



Annual Report 1875-1876

TO THE PRESIDENT OF THE UNIVERSITY:

SIR,

I have the honor to submit the following report upon the condition and progress of the Botanic Garden and Arnold Arboretum during the year, ending August 31, 1876:

ARBORETUM

128 species of hardy trees and shrubs and many thousand specimens have been added to the Arnold Arboretum during the year. To relieve the over-crowded nurseries, 3,181 young forest trees have been planted out on various portions of the Bussey Estate. The cost of planting these trees, including digging them from the nursery rows, and transporting them on an average half a mile, was \$35.19, or one cent and one-tenth for each tree.

The unprecedented heat and drought of the past summer have been most unfavorable to these plantations, and barely fifty percent of all the trees planted survive. As an experiment in silviculture, the one and two year-old seedling trees, or about two-thirds of the whole, were planted by what is known in Europe as the "notch" system; that is, they were inserted in the intersection of two cuts made at right angles in the sod with a common garden spade, the ground having received no previous preparation. However successful and economical such a system may be in a humid climate like that of Scotland, it cannot be recommended for the United States, where a more careful preparation of the soil seems essential, that the young plants may resist the severe ordeal of our usually dry summers. For the larger specimens of these plantations, small holes requiring but a few moments' labor were made; and, so far as I have observed, not a single one of the trees so planted has yet suffered. Various experiments in forest culture will be continued on a small scale in the future, as plants accumulate, with a view of arriving at the best method for New England planters to adopt.

INTERCHANGE OF PLANTS AND SEEDS

The interchange of plants and seeds with other Botanic and Horticultural establishments has been continued during the year, and this department of the Garden has assumed greater importance than ever before, the number of its correspondents, both in the United States and

Europe having largely increased. 18,235 plants and 1,872 packets of seeds have been distributed as follows: To Great Britain, 1,801 plants and 338 packets of seed; to the Continent of Europe, 1,583 plants and 508 packets of seed; to the Governor of Bermuda, 412 plants and 2 packets of seed; to all parts of the United States, 14,439 plants and 1,023 packets of seed. Of the above, 2,266 North American trees and shrubs have been sent from the nurseries of the Arboretum to Great Britain and the Continent of Europe, and 225 to the Island of Bermuda; while 11,067 seedling trees, principally belonging to North America and Asiatic species, have been distributed to different institutions and individuals throughout the United States.

4,338 plants and 2,473 packets of seed have been contributed by 91 donors. Of these, 56 plants and 264 packets of seed have been received from Great Britain; 307 plants and 1,620 packets of seed from the Continent of Europe; 14 packets of seed from the Island of Bermuda; 1 packet of seed from Australia; 55 plants and 29 packets of seed from the East Indies; and from all parts of the United States, 3,926 plants and 545 packets of seed.

Among many contributions from various parts of the United States, the most important have been plants and seeds from the Botanic Garden at Chicago; large collections of seeds of the plants of Southern California and Arizona, many of which are new, both to science and cultivation, from Dr. Edward Palmer; seeds of Californian plants from Dr. C.C. Parry, of Davenport, Iowa, and J.G. Lemmon, Esq., of Sierra Valley, California; a very valuable collection of tropical bulbs and seeds made in the Island of Java, by the late Mrs. W.A. Richardson, of Washington, and forwarded to the Garden by the kindness of Dr. Scheffer, director of the Botanic Garden at Buitenzorg; seeds of the East Indian *Primula imperialis*, from Miss Richardson, of Washington; plants of *Nymphceaflava* and of a new form of *Amaryllis atamasco*, collected by Mrs. Mary Treat, in Florida; seeds and bulbs of Utah plants, from A. L. Siler, Esq., of that Territory; seeds of the Southern States, from Dr. J.H. Mellichamp, of Bluffton, South Carolina; plants of *Gonolobus* and *Calycocarpum*, and seeds, from Dr. George Englemann, of St. Louis; seeds of ligneous plants of the Southern States, from A.H. Curtiss, Esq., of Jacksonville, Florida; acorns of two varieties of the Chestnut Oak, from H.W. Sargent, Esq., of Fishkill, N.Y.; large plants of *Rhododendron maximum*, from [H.H. Hunnewell, Esq.](#), Wellesley, Mass.; plants of the rare *Calypsoborealis*, from J.T. Macomber, Esq., Grande Isle, Vermont; a collection of Orchids made by Professor Farlow, at Woods Hole, Mass., and several large collections of the plants of Massachusetts, from [Mr. Jackson Dawson](#).

Among foreign contributors, the most important have been the Botanic Gardens at St. Petersburg, Paris, Palermo, and Kew; Herr Max Leichtlin, of Baden-Baden, Germany, and the following well-known nurserymen: Messrs. Veitch & Co., of London; Mr. William Thompson, of Ipswich, England; and Messrs. Huber & Co., Hyères, France.

The Trustees of the Massachusetts Society for Promoting Agriculture (the original founders of the Botanic Garden) have made me for the third time a generous annual grant of \$1,500, for the improvement and development of the Garden; and it is my duty to call attention to the fact that their sustained liberality has alone made possible the increased activity and usefulness of this department of the University.

C. S. SARGENT, Director.