Crabapples. With the exception of Prunus, including the Cherries and Plums, Malus, the generic term of the Apples, is the most widely distributed of the arborescent genera of the Rose Family which extends across the northern hemisphere. Many of these trees will be in bloom this week. The Arboretum collection is a large one and much attention has been paid to it during the last forty years. The flowers of these trees make one of the principal spectacular displays of the year in the Arboretum, and only that made by the Lilacs attracts a larger number of visitors. The only drawback to these plants is their tendency to hybridize. Most of the plants are generally supposed to be species, and none of the species raised from seeds gathered from plants in a large collection like that in the Arboretum resemble their parents, although it is impossible to determine whether the change in the seedlings is due to an earlier cross in the Arboretum plant or to the influence of one of its Arboretum neighbors. The collection here is one of the largest in cultivation, but only five plants have been seen growing with every evidence of species as seeds collected from these wild plants do not differ from those of their parents. These five wild plants in the collection are Malus baccata from eastern Siberia, its variety mandshurica from Manchuria, Korea and northern Japan, M. Sargentii and M. Sieboldii var. arborescens from Japan, and M. prunifolia var. rinki, and M. theifera from western China.

Malus baccata, which is one of the earliest Crabapples to flower, is a common large wide-spreading tree with white flowers and small green or reddish fruit, and although perfectly hardy is one of the least
desirable of the Asiatic Crabapples as a garden plant. It reached western Europe in 1776 and was cultivated as early as 1811 in the Elgin Botanic Garden established by Dr. David Hosack near New York in 1801. A more valuable garden plant is the eastern variety mandshurica which is the earliest Crabapple to flower in this region and which has been covered for several days with its pure white or greenish flowers more fragrant than those of any other Crabapple. It is growing in the group at the base of Bussey Hill where it is a dense bushy tree about sixteen feet tall and nearly as broad. The abundant fruit is round, yellowish, and not much larger than a pea.

_Malus Sargentii_, which was discovered by Professor Sargent on the borders of a salt marsh in the neighborhood of Muroran in northern Japan, is a prostrate shrub with wide-spreading rigid branches which lie flat on the ground. The flowers are borne in umbel-like clusters, are saucer-shaped, round and of the purest white, and are followed by masses of wine-colored fruits which remain on the plant until spring unless eaten by the birds. The plants usually sold in this country as _M. Sargentii_ are tree-like in habit with a well-formed stem, short spreading branches and small flowers tinged with pink, and are probably hybrids; and it is possible that the original plants in the Arboretum are the only ones in the United States.

_Malus Sieboldii_ was introduced from the gardens of Japan into Europe by Von Siebold in 1853. It is a low dense shrub of spreading habit, with leaves on vigorous branchlets, three-lobed, small flowers tinged with rose in color and small yellow fruits. It is really a dwarf form of a tree which is common on the Korean Island of Quelpaert, and on the mountains of central and northern Japan and is known as the variety _arborescens_. The bushy form was sent in 1876 to the Arboretum from France and the tree form was raised from seed collected in Japan by Professor Sargent in 1892. It is a tree often thirty feet or more tall with ascending, wide-spreading branches, white flowers and minute fruit which on some individuals is red and on others yellow. Although the flowers are small, they are produced in immense quantities, and this species has the advantage of flowering later than the other Asiatic Crabapples.

_Malus prunifolia var. rinki_. The wild type of this apple was discovered by Wilson in central China in 1907 and from seeds sent to the Arboretum plants were raised and have been flowering during the last five years. The fruit of this wild apple is longer than broad, yellow with a reddish cheek or entirely red; it is not depressed at the stem as in the common apple. This is the wild parent of the apples long cultivated in the Orient, and as it thrives in the hot moist valleys of central China as well as in the cold region in the neighborhood of Peking and in northern Korea it may prove valuable to pomologists in breeding a new race of apples. It was this apple which has been cultivated in northern China and it was early introduced into Japan where it furnished the apple of commerce until it was replaced in the late 70s by the introduction of American apples.
**Malus theifera** when in flower is the handsomest of the wild Asiatic Crabapples. It is remarkable in habit, with upright, spreading, rather zigzag branches which are densely studded with short spurs which bear numerous clusters of flowers white in the bud, becoming pale and almost white when fully expanded. The specific name is due to the fact that the peasants of central China collect the leaves from which they prepare a palatable beverage called "red tea." This is a distinct addition to the Crabapples of recent introduction and should be better known.

Lack of space in this Bulletin prevents a discussion of what little is known of the large number of Asiatic Crabapples which are supposed to be hybrids, and this subject will be taken up in a later Bulletin. The handsomest and best known of these are *Malus spectabilis*, *M. floribunda*, *M. arnoldiana*, and *M. micromalus*, which are already in flower. Practically nothing is known about these plants beyond the fact that they are among the most beautiful of all additions to our northern gardens.

