vier—great teachers both, who left their impress.

Devoted to the study of structure, he yet maintained, by reason of his early training and the later contacts with Henry Bowditch, a lively interest in the broader problems of physiology; problems which must ever face the serious student of structure. He was first among us systematically to examine the phenomenon of growth after birth, and those who know anything of his history are familiar with the tragedy whereby in a night his whole colony of guinea-pigs, which he had followed in their growth with unremitting care for several years, and which he planned to make the basis of a life-long study, was utterly destroyed. This was a blow that only those who have suffered from some form of sudden and irreparable loss of their labors can appreciate, and it left him for the moment stunned. It was then that he plunged into his embryological work and produced his masterly book on human embryology, accompanying it by the enlargement of that collection of complete series of embryological sections which became so great a feature of his laboratory, and of which he was so justly proud. But the older interest never died, and many who hardly knew the earlier man learned to know him through his last book on "Age, Growth and Death," in which he brought together in his lucid way his work and comments on this fascinating theme.

As a teacher he will long be remembered as the man who made those with eyes to see. Most of us would like our epitaph to run that way; it stands for lasting work.

When we move one side to get the larger view of his activity, it is startling to suddenly recognize that this work of his in histology and embryology—work which started with the beginnings of such things in this country—was conducted in a medical school. I must confess that personally I was always impressed by this. Of course it was as it should be, but how seldom do such things occur. With Minot you were in the realm of pure science, whether you found him in his little dormer room on Bolyston street or in his

marble hall of to-day. The technical atmosphere did not enter in; it was always the scientific interest that you felt. Men have worked with him, often I am sure, almost without remembering that his laboratory was counted as part of a professional school. To have achieved such detachment, while doing full justice to those who came to him for professional training only, was a great art, and betokens an unusual man. The teacher of histology to Harvard medical students was a one time president of the American Association for the Advancement of Science, president of the Boston Society of Natural History and recently exchange professor at Berlin. Fortunate the students who had such a teacher, for the qualities of the man went into his instruction.

To dwell upon the man—the man as a force—has been the purpose of these few words, and perchance the better one knew Minot the more the words will mean. At these Christmas meetings, where he was so well known, we shall miss our friend with his clear speech, sure hand in the conduct of affairs and ready, generous interest in each youthful searcher after truth—and we shall remember him.

HENRY H. DONALDSON

December 19, 1914

$SAMUEL\ FRANKLIN\ EMMONS\ MEMORIAL\ FELLOWSHIP$

THE friends of the late Dr. Samuel Franklin Emmons have established a fund whose income may be used in support of a fellowship to promote investigations in the branches of geology which were cultivated by him, more especially on the economic side. The funds have been placed in charge of the trustees of Columbia University, but the choice of the fellow and the expenditure of the income are entrusted to a committee consisting of Professors James F. Kemp, John D. Irving and Waldemar Lindgren. The committee announces that it will be prepared to award in March, 1915, a fellowship of \$1,000 for the year July 1, 1915 to June 30, 1916, inclusive. Applications must be made on blanks which will be furnished by the secretary of Columbia University, New York, N. Y., and which when filled and accompanied by testimonials and complete statements of the applicant's qualifications will be submitted by him to the committee on March 1, 1915. Applications must be received by the secretary of Columbia University before this date.

The committee requires that applicants should be qualified by proper geological training and experience to undertake the investigation of some problem in or related to economic geology. Each candidate is expected to submit with his application a definite statement of the problem which he proposes to study. The carrying out of the investigation will be under the oversight of the committee and may be undertaken at any place or institution which may be preferred by the holder of the fellowship and which will meet the approval of the committee. The place and publication of results will be decided by the committee. The committee will require that the holder of the fellowship agree to give his entire time and energies to the problem selected, and further agree to contract no other engagements conflicting with or restricting this work without its consent. No objection will be made to the use of the results as a dissertation for the degree of Ph.D. in an approved university.

At the meeting of the American Association which will be held in San Francisco and vicinity during the week beginning August 2, 1915, the general appointments of the convocation week will be as follows: The opening session at 10:00 A.M., Monday, August 2, the presidential address and the reception to visiting scientists on Monday evening and four addresses before the association as a whole. The first of these addresses will be given on Tuesday evening by Dr. Fridtjof Nansen, of Norway, upon oceanographic research. On Thursday evening, Professor R. A. Daly, of Harvard University, will present an address upon prob-

lems of geologic and biologic interest centering in the Pacific Islands. On Friday evening, Professor W. B. Scott, of Princeton University, will present an address upon the paleontologic relations of North and South America. A final address will be provided for Saturday evening, August 7, upon issues concerning the peoples of the Pacific area.

These general addresses will be given in San Francisco. The section and society meetings will be held on Wednesday, August 5, at Stanford University, and on the remaining days of the week at the University of California in Berkeley.

The geological sessions will be in charge of the Geological Society of America and will be devoted to discussions of erosion and deposition in arid climates, diastrophism of the Pacific coast and petrological problems of the Pacific area. The topics of the meetings of the Paleontological Society include a discussion of the fundamental criteria used in determining the time relations of widely separated life assemblages and rock systems, followed by three symposia upon the special problems encountered in correlation of the Triassic, Cretaceous and Miocene of the Pacific coast with horizons referred to these periods in other parts of the world. Special papers on other topics of interest will be presented.

Zoological sessions are being planned for the discussion of general problems of zoology, evolution and development, of regulation, of geographic distribution, of marine biology, the conservation of wild life, and recent advances in the field of protozoology.

The opening session of the botanical meetings will be devoted to the taxonomy, morphology, history and distribution of Gymnosperms. Subjects discussed at other sessions will be the effects of light upon plants, the geographic distribution of plants with especial reference to the possible origin of the California flora, and marine and fresh-water Algæ.

The subjects of the anthropological meetings will be: Races in the Pacific area with reference to the origin of the American Indians; the history of civilization in the Pacific area, with reference to the relations be-