BULLETIN NO. 35.

At this season one meets in Tokyo many vendors with bunches of leafless branches of a native Holly covered with small red berries, but in this country fruit-covered branches of hardy trees and shrubs are as yet little appreciated for the decoration of houses, although the branches of several of our plants are admirably suited to the purpose. The fruits of many of these retain their beauty for a long time and such decorations are much more economical than those made by the short-lived forced flowers of late autumn and early winter. The branches of the evergreen Holly of the southern states, *Ilex opaca*, however, are much used at Christmas, and occasionally branches of *Ilex verticillata* can be seen here in the windows of enterprising florists.

The Holly sold in the streets of Tokyo is *Ilex serrata*, and the fruit is smaller and less bright-colored than that of the American representatives of this plant, the so-called Black Alders of New England swamps. There are two of these, *Ilex verticillata* and *I. laevigata*; the former is the more common plant, but the latter is showier as the fruit is larger and brighter-colored. These plants are easily cultivated and grow rapidly in ordinary garden soil into round-headed shrubs sometimes eight or ten feet across. There are forms of them both with yellow fruit, a yellow-fruited form of *I. laevigata* (var. *Herveyi*) having been found a few years ago near New Bedford; it is not yet in cultivation. Two Hollies from the southern states with deciduous leaves and red fruits, *Ilex decidua* and *I. monticola*, are cultivated in the Arboretum; but although their fruit is larger, they are less decorative in this climate than the native species. *Ilex opaca* ought to be more generally cultivated here as the more beautiful English Holly, *I. Aquifolium*, is not hardy in New England. The American species is especially valuable as it is the only broad-leaved evergreen tree which is hardy in this latitude. This Holly grows naturally on the coast near Quincy in this state, and then ranges southward to Texas, in some parts of the country becoming a large and common tree. There is also a form of this tree with yellow fruit. The Ink Berry (*Ilex glabra*) a black-fruited Holly, is one of the handsomest of the broad-leaved evergreen shrubs which are hardy in New England. The branches of this plant are valuable for house decoration, for the leaves do not fall and the fruit retains its color and freshness for a long time after the branches are cut.

Another good plant for house decoration is the common European Privet, *Ligustrum vulgare*, which is a perfectly hardy shrub or small tree formerly much used in this country as a hedge plant and now occasionally naturalized in the eastern states; this is one of the European plants which retains its leaves late in the autumn without change of color, and these make a handsome contrast with the terminal clusters of shining black fruits. Many species of Privet have been introduced in recent years into our gardens from eastern Asia but none of them are as desirable garden plants in this climate as this old-fashioned European shrub which might well be grown for the value of its fruit-bearing branches in house decoration.
Nearly all the Mountain Ashes (Sorbus) produce handsome red or orange fruits which keep their color for a long time after the branches are cut. The species with the showiest fruit in the Arboretum is Sorbus americana, a common northern tree, several specimens of which can be seen on the right-hand side of the entrance to the Shrub Collection from the Forest Hills gate. These plants are now leafless, but the leaves before they dropped a few days ago had turned to bright shades of yellow and scarlet; but the fruits will remain on the branches in good condition until the flocks of northern robins arrive when they will eat every berry in preparation for their long flight southward. With these plants there is a tall specimen covered with fruit of Sorbus Matsumurana, one of the best growing of the numerous eastern Asiatic species in the collection. Several other species, including different forms of the European Mountain Ash (S. Aucuparia), are cultivated in different parts of the Arboretum and are usually short-lived.

Many of the Crabapples shed their fruits early in the autumn, but those of some of the forms or hybrids of the Chinese Malus floribunda retain them in good condition during the winter or until they are eaten by birds. There is a group of these trees near the eastern end of the Administration Building which do not lose their fruit until spring; these are now bright orange color and, although individually very small, are so numerous that the branches are weighed down by them, the beauty of the fruit being heightened by the color of the leaves which are just beginning to turn pale yellow. Too much cannot be said of the value of Malus floribunda as a garden plant in this climate, especially those forms with persistent fruit. No other large shrub or small tree is more beautiful in spring when it is covered with flowers which, rose color in the bud, become white as they develop; the habit is good; it is perfectly hardy, and it never fails to produce a full crop of flowers and fruits. Flower-covered and fruit-covered branches are admirable house decorations.

