When this bulletin reaches its readers a large number of Rhododendrons at the base of Hemlock Hill will be in flower. The flowers of a few have faded and those of others will continue to open during several days. The number of species of Rhododendrons with evergreen leaves which can be successfully cultivated in this climate is not large. The four species of eastern North America, *Rhododendron maximum*, *R. Catawbiense*, *R. carolinianum* and *R. minus* are all perfectly hardy, as are *R. Smirnowii* and *R. caucasicum* from the Caucasus, *R. brachycarpum* from Japan and *R. micranthum* from China. The flower-buds of the last, however, have been destroyed by the cold of the past winter. The two European species, *R. ferrugineum* and *R. hirsutum*, are in the collection but they are not very satisfactory plants for this climate, and unless exceptionally favorable positions can be found for them they are not long-lived here. In recent years *R. maximum* has been largely planted in this part of the country, but the common Rhododendron of American gardens belongs to a race of hybrids which originated in England many years ago and are known as Catawbiense hybrids because they have been produced by crossing *R. Catawbiense* of the high summits of the southern Appalachian Mountains with *R. ponticum* of the Caucasus, and with *R. arboreum* and other Himalayan species. These hybrids are valuable in this country in proportion to the influence on them of *R. Catawbiense*, and it is found that varieties with broad leaves like those of the American plant are always harder than the narrow-leaved varieties which show a greater influence of *R. ponticum* and the Indian species. The number of these hybrids, however, which are really hardy in this climate is not large; among them Atrosanguineum (very early), Charles Dickens and H. W. Sargent (late) of red-flowered varieties are good plants; among the pink-flowered varieties none have proved so satisfactory as Mrs. Charles Sargent and Henrietta Sargent, similar in general appearance, but the latter with smaller and more compact flower-clusters and flowers of not quite such a perfect pink. Among the varieties with rose-colored flowers, Roseum elegans and Lady Armstrong are hardy and satisfactory; and among the varieties with dark purple flowers Purpureum grandiflorum, Purpureum elegans and King of the Purples are all hardy. Of the varieties with light purple flowers Everestianum is the best and one of the hardiest and most satisfactory of all these hybrids. Among the white-flowered varieties Catawbiense album (very early), Album elegans and Album grandiflorum can be safely used. Most of the hybrid Rhododendrons in American gardens are of English origin, but a few years ago the Arboretum obtained in Germany a number of these hybrids raised in that country. These have proved very hardy and some of them promise to be valuable additions to the Rhododendrons which can be successfully cultivated here. The most distinct, perhaps, are Viola, with white flowers, Albert, with pale pink flowers, and Bismarck, with white flowers with small brown dots on the inner face of the corolla. The last has flowered profusely now every season for the last three years; the foliage and habit are good, and as it flowers early this variety is particularly valuable, for there are not many early white-flowered Catawbiense hybrids. Among the hybrid Rhododendrons which
have been raised between *R. catawbiense* and *R. maximum* the best known is Delicatissimum. This blooms later than the Catawbiense hybrids; it is a large plant, of good habit, with long lustrous leaves and pale pink and white flowers, and one of the best Rhododendrons which can be grown in this climate.

The experience of another year confirms the good opinion which the Caucasian *Rhododendron Smirnovii* has made for itself here. It is a large plant with pale green leaves covered below with a thick mat of nearly white wool and large clusters of bright pink flowers. It grows best in partial shade as the hot sun of our summer causes the leaves to curl. A number of hybrids have been obtained in Europe by crossing this species with some of the Catawbiense hybrids. Some of these hybrids are established in the Arboretum and have flowered for several years, but the cold of the past winter has destroyed their flower-buds. *Rhododendron caucasicum* and its hybrids or varieties should be more often found in our gardens, in which the form of this species known as Boule de Neige is the only one usually seen. Like the other forms of *R. caucasicum* it is a small compact plant which covers itself with clusters of large white flowers which open earlier than those of most of the Catawbiense hybrids. This earliness, its good habit, and its handsome pure white flowers make this a desirable garden plant in this climate. Another plant of this race with pale yellow flowers, known as *R. coriaceum*, is now in flower in the collection and is also a hardy and desirable plant. A smaller plant of this race, Mont Blanc, is interesting as the flowers, which are bright pink when they open, become at the end of a day or two pure white. On some of the dwarf forms of *R. caucasicum* the flower-buds have been injured this year for the first time, but in spite of this these plants can be recommended for New England gardens.

