In the collection of Hawthorns (Crataegus) on the eastern slope of Peter's Hill there are now flowering or soon to flower six hundred and thirty groups, including a few duplicates and a few Old World species. This collection of American Hawthorns is the result of work carried on by the Arboretum during the last fourteen years. During this time most of these plants have been discovered, and many of them have been named and described. They have all been raised from seeds at the Arboretum, and thousands of the young plants have been distributed to cultivators in the United States and Europe. This Crataegus investigation has meant many thousand miles of travel by officers of the Arboretum and by its correspondents and friends, and in the last forty years American Crataegus seeds under thirty-two hundred different numbers have been sown, seeds of widely distributed species collected in different parts of the country having been sown in order to show possible geographical variation in the seedlings. This investigation has brought to light a large number of beautiful hardy trees and shrubs well suited for the decoration of the parks and gardens of cold temperate regions; and the collection on Peter's Hill, already interesting, should before many years have passed be one of the spectacular features of the Arboretum in spring and autumn. American Hawthorns are distributed from Newfoundland and the northern parts of the Province of Quebec to Florida and Texas, and to the Pacific Coast in the northwest. The largest number of species grow together probably on the streams which flow into Lake Ontario both from the north and south, in southern Missouri and in southern Arkansas. The genus has few species in the Rocky Mountains, and these are small in size and not numerous in individuals, and in the northwest there are only a few widely distributed species. Some of the American Hawthorns are trees which in the rich bottom-lands of the Mississippi valley attain a height of thirty or forty, or even fifty, feet with tall straight trunks and widespread branches, many are shrubby in habit, and there is one group (Intricatæ) in which nearly all the species are small shrubs rarely more than three or four feet high. These small shrubs bear large and showy flowers followed, in the case of many of the species, by large, bright colored and abundant fruits. They are valuable and interesting plants therefore for small gardens. In spite of all which has been done at the Arboretum to discover and introduce these plants, the investigation must be considered as not more than fairly begun, for there are still thousands of square miles of territory in North America where Hawthorns grow which have not been explored with reference to these plants.

Next to the Lilacs the most valuable shrubs, perhaps, for northern gardens now in flower are the Bush Honeysuckles, of which there is a large collection in the Arboretum. Many of the large-growing kinds, especially forms of the old-fashioned Tartarian Honeysuckle, are conspicuous objects when covered with flowers, and they have the advantage over the Lilacs of producing in summer and early autumn abundant crops of brilliant fruits. These Honeysuckles and the Lilacs are the most satisfactory shrubs which can be grown in northern regions of extreme cold. There are many hybrid Honeysuckles. One of the handsomest of the hybrids, Lonicera notha, with pale pink flowers, is believed to be the result of a cross of L. tatarica with L. Ruprechtiana of northeastern Asia. There are two large specimens of this plant on the right-hand side of the Bussey Hill Road and opposite the
Lilac Group. There is here also a large plant of *Lonicera bella*, with pale yellow flowers, the result of a cross between *L. tatarica* and *L. Morrowii*; and here, too, are plants of *L. chrysantha* from northeastern Asia now in full bloom, and of *L. orientalis* from southeastern Europe which will not open its flowers for several days.

Other interesting Bush Honeysuckles now to be seen in the Shrub Collection are *Lonicera xylosteoides*, with white flowers, a hybrid between the Tartarian Honeysuckle and *L. Xylosteum*, *L. muendeniensis*, with pale yellow flowers, a hybrid of the Tartarian Honeysuckle with *L. Morrowii* from northeastern Asia, *L. muscaviensis* with pale yellow flowers, a hybrid between *L. Morrowii* and *L. Ruprechtiana*, *L. segetiensis* with white flowers, a hybrid between *L. quinquelocularis* and *L. Xylosteum*, *L. multiflora* with white flowers, a hybrid between *L. micrantha* and *L. Morrowii*, and two beautiful plants with pale bluish foliage and small rose-colored flowers, *L. Korolkowii floribunda*, and a hybrid of *L. Korolkowii* with *L. tatarica* which appeared in the Arboretum a few years ago and known as *L. amoena Arnoldiana*. These are only a very few of the plants now in bloom in this collection, which is one of the most important in the Arboretum.

An examination of the plants of the wild Lilac, *Syringa vulgaris*, is interesting as showing the great improvements which have been made in garden Lilacs since the introduction of this plant into western Europe. The original Lilac, *S. vulgaris*, was found only a few years ago to be a native of the mountains of Bulgaria, and there is now a group of these plants raised from seeds collected from the wild plants in Bulgaria now flowering at the foot of the bank on the left-hand side of the path which passes up through the Lilac Group. These plants are labeled “Syringa vulgaris, mountains of Bulgaria.”

