AMERICAN BOTANICAL GARDENS

Botanic Garden of Harvard University: Cambridge, Massachusetts.

Founded in 1805, with about 7 acres of land. The system of garden, libraries, museum, laboratories and herbaria operated by Harvard College, is one of the most complete in existence. The Gray Herbarium and Library is classic ground. The garden itself is insignificant.

Arnold Arboretum:
Jamaica Plain, Massachusetts.

Founded through a bequest of $100,000, made about 1870, by James Arnold, of Providence, R. I. Now the greatest tree museum in existence, freely open to the public, covering over 160 acres.

Missouri Botanical Garden:
St. Louis, Missouri.

Established in 1859, through the will of Henry Shaw, who devised about 670 acres to the institution. A very large herbarium and library are being formed, with the Engelmann collections for a nucleus.

New York Botanical Garden:
Bronx Park, New York.

This is a strong association of annual members, who contribute $10 a year each, fellows and patrons, who, by co-operation with the city, with Columbia University, and a large endowment, have established a superb system of greenhouses, museum, library, herbarium, arboretum, and park. The sum originally subscribed was $350,000, and a tract of 250 acres in the Bronx was set aside for its use.

University of California:
Berkeley, California.

The botanical garden supported occupies several acres, and contained in 1905 about 2000 species. The valuable herbarium and library has been enriched by the gift of the Townsend Stith Brandegee herbarium and botanical library, presented in 1906.

Smith College:
Northampton, Massachusetts.
CALIFORNIA BOTANICAL ASSOCIATION.
SAN DIEGO, CALIFORNIA.

The objects of this association shall be the promotion of botanical science by exploration, experiment and research; the publication of agricultural and botanical works; the forming of an herbarium, a museum, and library, especially pertaining to agriculture and botany; and the establishment and maintenance of a botanical garden and arboretum, in which every known tree, plant or flower susceptible of cultivation, may be grown for purposes of public instruction, experiment, and scientific observation.

It is proposed to effect an organization, and to incorporate under the laws of the state of California, without capital stock (as pecuniary profit is not its object), at an early date, and every lady or gentleman interested in botany, horticulture, or the allied branches of science, is earnestly invited to become a charter member.

The plans under consideration contemplate the establishment of the CALIFORNIA BOTANICAL GARDEN as an institution of more than local importance, aiming to make it in time of even international value, with features that shall ensure it recognition among the educational factors of the nation. It is therefore proposed to select an “Honorary Advisory Board of American Botanists”, who shall be fully advised of our plans and the local conditions, and requested to express advice and suggestions as to the development of the educational and scientific features of our work, and to co-operate with us, and to use our advantages of climate in the experimental and research work of the several institutions with which they may be associated. The professors of botany in the leading universities of the United States, the directors of the Missouri Botanical Garden, of the New York Botanical Garden, of the Arnold Arboretum of Harvard University, the National Forest, and others, may thus be consistently invited to advise and co-operate with us in our plans—and as far as correspondence thus far conducted with these gentlemen has gone their cordial assistance may be depended upon from the start.

The main elements of the modern botanical garden are fourfold:—the utilitarian or economic, the aesthetic, the scientific or biologic, and the philanthropic. In the broadest interpretation of the economic department there might be included, to advantage, facilities for the display and investigation of all plants directly or indirectly useful to man, and their products. This conception would include forestry, pharmacognosy, agriculture, pomology, pathology and organic chemistry.

A sense of the beautiful can be maintained and cultivated in the establishment of the modern botanical garden, the buildings, roads, paths and planting being arranged with reference to tasteful and decorative landscape effect. The cultivation of decorative plants, and especially the fostering of a taste for them, and the bringing of unusual or new species to attention and effecting their general introduction, are important functions
of a botanical garden.

As a philanthropic agency, a botanical garden exerts a direct influence through its affording an orderly arranged institution for the instruction, information and recreation of the people, and it is more efficient for these purposes than a park, as it is more completely developed and liberally maintained. Its indirect, but equally important, philanthropic operation is through the discovery and dissemination of facts concerning plants and their products, obtained through the studies of the scientific staff and by others using the scientific equipment.

The scientific or biological department depends very largely for success upon its equipment. The library, herbarium, museum and laboratories are the sources whence exact information regarding the name, structure, habits, life processes and products of plants are derived, and they are the more useful as they are the more complete and thoroughly equipped. The research work of the scientific department should be organized along all lines of botanical inquiry, including botany, morphology, anatomy, physiology and paleontology, and the laboratories should afford ample opportunities and equipment for their success.

The plantations may follow either of three courses, geographic, systematic, or aesthetic—or, as opportunity permits, all three plans may be effectively used. As "systems" change, it is not desirable to adhere too rigidly to any in planning the arrangement of the plants. Native plants may well be grouped together; the cactus garden can at once be both geographic and systematic in its grouping; and many families of plants are capable of effective treatment together.

