Barberries, of which the Arboretum possesses a very complete collection of species, hybrids and varieties, are now in full blossom and will repay the study of those interested in this useful group of plants. They are to be found in the Shrub Garden, on the right of Bussey Hill Road, and on Bussey Hill, where the newer Chinese sorts may be seen. Varying in height from low shrubs 2 feet high to bushes 12 and more feet tall, they afford most useful material for ornamental plantings. Many of the species might well be used as flowering shrubs but nearly all of them are valued for their brightly colored fruits and brilliantly tinted autumn foliage. Several species are invaluable for hedge making; indeed, for this purpose no plant is better suited than the well known Berberis Thunbergii, one of the most widely planted shrubs. Few people are aware of the fact that it first saw light of day in this country in the Arboretum, having been raised from seed sent from the Botanic Garden, St. Petersburg, in 1875. From the Arboretum it passed into nurserymen's hands and has been sold and planted by the tens of millions. For the northern parts of this country it is certainly one of the most useful of exotic shrubs, carrying its scarlet berries through the winter and well into the spring.

Berberis Vernae is one of the most outstanding of Chinese Barberries. The habit is fountain-like for the branches are slender, very dense and arch over and sweep the ground. The leaves are narrow, more or less oblong-lance-shaped and dark green. The flowers are a clear deep yellow, densely crowded on pendent, short-stalked, grape-like racemes, each about 2 inches long. They are borne in the utmost profusion, terminating short branches throughout the entire length of the shoot. In the autumn the branches are ropes of small, round, salmon-red fruits as beautiful as those of any shrub. The species is native of extreme northwest China, where it was discovered in the autumn of 1903 by E. H. Wilson, and the plant on Bussey Hill, now 10 feet tall and 18 feet in diameter, was raised from seed collected then.
Berberis circumserrata is a newcomer from China, where it was discovered and introduced by William Purdom in 1910 when collecting for the Arboretum. This is a bush from 5 to 8 feet tall and more in diameter, compact and rounded in habit with arching branches. The leaves are lustrous green, obovate, from 1 to 2 inches long, ¾ to 1 inch broad, and serrate along the margins. The flowers are relatively large, light yellow and borne several together in stalked fascicles terminating the short shoots. In the autumn its foliage changes to intense shades of scarlet and crimson, indeed, its autumn tints equal those of the lovely B. diaphana, to which it is closely related.

Syringa Potaninii is flowering freely for the first time in the Arboretum, where it was raised from seed received from the Botanic Garden, Edinburgh, in 1924. A bush 5 to 8 feet tall, it is of upright habit, sparsely branched, twiggy and graceful; the leaves are ovate, each from 1½ to 2 inches long and about 1 inch broad, pointed and covered with a soft, pale gray pubescence. The flowers are almost pure pink, the eye being rose colored; they are borne many together in narrow, terminal panicles, each from 5 to 8 inches long. While the odor is not particularly pleasant, the appearance of the plant is decidedly pleasing. Native of extreme western China, it was discovered by the Russian traveler, G. N. Potanin in 1893. Other species of Lilac now beautifully in bloom are Syringa Meyeri, S. microphylla, S. velutina, S. pubescens and S. persica.

Syringa persica, the so-called Persian Lilac, is one of the oldest and one of the most beautiful of the whole Lilac tribe. Introduced into European gardens from Persia long, long ago it was formerly much more widely grown than at the present time, the popularity of the multitudinous forms of the Common Lilac having ousted it somewhat from public esteem. Connoisseurs, however, still consider it one of the loveliest of all Lilacs. Its history is a romantic one. For centuries it was considered native of Persia although it has never been collected wild in that country, yet as an escape from gardens it is common on the scrub-clad mountain slopes. According to the latest information, its real home is the province of Kansu in extreme northwest China from whence it was introduced into cultivation by F. N. Meyer in 1915 when collecting for the United States Department of Agriculture. In 1917 the Arboretum received a plant from the Bureau of Plant Industry, Washington, D. C., which may now be seen in full bloom on the Lilac bank. This wilding has both simple and laciniate leaves on the same branch; the flowers are relatively large, deep lilac-purple and borne in great profusion along the branches, in fact transforming them into narrow plumes 1 to 2 feet long. Dr. Karl Sax of the Arboretum Laboratory, investigating the chromosomes of the Persian Lilac, is of the opinion that this wilding is the only true species and that the old-fashioned type appears to be of hybrid origin. In appearance the two forms are widely distinct.

The old garden Persian Lilac together with the Common Lilac (Syringa vulgaris) are the parents of the hybrid S. chinensis, some-
times known as *S. rothomagensis*, the Rouen Lilac. This is a long-lived plant, forming bushes 10 to 15 feet tall and more in diameter, every branch of which terminates in a long, dense cluster of blossoms. There are several color forms, all of them well worth growing. Some authorities are of the opinion that if they could only have one Lilac it would be the Rouen Lilac. It originated as a chance hybrid in the Botanic Garden at Rouen so long ago as 1777.

*Malus glaucescens*, now in bloom in the Crabapple Collection at the foot of Peters Hill, is one of the most recently recognized American species. A low, much branched tree with spiny branchlets, it will grow 15 to 20 feet tall with a crown fully 25 feet tall; the leaves are ovate, each from 2 to 2½ inches long and 1 to 2 inches broad, lobed and deeply toothed, shining green on the upper and gray-green and almost smooth on the under surface. The flowers are rose-pink in the bud, pink when fully expanded, and are borne several together in terminal clusters each on slender, rosy pink stalks; the stamens are salmon colored and add not a little to the beauty of the flower. It is found wild from North Carolina to Alabama and was brought into cultivation by the Arboretum in 1902.

*Cotoneaster multiflora*, sometimes known as *C. reflexa*, is now in full flower on Bussey Hill. A widespreading shrub with arching spreading branches, it grows from 6 to 10 feet tall and half as much in diameter. The flowers are white, conspicuous, and are borne in small clusters at the ends of short lateral shoots, transforming the whole branch into a spray of blossom. The fruit is crimson and relatively large. This Cotoneaster is native of northern and western China, extending west into Turkestan and has been in cultivation since 1837. It is perfectly hardy and is beautiful when in flower and in fruit. Other important members of the particular group to which this species belongs are *C. hupehensis* with very large, globose, crimson fruits and *C. racemiflora soongorica* with grayish foliage and coral-pink fruit.

Azaleas are, indeed, joyous shrubs and it may be said of them that one and all are worthy of the widest cultivation where acid soils prevail. On Bussey Hill there is a brilliant display of thousands of bushes. Very attractive at the moment is the native *Rhododendron nudiflorum*, the Pinxter-bloom, widespread in eastern North America from Massachusetts to North Carolina west to Ohio. A twiggy plant of compact habit, it is sometimes 10 feet tall and flowers when it is quite small. The delightfully fragrant blossoms borne in rounded clusters at the end of every shoot vary in color from the palest pink, almost white, to rose-pink; the out-thrust stamens are light crimson. A close relative is *R. roseum*, distinguished by its more hairy leaves and larger, deep rose-pink flowers.

E. H. W.

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