Gordonia alatamaha. With the exception of the Witch Hazel, which in this latitude is a shrub rather than a tree, this Gordonia is the last tree of the year to flower in the Arboretum, and its pure white, cup-shaped flowers, resembling a single Camellia flower, can now be seen on the plants on Azalea Path and on Hickory Path near Centre Street. This handsome little tree has an interesting history. It was discovered by John Bartram, the famous Pennsylvania traveler and botanist, in 1765 near Fort Barrington on the Altamaha River in Georgia. John Bartram's son William visited the locality in 1778 and collected seeds and roots of this tree, and Dr. Moses Marshall who visited the locality in 1790 was the last botanist who has seen it growing naturally. Many botanists have hunted for it in vain in the neighborhood of Fort Barrington but without success, and this tree has been preserved by the plants and seeds collected by William Bartram and their descendants. Many of these are growing in gardens near Philadelphia and there are large and very old specimens in the neglected arboretum of the Brothers Painter at Medina and of John Evans in Radnor Township, Delaware County. Good plants may be seen in Fairmount Park near the Horticultural Building and in a few private gardens near the city. This Gordonia has been an inhabitant of the Arboretum for many years where it flowers in sheltered positions every autumn. Late in the season the leaves turn orange and scarlet before falling.

Summer and autumn fruits. The interesting and often brilliant fruits of many trees and shrubs can be found in the Arboretum every year from July to March, and although this is not a remarkably good season for fruits here some plants are producing unusually large and brilliantly colored crops. Nowhere else are the fruits of trees and
shrubs more attractive and more beautiful than in the northeastern United States, but the value of fruit-bearing plants for the decoration of summer and autumn gardens is hardly appreciated yet by American gardeners who are slow to realize that plants which are interesting for their flowers and fruits and increase in beauty from year to year make a setting for the gardens of eastern America which cannot be found in any other land. Such plants abound in the Arboretum and nowhere else can the fruits of trees and shrubs hardy in New England be seen and studied to such advantage.

**Crataegus Arnoldiana.** This Thorn is a native of eastern Massachusetts and one of the first of the American species raised at the Arboretum where it was found growing wild on a wooded bank. It is a tree with a well developed trunk, erect and spreading branches which are furnished with many long stout thorns, the smaller branches being conspicuously zigzag. The flowers are large in ample clusters and open with the unfolding of the leaves which later grow to a good size, and are dark green in color. The fruit, however, is the handsomest thing about this tree; it is nearly globose, about an inch in diameter and bright red, and beginning to ripen from the middle to the end of August falls gradually the end of September or early in October. Of the Thorns in the Arboretum collection with early-ripening fruits *C. Arnoldiana* is the handsomest, and as a fruit tree it may well find a place in every American garden in which an early autumn display is desired.

**Crataegus pinnatifida.** This is a native of northeastern Asia and has long been an inhabitant of the Arboretum. It is a large shrub or small tree with large, deeply divided, dark green very lustrous leaves, large flowers, and bright scarlet fruit which ripens while the leaves are still green. This is one of the handsomest of all Thorns, and it is economically interesting because one of the large-fruited forms is cultivated in orchards as a fruit tree in the neighborhood of Peking and in other parts of northern China. There is a large specimen of this Thorn among the Maples near the parkway boundary of the Arboretum and others can be seen in the Crataegus Collection on the eastern slope of Peter's Hill and on the Bussey Hill Overlook.

**Viburnum cassinoides.** There are only small crops of fruit on several of the American Viburnums this year but that of this inhabitant of northern swamps has never been larger or in better condition. As it grows naturally *Viburnum cassinoides* is a tall and usually unsymmetrical shrub, but in good soil it develops into a broad, round-topped compact bush. The leaves are thick, dark green and lustrous. The creamy white flowers are produced in large convex clusters, and the fruit when fully grown is at first nearly white, turning as it ripens bright pink and finally dark blue, berries of the three colors often appearing together in the same cluster. This Viburnum is a fast-growing and perfectly hardy shrub, and there are few plants which combine so much beauty of foliage, flowers and fruits. It has been largely used in the Arboretum and good plants can be seen in many of the roadside plantations, especially by the road at the top of Peter's Hill.
The Chinese Viburnums. As compared with most of the American and some of the Japanese species the new Viburnums from western China are of small value as flowering plants, but at least two of them, *V. theiferum* and *V. hupehense*, deserve a place in the garden for their handsome fruits. That of *V. theiferum* is found in broad, long-stalked, drooping clusters and is oval and about half an inch long. Early in October this fruit is light orange color and very lustrous but later becomes scarlet. This Viburnum has grown rapidly in the Arboretum where it forms a broad shrub with rather spreading stems. The leaves are thick, long and narrow, dark dull green, conspicuously veined, and hang on long stalks; the flowers are small, and in small, compact clusters. The leaves are used by the Chinese in the mountain regions of the west as a substitute for those of the Tea plant. As it grows here it proves to be the best of the numerous Viburnums introduced by Wilson. *Viburnum hupehense* is a vigorous shrub with erect stems, smaller and thinner leaves than those of *V. theiferum*, and globose scarlet fruits about one-third of an inch in diameter, in broad lax, many-fruited clusters. Of no particular beauty when in flower, just now this plant is one of the most attractive of the red-fruited Viburnums in the collection. These two plants can be seen in the general Viburnum Collection on the right-hand side of the Bussey Hill Road and to better advantage in the collection of Chinese shrubs on the southern slope of Bussey Hill.

