



## Annual Report 1908-1909

TO THE PRESIDENT OF THE UNIVERSITY:

SIR,

I have the honor to submit the following report on the progress and condition of the Arnold Arboretum during the year ending July 31, 1909.

The income of the Arboretum for the year has been substantially increased by the gifts of a large number of persons interested in its work. These gifts have made it possible to carry out several improvements, to extend considerably the collections of living plants, and to establish a higher grade of maintenance. The great need of the Arboretum is now more land. It is not probable that another Arboretum will be founded in the United States under conditions as favorable to permanency and success as those which we enjoy. The Arnold Arboretum will probably therefore always be a national institution in the sense that scientific investigations along certain lines must be done here. As a museum of living plants rich in species and conveniently arranged for display and study it is already an important factor in the educational equipment of the community, and as a museum it is largely used by gardeners, landscape-gardeners, and nurserymen from all parts of the country. The two hundred and twenty acres, however, contained in the Arboretum are not sufficient for the proper cultivation and display of the living plants which can be grown successfully in this climate, and, unless more ground can be obtained, it will be impossible to meet the greater demands which properly will be made in the future on the Arboretum or to make it what it should be, the greatest, the most comprehensive and most beautiful dendrological garden and the most important and useful dendrological scientific station.

The Arboretum expedition to western China begun three years ago was brought to a successful close by [Mr. Wilson](#)'s return to England in May. The results of this journey are 2,262 packages of seeds and numerous living plants and cuttings representing 1,473 numbers, an herbarium of 30,000 specimens of about 2,500 species of woody plants, and a set of 720 photograph plates chiefly of trees and forest scenery and of great scientific value and interest. Seeds of about 900 numbers have already germinated at the Arboretum where there are also growing several species of plants received from Mr. Wilson or raised from cuttings sent by him. In 1907 the spruces, firs, and hemlocks of Hupeh produced no seeds, and in Szech'uan

Mr. Wilson in 1908 could find no seeds on these trees which occur in great variety on the mountains bordering the Tibetan frontier.

The Arboretum has been successful in raising a large number of the pines and larches of western China, but the other *Abietineae* are still unintroduced into Western collections. Of the seeds sent home by Mr. Wilson 11,659 packets have been presented to some of the best cultivators in the United States and Europe. These seeds have generally successfully germinated and there is every reason to believe, therefore, that the trees and shrubs of western China will, through the agency of the Arboretum, become common in gardens and plantations.

Mr. Wilson's travels, confined entirely to central and western central China, left unvisited the northern provinces of the Empire. The flora of these provinces, although still little known, is believed to be interesting; and to continue our Asiatic explorations and to bring into our gardens Chinese plants from regions with climates even more severe than those of New England the Arboretum has engaged [Mr. William Purdom](#), a young English gardener, to pass three years in northern China. Mr. Purdom left Boston in February for Peking. His instructions were to proceed in early spring, via Gehol, north-westward to Weichang, at the base of the Hunan Mountains, one of the Imperial Hunting Grounds where extensive remains of the northern forests can still be found, and a region not previously explored by botanists. During the first summer he was also to visit the sacred mountain of Wutai in Shensi to gather in September seeds of a number of conifers and other trees which are known to exist in the grounds surrounding its numerous temples.

This being accomplished, Purdom was to return to Weichang for autumn collecting. His seeds and photographs have begun to arrive, and at the dates of his last letters the plans for his first year were being successfully carried out. His second year is to be devoted to exploring the unknown forests on the mountains of southern Shensi, and in the early spring of 1911 he expects to be at Lan-chou-fu on the Hoangho with the purpose of devoting that season to collecting in the northwest province of Kansu. A part of the money needed for Mr. Wilson's journey was subscribed in Europe; and as an indication of the position as an international institution which the Arboretum has obtained I am glad to be able to report that one-half of the money for Purdom's journey has been secured in England.

The Hunnewell Building, erected in 1892, and used for the library, herbarium, and administrative offices of the Arboretum, has become overcrowded, and during the year the generosity of a few friends has made it possible to begin an addition to this building. This addition consists of a fireproof structure for the herbarium 49 feet 6 inches by 36 feet, four stories in height, the two lower stories 7 feet 3 inches in the clear and the two upper each 7 feet in the clear. This building is of brick, with floors, roof slabs, stairs, beams, and columns of reinforced concrete, and brick interior walls. The three lower stories will be fitted with steel cases on granolithic bases for the herbarium, and in the upper story, which will probably not be used for some time; the wooden cases of the old herbarium will be fitted.

On each floor there will be 2,262 herbarium compartments so that the new building will hold about 600,000 sheets, or nearly eight times as many as the herbarium now contains. The arrangement of the cases leaves spaces for twenty-eight well-lighted tables for persons working in the herbarium. The herbarium building is connected with the old building by a neck three stories high. This contains the stairway for the whole building and the hallways connecting the old and new portions. In the first story and in the mezzanine story there are toilet-rooms 6 feet by 14 feet, and on each of these stories there is a work-room 12 feet 6 inches by 14 feet. On the third story there are two work-rooms 9 feet 4 inches by 14 feet. Under the whole addition there is a high and well-lighted basement suitable for storage purposes and for work-rooms.

The removal of the herbarium into the new building leaves the entire second story of the old building for the library and gives accommodation for at least 15,000 additional volumes. The library now contains 20,576 bound volumes and many pamphlets, including the 2,072 volumes and 123 pamphlets received by gift during the year. This is believed to be the largest collection of books devoted more or less directly to the general subject of dendrology.

The interchange of plants and seeds with other horticultural and botanical establishments has been continued during the year. 16,594 plants, including grafts and cuttings, and 5,379 packets of seeds, including the Chinese seeds sent out during the year, have been distributed as follows: To the United States, 12,758 plants and 292 packets of seeds; to Chile, 1 packet of seeds; to Great Britain, 2,716 plants and 3,239 packets of seeds; to the continent of Europe, 1,120 plants and 1,794 packets of seeds; to New Zealand, 25 packets of seeds; to Japan, 6 packets of seeds; to Java, 1 packet of seeds. There have been received 907 plants and 1,324 packets of seeds; of these 603 plants and 97 packets of seeds came from the United States; 21 packets of seeds from Hawaii; 56 plants from Great Britain; 248 plants and 153 packets of seeds from the continent of Europe; 68 packets of seeds from Japan; and 985 packets of seeds from China (Wilson).

During the year 3,110 sheets of dried plants have been added to the herbarium and 2,951 sheets have been distributed to other institutions.

During the year instruction in dendrology has been given at the Arboretum by Assistant Professor Jack to University students in forestry and to a class of thirty special students, principally teachers.

Work on the [Bradley Bibliography](#) and on the catalogue of the library has made satisfactory progress during the year.

I take this opportunity to express again my thanks to the Massachusetts Society for Promoting Agriculture for their annual grant to increase the knowledge of trees, and to the members of the Visiting Committee who have done an important service in increasing the income of the Arboretum.

C. S. SARGENT, Director.