Compared with those of recent years it is a "late spring" in the Arboretum after a winter remarkable in the large amount of snow which has fallen and which has covered the ground continuously from the middle of December to the middle of March. The deep cover of snow has successfully protected low growing plants; it has protected, too, field mice which have injured some valuable shrubs by stripping the bark from their stems and branches. The cold was not unusually severe. Covered by the deep snow the ground was free or nearly so of frost during the winter, and in March there was promise of an exceptionally early spring, but on the morning of March 29th the thermometer registered two degrees below zero and the prospect of an early spring was ended. Fortunately this extreme cold at the end of March had not been preceded by days of high temperature, and comparatively little damage to plants in the Arboretum was caused by it. Rhododendrons with persistent leaves have suffered here more than any other plants by the low temperature at the end of March. There are dead branches on many plants of the Catawbiense Hybrids which have grown uninjured here for years; and some of the large plants of the native Rhododendron maximum have suffered even more than the Catawbiense Hybrids. The hybrid Rhododendron myrtifolium (R. hirsutum x minus) which has been growing in the Arboretum since 1885 and has never before lost a leaf or a flower-bud, is now badly injured. It is interesting that a related hybrid, R. arbutifolium, the R. Wilsonii of many gardens (R. ferrugineum x minus) is uninjured, as is R. minus itself. Uninjured, too, are R. catawbiense, the Caucasian R. Smirnozii, the Japanese R. Metternichii, and R. Wateri, the hybrid of one of his
Catawbiense hybrids with *R. Metternichii* raised several years ago by the late Anthony Waterer. The varieties and hybrids, too, of *Rhododendron caucasicum* are uninjured in leaf and bud. Of other broad-leaved evergreens *Pteris* or *Andromeda floribunda* from the southern Appalachian mountain region is as usual uninjured and covered with flower-buds soon to open. This is certainly the handsomest and one of the hardiest broad-leaved evergreen plants which has yet been thoroughly tested in the northeastern states. The more common *Leucothoe Catesbyi* of the same region often loses all its leaves during severe winters when the plants are fully exposed to the sun, and last spring the native Inkberry (*Ilex glabra*) lost its leaves which now are as bright as they were in October. Even such a hardy broad-leaved evergreen as *Evonymus radicans vegeta* loses many of its leaves in severe winters which, however, never appear to injure the leaf-buds. This fact is important for this Evonymus is the only substitute for the Ivy which can be successfully grown in eastern Massachusetts. The leaves of the Ivy which has been growing here on the Administration Building for a number of years has suffered more this winter than it ever has before but probably will recover. This is one of the plants obtained from Riga on the Baltic which is probably as cold or colder than any other region where the Ivy grows naturally. It was hoped that plants which had grown in such a cold country would prove hardy here, but it now appears that there is little hope that an Ivy can be found which will prove really hardy east of Cape Cod. The Arboretum collection of conifers is in unusually good condition this year and there are no losses to report. The leaves of the southern Short-leaved Pine (*Pinus echinata*) are as usual badly burned, and although this valuable timber tree grows naturally on Staten and Long Island it is now evident that although it can exist in the Arboretum it will never make a fine tree here. The Chinese Pines (*Pinus sinensis* and its varieties) which lost nearly all their leaves a year ago are now in good condition; and the leaves of the Japanese Black Pine (*Pinus Thunbergii*) have been less injured by the winter than they have been for several years. It is still possible to say that the most beautiful conifer in the Arboretum is the Carolina Hemlock (*Tsuga caroliniana*).}

**Winter Flowering Witch Hazels.** These plants have behaved in an unusual manner during the past winter. The species from southern Missouri and Oklahoma (*Hamamelis vernalis*) which usually blooms here at the end of December or early in January did not open its flowers until the middle of March. The flower-buds of this species, of the Chinese *H. mollis* and of *H. japonica* on the plants growing in low ground near the pond at the junction of the Meadow and the Valley Roads were killed. The plants of *Hamamelis japonica* have been growing in this position for the last twenty-five or thirty years and have never before failed to cover themselves in late January and in February with flowers. On high ground and in better drained soil *H. mollis* this year did not bloom until March 23, or at least two months after its normal time for flowering, and the flowers of the Japanese species were equally late. On the 21st of April the new red-flowered Japanese *H. incarnata* was still in full flower in the temperature of a hot July day. The flowers of this plant are small with dull red-brown
petals of little beauty, and it is only as a curiosity that it is worth a place in the garden.

The middle of April the season appeared to be ten or twelve days earlier than last year but on April 20th and 21st the temperature in the neighborhood of Boston rose in the afternoon to 87° and the buds of many plants began to open, and now a week later there is not more than a week's difference in the opening of flowers between this year and last. The Soft Maple (Acer saccharinum) which has been known to flower here in February was in full bloom this year on March 24th, nine days later than last year; and a tree of the Red Maple (Acer rubrum) was in flower this year on April 20th or ten days later than last year. In spite of the lateness of the season there are interesting flowers to be seen in the Arboretum, although it is still not too late for a destructive frost like that of April 21, 1922, which did so much damage to flowers here.

