The evergreen Rhododendrons in the Arboretum have never bloomed more fully than they have this year and the clusters of flowers and the individual flowers have never been larger. The flowers of some of the early flowering species and varieties have already passed, but those of many of the most important plants are still in good condition and others are still to open.

The hardiest in this climate of all the large-flowered Rhododendrons is $R$. catawbiense, an inhabitant of the upper slopes of the highest of the Appalachian peaks on which it grows in great quantities at altitudes between five and six thousand feet. It is a wide, low, round-topped, compact shrub with broad, dark green leaves and rose-purple flowers of a rather disagreeable color. There are a number of plants of this Rhododendron brought from North Carolina now in flower in the collection. This species is one parent of the race of hybrid Rhododendrons which are usually cultivated in northern gardens and practically the only evergreen Rhododendrons found in those of the northeastern United States, with the exception of another species of the eastern states, $R$. maximum. This race of hybrids has been made by crossing $R$. catawbiense with some of the species from the Himalayas, chiefly probably with $R$. arboreum, with $R$. maximum, and in the early days of Rhododendron cultivation in England with the Caucasian $R$. ponticum. These catawbiense hybrids, as they are called, are hardy and valuable in this country in proportion to the influence on them of $R$. catawbiense.

$Rhododendron$ maximum, which grows naturally as far north as New England, is of course perfectly hardy; it has long and very handsome leaves, and the pale pink or pink and white flowers are beautiful in color, but they open so late that the flower-clusters are much hidden by the young branches which have grown from buds below the flower-bud before the flowers open, while in $R$. catawbiense and its hybrids these branches do not begin to grow until after the flowers have faded. Several hybrids between $R$. maximum and $R$. catawbiense are in cultivation. One of these, known as $R$. delicatissimum, is one of the hardiest and most beautiful of all Rhododendrons which can be successfully cultivated in this climate. As a rule hybrids of hardy plants are as hardy as their parents, but this is not always true of $R$. catawbiense-maximum hybrids, for some of these, like $R$. wellesleyanum and several raised in the neighborhood of Boston, are not very hardy, a fact due no doubt to some tender strain in the Catawbiense parent, itself a hybrid.

Two other species of the southern Appalachian region are also hardy here, $R$. carolinianum and $R$. minus, or, as it has been more generally called, $R$. punctatum. These are small shrubs with small dotted leaves and small clusters of pink flowers. The differences between these two plants have only recently been understood. $R$. carolinianum is an inhabitant of high altitudes, with handsome dark green leaves, and flowers which open and fade before the young branches begin to grow, and therefore are not hidden by them. This is perhaps the handsomest of all the dwarf Rhododendrons which can be successfully grown here; it has been out of bloom for several weeks. $R$. minus is a plant of lower altitudes, with smaller leaves and flowers and more open habit, and the small flower-clusters are much hidden, like those of $R$. maximum, by the young branches which rise high above them.
A few other species are hardy in this climate. The most distinct and the handsomest of these is *R. Smirnovii* from the Caucasus. This is a large plant with dark green leaves covered below with a thick mat of nearly white felt, and large clusters of large bright pink flowers. This plant is perfectly hardy but it grows best in partial shade as our hot sun causes the leaves to curl in summer. If the right position can be found for it, however, this is one of the most beautiful of the evergreen Rhododendrons which can be grown successfully in eastern Massachusetts. Hybrids of this plant with some of the Catawbiense hybrids are hardy and interesting plants. *R. micranthum* is another species which proves to be hardy here. It is a plant widely distributed from northern to western China and in its native country sometimes grows from six to eight feet high. The small leaves and small compact clusters of small white flowers look like those of a Ledum. There are a number of plants of this Rhododendron in flower at the base of Hemlock Hill and there are others on Azalea Path. The two dwarf Rhododendrons from the mountains of central Europe, *R. ferrugineum* and *R. hirsutum*, are in the collection and the latter is now in flower. These plants, however, are not very satisfactory in this climate, and unless exceptionally good positions can be found for them they are not long-lived here. Two hybrids, however, in which these European Rhododendrons have played their part are valuable garden plants in this climate. The first of these, *R. myrtifolium*, is a hybrid between *R. hirsutum* and *R. minus*, and is a very compact, round-topped shrub, sometimes growing to the height of four feet, with small flowers of a good shade of pink. The great value of this plant is in its compact habit and handsome foliage. The second of these hybrids, *R. arbutifolium*, is the result of a cross between *R. ferrugineum* and *R. minus*. This is a plant with a more open habit than *R. myrtifolium* and soon spreads into a wide low mass of handsome foliage; the flowers are small and of an unattractive rose color, and the value of the plant is found in its ability to cover either sunny or shady banks and for this it is admirably adapted. This plant is usually found in nurseries under the name of *R. Wilsonii*, a name, however, which properly belongs to another hybrid between two Himalayan species.

