BULLETIN NO. 7.

The flowers of Syringa villosa are just falling. This inhabitant of northern China is in cultivation here a large and shapely shrub with good foliage and pale pink or nearly white flowers in large, compact, erect clusters which are produced in great profusion. The odor of the flowers is disagreeable. The Hungarian Lilac, Syringa Josikaea, is still in flower. This is a tall shrub with loose, unattractive habit, small leaves, and long, slender, open clusters of small, purple flowers. This is perhaps the least attractive of all the Lilacs. The crossing, however, of these two species has given rise to a race of Lilacs which prolongs the season of flowering of the true Lilacs for nearly two weeks. This new race is called Syringa Henryi in honor of Monsieur L. Henry, at one time gardener at the Jardin des Plantes in Paris, who made these hybrids. The best known of them is Lutèce, so-called because it originated in Paris. This is a compact, fast-growing, large shrub with foliage resembling that of Syringa villosa and large clusters of rose-purple flowers, and is one of the handsome and desirable shrubs of recent introduction.

There is a group of Lilacs which bloom even later than this hybrid. They are not true Lilacs, however, belonging to the section Ligustrina of the genus which differs from the true Lilacs in the short tube of the corolla from which the stamens protrude. There are three species of this group, all natives of northeastern Asia. They are shrubs or sometimes trees, and they all produce white, bad-smelling flowers in large clusters. They are just coming into bloom in the Lilac Group on the left-hand side of the Bussey Hill Road. The first to flower, Syringa amurensis, is a native of eastern Siberia, as its name indicates. It is a small tree, with flat, spreading or slightly drooping clusters of white flowers. The second species to flower, Syringa pekinensis, a native of northern China, is a shrub rather than a tree, although it sometimes reaches the height of thirty feet, with numerous stout stems more or less pendant at the ends and covered with bark peeling off in thin layers like that of some Birch tree. The long, narrow leaves hang gracefully and the half-drooping flower-clusters, which are flat and unsymmetrical, are smaller than those of the other species but are produced in great quantities. Syringa japonica, a native of the forests of northern Japan, is the last of the Tree Lilacs to flower and is really a tree often thirty or forty feet high, with a tall, stout trunk covered with lustrous bark like that of a Cherry tree, and a round-topped head. The leaves are large, thick and dark green, and the flowers are produced in large, erect, symmetrical clusters. Like the other species of this group, Syringa japonica loses its leaves early in the autumn without change of color. Syringa amurensis and Syringa pekinensis have not become common in gardens, but Syringa japonica has been quite generally planted in those of the eastern states. It is of interest that this remarkable tree was first sent to America and thence to Europe by a citizen of Massachusetts, the late William S. Clark, the first President of the Massachusetts Agricultural College and later the first President of the Agricultural College at Sapporo in Japan. In December, 1876, a small collection of seeds gathered in the neighborhood of Sapporo were received at the Arboretum from Colonel Clark and among them were seeds of this Lilac. The seedlings raised from this seed and their descendants are the native plants now cultivated in the United States and Europe. One of the original seedlings can be seen in the Apple Group on the right-hand side of the Forest Hills Road, the site
of the first Arboretum Nursery in which this Lilac was planted. The United States and Europe owe to Colonel Clark the introduction of some other good plants. Among the seeds sent by him to the Arboretum were those of Cercidiphyllum (see Bulletin No. 1), the climbing Hydrangea (Hydrangea petiolaris), Phellodendron sachalinense, and the northern broad-leaved form of Evonymus radicans, the variety vegetus.

It is too soon to speak of two species of Phellodendron found by Mr. Wilson in China, but of the three species established in the Arboretum Phellodendron sachalinense is the handsomest. All the species are natives of eastern Asia, and are small trees with pinnate leaves, small clusters of inconspicuous yellow flowers, the male and female flowers being produced on different individuals, and black, berry-like fruits; they have bright yellow wood and roots, and all parts of these trees are permeated with a fragrant aromatic oil which apparently makes them immune from the attacks of insects. Phellodendron sachalinense, which is a native of Sakhalin and the northern island of Japan, has grown in the Arboretum into a tree about thirty feet high, with a tall, straight trunk, and wide-spreading branches forming a shapely flat-topped head. The seedlings springing up naturally near the old trees indicate that it is likely to hold its own in New England. The hardiness of this tree, its rapid growth, and the fact that it is not injured by insects, suggest that this is a good subject to plant in narrow streets. Seeds will be sent from the Arboretum in the autumn to anyone who may desire to grow this tree. A specimen of the male tree now in flower can be seen on the left-hand side of the Meadow Road, and in the group of these trees on the right-hand side of the road there is a female tree with the fruit just forming. In this group male trees of the type of this genus, Phellodendron amurense, from eastern Siberia are in bloom. These show already the thick, pale, cork-like bark to which this genus owes its name.

