Philadelphus. Few plants give greater beauty to northern gardens than the Syringas or Mock Oranges. These are the unfortunate popular names of the different species of Philadelphus, for Syringa is the botanical name of the Lilac, and Mock Orange is the popular name of *Prunus caroliniana*, a southern evergreen Cherry which is much planted in the southern states as an ornamental tree and in making hedges. The species of Philadelphus grow naturally in southeastern Europe and the Caucasus, in the United States on the southern Appalachian Mountains, in western Texas, on the southern Rocky Mountains and in the northwestern states, in Japan, Korea, northern and western China, and on the Himalayas. In the last twenty years much attention has been paid to the introduction of new species; artificial and natural hybrids, too, have increased the number of these plants, and there are now growing in the Arboretum some thirty species and a number of varieties and hybrids. The flowering period of the Syringas extends through six or seven weeks and, with few exceptions, none of them begin to bloom until that of most Lilacs and of the Bush Honeysuckles has passed. With its development in recent years Philadelphus has become one of the important groups of garden shrubs to be ranked with the Lilacs, Bush Honeysuckles, Viburnums and Azaleas. The species and hybrids of Philadelphus are nearly all hardy in Massachusetts, but the white and usually fragrant flowers are their only attraction. They are not particularly interesting in habit; the foliage is dull; the leaves fall without change of color, and the fruit, which is a dry capsule, is smaller and not more attractive than that of the Lilac. All the Syringas flower freely nearly every year; they need rich, well-drained soil, and the
presence of lime in it has no bad effects on them. Better than most shrubs they can support shade and their ability to grow and flower under trees make them valuable as undergrowth in border plantations.

The Mock Orange of all old gardens is *Philadelphus coronarius*, the eastern European species. This plant was first cultivated in England before the end of the sixteenth century and was probably one of the first garden shrubs brought to America by the English settlers. It is a medium-sized shrub often as broad as high. The flowers, too, are of medium size and faintly tinged with yellow. This shrub has been somewhat neglected since so many species and hybrids with larger and showier flowers have found their way into gardens. This is unfortunate, for no other Syringa equals the old-fashioned Mock Orange in the delicate perfume of its flowers. Varieties of this plant with yellow flowers, with double flowers, and with narrow willow-like leaves can be seen in the Arboretum collection, but none of them have any particular decorative value. Among the American species which should find a place in all gardens are *P. inodorus*, *P. pubescens*, and *P. microphyllus*. The first is a native of the Appalachian Mountain region and grows to the height of six feet; it has arching branches and large, solitary, pure white, cup-shaped, scentless flowers. By some persons it is considered the most beautiful of all Syringas. *P. pubescens*, often called *P. grandiflorus* or *P. latifolius*, is also a plant of the southern Appalachian region. It often grows to the height of twenty feet; the branches are stout and erect; the leaves are broad, and the slightly fragrant flowers are arranged in erect, from five- to ten-flowered racemes. This plant is more common in gardens than the last and when it is in bloom it makes a great show. *P. microphyllus*, which rarely grows more than three feet tall, has slender stems, and leaves and flowers smaller than those of any Philadelphus in cultivation. What the flowers lack in size, however, is made up in fragrance which is stronger than that of any other Syringa and perfumes the air for a long distance.

The most distinct and the handsomest of the Asiatic species in the Arboretum is *Philadelphus purpurascens*, discovered by Wilson in western China. It is a large shrub with long arching stems from which rise numerous branchlets from four to six inches long and spreading at right angles; on these branchlets the flowers are borne on drooping stalks; they are an inch and a half long, with a bright purple calyx and pure white petals which do not spread as they do on most of the species but form a bell-shaped corolla and are exceedingly fragrant. This is one of the handsomest of the shrubs brought from western China to the Arboretum. *Philadelphus Magdalenae* is another Chinese species well worth cultivation. It is a tall broad shrub with arching stems, small dark green leaves and pure white fragrant flowers an inch and a quarter in diameter and arranged in drooping, leafy, many-flowered clusters from six to ten inches in length. *P. pekinensis* from northern China and Mongolia is a stout bush rather broader than high which every year produces great quantities of small flowers tinged with yellow. Another interesting garden plant, *P. Falconeri*, which is certainly Asiatic and probably Japanese, has narrow lanceolate leaves and fragrant flowers in from one- to six-flowered racemes, and is distinct in the shape of its leaves and in its long narrow petals. The
Hybrid Philadelphus. The first hybrid Philadelphus which attracted attention was raised in France before 1870 by a Monsieur Billard, and is sometimes called in gardens Souvenir de Billard, although the correct name for it is Philadelphus insignis. This hybrid is one of the handsomest of all the tall-growing Syringas, and its value is increased by the fact that it is one of the latest of them all to flower. In a few old gardens in the neighborhood of Boston great Syringa bushes occasionally thirty feet high and correspondingly broad are sometimes found. These plants are believed to be hybrids between P. coronarius and some unrecognized species. It is called Philadelphus maximus. Another hybrid, P. splendens, sprang up in the Arboretum several years ago and is supposed to be a hybrid between two American species, P. inodorus and P. pubescens. It is a large and shapely shrub with pure white only slightly fragrant flowers an inch and three-quarters in diameter and borne in erect clusters. P. splendens flowers very freely and when the flowers are open it is the showiest plant in the Syringa Group.

