The Arboretum in early summer. The Arboretum is never more interesting or more full of beauty than it is in the early days of June. The leaves of most of the deciduous-leaved trees have now attained their full size and this year, thanks to the abundant rains of the spring, they are unusually large and are not yet greatly disfigured by insects. The conifers are now covered with their new leaves and are more beautiful than at any other season of the year. The Arboretum is still full of flowers for this is the time when several American Viburnums begin to bloom and some of them have been largely used in border and roadside plantations. Late-flowering Lilacs are in bloom and will continue to open their buds during the month. The Rhododendrons, although later than usual this year, already make a brave show; and the yellow-flowered American Azaleas are beginning to bloom before all the flowers of the Japanese Azaleas have disappeared. Early Cornels, Roses and Mock Oranges are already in flower. A large number of American and Old World Hawthorns are covered with flowers, and many plants in the Horsechestnut Group are exceptionally fine this year. Many of the American Magnolias are still in full bloom, and in the Shrub Collection visitors can find the flowers of many shrubs, including those of many Barberries, to interest them.

Viburnums. There are no small trees better suited for the decoration of American parks and roadsides than the three arborescent Viburnums of the eastern United States. The first of these to flower is V. prunifolium, the Black Haw of the middle states where it is a common arborescent shrub or small tree on rocky hillsides and in fence-rows, sometimes growing 30 feet high. It has rather narrower leaves than the other arborescent species from which it may be distinguished
by the absence from the leaf stalks of the wing-like margins which are found on those of the other species. The clusters of pure white flowers are rather smaller than those of the others and the fruit is dark blue covered with a glaucous bloom, and remains on the branches until the beginning of winter. This is the common tree Viburnum of the middle states, only reaching New England in southwestern Connecticut. It is perfectly hardy in the Arboretum where it has been blooming for two or three weeks and is now passing out of flower. The northern species, Viburnum Lentago, the Sheepberry or Nannyberry, has broad and lustrous leaves and large clusters of creamy white flowers which are followed by sweet and rather juicy nearly black or dark blue fruits. This is a common northern tree or treelike shrub often twenty or thirty feet tall, and just now is a conspicuous feature in many parts of the Arboretum. The third arborescent species, V. rufidulum, is perhaps the most beautiful of all Viburnums. It is a southern tree which naturally does not grow further north than southern Virginia and southern Illinois; in the rich soil found along the borders of river-bottom lands in Mississippi, Louisiana and Arkansas it is a tree often forty feet high with a tall straight trunk and spreading branches forming a symmetrical round-topped head. The leaves of this tree are thick, dark green, and more lustrous than those of other deciduous-leaved Viburnums. The flowers are pure white and are borne in broad, flat-topped clusters, and the fruit is bright blue and covered with a glaucous bloom. This Viburnum can be distinguished from the other species by the rusty brown covering of hairs on the margins of the leaf-stalks, branches of the flower-clusters and winter-buds. It has long been an inhabitant of the Arboretum where, although it is hardy in sheltered positions, it is only a shrub and probably will never grow into a tree. The best specimen is on Hickory Path near Centre Street. Of the shrubby species now in flower attention is called to Viburnum pubescens, a plant with small pointed leaves and small compact clusters of white flowers which are followed by shining black fruits. There is a large compact group of this shrub on the right-hand side of the Bussey Hill Road opposite the upper end of the Lilac Group now entirely covered with flowers. No other Viburnum blooms more profusely. In the same border are now in flower three Viburnums of the Opulus section of the genus in which the cluster of fertile flowers is surrounded by a ring of large and showy, white, sterile flowers. On the whole, the handsomest of these three plants is the European Viburnum Opulus or Guelder Rose. The flower-clusters are smaller perhaps than those of the other species, but the plant grows to a larger size and is more compact in habit; the leaves remain on the branches much later in the season, and the fruit is larger and of a deeper color. The Snowball of old-fashioned gardens is a form of this plant in which all the flowers are sterile (var. sterile). There is a form with yellow fruit (var. xanthocarpum) and a dwarf form (var. nanum) which is a low, compact, little bush which rarely flowers. The American species, V. americanum or Cranberry-tree, is a plant of looser habit, with translucent orange-red fruit which hangs on the branches until early spring. The leaves turn in the autumn to bright shades of orange and scarlet. The species of northeastern Asia, V. Sargentii, has larger sterile flowers than the other species and is de-
cidedly a handsomer flowering plant. The long-pointed leaves are interesting and of a good color, but the fruit is small, dull in color and inconspicuous. These Viburnums are all flowering in the Viburnum Collection where many of the Asiatic species are also now in flower.

