.

Crataegus succulenta. This is a native of a large and widely distributed group now called the *Macracanthae*, although until recently

known as the Tomentosae, so-called from one of its best known species, *C. tomentosa*. This Group is well distinguished from the others by the deep longitudinal pits on the inner faces of the nutlets of the fruit, which are found also but in a much less developed form in two other North American groups. Ten species of the Macracanthae are treated as trees in the new edition of Sargent's Manual of the Trees of North America, and there are many species which are shrubs. The Group is chiefly northern, perhaps the greatest number of its representatives being in Quebec, Ontario and Michigan. Plants of this Group, however, are common in all the northern states east of the Mississippi River and range southward among the mountains to northern Georgia and central Alabama. West of the Mississippi, where they are found from central Iowa to Kansas and eastern Texas, they are much less abundant, growing usually as small shrubs. *Crataegus succulenta* is a tree occasionally twenty feet high with a slender stem and stout ascending branches forming a broad irregular head. The flowers, which are about two-thirds of an inch in diameter, hang on long stalks in broad, lax, many-flowered, villose clusters; the stamens are usually twenty, occasionally fifteen, and the anthers are deep rose color. The fruit, which is arranged in broad, loose, many-fruited, drooping clusters, is globose, about two-thirds of an inch in diameter, bright scarlet, very lustrous, and soft and pulpy when fully ripe toward the end of October when the plants are objects of such great beauty that *Crataegus succulenta* must also be included among the six handsomest American Hawthorns for Massachusetts. This is another of the trees which was entirely overlooked by American botanists and was first distinguished in Europe from cultivated plants. Another instance of the slight attention formerly paid to American Hawthorns is found in another species of the Macranthae Group named *C. prunifolia*, which has been cultivated in Europe for at least one hundred and twenty-five years and which until recently has been considered a form of the Cockspur Thorn belonging to an entirely different group without the pits in the inner faces of the nutlets which are prominent in those of *C. prunifolia*. Although certainly American and not rare in European gardens, this handsome plant has not been found in recent years growing wild in this country. There are two good specimens in the old *Crataegus* collection near the Forest Hills Gate, and one of these is covered with flowers.

Rosa Ecae. This native of Afghanistan and Turkestan was again this spring the first Rose in the Arboretum to bloom. Among the yellow-flowered Roses which are hardy in this climate only the flowers of *R. Hugonis* are more beautiful. It is a hardier and more vigorous plant, however, than *R. Hugonis*, of better habit and with handsomer dark green, very lustrous and fragrant leaves. The flowers are of the same size as those of *R. Hugonis*, but a little paler in color and less thickly set on the branches but more fragrant. The plant of *R. Ecae* in the Shrub Collection is now about eight feet high and five or six feet through, and has not before this year been so covered with flowers. *Rosa Ecae* as it grows in the Arboretum is one of the most beautiful of all the species of Roses, but it is doubtful if it can be found in any American nursery.

Early Locusts. *Robinia Kelseyi* and *R. Michauxii* are already in flower in the collection of these plants on the Meadow Road. *R. Kelseyi*, discovered a few years ago on the southern Appalachian Mountains, is a slender-stemmed shrub from six to eleven feet high with lighter-colored and smaller flowers than those of the better known Rose Acacia (*Robinia hispida*). From that plant it differs, too, in the absence of glandular hairs on the branches and of the abundant root shoots which often make that plant such a troublesome weed. *Robinia Slavini* which is believed to be a hybrid of *R. Kelseyi* and *R. pseudo-acacia*, appeared a few years ago in the nursery of the Rochester, New York, Park Department and promises to be a handsome flowering tree. It is growing in the Arboretum but has not yet flowered here. *R. Michauxii* has the glandular hairs and the rose-colored flowers of *R. hispida*, but the flowers are rather smaller and the stems are three or four feet tall. Unlike *R. hispida*, which is not known to have ever produced fruit, *R. Michauxii* bears abundant crops of glandular pods. Although discovered by the French botanist Michaux in the foothill region of the southern mountains one hundred and twenty five years ago and known for many years in a few old northern gardens, the true character of this handsome plant has only recently been recognized.

Xanthoceras sorbifolia. This Chinese shrub or small tree has flowered unusually well in the Shrub Collection this year. It has dark green leaves and erect and spreading racemes of white flowers marked with red at the base of the petals, and fruit somewhat like that of a Buckeye. This interesting plant is related to the so-called Texas Buckeye, *Ungnadia*, and to *Koelreuteria*, the yellow-flowered Chinese tree which blooms here at midsummer. It is very hardy but has a way of dying without any apparent cause, and for this reason it is not as often cultivated as it might be for when it flowers as it has here this year few shrubs are more beautiful.

Symplocos paniculata, or as it is often called, *S. crataegoides*, is a native of Japan, China and the Himalayas. The form which is cultivated here is Japanese, and is a tall broad shrub, with large, obovate, dark green deciduous leaves, small white flowers in abundant, compact panicles which open after the leaves are nearly full grown and are followed in the autumn by bright blue fruits about one-third of an inch in diameter. The plants are attractive when in flower; the fruit of a color unusual among that of hardy shrubs is the most interesting thing about it. Although introduced into the United States by the Parsons Nursery at Flushing, New York, nearly sixty years ago this beautiful shrub is still rare and difficult to obtain.

Two native Viburnums. The Arboretum owes much of its late spring and early summer beauty to the two tree Viburnums of the northern states, *V. Lentago* and *V. prunifolium*, which have been generally planted, especially the former, by many of the drives and in many of the border shrubberies. These plants are now covered with flowers, and are in splendid condition this year, showing what care and cultivation can do for our commonest native plants. They show, too, that the Viburnums of eastern North America surpass in beauty and usefulness as American garden plants the Viburnums of all other parts of the world.