Asiatic Crabapples. During the next few days the Crabapples from eastern Asia will be the most conspicuous flowering plants in the Arboretum. The old collection is on the left-hand side of the Forest Hills Road. There is a larger collection containing a larger number of varieties at the eastern base of Peter's Hill, and the species found by Wilson in western China have also been planted on the southern slope of Bussey Hill, just below the Overlook. The best known of the Asiatic Crabapples in gardens is called *Malus floribunda*. It is shrubby rather than treelike in habit and makes a broad, round-topped bush sometimes twenty-five feet tall and broad. This plant blooms profusely every year and is most beautiful when the flowers begin to open for they open gradually and in succession, and the contrast of the white flowers with the bright rose-colored flower-buds greatly adds to the beauty of both. The fruit is not much larger than a pea, and adds little to the ornamental value of this plant. The origin of *Malus floribunda* is obscure. Although first sent to Europe from Japan more than sixty years ago, it is not a native of Japan and was probably carried there from China with many other plants found in Japanese gardens and long believed by European travellers to be native to the Island Empire. By some botanists it is thought to be a hybrid, and although its seedlings show some variation this hypothesis has not yet been clearly proved. The whole question of the origin and proper limitation of the species of Asiatic Crabapples is greatly complicated by the fact that all Apples hybridize so freely that plants raised from seed gathered from plants in a large collection like the one in the Arboretum rarely resemble the parent plant. This tendency to natural
hybridization among the Apples, while it makes endless trouble for the systematic botanist, has advantages for the gardener, as has already been seen in the Arboretum where one of the most beautiful of all flowering Apples, now called *Malus Arnoldiana*, appeared a few years ago among seedlings of *M. floribunda*. This plant is also shrubby in habit, with flowers more than one-half larger than those of *M. floribunda* and much larger fruits. It is probably a hybrid with some of the large-flowered hybrids of the Siberian *Malus baccata*. Near the Administration Building are large seedling plants raised from *M. floribunda* which are peculiar in their persistent fruit which remains in good condition on the branches until spring and supplies the birds with an abundant supply of winter food. Another supposed hybrid between two species of eastern Siberia, sometimes called *Malus cerasifera*, is common in the Arboretum in various forms. With plenty of space this grows into a large, wide-spreading tree. The pure white flowers are perhaps larger than those of any of the other Crabapples. The fruit on different plants varies in color and greatly in size and shape, on some trees retaining and on others losing the calyx. Selected forms of this tree can only be obtained by grafts. *Malus Halliana*, usually known as the Parkman Crab, was found in Japanese gardens by Dr. Hall and sent to the United States in 1861 in the first consignment of plants to reach the United States direct from Japan, and was first cultivated by Francis Parkman, the historian, in his garden on the shores of Jamaica Pond, now in the Boston Park System. This is a treelike shrub with erect and spreading stems and is smaller than *Malus floribunda*, differing from it in its darker bark, thicker leaves deeply tinged with bronze color when they unfold, and semidouble, bright rose-colored flowers drooping on long slender stems, and in its smaller fruit which is not larger than a small pea. Some persons consider this the most beautiful of the Crabapples, and certainly the color of the flowers is unlike that of any of the others. The origin of this plant was unknown till Wilson found it growing in western China near the borders of Tibet. Another Chinese Crab, *Malus spectabilis*, is usually found in gardens only in the form with double or semidouble flowers. It is a tree with erect, slightly spreading stems which form a vase-like head, and in some of its forms is an attractive and useful plant. *Malus Scheideckeri*, which is no doubt a hybrid although of uncertain origin, is a small tree of pyramidal habit which usually produces its comparatively small pink flowers in such profusion that it should find a place in every collection of these plants. *Malus (Pyrus) toringo* was first used as a name for a Japanese Crabapple, and there are two or three Japanese forms in the collection here under that name. In 1882 the Arboretum received from Dr. Bretschneider, then at Pekin, seeds of a Crabapple which has been growing here ever since and has been considered a form of the Japanese *M. toringo* from which, however, it differs in its much smaller and later flowers and smaller fruits which on some individuals are red and on others yellow. Although one of the least showy of the Crabapples, this Chinese tree is valuable as it flowers after the others have passed. Two other Japanese species are well represented in the collection from seeds collected
by Professor Sargent in Japan in 1892, *Malus zumi* and *M. Sargentii*; the former is a common tree on the mountains of central Japan and the latter is an inhabitant of the borders of salt marshes in Hokkaido. The dwarf habit of this species makes it a good subject for small gardens. The rather small flowers are produced in great abundance, and the dark red fruits remain on the branches until growth begins the following spring. *Malus baccata* is a common tree in eastern Siberia, and was one of the first of these plants introduced into Europe. It has no doubt played an important part in the introduction of many hybrid forms, including the so-called Siberian Crabs, like the "Transcendent" and many other well known varieties. These are supposed hybrids between the common Apple and *Malus baccata*; among them are some of the most beautiful flowering plants in the whole Apple Group. The flowers are followed by brilliant fruits valuable in cooking and for preserves. The Siberian Crabs are hardier than any of the domestic Apples and have therefore been found valuable in some of the colder parts of Canada and the United States where other Apples cannot be grown. In cultivation *Malus baccata* is a tall narrow tree with small nearly white flowers and fruit about the size of a pea. There is a fine specimen of this tree in front of the gardener's house in the Harvard Botanical Garden in Cambridge. It is impossible within the limits of one of these bulletins even to mention the names of all the species, hybrids, forms and varieties of these plants in the collection which has been in process of formation for nearly forty years and must now be one of the most complete in existence. It will well repay a careful study, especially the new collection at the base of Peter's Hill. Few plants are better suited to the New England climate than the Crab-apples; they all produce beautiful flowers and many of them brilliant fruit. It should not be forgotten, however, that all Apple-trees are liable to be attacked and killed by the San José scale, and that it is unwise to plant them unless this pest can be kept in check by careful spraying.

