Catawbiense Hybrid Rhododendrons. The first of the so-called Catawbiense Hybrids was raised in England in 1826, between *Rhododendron catawbiense* and *R. arboreum*, and was named *R. alta-clerense*. It is doubtful if this plant is still in existence. There are forty-eight varieties of the Catawbiense Hybrids growing in the Arboretum raised at Knaphill Nursery, Woking, Surrey, England, by Anthony Waterer who by his exhibit at the Centennial Exhibition in Philadelphia did more to make these plants known in this country than anyone else. At this Exhibition fifteen hundred plants in eighty varieties were arranged under the general charge of Mr. Anthony Waterer himself who came to America for that purpose. Most of these plants were presented to Professor Sargent, and a large part of his visit was passed in Boston where he learned that it is as easy to acquire a serious attack of gout in New England as it is in England. As a rule persons like to make collections in this country of many kinds of these Rhododendrons, but much better results are obtained by confining collections to not over a dozen varieties and by planting several individuals of each of these varieties together. Twelve varieties recommended by the Arboretum, where they have been growing uninjured for about thirty years, are: H. W. Sargent (crimson), Album elegans, Album grandiflorum, Catawbiense album (white), James Mackintosh (red), Mrs. C. S. Sargent (rose), Purpureum grandiflorum (dark purple), Roseum elegans (rose pink), Henrietta Sargent (rose), Charles Dickens (bright red), Everestianum (rosy lilac), and atrosanguineum (dark red).

*Rhododendron delicatissimum* is a hybrid between *R. catawbiense*
and *R. maximum* which was raised by Anthony Waterer and has been in this country since 1871; it has proved to be one of the best of the large-growing Rhododendrons ever cultivated here. It is a large, round-topped shrub with narrow pointed leaves and flowers the color of apple blossoms; it blooms about a week later than the *Catawbiense* Hybrids and the flowers have just opened.

**Rhododendron Watereri** is an interesting hybrid raised by Anthony Waterer and was sent to the Arboretum in 1908 without a name and has been named here for him. It was obtained by crossing *R. Metternichii* with one of his *Catawbiense* Hybrids and has proved perfectly hardy in the Arboretum where there are four fine plants. The young shoots of this plant are clothed with gray to gray-brown floccose tomentum, early becoming glabrous; the leaves when young are covered with short, curled hairs and on the under side with a short, dun-colored felt, later becoming glabrescent. It has pale to deep rose-pink flowers. The habit of the plant and the character of the young shoots and leaves strongly suggest *R. Metternichii*, while the broader leaf-base and glabrescent foliage recall *R. catawbiense*. The flower-truss is compact and rounded, and the flowers although not large are numerous and of pleasing shades of pink. It has proved perfectly hardy and of vigorous habit, and promises to be a useful plant for New England. The presence of a felt of hairs on the under side of the leaves is a decided advantage to any Rhododendron in New England since it protects it from the lace-wing fly which attacks most of these plants. *Rhododendron Metternichii* is a shrub from three to twelve feet high with numerous stout branches, oblong-lanceolate to oblanceolate leaves, wide, rounded, obtuse or short-cuspidate, narrowed or rarely rounded at the base and dark, lustrous, green and glabrous on the upper surface and densely clothed with floccose to crustaceous gray to rufous-colored tomentum below. The flowers are pink, in loose umbellate corymbs, on slender pedicels with a seven-lobed corolla, from ten to fourteen stamens shorter than the corolla and puberulous to pubescent filaments below the middle and shorter than the pistil. This is the common evergreen Rhododendron of Japan and is not known to grow wild outside of that country, and does not extend into the northern island of Hokkaido or into northern Hondo. In the Nikko region, on Mt. Fuji and the mountains of Shinano, it is particularly abundant at altitudes of between 3000 and 7000 feet, and from the middle of May to the end of June, according to altitude, is one of the floral features of the forest. It is hardy in the Arboretum but grows slowly.

**Kalmia latifolia**, the Mountain Laurel, at the northern base of Hemlock Hill, will be in bloom shortly after this number of the Bulletin reaches its Massachusetts readers. All the plants are not as full of flower-buds as they were last year, but the flowering of the Laurel is the last of the great flower shows of the year in the Arboretum; none of those which precede it is more beautiful. The Mountain Laurel, or Calico Bush as it is often called, is one of the most beautiful of all North American shrubs or small trees. Many of the Rhododendrons have larger leaves and larger and more brilliantly colored flowers, but of all the broad-leaved evergreen plants which can be grown success-
fully in this climate the Laurel is perhaps the most satisfactory. It is not perhaps strange that so little attention has been paid to it by American gardeners, for those of the earlier generations at least derived their inspiration almost entirely from England and usually despised American plants as too common for their attention. Now that it is impossible under Federal regulations to import plants with soil at their roots the Laurel will probably become much more generally used in this country than it has ever been before. No hybrids have yet been raised and the only distinct forms are natural ones. Of these there are plants with pure white flowers (var. alba), and one with deep pink-red flowers and dark leaves (var. rubra). Between these extremes there are others with all shades of pink, and there is one with flowers conspicuously marked by a chocolate band (var. fuscata). There is a dwarf form (var. myrtifolia) with small leaves and small clusters of minute flowers; and there is one in which the corolla is deeply divided into narrow lobes (var. polypectala). A form with broad, handsome Rhododendron-like leaves (var. obtusata) rarely flowers, and another with a six-lobed corolla has recently been found on the Blue Ridge in North Carolina. The Laurel Collection is easily reached from the Walter Street and South Street entrances of the Arboretum, and persons interested in a beautiful floral display should not fail to see it.

