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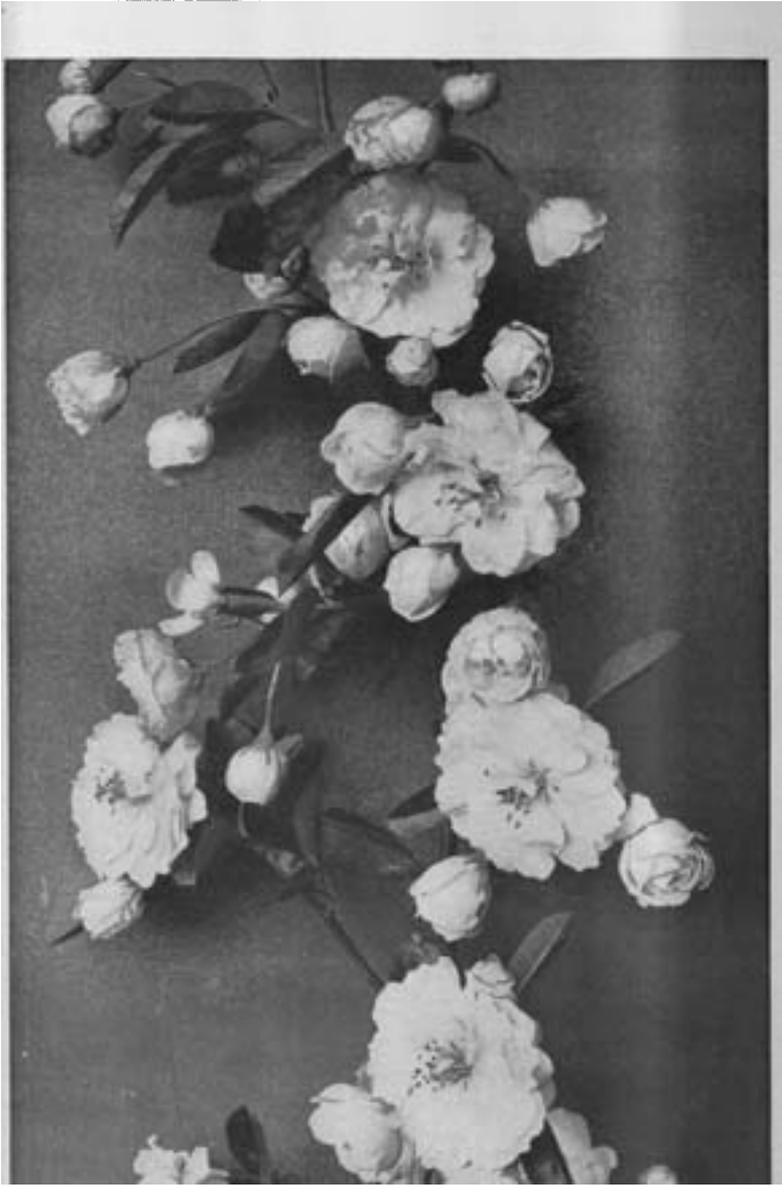
**American Crabapples.** In the Arboretum, following the Cherries, the Flowering Crabapples are the plants of dominant popular interest, overlapping and connecting late cherry blossom and lilac times. They passed through the winter in good condition and during the last two weeks have been conspicuous by their abundance of beautiful flowers. The first trees to blossom opened their flowers about May 3rd. These earliest flowering apples belong to several species and named forms or hybrids that originated in the Old World. They have a season of inflorescence coincident with that of most of the varieties of our cultivated common Apple, the *Malus pumila* of our orchards, a species now found naturalized in pastures and woods although a native of Europe and western Asia. The many kinds of common Apple show a marked variation in time of flowering. As a rule those with early ripening fruits, like "Early Harvest", "Astrachan", etc., open their flowers with the earliest of the ornamental Japanese and Chinese Crabapples, while some varieties that mature their fruit late in the season correspond in flowering time with the later, showy flowering species from the Orient. Noticeably later flowering than the Crabapples of the Old World are those species which are indigenous to eastern and central North America. This is a group which cannot be separated by any tangible differences in aspect or foliage recognizable by the casual observer, and yet is so distinct botanically that at a glance the botanist is usually able to pick out trees of American origin, even without seeing the fruit whose structure, the core being free at the apex, is quite distinct from that of all other species.

By following the proper procedure, as outlined by Professor Sax in the last Bulletin, the Old World and the New World species may be, and have been, hybridized with some very interesting results. But the act of bringing these species together or in close proximity has allowed Nature to develop an intermixture without help or interference by man. While some are already known, we are yet on the threshold of these foreign and native mixtures and a century hence there is certain to

have been developed races of trees of horticultural interest very different from those we know at the present day.