Attention is called to the red-flowered *Aesculus Briotii*, an improved form of the so-called Red-flowered Horsechestnut, *Aesculus carnea*, a supposed hybrid between the European Horsechestnut and *A. Pavia* of the southern United States. *Aesculus Briotii* is the handsomest of the red-flowered arborescent Horsechestnuts and should find a place in all collections of trees with showy flowers. A beautiful, shrubby, red-flowered Horsechestnut, or Buckeye as these plants are called in the United States, is in flower in the Horsechestnut Group on the right-hand side of the Meadow Road. This plant is now known to grow naturally from Georgia and Alabama to Texas and Arkansas and to be the only red-flowered species in the region west of the Mississippi River. First discovered in Arkansas many years ago by the botanist Nuttall, it was named by Rafinesque *Aesculus mollis*; later another botanist called it *Aesculus austrina*. In the Arboretum it is called *A. discolor* var. *mollis* because it is believed to be only a variety of another southern species, *A. discolor*, with which it grows in Georgia and Alabama. But whatever name may be imposed on it this Buckeye is one of the handsomest flowering shrubs in the United States, and it is fortunate that it has proved perfectly hardy here. Flowering with it is another southern shrubby species with red and yellow flowers, in short, very compact clusters, *A. georgiana*, which is a garden plant of much promise. Three other dwarf Buckeyes are also in flower, *Aesculus humilis*, two different plants under the name of *A. rosea nana*, and *A. Michauxii*. They are small plants with yellow and red flowers occasionally cultivated in
European gardens and probably hybrids of American species, for none of these plants have yet been found growing wild and their parentage is not clear, but whatever their origin may have been they are attractive and useful garden plants.

The Arboretum owes much of its early summer beauty to the Viburnums, and none of these plants are more conspicuous just now than the native Nannybery, *Viburnum Lentago*, which has been largely used here. This large shrub, or small tree, with its large lustrous leaves and broad convex clusters of white flowers tinged with yellow, and its drooping clusters of black fruit, is one of the handsomest of the whole genus, and if it grew on the borders of Tibet instead of along New England roadsides it would be better known and more highly considered in New England gardens than it is at present.

The three species of the Opulus Viburnums are now in flower on the right-hand side of the Bussey Hill Road and in the Viburnum Collection, and their comparative value as flowering plants can be seen. The European *Viburnum Opulus* has smaller flower-clusters than the others, but it is a larger plant and holds its leaves later in the autumn without change of color; the beauty of the bright red fruits is thus heightened by contrast with the leaves. The American species, *Viburnum americanum*, is a plant of more open habit. The leaves turn orange color in the autumn and fall early, leaving the orange-red fruits on the naked branches. The Asiatic species, *V. Sargentii*, has the handsomest flowers of the three species as the neutral ray-flowers are much larger than those of the other species. The habit of this plant is good, but the fruit is small and inconspicuous. There are forms of the European *Viburnum Opulus* with yellow fruit (var. *xanthocarpum*), and there is a dwarf very compact form which rarely flowers; the Snowball of old-fashioned gardens is a form of the European plant in which all the flowers are sterile.

*Rosa Hugonis* has been in flower in the Shrub Collection for the first time in the Arboretum. It is a native of western China, with clear yellow single flowers and neat pale foliage. There are not many yellow-flowered Roses hardy in New England, and *R. Hugonis* promises to be a valuable addition to the number.

Other plants now in flower or soon to flower of special interest are *Berberis Poiretii* and *B. sinensis*, *Rosa spinosissima altaica* and *R. spinosissima fulgens*, *Potentilla fruticosa ochroleuca* and *P. Vietchii*, *Lonicera Maacki* and its variety *podocarpa* and several Diervillas, all in the Shrub Collection. Worthy of notice, too, are several of the new Chinese Cotoneasters, to be seen in the Bussey Hill collection of Chinese plants and in the Shrub Collection.

In the Lilac Group the Korean *Syringa velutina* is flowering for the first time in the Arboretum. The small rose pink flowers of this shrub are borne in long, narrow, irregular clusters at the ends of the slender arching branches.

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