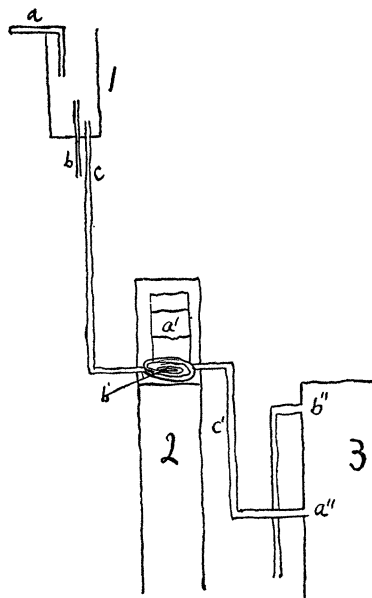


are on the market. The apparatus here described may be set up by any plumber at a very small expense—possession of refrigerator and incubator assumed.



(1) Small tank for constant head, about 1 ft. in each dimension. *a*, inflow; *b*, overflow; *c*, lead pipe. (2) Refrigerator. *a'*, ice; *b'*, flat coil under ice; *c'*, outflow to incubator. (3) Incubator. *a''*, cold water inflow; *b''*, overflow; thermometer and burner omitted.

The diagram explains the construction. The constant-head tank is placed 3-4 feet above the refrigerator. I have used  $\frac{3}{8}$  in. lead pipe with twelve turns under the ice (slightly larger would be better). With rather soft artificial ice the water flowing into the incubator has a temperature of about 14° C. The incubator temperature desired is, of course, determined by the thermo-regulator. I have been using a small Reichert regulator and natural gas. Under these rather unfavorable conditions I find a range of about 1° C. around 20° C. The results obtained in growing cultures have been entirely satisfactory during the past four years.

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OHIO STATE UNIVERSITY

### THE AMERICAN ASSOCIATION OF MUSEUMS

THE American Association of Museums held its seventh annual meeting in New York City from June 4 to 7. There was a large number of members in attendance and the convention may be considered in every way a success. Sessions were held at the American Museum of Natural History, the Metropolitan Museum of Art and the Museum of the Brooklyn Institute of Arts and Sciences. Addresses of welcome were made by Dr. Henry Fairfield Osborn, president of the American Museum of Natural History; Mr. Robert W. de Forest, secretary of the Metropolitan Museum of Art, and Mr. Edward L. Morris, acting curator-in-chief of the Museum of the Brooklyn Institute of Arts and Sciences, and the following papers were read: "Notes on Russian Natural History Museums,"

by A. R. Crook.

"An Adaptation of the Goodyear Classification of the Fine Arts to the Dewey System of Numbering," by Laura M. Bragg.

"The Lasting Qualities of a Mounted Mammal Skin," by Robert H. Rockwell.

"The Preparation of Ecological Invertebrate Groups," by Roy W. Miner.

"Wild Life of the Far East," illustrated by motion pictures, by Cherry Kearton.

"The Value of Photographs and Transparencies as Adjuncts to Museum Exhibits," by Caroline L. Ransom.

"The Care and Classification of Photographs at the Metropolitan Museum of Art," by Ethel Pennell.

"The Function of a Museum," by Paul M. Rea.

"The Training of Museum Trustees," by Charles Louis Pollard.

"Boards of Trustees and the Executive Officers of Museums," by Henry L. Ward.

"Why is a Museum," by Chester L. Boone.

"Laboratory and Museum Shelving," by Milton J. Greenman.

"Conveniences in Installation," by C. F. Mills-paugh.

"Glossary of Art Terms," by Henry W. Kent.

"The Local Flora Problem of a Small Museum," by Eva W. Magoon.

"The Possibilities of Botanical Exhibits," by E. L. Morris.

"The Duty of American Zoologists to Wild Life," by William T. Hornaday.

"Method of Exhibiting Insect Collections," by Frank C. Baker.