The two northern pink-flowered species of Azalea, or Wild Honeysuckle, as these plants are often called, *Rhododendron canescens* and *R. nudiflorum*, are now in flower. The former is a northern and the latter a more southern plant, and is especially common in the Gulf States from Florida to eastern Texas. The flowers of these plants open before or with the unfolding leaves and in early spring fill the woods with their fragrance. Both species can now be seen on Azalea Path, and there is a good mass of *Azalea canescens* on the right hand side of the Meadow Road in front of the Linden Group.

The flowers of the Highbush Blueberry, *Vaccinium corymbosum*, have never been more abundant or lasted longer in good condition in the Arboretum than this year, and it is desirable to call attention again to this wonderful plant which is beautiful in its flowers, its abundant edible fruits, and the splendid scarlet of its autumn leaves. The Highbush Blueberry, which grows naturally along the borders of swamps and other low places, where it occasionally reaches a height of from twelve to eighteen feet, is easily cultivated in good garden soil. On the plants in the Arboretum, where they have been largely planted, the flowers differ in size and in the time of opening. The individuals vary, too, in the size and quality of their fruit, but all the forms seem equally valuable as garden plants. For its fruit, which is the best of all Blueberry fruit, and for the beauty of its flowers and autumn leaves, this shrub cannot be too often planted. There are several plants on each side of Azalea Path near its entrance from the Bussey Hill Road; and the Highbush Blueberry can also now be seen in many of the Roadside plantations, especially in the piece of swampy ground on the right-hand side of the Meadow Road in the rear of the Horsechestnut Group.

Aronia, a genus of the Rose Family, confined to eastern North America, sometimes considered a section of the genus Pyrus, contains val-
uable plants for the garden shrubbery. There are three species, all widely distributed in the eastern part of the country, *Aronia melanocarpa*, *A. atropurpurea* and *A. arbutifolia*. They all have small white flowers with rose-colored anthers borne in erect compound clusters, showy fruits and handsome foliage. What is believed to be the type of *A. melanocarpa* is a shrub twelve or eighteen inches high, with stems spreading into a broad mat. There is a form of this species (var. *elata*), however, which is much more common and grows into a shrub from six to ten feet tall, and another form (var. *grandifolia*) with broader leaves; this is also a tall shrub. The fruit of this species is black and lustrous, and drooping on long stems hangs on the plant during the winter. *Aronia atropurpurea* is also a tall shrub, in general habit and foliage like the var. *elata*. The fruit, however, is dark, vinous red and ripens and falls earlier. The leaves of these two species turn orange and red in the autumn before falling. *Aronia arbutifolia* is a tall, slender shrub of irregular habit, with flowers which open later than those of the other species, smaller leaves, covered with white down on the lower surface, and erect clusters of small, bright scarlet fruits which remain on the plants without change of color well into the winter. The brilliant fruit and the bright scarlet of the autumn leaves makes this late in the season one of the most beautiful of all our native shrubs. Less common in the north, perhaps, than the other species, *Aronia arbutifolia* is a very common plant in all the southern states where it is very generally distributed, often growing in great abundance on the margins of small depressions in the Pine woods which in spring are filled with water. All the forms of Aronia are easily cultivated and are now in flower in the Shrub Collection. They have also been largely planted in the shrubberies along the Arboretum roads.

Several of the Viburnums, notably *Viburnum prunifolium*, a small tree from the middle states, *V. Wrightii* from Japan, chiefly valuable for its scarlet fruits, *V. Sieboldii* from Japan, one of the largest of the Asiatic species with handsome foliage, large convex clusters of creamy white flowers, and large lustrous fruits which, at first scarlet, become black when fully grown. A more beautiful plant and the handsomest of the Asiatic species, *V. tomentosum* is also in flower. It is a large flat-topped shrub with wide-spreading branches, on the upper side of which the flower clusters are set; these are broad and flat, and they are surrounded by a ring of large, pure white sterile flowers which are the conspicuous part of the inflorescence. There is an interesting narrow-leaved form of this plant, discovered in Japan by Professor Sargent, also in flower in the Collection. There are also two Snowball forms of this species developed in Japanese gardens and much cultivated here and in Europe under the name of *Viburnum plicatum*. The correct name of the more common of these two plants is *Viburnum tomentosum*, var. *dilatatum*. This is the Japanese Snowball cultivated in this country and it will not be in its best condition for another week. The other form, *V. tomentosum*, var. *dilatatum*, f. *rotundifolium*, which is a dwarfer plant, is already in flower. They can be seen in the general Viburnum Collection on the Bussey Hill Road just before it turns into the Valley Road near the Centre Street Gate.

The Arboretum will be grateful for any publicity given these Bulletins.