*Malus Sieboldii, var. calocarpa*. In the collection of Crabapples at the eastern base of Peter's Hill there is now no more beautiful plant than this large-flowered, large-fruited form of a common Japanese plant. As it grows in the Arboretum this Crabapple is a bush eight or ten feet tall and broad with dark green leaves which are oblong and slightly toothed on the fruiting branches and broad and deeply three-lobed on vigorous shoots. The flowers are rose-colored and white, and from an inch to nearly an inch and a quarter in diameter, and the large, bright red lustrous fruits are sometimes nearly an inch in diameter. This beautiful Crabapple was raised at the Arboretum from seeds sent here from Japan by Dr. W. Sturgis Bigelow and it is doubtful if it is known in many other gardens. In this climate *Malus Sieboldii, var. calocarpa* is a garden plant of the first class.

*Malus baccata, var. Jackii*. This variety of the common Crabapple of eastern Siberia was raised at the Arboretum from seeds collected by Mr. J. G. Jack at Seoul in 1905 and has proved one of the handsomest and most interesting of the different forms of *Malus baccata* in the Arboretum where it is established in the Crabapple Collection at the eastern base of Peter's Hill. The trees, although small, are shapely in habit with clean stems and spreading branches. The leaves are thick, almost coriaceous, long-stalked, from four to six inches in length, very dark rather dull green above and pale below. The pure white flowers are nearly two inches in diameter, and the fruit, which is now nearly ripe, hangs gracefully on long red drooping stems. It is about half of an inch long, rather longer than broad, deep crimson and very lustrous. This is a valuable addition to the list of Crabapples which can be successfully cultivated in this climate. Unfortunately the new Crabapples which have been introduced in recent years from
eastern Asia can only reach other gardens slowly for the plants in a large collection like that of the Arboretum hybridize so persistently that seedlings raised from seeds produced here are rarely like the seed parents, and the Arboretum Crabapples in their true form can only be obtained by grafting or budding.

**Chinese Cotoneasters.** The handsomest shrub in the Arboretum during nearly the entire month of September was a form from western China of *Cotoneaster racemiflora* which has been called variety *soongoric*. It is a tall shrub with spreading and drooping stems, pale leaves, white flowers, and large bright red fruits which completely cover the branches. Some of the Chinese species have more conspicuous flowers and handsomer foliage, but none of them have yet equalled in the Arboretum this inhabitant of the dry arid river valleys of western Szech'uan in the size, brilliancy and abundance of their fruits.

**Cotoneaster divaricata.** Of the large-growing Chinese species this is perhaps the handsomest at this time, for the small bright red fruits which are produced in great abundance make a handsome contrast with the small, dark green, shining leaves. The flowers of this shrub are small and bright rose color. The new Chinese Cotoneasters are best seen on the southern slope of Bussey Hill, and the collection will repay careful study as it contains some of the most valuable shrubs for American gardens of recent introduction.

**The Sassafras.** There is now no more beautiful tree on the margins of New England woods and by New England roadsides than the Sassafras, as the leaves have turned or are turning orange or yellow more or less tinged with red. The autumn colors of several trees are more brilliant but none of them equal the Sassafras in the warmth and delicacy of their autumn dress. The Sassafras is a handsome tree at other seasons of the year. In winter it is conspicuous by its deeply furrowed, dark cinnamon-gray bark and slender light green branches; in early spring before the leaves appear it is covered with innumerable clusters of small bright yellow flowers which make it at that season a conspicuous and delightful object. The leaves are thick, dark green and lustrous above, paler below, and vary remarkably in shape as they are sometimes deeply three-lobed at the apex and sometimes entire without a trace of lobes. The fruit is a bright blue berry surrounded at the base by the much enlarged and thickened scarlet calyx of the flower and raised on a long bright red stalk. No other northern tree produces such brilliantly colored fruit. Unfortunately there is little time to enjoy it for the birds eagerly seek it as it ripens. The living wood of the Sassafras is not attacked by borers and the leaves are not destroyed and are rarely disfigured by insects. The thick spongy roots of the Sassafras produce suckers freely and these with a little care can be easily and safely transplanted. How many persons now plant the Sassafras and in what American nursery can it be found? It was, however, one of the first North American trees carried to Europe as it was established in England some time before the middle of the seventeenth century. The American tree was believed to be the only Sassafras until 1879 when another species, *S. tsumu*, was discovered in central China. This tree is now in the Arboretum but its ability to grow here has not yet been established.