Persons who study the Arboretum Rhododendrons with a view of establishing collections of these plants must remember that the position of the Arboretum collection on the northern and northeastern sides of a thick wood of conifers is an exceptionally favorable one for these plants, and that many of the Catawbiense hybrids now flowering in the Arboretum cannot be depended on in less favorable positions. The number of these hybrids which are really hardy in all situations in Massachusetts is not large. Some of them which have grown in eastern Massachusetts for many years and have proved perfectly hardy here, even in exposed positions, are among the red-flowered varieties, *Atrosanguineum* (very early), Charles Dickens and H. W. Sargent (late); among the pink-flowered varieties, Mrs C. S. Sargent and Henrietta Sargent, similar in general appearance but the latter with smaller and more compact flower-clusters and flowers of a less perfect pink; among the rose-colored varieties, *Roseum elegans* and Lady Armstrong; among the dark purple-flowered varieties, *Purpureum grandiflorum*, *Purpureum elegans*, and King of the Purples; among the light purples, *Everestianum*, one of the hardiest of these hybrids; among the whites, *Catawbiense album* (early), *Album elegans* and *Album grandiflorum* (both
slightly tinged with blush); and among the whites tinged with pink Delicatissimum (very late).

The Chinese Chionanthus retusa, although by no means a new plant, is flowering now for the first time in the Arboretum. It is related to the eastern American Fringe-tree or Old Man's Beard (C. virginica), when in flower one of the most beautiful of the small trees or shrubs of eastern North America where it grows from New Jersey and Missouri to Florida and Texas. This plant with its long drooping clusters of flowers with their long narrow white petals is a familiar object in most old gardens in this country, where it is always an object of interest. As an ornamental plant the Chinese species is much less attractive than its American relative; the leaves, although darker green, are smaller, and the flowers, which are produced in short, nearly erect clusters, are much smaller with shorter petals. Except as another instance of the close relationship between the floras of eastern North America and eastern Asia the Chinese Chionanthus is of comparatively little interest. The two species are growing on the Bussey Hill Road just above the Lilac Group and there are plants of them both on Azalea Path.

Two Andromeda-like plants are now in good condition, Leucothoe Catesbaei and Lyonia mariana. The former is an evergreen with long spreading and arching stems clothed with handsome long-pointed leaves, and small clusters of axillary white flowers; it is a native of the southern Appalachian region and one of the hardiest and most desirable of the broad-leaved evergreen shrubs which can be grown in this climate. For the development of its greatest beauty, however, it needs rather moist soil and a shady position. It has been planted in large numbers along the brook and in the small ravine at the base of Hemlock Hill and is now flowering freely. Lyonia mariana is a smaller shrub with deciduous leaves and larger, white, racemose flowers borne on leafless shoots. This plant is common in the eastern states from Rhode Island southward, and in cultivation is not particular about soil or situation. There is a large mass of it now in full flower on the right-hand side of the Meadow Road in front of the Horsechestnut Group; and these two species are in the Shrub Collection.

In the Philadelphus Groups many plants are beginning to flower every week. P. coronaria, the Mock Orange of old-fashioned gardens, with its small, creamy white fragrant flowers, is already in bloom and near it in the Shrub Collection P. Falconeri is covered with its delicate white blossoms. The origin and the native country of this graceful shrub are still unknown. Of all the gifts which science has made to gardens few are more beautiful and valuable than the race of hybrid Philadelphus known generally as P. Lemoinei. There are a large number of these hybrids in the collection and they will bloom in succession during several weeks. The earliest this year are called Boule d'Argent and Manteau d'Hermine. The value of these wonderful little plants is now recognized in many nurseries, and there is no longer any reason why they should not find their way into every northern garden.

The Laurels (Kalmia latifolia) are beginning to expand their flower-buds and in a few days will be in their best condition. With the fading of these flowers will pass the last of the great floral displays of the Arboretum year.

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