

DR. HENRY HARRIS AUBREY BEACH, a physician of Boston, formerly demonstrator in anatomy and lecturer in surgery in the Harvard Medical School, died on June 28, at the age of sixty-seven years.

THERE has been established at Chicago the Otho S. A. Sprague Memorial Institute for the Scientific Investigation of the Causes of Disease, by the will of the Chicago merchant whose name it bears. The endowment is \$1,000,000, which it is said may be considerably increased.

CONGRESS has passed the bill appropriating \$50,000 to establish a biological laboratory for the study of diseases of fish, especially those related to cancer. The station is to be established under the U. S. Fish Commission.

THROUGH the generosity of Mr. Anson W. Hard, the American Museum of Natural History has secured an extensive series of old and valuable serapes and other blankets made by the Saltillo and other Indian tribes of Mexico and several of the tribes of the southwest.

THE fourth International Congress of Philosophy will be held at Bologna at Easter, 1911.

THE Harvard Summer School of field geology, endowed by Mr. Robert W. Sayles, will be held in Montana for five weeks in July and August under the direction of Professors J. B. Woodworth and J. W. Eggleston (recently appointed at the School of Mines, Rolla, Mo.). The Boston members of the school, about eighteen in number, started on July 5 in a special car for Bozeman.

UNIVERSITY AND EDUCATIONAL NEWS

By the will of the late Edward Whitney the Massachusetts Institute of Technology, receives \$25,000 for work in geophysics.

At a recent meeting of the trustees of the University of Illinois the annual budget for 1910-11, \$1,229,368, was voted. This does not include the sums appropriated by the state legislature for the permanent improvement of the plant. The trustees accepted a gift from the Chicago Northwestern Railway Company,

of the Locomotive Testing plant at Fortieth Street shops. This plant will be removed to the university in Urbana.

THE electrical laboratory presented to Oxford University by the Drapers' Company, and erected on the north side of the University Museum at a cost of £23,000, was formally opened on June 21.

At the University of Pennsylvania hereafter the chairman of each department of instruction will be elected annually by the department. For the year 1910-11, Professor G. E. Fisher has been elected chairman of the department of mathematics in the graduate school, and Professor I. J. Schwatt, chairman of the mathematics department in the college.

APPOINTMENTS to the faculty were made by the regents of the University of Wisconsin at the commencement meeting as follows: A professorship of manual arts in the course for the training of teachers was established, and Professor F. D. Crawshaw, of the University of Illinois, was elected to the new chair. Dr. J. A. E. Eyster, of the University of Virginia, was made professor of physiology to succeed Dr. Joseph Erlanger, who resigned to accept the position of the head of the department of physiology in the medical school of Washington University. F. B. Hadley, of Ohio State University, was appointed assistant professor of veterinary science. Edward J. Ward, now supervisor of social centers and playgrounds in the city of Rochester, N. Y., was appointed acting secretary of the welfare department of the university extension division. The following new instructors were appointed: E. E. Moots, mathematics; E. M. Gilbert, botany; O. Butler, horticulture; S. E. Johnson, mechanics; Dr. Robert Van Valzah, medicine; W. C. Rowse, steam and gas engineering. The new assistants elected were: G. A. Russell and Frieda Bachman, botany; Vanette MacDonald, herbarium; Paul H. Dyke, R. R. Chamberlin, T. M. Dahm, R. L. Wegel, T. J. Littelton, Phillip Rosenberg, R. G. Sherwood, A. L. Tarrell, E. B. Young, R. T. Birge, O. J. Zabel, Harriet B. Merrill, zoology; R. A. Baker, O. L. Barnebey, G. Dietrichson, W. S. Hubbard, Eldin V. Lynn, E. S.

Millard, H. A. Schuette, chemistry; W. P. Gee, J. E. Wodsedalek, zoology; H. M. Helm, anatomy.

THE following appointments in scientific departments have been made at Northwestern University: Dr. George T. Hargitt, son of Professor Chas. W. Hargitt, instructor in zoology; William Logan Woodburn, instructor in botany; Dr. Charles D. Brooks, son of the late Professor William K. Brooks, instructor in mathematics.

THE University of Leeds has received £11,000 from various sources for the endowment of a professorship of applied chemistry relating to the coal industries, as a memorial to the late Sir George Livesey.

DR. FRANK BECHT, of the University of Chicago, has been appointed assistant professor and head of the department of physiology at the University of Illinois.

AT the University of Pennsylvania, Dr. G. H. Hallett has been promoted from an assistant professorship of mathematics to the rank of professor. Dr. M. J. Babb, Dr. G. G. Chambers and Dr. O. E. Glenn have been promoted from instructors to be assistant professors of mathematics.

DR. LEROY McMASTER has been advanced to the rank of assistant professor of chemistry at Washington University.

MR. J. K. JAMESON has been appointed to the chair of anatomy at Leeds, vacant by the resignation of Professor Griffith, who has accepted the professorship of medicine.

DISCUSSION AND CORRESPONDENCE

BOTANICAL GARDENS

TO THE EDITOR OF SCIENCE: While I am ready to subscribe to the ideas expressed in the Symposium on Botanical Gardens given before Section G of the American Association for the Advancement of Science, at the Boston meeting held December, 1909, and published in the April 29 issue of SCIENCE, I regret that the most important work was not sufficiently dwelt upon. The ecological, biological, morphological, physiological, esthetic and educational features of botanical gardens were

clearly set forth. This is, indeed, all well and good, but it leaves yet much to be done.

A botanical garden should be essentially experimental, dominated by an economical, practical method. All of the other features above indicated should be made subsidiary. In other words the botanical garden should have an economically commercial significance. Its chief function should be to develop the economic botanical resources of the country. To this end the garden should be divided into two distinct parts. In one should be carried on the purely experimental work—that is, experimental work having a practical significance. In the second part should be carried on test plantings on a practically economic commercial basis. Such gardens need not be large nor expensive, and they should be distributed geographically and climatologically, in order that the greatest good might be accomplished with a minimum of expenditure. The idea is in the main carried out by Kew with its substations and by the experimental stations of the U. S. Department of Agriculture, excepting that the monetary outlay involved is too great and the mistake is made of controlling substations from one central point. For example, nothing can be more absurd than a management in London directing affairs in India or in South America, or the authorities at Washington directing or controlling the experimental work in California, Florida or Texas. In fact, as far as the United States are concerned, each state should support, direct and control its own experimental work absolutely, with, of course, a cooperative relationship with the experimental gardens or stations of other states. A very efficient state garden of this kind does not require more than ten acres of ground, a propagating house, a tool shed, an office with store rooms, a competent director, one technical assistant, two or three skilled gardeners and the necessary additional equipment. The annual cost of maintaining such a garden in high operative efficiency need not exceed \$10,000. The financial gain to the state to be derived from such a garden would soon amount to millions of dollars annually. To