Asiatic Crabapples. Some of the early flowering species and varieties of these trees are perhaps the most conspicuous objects in the Arboretum this week. For many years much attention has been devoted here to these trees and the collection, which is as nearly complete as it has been possible to make it, is certainly one of the best in the world. The species are all represented here and it is not probable that there are more to discover although there is always a possibility that an undescribed species is still hidden in some unvisited valley in southern Kansu or in some of the other remote provinces of western China. New hybrids are much more probable. Indeed, there is danger that there may be too many of them, for these plants are so susceptible to pollen from their neighbors that it is useless to plant the seeds of any of the Arboretum trees with the expectation of obtaining seedlings similar to the parent; and as nurserymen and amateurs are now everywhere planting Crabapple-seeds, there will in a few years be as many hybrids of unknown origin as there are now new Irises and other garden plants. This will mean troublesome and usually unsatisfactory work for the conscientious dendrologist anxious to throw light on the origin of cultivated trees.

The flowering of the Crabapples makes one of the chief spectacular displays of the year here and of these displays only that of the Lilacs attracts a larger number of visitors. Many of the plants are well covered with buds; a few will flower sparingly or not at all this year but the general display will be an average one, although not as good certainly as last year when all the trees were covered with flowers. The collection is arranged on the left hand side of the Forest Hills Road and at
the eastern base of Peter's Hill, a short distance from the entrance at the corner of South and Bussey Streets. The oldest and largest plants are by the Forests Hills Road but there is a larger number of species and varieties on Peter's Hill which should be visited by everyone interested in these plants. There is in one of these Bulletins only space to call attention to a few of the most interesting of these plants. The earliest of them to flower,

**Malus baccata mandshurica**, is a native of Manchuria, Korea and northern Japan, and the eastern form of the better known *Malus baccata*, the Siberian Crabapple, which reached Europe more than a century ago and for a long time was one of the two Asiatic Crabapples known in western gardens. The Manchurian form as it grows in the Arboretum is a tree fifteen or eighteen feet tall and broad; the flowers, which are produced in profusion, are pure white, rather 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. The Manchurian Crabapple, which is still rare in this country, should for the fragrance of the flowers alone find a place in all collections.

**Malus robusta.** This is another of the early flowering Crabapples and is believed to be a hybrid between *M. baccata* and *M. prunifolia*. Planted in good soil and allowed sufficient room for development it will grow into a large shapely tree with a broad, round-topped, irregular head of spreading often drooping branches. The flowers are fragrant and larger than those of the other Asiatic Crabapples with pure white or occasionally greenish petals; and the fruit, which varies in size on different plants, is globose and dull red.

**Malus Halliana,** with its form Parkmanii which has double flowers, is perhaps the most distinct of all Crabapples in the color of its rose-red flowers. It is a shapely small tree, with erect and spreading stems forming a narrow vase-like head, and dark green leaves. The globose reddish fruit is not larger than a small pea. The Parkman Crab was among the first Japanese trees to reach this country direct, having been sent by Dr. George R. Hall in 1861 to Boston where it was first planted in Mr. Francis Parkman's garden on the shores of Jamaica Pond. This Crabapple is a favorite in Japanese gardens where it is known as "Kaido," but has not been found in a wild state. Whatever its origin the Parkman Crab is one of the most distinct and beautiful of the small trees which flower here during the early days of May.

**Malus theifera,** from central and western China, is closely related to Hall's Crab. It is one of Wilson's introductions through seeds sent to Veitch in 1900 and in 1907 to the Arboretum where it is now from twelve to fourteen feet high. It has upright, spreading, rather zigzag branches which are densely studded with short spurs which bear numerous clusters of flowers rose-red in the bud, becoming pale and almost white when fully expanded. In central China the peasants collect the leaves and from them prepare a palatable beverage which they call red tea. From this fact the specific name is derived.
Malus floribunda, by many persons considered the most beautiful of Crabapples, was introduced into Holland by Von Siebold in 1853 from Nagasaki, Japan. The place where it grows wild still remains unknown, although possibly it is one of the high mountains of Kyushu. Japanese botanists and nurserymen confuse it with the Parkman Crab, and Wilson has not seen it in Japanese gardens. It is a broad, round-topped, treelike shrub sometimes twenty-five feet tall with stout branches and slender arching and pendent branchlets. The clustered flowers are white when fully expanded, rose-red in the bud, and as they open in succession the two colors make a beautiful contrast. The fruit is about the size of a pea, yellowish or yellowish brown; from some plants it falls in the early autumn, on others it remains on the branches during the winter or until devoured by birds who are particularly fond of it. Several plants with persistent fruit are growing close to the Administration Building in the Arboretum, and during the winter are filled with numerous species of birds, including pheasants who are fond of these Crabapples. A hybrid between M. floribunda and perhaps M. robusta appeared in the Arboretum in 1883 among a lot of seedlings of M. floribunda and has been named M. Arnoldiana. It has the habit and abundant flowers of M. floribunda, but the flowers and fruit are nearly twice as large. It is a handsomer plant than M. floribunda and one of the most beautiful of the Crabapples in the Arboretum.