"Non-evaporating Mounts for Alcoholic Specimens," by Roy C. Miner.

"Some Experiments of a Small Museum," by Harold Madison.

"Lantern Slides in Geography Work," by Carlos E. Cummings.

"Circulation Cases for Mounted Birds," by Herbert E. Sargent.

The Round Table discussions included five topics, "The Insurance of Museum Collections," "The Classification of Specimens," "The Possibilities of Systematic Cooperation between Large and Small Museums," "An Exhibition to Show the Destruction of Wild Life and the Extermination of Species" and "The Handling of Classes in Exhibition Rooms."

A day was spent by the association at the Bronx, visiting both the Zoological Park and the Botanical Garden, and trips were made to the Museum for the Arts of Decoration at Cooper Union, the New York Aquarium, and the Children's Museum of the Brooklyn Institute. Many remained over Saturday in order to accept the invitation of the Staten Island Association of Arts and Sciences to inspect its museum and to see the island.

In executive session the council voted that it should be the policy of the association to deal with the principles of organization and administration of museums and with their problems of technique rather than with matters of art, history or science as such.

Balloting for officers for the year 1912-13 resulted in the election of Henry L. Ward, Public Museum of Milwaukee, for president; Benjamin Ives Gilman, Museum of Fine Arts, Boston, for first vice-president; Oliver C. Farrington, Field Museum, Chicago, second vice-president, and Professor G. S. Morse, Peabody Museum, Salem, and Professor William C. Mills, Ohio State Archeological and Historical Society, Columbus, Ohio, as councillors for the next three years. The secretary, Paul M. Rea, Charleston Museum; assistant secretary, Laura L. Weeks, Charleston Museum; and treasurer, Dr. W. P. Wilson, Philadelphia Museums, were reelected. The four councillors continuing in office are Frederic A. Lucas, Henry R. Howland, Frederick J. V. Skiff and Henry W. Kent.

The association will meet next year in Philadelphia.

PAUL M. REA,  
Secretary

## SOCIETIES AND ACADEMIES

### TORREY BOTANICAL CLUB

THE meeting of March 12, 1912, was held at the American Museum of Natural History at 8:15 P.M. The meeting was called to order by Dr. Z. S. Leonard in the absence of officers of the club. Mr. Sereno Stetson was appointed secretary pro tem. Twenty-five persons were present.

The paper of the evening consisted of an illustrated lecture by Dr. Marshall A. Howe on "Some Floral and Scenic Features of Cuba." Lantern-slide photographs were shown illustrating characteristic Cuban plant associations, particularly in the provinces of Oriente, Camagüey, Matangas and Pinar del Rio. Special attention was given to the numerous native palms of the island and to the cacti of the Guantanamo Bay region. The sugar, tobacco and fruit-growing industries of Cuba were also illustrated and commented upon.

SERENO STETSON,  
Secretary pro tem.

THE meeting of March 27, 1912, was held in the lecture room of the New York Botanical Garden at 3 P.M. Vice-president Barnhart presided. Forty persons were present.

The scientific program consisted of a lecture on "Organization of *Pediastrum* Colony," by Professor R. A. Harper. The lecture was illustrated with lantern slides.

THE meeting of April 24, 1912, was held in the Laboratory of the New York Botanical Garden at 3:15 P.M., Dr. W. A. Murrill presiding. Fifteen persons were present.

The scientific program consisted of a paper on "Plant Hairs," by Dr. William Mansfield. The speaker exhibited a number of figures representing various types of plant hairs and showed how the four main types, simple, compound, septate and non-septate, could be made the basis of a key by which many species of plants could be identified.

THE meeting of May 14, 1912, was held in the American Museum of Natural History at 8:15 P.M. President Burgess presided. Nine persons were present.

The scientific program consisted of an illustrated lecture on "Dr. Charles H. Shaw's Botanical Studies in the Selkirks," by Miss Caroline S. Romer.

B. O. DODGE,  
Secretary