Viburnums have been largely planted in the Arboretum and the abundant and conspicuous flowers now open on several of the species show the value of these plants for the decoration of parks and gardens. Viburnums are found in all the temperate parts of the northern hemisphere, the largest number of species growing in eastern Asia and in the eastern United States. The eastern American species, all things considered, are more valuable garden plants than those from other parts of the world, although there are a few Old World species which must be counted among the best of all hardy shrubs. Among these Old World species which cannot be spared from our collections are the European Wayfaring-tree, *Viburnum Lantana*, the Japanese and Chinese *V. tomentosum*, and the Japanese *V. dilatatum*. The first of these plants is a large shrub or small tree with blue-green foliage, large convex clusters of flowers which are followed by fruits, which when fully grown are at first bright red and then become black, fruits of the two colors being found together in the same cluster. This is a very hardy and vigorous plant and flowers here early in May. *Viburnum tomentosum* is a large flat-topped shrub with wide-spreading horizontal branches, and in Japan sometimes becomes treelike in habit. It is one of the species in which the clusters of small perfect flowers are surrounded by a ring of abortive flowers with much enlarged pure white corollas. The flower clusters of *Viburnum tomentosum* are arranged along the upper side of the branches and are produced in great profusion, making it one of the most beautiful of all the shrubs now flowering in the Arboretum. The fruit is small, at first bright red and finally nearly black; the leaves turn orange and red in the autumn. A variety of this plant with very narrow leaves (*var. lanceolatum*) discovered by Professor Sargent in Japan is flowering in the recently arranged Viburnum Group on the right-hand side of the Bussey Hill Road near its junction with the Valley Road. The Japanese Snowball, known usually in gardens as *Viburnum plicatum*, is a form of *Viburnum tomentosum* (*var. dilatatum*). This must not be confounded, however, with the true *Viburnum dilatatum*, which will not be in flower probably for a couple of weeks. This is a large shrub with numerous clusters of creamy white flowers but is most interesting in the autumn when it is covered with small, bright red, lustrous fruits which remain in good condition for a long time.

Of the three species cultivated in the Arboretum of the Opulus Group of Viburnums, with palmately lobed and veined leaves and showy sterile flowers surrounding the flower clusters, two are from the Old World and are perhaps handsomer garden plants than the American representative of this group. The three species are *V. opulus*, from central and northern Europe, *V. Sargentii*, from northeastern Asia, and *V. americanum*, from northeastern America. The first is the largest plant of the three, with thicker darker green leaves late persistent in the autumn, and dark red fruit. The old-fashioned Snowball of gardens is a form of this species with all the flowers sterile; there is a very dwarf form which rarely flowers, and there is a form with yellow fruit. The flowers of *Viburnum Sargentii* are more showy than those of the other species, but the fruit is small and inconspicuous. The habit of *V. americanum*, the so-called High-bush Cranberry, is less compact than that of the other species. The flowers, however, are beautiful, and the fruit, which is translucent and very lustrous, remains on the branches through the win-
in the autumn the leaves turn bright orange-red before falling. The three species are all very hardy. *Viburnum americanum* and *V. Sargentii* have been generally planted in the Arboretum, and very large plants of *V. opulus* can be seen on the Parkway and in some of the other Boston parks.

Among the other American species *Viburnum alnifolium*, the Hobble-bush, and *V. prunifolium* have been mentioned in recent issues of this bulletin, and their flowers have already gone. The species which is now so conspicuous in many parts of the Arboretum is the Nanny-berry, *V. Lentago*. This common New England roadside plant is a large shrub or small tree with large, thick, lustrous leaves, large, rounded clusters of creamy white flowers which are followed by drooping blue-black fruits. There is no better or hardier plant for large shrubberies or the borders of woods, and much of the early June beauty of the Arboretum is due to its general use here. It is one of the three American arborescent species, the others being *V. prunifolium* and *V. rufidulum*. This last is a southern plant distinguished by its thick and shining leaves and by the thick red-brown, felt-like covering of the winter-buds and leaf-stalks. *V. rufidulum* is still rare in cultivation but fortunately it is hardy in the Arboretum. Young plants are now in flower in the Viburnum Group on the Bussey Hill Road.