A few interesting plants are growing among the Laurels at the northern base of Hemlock Hill, including the only plant in the Arboretum of the American Ilex opaca, the largest specimen of Abies grandis from the northwestern part of the country, the best plant in the Arboretum of the Japanese Tsuga diversifolia, as well as a group of the Sour Wood (Oxydendron arboreum). Here, too, can be seen the best plant of the Japanese Torreya in the Arboretum. Across the road from the great bank of Hemlocks are many interesting plants, including among others the largest plants of the Japanese Yew in the Arboretum, and of the native Inkberry, the evergreen Ilex glabra. The Inkberry is a common shrub in the coast region from New Hampshire to Texas. It has been established in the Arboretum for many years but occasionally in severe winters loses here the ends of some of the branches and many of the upper leaves. It soon recovers and must be considered one of the best evergreen shrubs which can be grown in New England. The best plants of the prostrate form of Juniperus chinensis Sargentii are growing also in this border, as well as the best specimen of Leucothoe floribunda. Here, too, is the Sheep Laurel (Kalmia angustifolia), a red-flowered dwarf species common in northern pastures.

Rosa spinosissima, Scotch Roses, are now in bloom in the Shrub Collection. The handsomest perhaps is the variety altaica with petals faintly tinged with yellow toward their base, the varieties hispida and lutea with yellow flowers, and the variety fulgens with pale pink flowers; these are all single. Other varieties in the Arboretum are estiflora and pusilla. From the gardens of the Duke of Dalkeith, near Edinburgh, the Arboretum received a few years ago a collection of Scotch Roses for which this garden was once famous; these are Jupiter with pale pink single flowers, Lady Baillie with small yellow flowers, Dominie Samson, King of the Scots, Plato, Pythagoras and Iris.
Laburnum alpinum. The large plant of this Laburnum on the right hand side of the Forest Hills Road just below the Forest Hills entrance is covered again with its long racemes of clear yellow flowers which has shown here for many years its value for northern gardens. *L. alpinum*, which is a native of the elevated regions of southern Europe, is usually spoken of as the "Scotch Laburnum" probably because it is a favorite in the gardens of north Britain. In those of northern New England it is extremely rare. It is harder than *L. vulgare*, or as it is now called *L. anagyroides*, a small tree with shorter racemes of flowers. This has been a good deal planted in the eastern states, and at the north is not always hardy. Occasionally a good specimen can be seen in the neighborhood of Boston. There are several varieties of this Laburnum which have not, however, grown well in the Arboretum. A better plant for New England than *L. vulgare* is its hybrid with *L. alpinum*, known as *L. Watereri* or *L. Parksii*. This is a small tree, and when in flower the handsomest tree with yellow flowers which can be grown in this climate. It blooms about two weeks earlier than *L. alpinum*.

Cornus alternifolia. This is the handsomest native Dogwood with the exception of *Cornus florida*, and it has for some reason or other proved very difficult to grow, but fortunately is represented by several good native specimens growing in the Arboretum. It differs from all the other American Dogwoods as it has alternate leaves and branches. Fortunately the Chinese species, *Cornus controversa*, has proved easier to grow and is a plant of first-rate merit.

*Cornus controversa* is a widely distributed tree in Japan, Korea and western China. Wilson photographed in Szech'uan a specimen sixty feet high with a trunk seven feet in girth. In the Cornus Collection on the right hand side of the Meadow Road are plants raised from seeds collected by Wilson in western China in 1907 and these are now in bloom. The largest of these trees is in the Peter's Hill Nursery. This plant was sent here in 1913 by the Park Department of the City of Rochester, New York. It is now about twenty-five feet high with a short trunk and a head twenty-six feet in diameter. The branches are long, crowded and spread at right angles with the stem, drooping slightly at the ends, the lowest sweeping the ground. The upper side of the branches is thickly covered with flat flower-clusters six or seven inches in diameter and raised on erect stems. The flowers are white or white faintly tinged with yellow and are followed by black, shining fruits which are eaten by the birds as fast as they ripen. As it grows on Peter's Hill this Cornel is a magnificent plant and the handsomest of the species in the Arboretum, with the exception of the species with white floral bracts represented here by *C. florida* and *C. kousa*. To the student of botanical geography *C. controversa* is interesting as a living witness of the relationship between the floras of eastern Asia and eastern North America, for in the genus Cornus with many species there are but two with alternate leaves, *C. controversa* common in eastern Asia, and *C. alternifolia* in eastern North America.