

Ph.D. degree in 1896. In 1897 he founded *The Plant World* and was its editor for seven years. Official salaries were low and Knowlton was forced to do a vast amount of routine botanical work at that time for the Century, Standard and Webster's dictionaries and for the Jewish Encyclopædia.

Knowlton's youthful interest in ornithology culminated in "Birds of the World," published by Holt in the American Nature Series in 1909, a great up-to-date work of 873 pages, 236 illustrations and 16 colored plates, eloquent of the insight with which he had followed the expanding knowledge in all of the phases of avian study. Throughout those earlier years Knowlton was active in the meetings of the various scientific societies in Washington and held office in many of them. He was elected a fellow of the Geological Society of America in 1889, and was a charter member of the Paleontological Society and one of its first vice-presidents, serving as president in 1917. In 1921 his youthful alma mater conferred on him the degree of Sc.D.

As he came more fully into his powers a long series of memoirs on Mesozoic and Cenozoic floras flowed from his ever-active pen, and each winter season he reported on literally hundreds of collections of fossil plants made by the various survey field parties. Nor was this all—many ambitious works were partly completed and had to be laid aside because of more urgent duties, remaining unfinished.

Knowlton's health was never robust and only his great love for his work can account for an industry that was the marvel of all who knew him. It is too soon to attempt an evaluation of his contributions to science, but no one can gainsay that his keen chronologic sense has served in large measure to remove the prejudices with which his predecessors had handicapped paleobotanical studies.

For many years the Knowltons lived at Laurel, Maryland, and he was never happier than working in his garden or dispensing hospitality to his many scientific friends. A few years ago they moved to Ballston, Virginia—an easier journey from the museum. Knowlton's interests were broad—all phases of human activities—scientific, religious, political—were the themes of the lunch hour. He held decided opinions and was forthright in his likes and dislikes, but a kindlier spirit never lived, and he was never too busy or too ill to counsel and help his colleagues.

In 1913 we spent a memorable summer in the Rocky Mountain states, and Knowlton did not again go into the field until the past summer. This year he made a trip to the Pacific coast, collecting a large amount of material from the Puget group and the Spokane lake beds. The summer had been unusually good, but in November his chronic enemy, asthma, necessi-

tated his remaining at home, as it had so often in the past, so that neither family nor friends were prepared for the end which came suddenly on November twenty-second, and was due to heart failure. He is survived by a sister, his devoted wife and two grown children—a son and a daughter.

E. W. B.

SCIENTIFIC EVENTS

PROGRAM FOR THE EXPANSION OF THE MEDICAL SCHOOL OF THE UNIVERSITY OF PENNSYLVANIA

AN extensive program for the expansion of the medical school and the hospital of the University of Pennsylvania has been announced by Dr. Alfred Stengel, professor of medicine at the university and chairman of a committee arranging for a conference on January 10 to discuss the subject.

Some of the objects included in the program are the establishment of an "out patient" department; erection of a hospital with 1,000 beds and a staff of 100 internes and 500 nurses, and the establishment of a "medical press," which would issue pamphlets on the latest developments in medicine and surgery for the information of the public.

As goals for immediate action Dr. Stengel suggested the establishment of the Martin Maloney medical clinic, provided for under the terms of a gift of \$250,000 by Mr. Maloney; further development of the Henry Phipps Institute for the study and treatment of tuberculosis, in accordance with a gift of \$500,000 from the Phipps family, an additional \$500,000 to be raised by the university; establishment of a Philip Syng physical foundation, with an endowment of \$500,000 as an adjunct to the department of surgery, and the establishment of a Joseph Leidy chair of anatomy.

The plans call for the erection of suitable buildings for the housing of these clinics. Each separate medical and surgical specialty would have a chief who would also be the senior professor of that subject in the medical school.

Plans are to be discussed at the coming conference, at which Dr. Hubert Work, secretary of the interior, and Dr. Henry S. Pritchett, president of the Carnegie Foundation, will be among the speakers.

RESEARCH IN PURE CHEMISTRY AT THE MELLON INSTITUTE

ACCORDING to a statement by Dr. Edward R. Weidlein, director of the Mellon Institute of Industrial Research of the University of Pittsburgh, there has been established in the institute a definite department of research in pure chemistry, with Dr. Leonard H.