a quarter in diameter. On some of the trees it is bright yellow, on others bright red and on others red and yellow. There is less difference in the flowers, but the leaves vary on the different plants in shape and in the absence or presence of a covering of hairs. Whenever the seeds of Crabapples are gathered from trees in collections great or small there will be new hybrids; some of these will be distinct and beautiful like the hybrids of the central Asiatic *Malus Niedwetzkyana* which have appeared in European gardens and are now cultivated under the name of *Malus purpurea*, and the persons who raise such new hybrids will naturally want to have them distinguished by name. The number of varieties of such hybrids has no limit, and as the same hybrid may appear in different countries at about the same time and receive different names students of these trees have the promise of even greater trouble in the future than they have had in the past when they had the offspring of only a few species to deal with. As has been often stated in these Bulletins there is but one way to propagate Crabapples if types of the species, varieties and hybrids are wanted and that is by grafting. It is cheaper to raise seedlings, and seedlings are often sold in American nurseries as species. They are often ornamental but rarely are true to the name under which they are sold.

The first Crabapple to open its flowers this year is again the Manchurian, north China and Korean form of *Malus baccata* (var. *mandshurica*) which is the eastern form of the better known Siberian Crabapple (*Malus baccata*) which has been cultivated in Europe for more than a century and has been the parent of many hybrids. The Manchurian form as it grows in the Arboretum is a tree some fifteen feet tall and broad. The flowers, which are produced in profusion, are pure white, more than an inch across and more fragrant than those of any other Asiatic Crabapple. The fruit is round, yellow or red, and not larger than a large pea. A form of this tree, var. *Jackii*, brought from Korea by Professor Jack in 1905, is distinguished by its larger dark scarlet fruit. The Manchurian Crabapple, which is still rare in this country, should, for the fragrance of its flowers alone find a place in all collections. Almost as early is *Malus robusta*, which is believed to be a hybrid between *Malus baccata* and *M. prunifolia*, a north China plant. This tree was raised here in the early days of the Arboretum from the seeds of *Malus baccata* sent from the Botanic Garden at Petrograd. It is covered every spring with large, pure white, or rarely greenish, fragrant flowers which are rather more than an inch in diameter and larger than those of the other Asiatic Crabs. The fruit differs somewhat in size on different trees and is subglobose and dull red. In good soil and with sufficient space for development this Crab will grow into a large tree, with a broad, round-topped head of spreading, often slightly pendulous branches. This is the handsomest of the white-flowered Crabs and one of the most beautiful of early spring-flowering trees which can be safely planted in this part of the country. The largest specimens in the Arboretum are in the old Apple Collection on the left-hand side of the Forest Hills Road.

Malus micromalus, another early-flowering Crab, is one of the least known of these trees. It was first sent to Europe by Von Siebold in 1856

under the name of "Kaido," a name which in Japan belongs to *M. Halliana*. In Japan *M. micromalus* is rare and known only in gardens, and by Japanese botanists it is believed to have been introduced into their country from China and to be a hybrid possibly of *M. baccata* and *M. spectabilis*. In habit this Crab is more pyramidal than that of the other species and hybrids, and this habit makes the plants conspicuous in the collection. They are covered this year with their small pale pink, delicate flowers which will be followed by light yellow fruit often rose color on one cheek. The largest Arboretum specimen is in the collection at the eastern base of Peter's Hill.

Malus theifera, which is one of Wilson's discoveries in western China, promises to be a good addition to the list of early flowering Crabs. Its long, upright, and spreading, rather zigzag branches make it easy to distinguish at any season of the year; they are continuously studded with short spur-like laterals which bear numerous clusters of flowers rose-red in the bud and pale or almost white when fully expanded. In central China the peasants collect the leaves and prepare from them the palatable beverage which they call "red tea." *Malus theifera* has now flowered for several years in the Arboretum, the largest plant being in the Peter's Hill collection where it is now a conspicuous object. In the color of its rose-red flowers drooping on slender stalks *Malus Halliana* with its variety *Parkmanii*, which has double flowers, is perhaps the most distinct of all Crabapples. It is a small tree with erect and spreading branches which form a narrow, vase-like head, and dark green leaves; the globose reddish fruit is not larger than a small pea. It is well known in Massachusetts gardens, having been sent by George R. Hall, in 1862, to Boston, where it was first planted in Mr. Francis Parkman's garden on the shores of Jamaica Pond. The Parkman Crab is a favorite in Japanese gardens where it is known as "Kaido" and was no doubt imported into Japan from China where the single-flowered form was found by Wilson. Whatever its origin the Parkman Crab is one of the most distinct and beautiful of the small trees which are now flowering here in the Arboretum, although normally the flowers do not open before the 10th of May.

Malus floribunda, by many persons considered the most beautiful of Crabapples, was introduced into Europe by Von Siebold in 1853 from Nagasaki in southern Japan. The place where this little tree grows wild still remains unknown, and by some persons it has been considered a hybrid of Chinese origin; more probably, however, it originated on one of the high mountains of Kyushu. Japanese botanists and nurserymen confuse it with the Parkman Crab, and Wilson did not find it in Japanese gardens. It is a broad, round-topped tree-like shrub sometimes twenty-five feet tall, with stout branches and slender, arching and pendant branchlets. The clusters of flowers are white when fully expanded and are rose-red in the bud, and as they open in succession the two colors make a handsome contrast. The fruit is about the size of a pea, yellowish or yellowish-brown. On some plants it falls in early autumn and on others it remains on the branches during the winter or until devoured by birds who find it one of their most palatable winter foods. *Malus floribunda* rarely fails to produce abundant crops of flow-

1921. "Malus micromalus." *Bulletin of popular information - Arnold Arboretum, Harvard University* 7(2), 6–7. <https://doi.org/10.5962/p.321086>.

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