

to the nitrate-of-soda deposits of Chile, making but a brief water transportation necessary for delivery, and the existence of pyrites in great abundance in the vicinity of the Isthmus making the production of sulphuric, and hence mixed, acids easy and simple, were a few of the many advantages which would follow the adoption of this plan. But not the least would be the civilizing influence which chemical manufacture always exerts. It is unnecessary to say that up to the present, I have been unsuccessful in my endeavors to introduce chemical manufactures into the Central American states, but I trust that you, who have done me the honor to listen to me, may succeed where I have failed.

CHARLES E. MUNROE

GEORGE WASHINGTON UNIVERSITY

SCIENTIFIC NOTES AND NEWS

THE funeral of Mr. Alexander Agassiz was held in Appleton Chapel, Harvard University, on Sunday, April 3.

A TESTIMONIAL dinner to Dr. Charles Frederick Chandler was given at the Waldorf-Astoria on April 2, to permit his former students and associates to express, before his retirement, their appreciation of his forty-six years of service to Columbia University, and his lifetime of devotion to the cause of education and science. It was announced that a lectureship in honor of Dr. Chandler would be endowed by his former students and that the chemical museum of the university would be named in his honor.

DR. T. MUIR, F.R.S., has been elected president of the South African Association for the Advancement of Science for the meeting in Cape Town, the date of which is not yet set.

DR. RICHARD DEDEKIND, professor of mathematics at Brunswick, has been elected a foreign member of the Paris Academy of Sciences.

SIR JAMES DEWAR, F.R.S., has been elected an honorary member of the American Chemical Society.

MR. FREDERIC A. LUCAS, curator-in-chief of the Brooklyn Museum, has been elected a life member of the American Museum of Natural History on account of the practical assistance which he has rendered it and because of his contributions to science.

A DINNER was given in honor of Sir John Murray in London on April 5, in connection with the Michael Sars expedition for the exploration of the North Atlantic.

PROFESSOR L. A. WAIT, head of the department of mathematics at Cornell University, will retire from active service at the close of the present academic year.

DR. A. R. WARD, director of the State Hygienic Laboratory at Berkeley, Cal., has been appointed chief of the veterinary corps of the Philippine Islands.

AT the American Museum of Natural History Dr. E. O. Hovey has been promoted to the curatorship in geology to succeed Dr. R. P. Whitfield, who shortly before his death became curator emeritus. In the department of anthropology, Dr. Pliny E. Goddard has been appointed associate curator, Mr. Harlan I. Smith has been advanced to associate curatorship, Dr. Herbert J. Spinden has been appointed assistant curator and Mr. Alanson Skinner has been added to the list as assistant. A new department of public health has been established with Professor C. E. A. Winslow as curator. A new department of woods and forestry has been established, with Miss Mary C. Dickerson in charge.

DR. HERMON C. BUMPUS, director of the American Museum of Natural History, is making an expedition to Mexico to plan the reproduction of certain prehistoric ruins for structural use in the new hall of Mexican archeology. Mr. Frank M. Chapman, curator of ornithology, accompanied Dr. Bumpus to make studies and collect specimens for a group of Mexican birds.

CHAUNCEY JUDAY, lecturer in zoology at the University of Wisconsin and expert on the staff of the Wisconsin Natural History Survey, has just returned from a five-weeks trip through Central America, where he studied

the lakes in the volcanic mountain region. He found Lake Atitlan, Guatemala, to be the deepest, being 1,000 feet deep, and the largest, being 24 miles long and 12 wide. It was also the coldest, being, in spite of the tropical climate, but 67 degrees. Its elevation is 5,000 feet above the sea level. Fish and vegetable life he found to be scarce in all these lakes of the volcanic region. In San Salvador he explored Ilopango, 727 feet deep, and Coatepeque, 350 feet deep; and in Guatemala Lake Amatitlan, 110 feet deep. Although Ilopango had two islands raised in it by volcanic action thirty years ago, Mr. Juday now finds no trace of such action there.

DR. E. G. BILL, of Yale University, has received leave of absence for the coming academic year, which he will spend in the study of geometry at the University of Turin.

DR. FREDERICK STARR, associate professor of anthropology in the University of Chicago, who has been conducting anthropological researches in Japan since September, is expected to return to Chicago in the early part of June.

THE University of Minnesota has appointed Professor Thomas G. Lee, director of the institute of anatomy, as its delegate to the Second International Anatomical Congress, Brussels, August 7-11, and to the Eighth International Zoological Congress, Graz, Austria, August 15-20. Dr. Lee sails on April 9 and will spend the intervening time in visiting the principal laboratories in Europe in the interests of the new institute of anatomy about to be erected at the University of Minnesota, at a cost of \$200,000.

A SMALL party of geological students from the Massachusetts Agricultural College spent the spring recess in an examination of various sections and other geological features in the Hudson River Valley. The excursion was in charge of Professor C. E. Gordon.