On the right-hand side of the Bussey Hill Road, opposite the Lilacs, a large mass of *Viburnum pubescens* completely covered with small clusters of white flowers is now one of the most conspicuous objects in the Arboretum. This shrub grows from western New York westward and southward, and, although hardly known in gardens, is a first-rate garden plant. The eastern American species with bright blue fruits, *V. dentatum*, *V. venosum*, and *V. Canbyi*, will flower later in the order in which they are mentioned here. They are common wild plants in the regions they inhabit and are all greatly improved by good cultivation. They have been freely used in different parts of the Arboretum and their value for the decoration of American parks is at last beginning to be appreciated.

The Arrowwood, *Viburnum acerifolium*, will soon be in flower. This inhabitant of northern forests is a small, shade-enduring shrub with neat foliage, small flower-heads and black fruit. It can be seen in large masses on the right-hand side of Bussey Hill Road where in going up the hill it is the last of the small collection of Viburnums planted in the grass border between the drive and walk. *Viburnum affine*, considered a variety of *V. pubescens*, a rare plant from southern Missouri, is now flowering in the Viburnum Group where in the next two weeks flowers may be seen of the still rarer *V. molle* from the southern states. Persons interested in the cultivation of shrubs should study carefully at different seasons of the year the Viburnums which have been assembled in the Arboretum.

Enkianthus is an eastern Asiatic and Himalayan genus, with drooping clusters of small, bell-shaped flowers, and dry capsular fruits, and is related to Andromeda. Three Japanese species are well established in the Arboretum and can be seen in the Shrub Collection and in a large group on the right-hand side of Azalea Path. The handsomest of the three species, *E. campanulatus*, is a tall shrub with slender erect stems and branches, and light yellow or rose-colored flowers. It is found in every Japanese garden where it is valued for the bright scarlet color the leaves assume in autumn, and where it is often cut into balls and other fantastic shapes. This Enkianthus is a garden plant here of real value. The
other species, *E. japonicus* and *E. subsessilis*, are smaller plants with smaller yellow flowers and are less valuable ornaments of the garden.

Some of the most valuable shrubs now found in gardens are natural hybrids of related species or have been produced by skilful hybridizers. One of the most beautiful of Lilacs, *Syringa chinensis*, described in a recent issue, is a natural hybrid which appeared one hundred years ago in the Botanic Garden at Rouen. Several of the most attractive Honeysuckles are hybrids, and in recent years the crossing of different species in several genera has produced new races of garden plants which have vigor, hardiness and beauty not possessed by their parents. A good example of the value of such hybrids is found in *Deutzia Lemoinei*, obtained by a French nurseryman by crossing the Japanese *D. gracilis* with *D. parviflora* of northern China, and now in flower in the Shrub Collection. Although it resembles *D. gracilis* in habit, it grows into a taller and broader shrub; the flowers are larger and it is much hardier. It is certainly one of the best garden plants of recent introduction. The systematic crossing of shrubs with the object of creating new forms, except perhaps in the case of Roses, is a comparatively new industry, but it has already produced startling results in such genera as Magnolia, Deutzia, Philadelphus, Ceanothus, Rhododendron, and Diervilla; and with the great number of new shrubs discovered in recent years in eastern Asia and eastern North America at his disposal the hybridizer will now have new and abundant opportunity to show his judgment and skill in producing new races of plants. Hybrid trees are naturally less common than hybrid shrubs and, except in the case of fruit trees, comparatively few attempts to cross different species of trees have been made. Trees which are believed to be natural hybrids, however, are not rare. There are several American Oaks which are probably hybrids and these, so far as they have been tested in the Arboretum, grow more rapidly than their supposed parents. For example *Ulmus vegeta*, which is believed to be a hybrid between two European species, grows more rapidly than any other Elm-tree, and the so-called Carolina Poplar, which is not an American tree but probably a hybrid between the American Cottonwood and the European Black Poplar, outgrows, at least while young, all other Poplar trees.

Several of the Rhododendrons in the collection at the base of Hemlock Hill are in flower and the flower-buds of many others are fast opening. The end of this week and the beginning of next week will probably be the best time to visit this collection which is most easily reached from the South Street entrance where automobiles should be left.

This is one of the most interesting times of the year to visit the Pinetum, for many conifers are now in their greatest beauty, as the young shoots, of various shades of green or blue, are now growing rapidly on many of these trees and often afford good characters for distinguishing the Firs, Spruces and Pines. Particularly handsome just now are the Carolina Hemlock (*Tsuga caroliniana*), the Colorado White Fir (*Abies concolor*), the two Rocky Mountain Spruces (*Picea pungens* and *P. Engelmannii*), now bluer than they will be later in the season, and the Douglas Spruce, (*Pseudotsuga muerotata*). An entrance to the Pinetum is close to the Walter Street gate.

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