**Early Summer Lilacs.** The so-called Persian Lilac (*Syringa persica*) is now in flower. This is a native of Afghanistan and is said to have been cultivated in Persia and India from time immemorial and to have reached eastern Europe nearly three centuries ago. It is a broad, rather low shrub with long-pointed leaves and small fragrant flowers in few-flowered clusters which are crowded at the ends of the slender drooping branches and appear like one long narrow inflorescence. The flowers are pale lilac color. There is a white-flowered form (var. *alba*) and one with deeply lobed leaves (var. *laciniosa*). The Persian Lilacs are graceful and delightful plants, and although they were early brought to the United States they are now too rarely found in American gardens. Crossed with the common Lilac (*S. vulgaris*) the Persian Lilac produced in the Botanic Garden at Rouen a hybrid with broader leaves and immense clusters of reddish flowers intermediate in size between those of its parents. This hybrid is one of the most vigorous, largest and most useful of all Lilacs. Unfortunately it has been called *Syringa chinensis*; it is also known as *S. rothomagensis* and as the Rouen Lilac. There is a variety (var. *alba*) with pale pink, not very attractive flowers, and there are forms with flowers deeper red than those of the type, and with double flowers.

*Syringa villosa* is a large, very vigorous and hardy shrub from northern China which is now just beginning to open its flower-buds. The flowers are pale rose-color or rarely nearly white, and are produced in immense quantities in short broad clusters. In spite of the disagreeable odor of the flowers this is a valuable plant as it is one of the last of the true Lilacs to flower and greatly prolongs the season of Lilac flowers. Crossed with the Hungarian *S. Josikaea*, which is also now in flower, *S. villosa* has produced in Paris a hybrid race to which the name of *S. Henryi* has been given. One of these hybrids known as Lutèce is now in flower and is one of the handsomest of garden Lilacs. It is a large and vigorous shrub with large dark green leaves and great clusters of blue-purple flowers. Some of the new Chinese species will flower a little later and these will be followed by the tree Lilacs of northeastern Asia.

**Robinia Kelseyi.** This Rose Acacia, which was discovered only a few years ago on the slopes of the southern Appalachian Mountains, proves a hardy and valuable garden plant. The flowers are smaller and lighter-colored than those of the well known Rose Acacia (*R. hispida*) which flowers a little later, and the branches are not covered with the viscid hairs to which the Rose Acacia owes its name. *R. Kelseyi* is a shrub sometimes growing from six to eleven feet high, with slender stems and branches, leaves composed of nine or eleven narrow lanceolate leaflets which are bronze color as they unfold, and short racemes appearing with the unfolding leaves and composed of from four to seven flowers produced from the axils of the leaves of short lateral young branchlets which grow from end to end of the branches of the previous year. Sometimes as many as four flower-
clusters are developed on one of the short lateral branchlets, and as the flowers in the upper clusters on the branchlet do not open until later than those of the lower clusters the plants are covered with fresh flowers for a long time. This Robinia will probably prove to be a better garden plant than the Rose Acacia, for although the flowers are not as large or as deep rose-color it does not spread by underground stems, a habit which makes the Rose Acacia a weed which once established it is almost impossible to control.

The Pawpaw (Asimina triloba). A colony of this handsome tree, which is very common in the southern states but at the north occurs in only a few isolated stations, is now established on Hickory Path near Centre Street, and this year the leafless branches have been well covered with the curious, dark-brown, bad-smelling flowers. Under favorable conditions the Pawpaw is sometimes a tree forty feet high with a tall stout trunk; it has handsome drooping, dark green leaves often a foot long and six inches wide, but it is chiefly interesting as the only extra-tropical North American tree, with the exception of some of the wild Plums, which produces edible fruit. This is borne in few-fruited clusters and is from three to five inches long and from an inch to an inch and a half in diameter, greenish yellow, becoming almost black when fully ripe with semi-translucent, sweet, luscious flesh. The ripe fruit does not bear transportation and is rarely sold in markets, and so is little known except to boys who live near Pawpaw thickets. The American Genetic Association, however, has now taken up the possibility of the improvement of this fruit and is offering prizes for information about the largest trees, and about trees, regardless of their size, which bear fruit of unusually good quality.

Rhododendron (Azalea) calendulaceum. Of the American Azaleas the pink-flowered R. Vaseyi and the Rhodora are already past blooming. The flowers of two other pink-flowered species, R. canescens and R. nudiflorum, are fast falling, but R. calendulaceum from the Appalachian Mountain slopes, the handsomest of the whole group, is now beginning to open its yellow or orange-colored flowers. This is a perfectly hardy shrub which can be found scattered through the roadside plantations in the Arboretum and in a large mass on the slope below Azalea Path where the variation in the color of the flowers can be studied. As a garden plant this is superior to any of the hybrids which have been in part derived from it. A large number of these hybrids were raised in Europe nearly a century ago by crossing R. calendulaceum with the American R. viscosum and the Caucasian R. luteum. These plants are usually known as Ghent Azaleas, but the correct name for them is Rhododendron (Azalea) Mortierii, for the Ghent baker named Mortier who raised a number of such hybrids. As found in nurseries these plants are all grafted and therefore do not grow so well as seedlings. The hardiness of many of them is reduced by the blood of the Caucasian species which is not hardy in this climate, and they are more or less valuable here as garden plants as the influence of the blood of the American species is greater or less. None of them surpass, however, R. calendulaceum in the beauty of their flowers and none of them are so long-lived or so satisfactory garden plants.