Nature states that the Reale Istituto Lombardo has awarded the following prizes: the mathematical prize for an essay on theory of transformation groups is awarded to Professor Ugo Amaldi, of Modena, for his essay on the determination of all the infinite continuous

groups of analytic point transformations in three-dimensional space; the Cagnola prize, relating to miasma and contagion, is awarded to Professor Aldo Castellani, of the hospital for tropical diseases at Colombo (Ceylon). From the Brambilla foundation for industrial prizes, awards have been made to Elia Bianchi, for his system of constructing dwelling houses formed of hollow concrete blocks, and to Renaldo Rossi, for whole-meal and anti-diabetes bread. The Fossati prize is awarded to Professor Giuseppe Sterzi, of Padua, for his two published volumes on the central nervous system of vertebrates.

PROFESSOR MAGNUS-LEVY, of the University of Berlin, has come to America to deliver the three Cartwright Lectures of the Alumni Association of the College of Physicians and Surgeons of Columbia University on April 11, 12 and 13. The subject of the lectures is "Some Phases of the Chemistry of Diabetes." He delivered a lecture before the Harvey Society on April 9 at the Academy of Medicine.

PROFESSOR F. E. LLOYD, of the Alabama Polytechnic Institute, lectured on March 28 before the faculty and students of the University of Alabama on "The Guayule, a desert rubber plant."

PROFESSOR E. L. THORNDIKE, of Columbia University, gave last week at the University of Illinois, five lectures on "Individual Differences and their Causes," under the joint auspices of the College of Literature and Arts and the School of Education. The subjects of the five lectures were: "Measurements of Individual Differences"; "The Influence of Sex"; "The Influence of Race"; "The Influence of Immediate Ancestry"; "The Influence of Training."

A MONUMENT to the memory of Horace Wells, who was the first to introduce the practise of painless dentistry with the aid of nitrous-oxide gas, was unveiled at Paris on March 27 in the Place des États Unis. The monument consists of a bust, supported by a white marble column to which has been affixed a medallion of the physiologist, Paul Bert, who perfected the method of the American

dentist. The ceremony was presided over by M. Dastre, who delivered an address on behalf of the Academy of Medicine.

PROFESSOR ROBERT PARR WHITFIELD, curator in the American Museum of Natural History since 1877, the author of important contributions to paleontology and geology, died on April 6, at the age of eighty-two years.

DR. BORDEN PARKER BOWNE, professor of philosophy and dean of the Graduate School of Arts and Sciences of Boston University, well known for his works on philosophy and theology, died on April 1, at the age of sixty-three years.

DR. HARRY WALKER JAYNE, of Philadelphia, an authority on coal-tar products, died on March 7, at the age of fifty-three years.

DR. RICHARD ABEGG, professor of chemistry at the University of Breslau, was killed, on April 4, in landing after a balloon ascension.

THE surgeon-general of the army announces that preliminary examination of applicants for appointment as first lieutenants in the army medical corps, will be held on July 18, 1910, at various army posts throughout the country. Full information concerning the examination can be procured upon application to the "Surgeon-General, U. S. Army, Washington, D. C." The essential requirements to securing an invitation are that the applicant shall be a citizen of the United States, shall be between 22 and 30 years of age, a graduate of a medical school legally authorized to confer the degree of doctor of medicine, shall be of good moral character and habits, and shall have had at least one year's hospital training or its equivalent in practise. The examination will be held concurrently throughout the country at points where boards can be convened. Due consideration will be given to localities from which applications are received, in order to lessen the traveling expenses as much as possible. The examination in subjects of general education (mathematics, geography, history, general literature and Latin) may be omitted in the case of applicants holding diplomas from reputable literary or scientific colleges, normal schools or

high schools, or graduates of medical schools which require an entrance examination satisfactory to the faculty of the Army Medical School. Applications must be in possession of the adjutant general on or before June 27. There are at present 123 vacancies in the medical corps of the army.

THE Oceanographical Museum at Monaco, established by the Prince of Monaco, was opened on March 29. The different European governments and the principal scientific societies were represented at the ceremony.

THE University of Michigan Museum has received from an alumnus, C. A. Hughes, of Chicago, a collection of natural history specimens from British East Africa and an assortment of anthropological specimens from British East Africa, Uganda, Zanzibar, Zululand and other countries on the east coast of Africa. The mammals include: eland, topi, Jackson's hartebeest, wildebeest, bushbuck, waterbuck, wart hog, Coke's hartebeest, impala, Grant's gazelle, oribi, oryx, Petersi, steinbuck and Thompson's gazelle. Mr. Hughes was a member of the W. D. Boyce African Expedition, which invaded the interior of Africa with balloons and box kites for the purpose of making aerial pictures of game in the wild state, getting a photographic record of the topography of the country and pictures of the natives in their homes, and at work, hunting, play, etc. Besides Mr. Boyce, who personally led the expedition, and Mr. Hughes, there was a large staff of photographers. The expedition was entirely successful.

MOUNT SINAI HOSPITAL, New York City, announces the establishment of a second fellowship in pathology which will be known as the Eugene Meyer, Jr., fellowship. The income of the new fellowship, like that of the George Blumenthal, Jr., fellowship, established in 1908, is \$500 per annum.

UNIVERSITY AND EDUCATIONAL NEWS

THE new general engineering building of Union College will be formally opened on April 28.