Fruit-covered branches of the American and Japanese Bittersweets are well suited for house decoration, the orange-colored pods being now open and displaying the seeds in their scarlet pulpy coats. The leaves, which turn yellow before falling, have now disappeared; the fruit, however, will persist for some weeks longer. The American species, Celastrus scandens, is usually considered the handsomer of the two species, the fruit being borne in raceme-like terminal clusters and therefore not hidden by the leaves, while in the Japanese species, C. articulatus, the smaller fruit is borne in axillary clusters so that until the leaves have fallen it is not very conspicuous. Another species in the collection, C. flagellaris, from northeastern Asia where it is widely distributed, has much smaller axillary fruits and, although perfectly hardy, is comparatively of little value as an ornamental vine.

The Snowberries (Symphoricarpos) generally retain their fruit late in the autumn, and on many of the plants the leaves are still green and fresh, increasing the beauty of the snowy white berries. There are several species and forms in the Shrub Collection but the handsomest is the common Snowberry of all old gardens, S. racemosus var. laevigatus, a plant now becoming naturalized in New England. The type of the
species is a much smaller plant with small fruits and therefore of less ornamental value.

The so-called French Mulberry, *Callicarpa americana*, with its axillary clusters of violet-colored fruits, is one of the handsome autumn shrubs of southern woodlands. Unfortunately it is not hardy here, and the only really satisfactory species of this genus which has yet been grown in the Arboretum is the *Japanese* *Callicarpa japonica*. This is a smaller plant than the American species but the fruit, although smaller, is of the same color and is now conspicuous on the branches from which the leaves have mostly disappeared. There are a number of plants of this small shrub on the left hand side of Azalea Path near its entrance from the Bussey Hill Road.

The silvery white tails of the fruit of a Japanese Clematis (*C. apiifolia*), now make a brilliant show on the right hand side of the Jamaica Plain entrance where this vine has rambled over a number of large shrubs; there is a plant, too, on the trellis at the east side of the Shrub Collection. It is one of the small flowered species, the white flowers appearing after those of the native *C. virginiana* and before those of the Japanese *C. paniculata*. It is hardy, fast-growing and blooms freely every year, and as a decorative plant its value is increased by the late persistence of the fruit, which now forms one of the handsome objects in the Arboretum.

The branches of many other trees and shrubs in the Arboretum are still covered with showy fruits and many of them have great decorative value in addition to their value as garden plants. The branches of the common Barberry, *Berberis vulgaris*, with its drooping clusters of red fruits are very ornamental in the house, as are those of its allies, *B. canadensis*, *B. amurensis*, and *B. Regeliana*. *Berberis canadensis*, which is a native of the southern Appalachian Mountains and southern Missouri, is a smaller plant than the European Barberry with smaller leaves and fruit and is still rare in cultivation. It retains its leaves later in the season than most of the Barberries of this group.

Showy fruits still cover the branches of several Hawthorns (*Crataegus*), especially those of *C. nitida*, one of the most ornamental species of the entire genus, and of *C. aprica*, a southern species which is perfectly hardy here. The best Hawthorn, however, for winter decoration is *Crataegus cordata*, the so-called Washington Thorn, a slender tree of the southern states which is still covered with its leaves now turning orange and scarlet and making a handsome contrast with the small bright red fruits which remain on the branches until spring without change of color.

Among the Cornels or Dogwoods the latest to hold its fruits is *Cornus racemosa*, sometimes called *C. paniculata* and *C. candidissima*, a common and widely distributed native shrub. The leaves have now fallen but the bushes are completely covered with clusters of dull white berries borne on bright red stalks. This Dogwood has been largely used in the Arboretum shrubberies where it is now one of the most conspicuous and interesting objects.

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