Just beyond the Phellodendron Group the Evonymus Group can be found. In this group several plants of the Evonymus introduced by Colonel Clark, Evonymus radicans vegetus, naturally a vine, are grown as low broad bushes. This is the hardiest of the many forms of this evergreen Evonymus. The leaves are broader and handsomer than those of the other forms, and the fruit is produced on young plants in great abundance. The plants, which are now in flower, can be compared in this group with the forms of this plant which are more usually cultivated in this country. Some of the deciduous-leaved species of Evonymus are also in flower here, and although they are more conspicuous in the autumn when the leaves often turn to bright colors and the brilliant fruits cover the branches, they are always interesting, and worth examination this week.

Opposite the Evonymus Group the Smoke-tree (Cotinus) of old-fashioned gardens is in bloom. The flowers are not conspicuous, and it is the clusters of the lengthening hairy colored stems of the flowers which make the "smoke" and the conspicuous feature of this plant which is a native of southern and southeastern Europe, the Himalayas and western China. Near it is a large plant of the American Cotinus which is also in flower. The clusters of hairy flower-stems are less conspicuous than those of its Old World relative, but the foliage is larger, lighter-colored, and in autumn turns brilliantly to orange and scarlet shades. This plant serves as an illustration of the fact that it is impossible to predict the hardiness of any plant from the character of the climate where it grows naturally. The American Smoke-tree, a native of the south where it
is found only in regions of comparatively mild winters, is perfectly hardy
in New England in the most exposed positions, while native plants and
others from much colder regions have suffered severely during the past
winter. The American Smoke-tree is as much at home in western Europe
as it is in New England, although usually the trees and shrubs of the
southeastern United States do not flourish in Great Britain where they
miss the summer and autumn heat necessary to properly ripen their wood.

The Mock Oranges (Philadelphus) are fast coming into bloom, and sev-
eral of them will be in flower during the present week. They can be
found in the Shrub Collection and in the large supplementary collection
on the right-hand side of Bussey Hill Road opposite the Lilacs. Those
which deserve particular attention now are Philadelphus inodorus, a na-
tive of the southern Appalachian region, with large solitary pure white
flowers, and, although still little known one of the most distinct and beau-
tiful of the genus; Philadelphus Falconeri of unknown origin, but prob-
ably a native of China and Japan, as it was sent to the Arboretum many
years ago from the Parsons Nursery on Long Island where many eastern
Asiatic plants were first cultivated in this country; Philadelphus maxi-
mus, a hybrid between two American species and the largest of all the
Mock Oranges. In old gardens near Boston this plant has sometimes
grown to the height of thirty feet. Philadelphus Lemoinei is also in
flower. This is the result of a cross between the common Mock Orange
gardens, the European Philadelphus coronarius, and the small-flow-
ered and small-leaved Philadelphus microphyllus of the Rocky Mountains
of Colorado. This cross was made by Lemoine of Nancy, the most suc-
 cessful of hybridizers, who had received the Colorado plant from the
Arboretum, and it was the beginning of a race of dwarf garden shrubs
produced by Lemoine which have few equals in beauty. Philadelphus
microphyllus itself will not expand its fragrant flowers for several days,
but many of its progeny are now beginning to flower. Some of the most
interesting of these are the varieties known as Avalanche, Boule d'Ar-
gent, Boquet Blanc, Candélabre, Conquête, Fantasie, Gerbe de Neige,
Manteau d'Hermine, Mont Blanc, Nuée Blanche, Pavillon Blanc, and sev-
eral others.

The last of all the Hawthorns to bloom is just opening its buds. This
is the so-called Washington Thorn, Crataegus cordata, a native of the
southern Appalachian foothills and the region westward to Missouri. It
is a tree sometimes thirty feet high with erect branches, small, nearly tri-
angular, shining leaves which turn bright scarlet in the autumn, small,
dull white flowers in small compact clusters, and small scarlet fruit which
remains on the branches with little less color until spring. The late flow-
ners, the brilliancy of the autumn foliage and the abundance and bright-
ness of the fruit during the winter months make this one of the most
desirable of the American Hawthorns as a garden plant. The leaves are
not destroyed by the leaf-mining caterpillars which make the foliage of
many American Hawthorns look in early summer as if they had been
scorched by fire; its only drawback is the brittleness of the branches
which are sometimes broken down by the weight of snow. Several large
plants of the Washington Thorn can be seen on the slopes of the overlook
near the top of Bussey Hill.

The flowers of the Laurel (Kalmia) are at their best and should be seen
this week. They can be most easily reached from the South Street and
and from the Walter Street entrances.

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