Yellow-flowered Roses. Of Roses with yellow flowers there are only five species growing from the Caucasus to the Himalayas, in central Asia and in western and northern China. One of these, R. simplicifolia, from Persia is not hardy in New England. The first of the four species to bloom here, R. Hugonis from western China, perhaps the handsomest Rose which is hardy in this climate, has been described in earlier Bulletins and is already out of bloom. The next of these four species to bloom here, R. Ecae, is a spiny shrub with small leaves and pale yellow flowers not more than an inch in diameter. It is a native of Afghanistan where it is common on mountain ridges and at Samarqand, and although of some botanical interest it has little to recommend it as a garden plant in this region. It is very hardy, however, grows into a large plant and flowers freely. In 1820 an English botanist found in a collection of Chinese drawings in London the picture of a double yellow Rose to which he gave the name of R. xanthina, and many years later the single-flowered form of this Rose was found growing wild in Mongolia by the French missionary David. Often confused, especially in Europe, with R. Ecae it apparently was not cultivated in the United States until 1908 when the Arboretum received from the Department of Agriculture seeds of this Rose gathered in China by its collector, Mr. F. N. Meyer. Both forms are in bloom in the Arboretum and are much cultivated in the gardens of Peking. The last of the hardy yellow-flowered Roses, the so-called Austrian Briar, has suffered from too many names, the oldest of which must be adopted for it, R. foetida, is unfortunate as the flowers have a slight odor which some persons do not find pleasant. Although long known in gardens as the Austrian Briar, it is probably nowhere a native of western Europe but an inhabitant of the Crimea, the Caucasus, Persia, and probably central Asia. It has handsome bright yellow flowers and when it grows well is one of the most beautiful of all single-flowered Roses, but in this climate the plants are usually short-lived. The Copper Austrian Briar, which has petals yellow on the outer surface and dark origin and history of this plant is not known.
copper color on the inner surface, is believed to be a variety of *R. foetida* (var. *bicolor*). There is a double-flowered variety of *R. foetida* in the collection (var. *persiana*), known as the Persian Yellow Rose. This plant was sent from Persia in 1838 and is sometimes cultivated in American gardens.

**Scotch Roses.** The Burnet or Scotch Rose, *Rosa spinosissima*, with its prickly stems, small leaves, bright flowers and globular black fruits can be found in most old-fashioned northern gardens. It is a very hardy plant, resistant to abuse, and handsome when its spreading branches are covered with flowers which unfortunately last for a short time. A variety of this plant from Siberia (var. *altaica* or *grandiflora*) is a larger plant and one of the handsomest of all single-flowered Roses which can be grown in this climate where it sometimes makes a dense bush six or seven feet high and broad; it produces great numbers of suckers by which it can be easily increased. The variety *hispida* is a taller growing plant with erect stems and yellow flowers from two and a half to three inches in diameter. Var. *fulgens* has pale pink flowers and the variety *luteola* pale yellow flowers. From the garden of the Duke of Buccleuch at Dalkeith, near Edinburgh, the Arboretum received a few years ago a collection of Scotch Roses for which this garden was once famous. One of the plants in this collection called Jupiter has pale pink single flowers, and another called Lady Baillie has small pale yellow flowers; they are both attractive plants and worth attention. Harison's Yellow Rose, which was raised by Mr. George Harison of New York about 1830, believed to be a hybrid between the Scotch Rose and the Austrian Briar, is a very hardy, free-growing and vigorous plant, and never fails to produce large crops of yellow semi-double flowers. At one time it was a very popular plant in northern gardens, and is still found in most old-fashioned gardens.

**Deutzia hypoglauca.** This is a tall, hardy vigorous shrub with erect, much-branched stems, lanceolate, long-pointed leaves dark yellow-green on the upper surface and pale below, and light orange-brown branchlets. The pure white flowers are seven-eighths of an inch in diameter and are borne on slender drooping pedicels in many-flowered compound, round-topped clusters from three to four inches across. The broad, petal-like filaments, which are rather shorter than the spreading petals and are notched at the apex, form a tube rising from the center of the flower from which the bright yellow anthers emerge. The plants in the Arboretum were raised here from seeds collected in 1910 by Purdom on the mountains of Shensi at altitudes between eight and ten thousand feet above the sea-level. This may prove a valuable plant to cross with some of the Chinese Deutzias with rose-colored flowers which are not really hardy in this climate. It is a handsomer plant than *D. parviflora*, another Chinese species, and an old inhabitant of the Arboretum where it has proved to be one of the hardiest of all Deutzias. Sent by the Arboretum to Lemoine at Nancy, France, it was successfully crossed by him with *D. gracilis*. The result of this cross was *Deutzia Lemoinei*, one of the handsomest and hardiest garden shrubs of recent creation.