From 1880 till his death he was an honorary curator in the National Museum; from 1884 to 1925 he was paleontologist of the United States Geological Survey; from 1893 till 1927 he held the chair of invertebrate paleontology in the Wagner Institute of Science; and from 1899 to 1915 was honorary curator of the Bishop Museum, Hawaii.

He was the recipient of several medals and honorary degrees, including that of LL.D.

In 1899 Dall was one of the most eminent of the scientific guests of the late E. H. Harriman on the famous and unique Harriman Alaska Expedition. It is well within the truth to say that in view of the vast amount of work done by Dall during his thirteen previous visits to Alaska and in the preparation of his publications on the geography, geology, meteorology, anthropology and natural history of the territory, his knowledge was of the greatest service; while his genial disposition and readiness to answer multitudes of questions, both to individual members and at the evening gatherings in the cabin, made him the most beloved member of the expedition. To the series of thirteen volumes on the results of the research work of the voyage, he contributed a valued article on the "Discovery and Exploration of Alaska" and a beautiful and touching poem on the Innuit People.

Like Baird, under whose kindly influence many years of his life were spent, his mind was a treasure house of information in various fields of science, geography, exploration and other subjects, and although one of the busiest men in the world, he gladly gave the benefit of his wide knowledge to earnest seekers for truth. To young men and women who had chosen some branch of zoology or kindred science for their life work, he was always willing to lend a helping hand and was always patient, kind, helpful and generous.

His own views as to the attributes and qualities that go to make up a naturalist were expressed in an address on "Some American Conchologists" delivered in Washington more than forty years ago, in which he states, "The only lesson which may be said to be absolutely clear is, that naturalists are born, and not made; that the sacred fire can not be extinguished by poverty nor lighted from a college taper. That the men whose work is now classical, and whose devotion it is our privilege to honor, owed less to education in any sense than they did to self-denial, steadfastness, energy, a passion for seeking out the truth, and an innate love of nature. These are the qualities which enabled them to gather fruit of the tree of knowledge." And it is obvious from the character of his own work that he believed that "what is worth doing is worth doing well."

My acquaintance with Dall dates back more than half a century, for it began in 1875 in the laboratory of the U. S. Fish Commission at Woods Hole, a favorite meeting-place for scientific men, then under the capable and friendly management of Professor Baird. Professor Verrill was in charge of the invertebrate studies, while among the laboratory assistants were Sidney I. Smith, Samuel F. Clarke, E. B. Wilson (then a mere lad), Tarleton H. Bean, and myself. William H. Dall, Alpheus Hyatt and David Starr Jordan were among the many who visited the laboratory or worked there for short periods.

It was the possession of such sterling qualities as intellectual capacity, patience, industry and thirst for knowledge, coupled with high ideals of integrity and obligation, that enabled Dall to attain the position he so long held among the eminent scientists of the world. The closing words of his appreciation of his friend William Stimpson may well be applied to himself: "Those who had the privilege of his companionship will carry an abiding memory of his abilities as a naturalist and his noble and lovable characteristics as a man."

C. HART MERRIAM

SCIENTIFIC EVENTS

PROFESSOR EINSTEIN ON NEWTON

ON the occasion of the recent Newton bicentenary celebration Professor Einstein sent a letter to Dr. Jeans, secretary of the Royal Society, which in the English translation printed in *Nature* reads:

More than any other people you Englishmen have carefully cultivated the bond of tradition and preserved the living and conscious continuity of successive generations. You have in this way endowed with vitality and reality the distinctive soul of your people and the soaring soul of humanity. You have now assembled in Grantham in order to stretch out a hand to transcendent genius across the chasm of time, and to breathe the air of the precincts where he conceived the fundamental notions of mechanics and of physical causality. All who share humbly in pondering over the secrets of physical events are with you in spirit, and join in the admiration and love that bind us to Newton. What has happened since Newton in theoretical physics is the organic development of his ideas. Force became independent reality to Faraday, Maxwell and Lorentz, and then went over into the conception of the field. The partial differential equation has taken the place of the ordinary differential equation used by Newton to express causality. Newton's absolute and fixed space has been converted by the theory of relativity into a physically vital frame. It is only in the quantum theory that Newton's differential method becomes inadequate, and indeed strict causality fails us. But the last word has not yet been said. May the spirit of Newton's method give us the power to restore unison

between physical reality and the profoundest characteristic of Newton's teaching—strict causality.