**Early Magnolias.** Three Japanese species are conspicuous in early spring; all of them, however, bloom at least ten days too early for their delicate white petals rarely escape injury by cold nights. The handsomest and the best known of these plants, *Magnolia stellata*, is a large round-topped shrub with star-like flowers which appear before the dark green leaves. Although a native of southern Japan, this Magnolia is entirely hardy in Massachusetts, and if it flowered later would be one of the most desirable plants which could be grown in northern gardens. The other early-flowering Japanese species are *Magnolia salicifolia* and *M. kobus* var. *borealis*. The former is a small slender tree with narrow pointed leaves and smaller flowers than those of *M. stellata*. It is a native of the mountain slopes of northern Hondo. It is hardy but has never grown as well in the Arboretum as it has in Highland Park, Rochester, New York. The third of these plants, the northern large-flowered form of *M. kobus* (var. *borealis*) is the most northern in its range of the Magnolias which flower before the leaves appear, and grows naturally only in Asia. This northern tree was introduced into gardens by the Arboretum as long ago as 1878, but in cultivation has never been a particularly successful plant. The small white flowers are pendent and are not often produced freely until the tree is thirty or forty years old. Growing in the open the trees are apt to produce heavy lower branches which interfere with the growth of the stem which is stunted and often killed by them. This Magnolia grows naturally in dense forests in which it becomes a tall tree with a long straight trunk, and it is probable that it will do better than it has in the Arboretum if it could be planted with other trees in woods. The old trees have all disappeared from the Arboretum, but one of the original seedlings growing in a garden in Brookline, is now more covered with flowers than it has ever been before.

**Forsythias** are now covered with nearly fully expanded flowers and are the most conspicuous plants in the Arboretum. When planted in low ground they have lost some of their flower-buds from cold, especially those at the end of the branches, but even in low situations they are fuller of flowers than usual. A species which is flowering this spring for the first time in the United States is
**Forsythia ovata**, a native of the slopes of the Diamond Mountains of Korea, and in its range the most northern of the species of Forsythia. It is a large shrub with light yellow branches, broad, long-pointed, coarsely toothed leaves from 4-5 inches long, and from 3-4 inches wide, and clear primrose colored flowers rather smaller than those of *Forsythia Fortunei* or any of the forms of *F. intermedia*; they open about a week earlier than those of the other Forsythias. This Korean Forsythia promises to be a useful addition to early spring flowering shrubs and to be hardy in parts of this country where the other Forsythias cannot be successfully cultivated. The Arboretum plants were raised from seeds collected by Wilson in Korea in 1918.

Other plants also in bloom are many Poplars and Willows. *Erica carnea*, the only species of the true Heaths which is entirely hardy in this climate has been covered during the last two weeks with its bright rose-red flowers. The bright yellow flowers of the Leatherwood (*Dirca palustris*) and the Spicebush (*Benzoin aestivale*) make these two widely distributed native shrubs attractive features of the Arboretum at the end of April. They are plants still too little known to gardeners.

**April Flowering Rhododendrons.** The earliest of these, the Siberian *R. dahuricum*, which can be seen on Azalea Path is now well covered with its small rose purple flowers. Last year they were fully open on April 12 and were ruined by frost on the 21st. They may be ruined again this year for it is not too late for killing frosts. The flowers of the north China *Rhododendron mucronulatum* which open usually two or three days later than those of the Siberian plant are less delicate and are rarely injured by frost. On the lower side of Azalea Path there is a mass of this beautiful plant which is well worth a place in the spring garden. The plants of the hybrid Rhododendron (*R. citatum* x *dahuricum*) known in gardens as *R. praecox* "Early Gem" in the general Rhododendron collection are covered with expanding flower-buds. This is an interesting and handsome plant but the flowers are very delicate and five years out of six are ruined by frost.

Mr. J. G. Jack of the Arboretum staff will conduct a Field Class on Saturdays during the spring and early summer, to assist those who wish to gain a more intimate knowledge of the native and foreign trees and shrubs which grow in New England. Instruction will be given in informal outdoor talks and in the examination of the plants. Different botanical groups will be visited at each meeting, although any trees or shrubs found may form subjects for study. No technical knowledge or special preparation is required in order to join the class as the instruction is intended to be simple in character, affording opportunities for questions and answers relating to the specimens under observation. Unless otherwise notified the class will meet promptly at ten o'clock in the morning, on Saturdays, in the Arboretum at the Forest Hills entrance, beginning April 28th. The class will close on the 23rd of June. The fee for the course is $5.00, payable in advance.