It seems desirable that the rules and regulations for the general scientific conduct of the institution, as far as may be practicable, shall be approved by the majority of the members of the Honorary Advisory Board, but all other business and affairs of the Association will be under the control of a local Board of Trustees or Managers. It is proposed that this Board shall consist of seven members, four of whom shall be elected by the association, one to be elected by the Board of Park Commissioners of San Diego, one to be elected by the San Diego Society of Natural History, and the seventh to be appointed by the San Diego Chamber of Commerce. This suggestion is made contingent on the said organizations agreeing to endorse the plans of this association, and to co-operate with it in carrying them to fruition.

The Board of Park Commissioners of San Diego have been asked to set aside a portion of the 1400-acre city park for the purposes of this association, for the planting of an arboretum and fruticetum, the economic, herbaceous, cactus, and other collections, and for sites for the buildings that may be necessary from time to time for the museums, libraries, laboratories and offices of the association. If these privileges be granted, the Board of Park Commissioners will have charge of the construction and maintenance of proper roads and walks, and the laying out of the grounds, which shall otherwise be under the management of the association. These grounds shall be open and free to the public daily (including Sunday) subject to such restrictions only as to hours as the proper care, culture and preservation of said grounds may require, and its educational and scientific privileges shall be open to all alike, male and female, upon such necessary regulations, terms and conditions as shall be prescribed by the managers.

There are now immediately available in the neighborhood of 3000 species of living plants, as a nucleus for our botanical garden. This number, in our climate, can be increased possibly ten fold, and maintained at a fraction of the cost necessary in the botanical gardens of the eastern United States. The New York botanical garden reported nearly 12,000 species at the beginning of 1906.

A library of about 3000 volumes,
and several thousand additional pamphlets and magazines—largely of a scientific or historical character, is offered the association as soon as a fire proof home can be provided. A small herbarium, and a nucleus for a botanical museum, will also be contributed at as early a day as they can be accepted and cared for properly.

In case the botanical garden is established within the limits of the San Diego city park, it is deemed desirable to eliminate from these grounds any nursery plantations. The use of five acres of land at La Mesa, with water rights, has been offered for temporary or permanent nursery use, as it may be required. By the sale of surplus plants and seeds as may be available from time to time, a considerable income will be derived, and in great part will be used for the purchase of botanical literature, or aid in otherwise equipping the scientific departments.

The botanist takes Nature as she is, and seeks to learn her ways. The horticulturist seeks to improve upon Nature, and to lead her in new paths. The florist, the forester, the gardener, the orchardist, the viticulturist, are members of the great army of agriculturists—that reaps a rich harvest from the labors of the botanist and the horticulturist. Our purposes must therefore invite experiment in many directions, but whether the results shall be small or great, soon or late, rests with the readers of these pages.

If we receive liberal encouragement, we can hope to build up on the Pacific shore an institution such as the world has not yet seen. May we not hope for a liberal endowment, not only from residents of our favored clime, but from philanthropists throughout the United States?

Those who cannot give more largely are invited to become annual subscribers, receiving our publications in return for a stated subscription (to be decided by the management after we have effected legal organization), and to make our work broader in far reaching results, it is also suggested that there shall each year be distributed to these subscribers such surplus plants and seeds as may from time to time be available for this use, as they may be requested. In this way we could promote a knowledge and taste for horticulture, by the wide distribution of new economic or ornamental plants that we may first introduce and experiment upon.

The New York Botanical Garden has provided for patrons, who contribute $5000 or more to the funds of the garden at any one time; fellows for life, who contribute $1000 or more to the garden funds; and annual members, who contribute $10 a year. These receive the following privileges:—tickets to all lectures given under the auspices of the garden, invitations to all exhibitions, a copy of all handbooks issued, and a copy of the annual reports.

Address all correspondence to C. R. Orcutt, San Diego, California.

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BOOKS FOR SALE.

**ALLEN, JOHN FISK:**
Victoria regia; or the great water lily of America, with a brief account of its discovery and introduction into cultivation. Colored Illustrations by William Sharp. Boston, 1854. $20.

**CALIFORNIA GEOLOGICAL SURVEY:**
Botany, Brewer and Watson, 2 vols. $10.

**EVERHART, BENJAMIN M.:**
Herbarium, contains about 3000 species, in 30 folio volumes. $150.

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The birds of North America. 119 colored plates, 182 pp; 1878 with which is bound "Ornithology; or, the science of birds" from the text of Dr. Brehm. 212 ill., 156 pp. $80.

**MILLSAPCH, CHARLES P.:**
American medical plants: an illustrated and descriptive guide, 180 colored plates with text. $70.

**OECUTT, CHARLES RUSSELL:**
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