**Rhododendron venustum**, which is more generally cultivated under the name of *R. Jacksonii*, has been an inhabitant of the Arboretum since 1908. It has proved perfectly hardy and is now covered with its pink flowers. It is a hybrid of *R. arboresum* and *R. caucasicum*, and was raised in England by William Smith at Kingston in 1829, where it blooms from March to May. By English writers on Rhododendrons it is considered one of the most valuable early spring-flowering Rhododendrons for all gardens. It is perfectly hardy and will grow in an exposed position in the poorest soil; it is easily and cheaply raised from layers and probably when better known will be largely used in this country for the edging of beds of broad-leaved evergreen plants. There is in cultivation in England a white-flowered form which originated in Holland, but it is still rare in British gardens and is not yet in the Arboretum.

**Early Azaleas.** Two plants of Rhododendron (Azalea) Schlippenbachii have been in bloom during the last two or three days on the upper side of Azalea Path. This Azalea grows on exposed grass-covered cliffs on the east coast of Korea with branches clinging to the ground, but far northward in Korea it is sometimes a shrub twelve or fifteen feet high growing under trees or in open dense forests. It grows further northward than any other Asiatic Azalea and only the Rhodora grows further north. The flowers of this Korean Azalea are pale pink marked at the upper base of the corolla with dark spots, and are about three inches in diameter. There can be little doubt of the hardiness of this plant, for in Korea it grows to its largest size where the winter temperature often falls to 30° below zero Fahrenheit, and in the Arboretum it has not been injured by a low temperature. The two largest plants in the Arboretum were raised from seeds collected by Professor Jack in Korea in 1893, but the Arboretum was not the first institution to introduce this plant into European and American gardens, a single plant having been obtained by J. H. Veitch in a Japanese garden in 1892 and sent to England. From this plant were propagated two or three large plants now in this country, one in New Jersey being said
to be already fifteen feet in diameter, and occasionally plants have come to the United States at different times from the Yokohama Nursery Company. Mr. Wilson during his journey in Korea in 1917 secured a large quantity of seeds which have been widely distributed by the Arboretum in the United States and Europe, and have produced several thousand plants; and there is every reason to hope therefore that this, the loveliest of the hardy Asiatic Azaleas, will become a common inhabitant of northern gardens. It is rather difficult, however, to transplant when young and it has been found at the Arboretum that the best way to manage it is to pot one-year-old seedlings and grow them in pots for a year before transplanting them to the open ground.

Another Korean Azalea is also in flower, or just opening its flowers. This is *Rhododendron (Azalea) poukhaneense*, which was also introduced into the Arboretum from seed collected by Mr. Jack in Korea in 1892. This is a common plant on the bare mountain slopes in the neighborhood of Seoul. As it grows here this Azalea is a low, wide, compact bush which until this year has never failed to cover itself with large, rose-pink flowers which have a strong and pleasant fragrance. It is much liked in the Arboretum but some persons object to the tint of its rose-pink flowers. During the past winter for the first time a good many of the flower-buds have been killed, probably by the extremely cold night in January which did damage to the flower-buds of several plants. There is a large bed of the original plants of this Azalea on the upper side of Azalea Path which has recently been increased by seedlings, which are not difficult to raise. The plants ripen good crops of seed and there is no reason why it should not become more common in gardens than it is at present.

Double-flowered Cherry-trees. A few of these Japanese trees are flowering well; the largest and handsomest of them is the specimen of *Prunus Lannesiana* form ochichima now growing in the Peter’s Hill Nursery, which was received from the Späth Nursery at Berlin in 1911. This tree is now very beautiful with its large pale pink flowers. There are smaller plants of this form among the Cherries on the right hand side of the Forest Hills Road, where too are blooming three double-flowered forms of the Japanese *Prunus serrulata* var. *sachalinensis* which are among the most beautiful and satisfactory of all these trees which can be grown in Massachusetts. The form *fugenso*, now often cultivated under the name of James H. Veitch, is one of the most beautiful of all double-flowered Cherry-trees. The flowers are rose-pink and are distinguished by two leaf-like carpels. Another form, *alba-rosea*, also with two leaf-like carpels, has flowers pink in the bud, becoming white as they open. The third is the form *sekiyama*; this blooms later than many of the other forms and has large double, rich rose-colored flowers. Mr. Wilson, who has had the best possible opportunity to see the double-flowered Cherry-trees growing in Japan, considers this the handsomest of them all. A large collection of these double-flowered Cherry-trees was planted two years ago on the southern slope of Bussey Hill, but the plants are still small and only a few of them are showing occasional flowers this year.