THE FREEMAN FUND TRAVELING SCHOLARSHIP

THE American Society of Civil Engineers is about to take on a new activity as sponsor for a traveling scholarship in Europe. This was suggested in 1924 when Past-president John R. Freeman established a fund of the society "for the encouragement of young engineers," since designated as the "Freeman Fund." A part of the income, $1,800, has been made available for special study abroad during one year beginning July 1, 1927.

This period is to be devoted to a study of the theory and practice of hydraulics particularly as exemplified in the hydraulic laboratories of Europe, more especially those of Germany. For the present, candidates for this scholarship will be limited to junior professors, instructors, or assistants in American technical schools of recognized standing in which the study of hydraulics forms an important part of the curriculum. Brief progress reports addressed to the secretary of the society must be submitted each month by the holder of the scholarship for the information of the committee. At the conclusion of the year of study the holder of the scholarship shall submit to the society in form suitable for publication a monograph on current hydraulic practice in Europe and the work of European hydraulic laboratories. A complete statement of the conditions under which the scholarship will be awarded and full details of the requirements may be obtained from the secretary, 33 West 39th Street, New York City.

Similar funds for the encouragement of young engineers have been established in the American Society of Mechanical Engineers and the Boston Society of Civil Engineers, from the income of which it is expected that similar scholarships will be provided by each of these three societies, once in three years, so that continuously there will be one such traveling scholarship available. The income from this fund to each of these three societies amounts to nearly $1,700 per year.

Plans are now being formulated for utilizing that portion of the income which remains after providing for the scholarship once in three years by the society using it for special grants to aid in hydraulic research or for assistance in translating and publishing in English various useful engineering publications in foreign languages.

The first of these publications is to be that of a book on the hydraulic laboratories of Europe, written by fifteen of the foremost hydraulicians of Germany, Sweden, Russia, Austria and Czecho-Slovakia, and recently published by the national German engineering society, the "Verein deutscher Ingenieure."

AWARDS FROM THE MILTON FUND AT HARVARD UNIVERSITY

ANNOUNCEMENT is made at Harvard University of twenty-two awards to professors in the university in accordance with the provisions of the Milton Fund for research. This legacy, yielding an annual income of about $50,000, became available to the university in 1924. The awards include the following for scientific work:

Gregory P. Baxter, professor of chemistry, for two years, to carry on the experimental determinations of the compressibilities and temperature coefficients of gases at low pressure.

Henry B. Bigelow, lecturer and research curator in zoology, to purchase apparatus to be used on an oceanographic expedition planned for next summer, to study the dynamic cause of the Gulf Stream current off the North Atlantic coast of the United States.

Charles T. Brues, associate professor of economic entomology, to obtain collections for a continuation of his work on the adaptations of aquatic animal life to high temperatures.

Richard C. Cabot, professor of social ethics, to complete the work begun under previous grants on the effects of a prison sentence on the after-lives of 500 men who have been released from the Concord, Mass., Reformatory.

James B. Conant, associate professor of chemistry, to investigate the nature of the linkage between the protein and pigment in hemoglobin and the nature of the changes involved in the oxidation and reduction of the pigment.

William J. Crozier, associate professor of general physiology, to pay the salary of an assistant and to defray expenses incurred in an investigation of the nature of central nervous processes.

Harvey N. Davis, professor of mechanical engineering, and Gregory P. Baxter, professor of chemistry, to pay the salary of an assistant, Dr. Howard W. Starkweather, and to defray the expenses incurred for apparatus and supplies, in determining the temperature of the ice-point on the absolute scale through measurements of the densities of argon and oxygen at various temperatures and pressures.

James A. Dawson, instructor in zoology, to pay the salary of a technical assistant and to purchase apparatus needed to investigate the nature and function of the so-called excito-motor apparatus in unicellular animals and also, by means of micro-injection, the nature of certain digestive processes in these animals.

Willard J. Fisher, of the Harvard Observatory, to develop and test apparatus for the photography of meteors.

Grinnell Jones, associate professor of chemistry, to continue his investigation of the properties of solutions of electrolytes. The sum will pay the wages of a glass-blower and a mechanician and will enable the purchase of new apparatus and chemicals.