The name "Crabapple" has come to be associated, in the average mind, with trees bearing small fruit, but some of our American species produce fruits three inches in diameter. These fruits have sometimes been used in making preserves, jellies, or cider, but many are astringent and are considered rather unpalatable and of poor quality when judged with regard to their eating or culinary purposes. Undoubtedly they will be greatly improved in future years when they will have become mixed with the best fruiting types of the Old World species now in cultivation. At the present time they are chiefly valued and cultivated for their usually pink or rosy-colored, deliciously fragrant flowers. There are a number of species in cultivation, all characterized by having pink, fragrant flowers, and fruits which often have a sticky or waxy covering and give off a strong, sweet, aromatic fragrance when fully mature in the Autumn. Not one of these species of eastern North American Crabapples is found native within the limits of the New England States, but they may be found from western New York southward to Florida and westward to Nebraska, Iowa, Kansas and eastern Texas. All of the wild apple trees found in our New England woods and pastures and along our waysides are escapes from long cultivated orchards of varieties of *Malus pumila*, which has also been known as *Malus Malus*. Linnaeus placed Apples and Pears in the genus *Pyrus* but in the Arboretum that generic name is now restricted to the Pears, while his *Pyrus Malus* (the Apple) became *Malus Malus* in some botanical lists.

By the action of man in introducing foreigners or outsiders into our flora, the future holds a prospect of a wonderful tangle of curious Apples and Crabapples whose parentage it will not be easy to trace. Already we have in cultivation interesting hybrids of the Iowa Crabapple, *Malus ioensis*, and the common cultivated Apple. One of the best known of these is the Soulard Crabapple, *Malus Soulardi*, which shows considerable variation but is usually characterized by having dense clusters of short pedicelled flowers, pink and white in color, which give off a pleasant, sweet, violet-like fragrance. It has been found in various states in the Mississippi Valley, from Minnesota to Texas, and is usually regarded as of the hybrid origin already suggested. The fruits are sweet-scented and often two inches in diameter. While *Malus ioensis* is interesting in itself and through the supposed hybrids which have been developed from it, its great fame rests on the fact that it is the mother of the beautiful semi-double or double flowered variation known as the Bechtel Crab, *Malus ioensis plena*, which has also been described in horticultural literature and listed in catalogues as *Malus* (or *Pyrus*) *angustifolia flore pleno*. In the English "Gardeners' Chronicle" it was called a Pear, under the synonym *Pyrus coronaria flore pleno*. *Pyrus coronaria* formerly was made to include a number of what are now considered distinct species of American Crabapples. This double-flowered form of *Malus ioensis* is said to have been found nearly 100 years ago, or before 1840, but it is not known to have been formally introduced into general cultivation until 1888, and was not brought into the Arnold Arboretum collection until



*MALUS IOENSIS PLENA*

Photographed in the Arnold Arboretum, May 26, 1931,  
by Professor Oakes Ames

1897. It did not originate with Bechtel but derives that name from the fact that it was first extensively introduced to the nursery trade and general cultivation by E. A. Bechtel's Sons, Staunton, Illinois.

Questions regarding this plant are so often asked that the following note written by W. C. Egan, of Illinois, for the "Garden Magazine", June, 1913 should be of interest:- "In 1898 I wrote to Mr. Theo. Bechtel, of Staunton, Ill., for particulars regarding its history and he kindly replied as follows: 'Sometime in the 'seventies, when my father, the late E. A. Bechtel, was conducting a little nursery four miles west of Staunton, Ill., we used to hear the most wonderful tales of a flowering tree, or clump of trees, situated some six or eight miles northeast of us in what was known as 'Upper West Prairie', but as the wild tales were too much to be believed, coming from a class of old settlers whom we knew to be given to exaggeration, we paid no attention to the matter until about ten years ago, when we made a trip during the blooming season and saw what a valuable thing had stood there, as near as we could find out from old settlers, about forty years. We at once made arrangements with Mr. Woodbridge, in whose pasture the original clump of trees were standing, to propagate and introduce them to the trade. As the trees were identical with the single-flowered wild crab growing around and in the same clump, we had to mark these during blossoming time, so as not to make any mistake in procuring buds or cions. The indications all go to show that it is an accidental sport from the single flowering crab.'"

Thus this product of Nature, uninfluenced by human agency, producing beautiful little double rose-like, pink-colored, violet-scented, flowers, developed from the single normal five-petaled type, and was preserved from possible destruction by fire, animals or the axe. The doubling of the flowers is at the expense of the numerous stamens which become lessened by becoming petaloid. The doubling is not so complete as to replace all the stamens and, occasionally, on this tree with semi-double flowers, small fruits may be found.

As has already been stated, a few years ago several of our Eastern American Crabapples were indiscriminately listed under the single name of *Malus (Pyrus) coronaria*. Comparatively recent studies have recognized a number of distinct species in this group and these have been named and must eventually become more or less familiar in our nurseries and gardens. *Malus coronaria* still remains, in a restricted sense, as a species, but it is probable that for some time purchasers may get some other plants under this name. This species has a strong resemblance to *Malus ioensis*, differing chiefly in having smoother leaves and somewhat oblate or depressed globose fruit, whereas the fruit of the Iowa Crabapple is oval or broadly ellipsoid. It is an interesting fact that in about 1900 a semi-double flowered form of this species was found near Waukegan, Illinois. It has been named *Malus coronaria Charlottae*. Its blossoms are not so double and therefore not so miniature rose-like as Bechtel's Crabapple. The flowers are paler, expand slightly wider, and are very pale pink or almost white when fully opened, although the unopened buds are of an attractive pink color. Most persons who have compared them agree that it does not equal Bechtel's Crabapple in beauty or desirability. J. G. J.