Lilacs. A brief summary of the Lilacs now in cultivation will serve to show how large has been the addition to the material available for the making of gardens in cold countries in comparatively recent years. And what is true of Lilacs is true also of Malus, Pyrus, Crataegus, Philadelphus, Diervilla, Viburnum and many other genera of trees and shrubs. Before the middle of the last century gardeners in Europe and America had at their disposition the common Lilac (Syringa vulgaris), and a few of its varieties including the forms with lilac and white flowers, the forms of the so-called Persian Lilac (Syringa persica), with rose-colored and white flowers and one with deeply divided leaves (var. laciniata), the Himalayan Lilac (S. Emodi) and the Hungarian Lilac (S. Josikaea). In the Botanic Garden at Rouen in France a hybrid between Syringa vulgaris and S. persica appeared or was artificially produced in 1810 for which the correct name is unfortunately Syringa chinensis, a name first given to it by mistake. This hybrid, which has slender stems, leaves intermediate in size between those of its parents and immense clusters of narrow-tubed, red-purple fragrant flowers, is still one of the best of Lilacs. There is a form with nearly white flowers (var. alba). As early as 1843 a Belgian nurseryman had raised a double-flowered form of the common Lilac which was called S. vulgaris azurea plena and which was later used by Lemoine in his plant breeding attempts to improve the flowers of the common Lilac. In 1850, therefore, it was possible to plant four species of Lilac with a few varieties of two of these species and one hybrid Lilac. In 1857 one of the so-called Tree Lilacs which had been found in the valley of the Amour River in eastern Siberia by Russian botanists was described
in St. Petersburg under the name of *S. amurensis*. This handsome plant was growing in the Harvard Botanic Garden in Cambridge ten years later. The first of the Chinese Lilacs to reach Europe, *Syringa oblata*, was described in London in 1859 and was imported from England into the United States as early as 1869 and perhaps earlier. This is one of the first Lilacs to bloom in the spring and produces large, very fragrant, lilac-colored flowers in comparatively small-flowered clusters. From all other Lilacs it differs in its thick lustrous leaves which turn scarlet in the autumn. It is a large round-topped, handsome shrub, but the flower-buds are often injured by extreme winter cold or spring frost. A hybrid between the double-flowered *Syringa vulgaris azurea plena* and *S. oblata* made by Lemoine in 1859 produced the second hybrid Lilac, *S. hyacinthiflora*, a large, round-topped shrub with small clusters of semidouble, lilac-colored, remarkably fragrant flowers. In 1878 this Arboretum first raised the great Japanese Tree Lilac (*Syringa japonica*) from seed received from Sapporo in Hokkaido. For the introduction of new Lilacs into the United States 1882 is an important date, for in that year the Arboretum received from Dr. Bretschneider the physician of the Russian Embassy in Peking, seeds of *Syringa villosa*, *S. pubescens* and *S. pekinensis*. *S. villosa*, which has proved a valuable plant in this country where it is a round-topped, handsome bush ten or twelve feet high and wide, with large, broadly elliptic to oblong leaves bright green and dull on the upper surface, and compact, broad or rarely narrow clusters of flesh-colored or nearly white flowers. As a garden plant this is one of the handsomest of the Lilacs for its habit is excellent, and it flowers freely every year, the flowers remaining in good condition for several days. Unfortunately they have a rather disagreeable odor like those of the Privet. *S. villosa* does not open its flowers until after those of all the forms of *S. vulgaris* have disappeared. In the hands of the skilful French gardener L. Henry *Syringa villosa* crossed with *S. josikaea* has produced the third race of hybrid Lilacs to which the general name of *S. Henryi* has been given. Plants of this breed are large, very vigorous, perfectly hardy and grow rapidly. The foliage resembles in a general way that of *S. villosa*, but the flowers are violet purple or reddish purple, and are produced in great clusters twelve or fifteen inches long and broad. One of the handsomest of this race has violet purple flowers and has been named *Lutece*. The var. *eximia* has more compact clusters of rose-colored or reddish flowers which after opening become light pink. *S. pubescens* by some persons is considered the most attractive of all Lilacs. Certainly the flowers of no other Lilac are so delightfully fragrant, and for this fragrance this shrub might well find a place in every northern garden. Unfortunately plants in the United States have not yet produced fertile seeds, and as this species has proved unusually difficult to increase by cuttings it is still one of the rarest Lilacs in American gardens. It can of course be increased by grafting it on other Lilacs or on Privet, and sooner or later no doubt fertile seeds will be produced on some of the plants established in Massachusetts. *S. pubescens*, which has been in bloom for several days, is one of the earliest Lilacs to flower. It is a tall shrub with erect stems, small leaves, and broad clusters of pale lilac-colored flowers with a long slen-
der corolla-tube, and unusually fragrant. The third Lilac, raised here in 1882 from Dr. Bretschneider’s seeds, Syringa pekinensis, had been discovered and described as early as 1859, and was growing in Paris before it was raised in the Arboretum. It is a large tree-like shrub with wide-spread and drooping branches, and short unsymmetrical clusters of white flowers.