**Early-flowering Honeysuckles.** Some of the early Bush Honeysuckles are already in flower; indeed the pale yellow fragrant flowers of two Chinese species, *Lonicera Standishii* and *L. fragrantissima* have already fallen. These plants have long been favorites in the gardens of the middle and southern states where they grow to a large size and form round-topped shapely bushes. In New England, however, these plants are not always perfectly hardy and it is not usual for them to flower as well as they have this spring. Other species already in flower in the Shrub Collection are *Lonicera tangutica*, with small pink flowers, *L. syringantha*, var. Wolfii, with very fragrant violet-colored flowers, *L. canadensis* and *L. utahensis*, with pale yellow flowers, the geographical forms of *L. coerulea*, with larger yellow flowers, and the beautiful Japanese *L. gracilipes*, with its drooping pink flowers. For another month, at least, different Honeysuckles will be opening their flowers, and these will be followed on many species by brilliant fruits which often make these plants conspicuous in summer and autumn.

**Currants and Gooseberries.** Many interesting plants now in flower will be found among the Currants and Gooseberries (*Ribes*) in the Shrub
Collection. The two yellow-flowering American Currants are still the most attractive perhaps of all these plants. The better known of these, the so-called Missouri Currant (*Ribes odoratum*), is still a favorite garden plant in the United States and is found in many old gardens. It owes its popular name to the fact that it was first found on the upper Missouri River; it is now known to occur on the great plains from South Dakota to Texas. In many books this plant appears as *Ribes aureum*, but this name properly belongs to a smaller plant from the northwest and the northern Rocky Mountain region, with more slender branches, smaller flowers and black or orange-colored fruits; it appears to be extremely rare in cultivation. The two plants are growing together in the general Shrub Collection and the difference in their general appearance and the structure of their flowers can be readily seen. One of the Rocky Mountain Currants, *Ribes cereum*, with small white flowers, is as usual attractive at this season. Among Gooseberries already in flower the most interesting, perhaps, are *Ribes pinetorum*, from the mountains of New Mexico and Arizona, with bright orange red flowers, *R. niveum* from northwestern North America, with pure white flowers, *R. Cynosbati* from eastern North America, *R. stenocarpum* from western China, with white flowers, and *R. robustum*, a vigorous white flowered plant and probably a hybrid.

**Early Lilacs.** Two Chinese Lilacs *Syringa affinis*, with white flowers, and the lilac-colored form of this species, var. *Giraldii*, are already in flower in the Lilac Group. The white-flowered form is largely cultivated in the gardens of Pekin, and the variety comes from the Province of Shensi. The flowers of these two Lilacs are fragrant and beautiful but their open and irregular habit of growth is not attractive. They are certainly valuable, however, for the earliness of their flowers.

**The Oak Collection.** This is one of the best times of the year for the study of Oak-trees. The unfolding leaves are beautiful, and in their color, in the absence or presence of a hairy covering and in the character of this covering when it exists, are found characters by which the different species may often be easily recognized. These vernal characters indeed are less variable than those like the shape of the leaves and the size and shape of the fruit which are usually depended on for the recognition of Oak-trees. Unfortunately only a comparatively few species can be successfully grown in New England. Of the fifty odd species in the United States only twenty-one species and a few natural hybrids are hardy in the Arboretum. The Oaks of western Europe are hardy but are usually short-lived and unsatisfactory here; the few deciduous-leaved species of eastern Asia flourish here but no Oak-tree with evergreen leaves can be grown in the Arboretum where none of the California, Mexican or Himalayan species can be found.

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