Malus Sieboldii is another of the species introduced in 1853 from the gardens of Japan into Europe by Von Siebold. It is a low, dense shrub of spreading habit with the leaves on vigorous branchlets three-lobed, small flowers white tinged with rose in color, and small yellow fruits. Von Siebold’s Crab is really a dwarf form of a species common on the Korean Island of Quelpaert, and on the mountains of central Japan and Hokkaido, to which the name var. arborescens has been given. This is a tree often thirty feet or more tall, with ascending, wide-spread branches, twiggy branchlets and minute fruit yellow on some and red on other individuals. 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 Sargentii from salt marshes in the neighborhood of Muroran in northern Japan, where it was discovered by Professor Sargent in 1892, has qualities which give it a field of usefulness peculiarly its own. This species is a dwarf with rigid and spreading branches, the lower branches flat on the ground; it is well suited for covering slopes and banks. The flowers are in umbel-like clusters, saucer-shaped, round and of the purest white, and are followed by masses of wine-colored fruit which is covered by a slight bloom and unless eaten by birds remains on the plants well into the spring.

Malus prunifolia var. rinki is the wild parent discovered by Wilson in western China of the race of apples long cultivated in the Orient, and since it fruits freely in the hot moist valleys of central China as well as in the cold regions of northern Korea it may prove of value to pomologists in breeding new races of hardy Apple-trees.
Other species and hybrids well worth the attention of plant lovers who find pleasure in surrounding themselves with hardy trees and shrubs are the Japanese *Malus micromalus*, the Chinese *M. torimoides* and *M. transitoria*, and *Malus sublobata*, a hybrid of uncertain origin, which is now the tallest of the Crabapples in the collection, and promises to become a large tree. This hybrid is particularly attractive in the autumn when it is covered with bright yellow fruits.

**Rhododendron Schlippenbachii** opened its first flowers this year on Azalea Path May 5th and earlier than those of any other Azalea in the collection. It is one of the commonest shrubs of Korea and is often the dominant undergrowth in open woods. From Korea it crosses into northeastern Manchuria where it grows on the shores of Possiet Bay; it occurs, too, in two localities in northern Japan. Wilson found it extremely abundant in Korea on the lower slopes of Chirisan and on the Diamond Mountains, which were when he visited this region early in July "a wonderful sight with literally miles and miles of the purest pink from the millions of flowers of this Azalea." In Korea this Azalea on the wind-swept, grass-covered cliffs of the coast grows less than a foot high and is covered with flowers. In the forests of the interior it often grows to a height of fifteen feet and forms a tall and slender or a broad and shapely shrub. The leaves are large for those of an Azalea, being from three and a half inches to four inches long and sometimes nearly three inches wide, and are arranged in whorls of five at the end of the branches. This plant grows further north than any other Azalea with the exception of the North American Rhodora. The thermometer in the region of Diamond Mountains usually registers every winter a temperature of 35° to 40° below zero Fahrenheit. There is therefore no reason why this Azalea should not flourish in the coldest parts of New England. It has flowered now for several years in the Arboretum, and planted in an exposed sunny position has never suffered. Its hardiness and the beauty of its flowers make it one of the most valuable shrubs if not the most valuable, which northeastern North America has obtained from northeastern Asia. The flowers are perhaps more beautiful than those of any other Azalea. The plant and the flower-buds are hardy but young plants grown in frames start to grow so early that if they are transferred to the open ground in the spring the young growth is often killed by frost. It is therefore wise to move them from the nursery to the open ground in the autumn; slightly protected the young plants come safely through the winter and do not start to grow in the open ground until the danger of frost has passed. Even better results are obtained by potting young plants in the autumn, keeping them in a deep frame or pit during the winter and allowing them to finish their year's growth in the pots before they are planted out. The young plants make only one growth during the season and are certainly more difficult to manage than most Azaleas, but this Korean plant is worth a great deal more trouble than it takes to get it started.

**Viburnum Carlesii** is already in bloom in the collection on the Bussey Hill Road. This hardy Korean shrub with white, delightfully fragrant flowers in small, compact clusters, opening from rose-pink buds, always attracts attention and is fast becoming known in American gardens. With the exception of the American Hobble Bush, it is the earliest of the Viburnums to flower.