No additional species of Syringa was added to the Arboretum collection until 1902 when the introduction of eastern Asiatic species recommenced and during the next fifteen years the following Chinese and Korean species were obtained: S. Koehneana, 1902, S. affinis, 1904, S. affinis Geraldiana, 1906, S. Wolfii, 1906, S. tomentella, 1907, S. Julianae, 1907, S. Meyer, 1908; S. Sweginzowii, 1910, S. pinnatifolia, 1911, S. reflexa, 1911, S. Sargentiand, 1911, S. microphylla, 1913, S. yunnanensis, 1915, S. velutina, 1917, S. dilatata, 1917, S. formosissima, 1917, S. Palibiniana, 1917. Varieties of the common Lilac crossed by Lemoine with the north China S. affinis var. Geraldiana have founded the fourth race of hybrid Lilacs. Varieties of this hybrid are tall, fast growing plants with large clusters of unusually fragrant flowers. Of the new species of Lilac introduced by the Arboretum during the last twenty years the most promising as garden plants are Syringa Sweginzowii, S. Julianae, S. reflexa and S. Wolfii. S. Sweginzowii is a narrow shrub with slender erect branches and long narrow clusters of slightly fragrant flowers, with a slender corolla-tube, flesh-colored in the bud and becoming nearly white after the flowers open. This plant blooms freely every year and the flowers are produced in great profusion. Its relationship is with S. pubescens but it is a smaller shrub; the flowers are less fragrant, and usually ten or twelve days later. S. Julianae is also related to S. pubescens and has the same shaped flowers with long narrow corolla tubes, but although fragrant the flowers are less fragrant than those of that species and are produced in shorter clusters. The beauty of the flowers is increased by the contrast between the violet-purple color of the outer surface of the corolla and the white inner surface of its lobes. S. reflexa resembles S. villosa in size, habit and foliage, and differs from other Lilacs in its narrow pendent flower-clusters. S. Wolfii is a native of Mongolia or northern Korea and is still little known either as a wild plant or in gardens. It reached the Arboretum in 1906 from St. Petersburg where it had been sent by the Russian traveler and botanist Komarov. The foliage resembles that of S. villosa but the flowers are produced in much larger clusters and are smaller and violet-purple; in color they resemble that of the flowers of the hybrid Lilac Lutèce but they are smaller and in denser clusters than those of that plant. When Syringa Wolfii is better known it will probably be considered one of the handsomest of this group of late-flowering Lilacs.

Lovers of Lilacs can now see growing in the Arboretum twenty-five species of Lilacs, the four hybrids and their forms, and some two hundred varieties, raised chiefly in France and Germany, of the common Lilac. Three or four species found in remote parts of China, and described by botanists, have not yet been introduced into gardens, and
by the use of some of the recently introduced species plant breeders may be able to produce new races which may add new and valuable varieties for garden makers.

**Crataegus coccinioides.** The large plant of this handsome Thorn is now covered with flowers in the old Crataegus Collection on the bank between the Shrub Collection and the Boston Parkway. It belongs to the Dilatatae Group of the genus, so named on account of the broad leaves. The five species have flowers from three-quarters of an inch to an inch in diameter, with twenty stamens and rose-colored anthers, and dull or bright, subglobose red fruit, often blotched with green, crowned by the much enlarged calyx of the flower and nearly an inch in diameter. Five species of this Group are recognized; of these four are trees and the fifth, *C. speciosa* from southwestern Missouri, and one of the handsomest of the American Hawthorns, although sometimes arborescent, has usually been considered a shrub. Of the other species one is distributed from the coast of Rhode Island and eastern Massachusetts to the neighborhood of Montreal, one grows in southern Quebec and Ontario, and another is now known to grow only on the hills in the neighborhood of Albany, New York. *C. coccinioides* has been found only in dry woods in the neighborhood of St. Louis and in eastern Kansas. It differs from the other species in its very compact, nearly globose few flowered flower-clusters and its dark crimson fruit flattened at the ends, with flesh deeply tinged with red. *C. coccinioides* as it grows in the Arboretum is a shapely tree with a broad, dense, round-topped head from twenty-five to thirty feet across and a well-formed trunk. This tree was raised in the Arboretum from seeds planted in 1880, and shows that in the New England climate and on New England soil forty years are needed to produce a large and shapely Hawthorn tree.

**Cytisus elongatus.** Plants of a European Broom growing on the upper side of Azalea Path have been covered with bright yellow flowers during the last two or three weeks. Earlier plantings of this beautiful plant have not succeeded in the Arboretum, but the plants on Azalea Path raised here from seed have been growing in their present position for two years and appear perfectly hardy. *Cytisus elongatus* is a common plant in Hungary and Bulgaria, and by some botanists is considered a vigorous form of *C. ratisbonensis*. The Arboretum plants are nearly three feet high and covered from end to end of the stems with bright yellow flowers an inch in length. *Cytisus Beanii* is also in flower on Azalea Path. This is a semiprostrate little shrub which appeared at Kew in 1900 and is supposed to be a chance hybrid of *C. Ardoini* and *C. pungens*. It is a beautiful yellow-flowered little plant but, judging by its parentage, not likely to be very hardy or long-lived in this climate.