

human disease, or to investigate and determine the value or importance of any discovery or invention, or any other special or temporary object of the nature above stated."

A committee was appointed, consisting of Mr. Frank B. Jewett, electrical engineer of New York, *chairman*; Professor Edwin F. Gay, of Harvard's Economics Department, and Dr. W. J. V. Osterhout, botanist of the Rockefeller Foundation; to advise the president and fellows of Harvard College in making a selection among the investigations proposed by any member of the instructing, scientific or administrative staff of the university. Requests for aid in such research were received by the committee this year up to January 10.

The grants from the Milton Fund for next year include the following:

Thomas Barbour, director of the University Museum, and Dr. Afranio Do Amaral, lecturer on ophiology, to enable them to collect neotropical snake venom for use in experimentation concerning the nature of snake venom and in preparing the curative antivenin.

Percy W. Bridgman, Hollis professor of mathematics and natural philosophy, to pay for the salaries of assistants and the purchase of apparatus to continue his work on high pressure studies and on an investigation on the properties of single crystals.

Edward S. Castle, assistant in physiology, to pay for the services of a technician in constructing apparatus for the study of the growth of plants in relation to light and temperature.

William J. Crozier, professor of general physiology, for the study of the nature of central nervous processes.

Walter F. Dearborn, professor of education, for the study of the mental and physical development of school children.

William Duane, professor of biophysics, for research in X-radiation.

Robert Emerson, research fellow in general physiology, for the services of a technician to set up and calibrate precision apparatus to study the formation of chlorophyll and development of its photosynthetic activity.

George S. Forbes, professor of chemistry, for chemicals, supplies and apparatus to be used in an investigation of conditions for electrochemical equilibrium.

Worthington C. Ford, lecturer on historical manuscripts, to complete his research in the sources of American history.

Charles Hartshorne, instructor in philosophy, to complete the preparation for publication of five volumes of the Charles S. Peirce manuscripts on philosophy.

Leigh Hoadley, assistant professor of zoology, for supplies, apparatus, expenses, etc., for an assistant in an investigation of the embryonic segregation preceding primitive streak formation in the vertebrate embryo.

Hudson Hoagland, research fellow in general physiology, for the services of an assistant to examine the underlying mechanism of tonic immobility in vertebrates.

Earnest A. Hooton, associate professor of anthropology, to continue his study of race and nationality in their relation to crime in the United States.

Grinnell Jones, associate professor of chemistry, for chemicals and apparatus, etc., in an investigation of properties of solutions of electrolytes.

Edwin C. Kemble, associate professor of physics, for the purchase of a Kipp thermo-relay amplifier and galvanometer for use in determining infra-red absorption spectra of gases.

Arthur B. Lamb, Sheldon Emory professor of organic chemistry and director of the chemical laboratory, to continue research on crystalline adsorbents.

Albert E. Navez, lecturer on physiology, for the services of an assistant to build apparatus and make experimental observations in connection with a research of geotropism in plants.

Ralph B. Perry, professor of philosophy, to prepare a volume on William James, philosopher and psychologist, from his unpublished correspondence, lecture notes, etc., in the Widener Library.

Harlow Shapley, Paine professor of practical astronomy and director of the Harvard College Observatory, to continue his research on variable stars and the dimensions of the Galaxy.

Theodore J. B. Stier, assistant in the division of biology, for the part-time services of an assistant to construct apparatus to be used in an investigation of the effects of temperature on the spontaneous activity of mice.

Robert DeC. Ward, professor of climatology, to study climatology of North America and of the West Indies for inclusion in a volume on the world's climates edited by Professor W. Köppen.

Jeffries Wyman, Jr., instructor in zoology, for expense of apparatus and materials for a study of the physical chemistry of the proteins.

SCIENTIFIC NOTES AND NEWS

THEODORE WILLIAM RICHARDS, professor of chemistry at Harvard University since 1894, director of the Gibbs Memorial Laboratory since 1912, died on April 2, at the age of sixty years.

THE sixty-fourth annual meeting of the National Academy of Sciences will be held in its building in Washington, D. C., on April 23, 24 and 25.

THE annual meeting of the American Philosophical Society will be held in the hall of the society at Independence Square, Philadelphia, on April 19, 20 and 21, under the presidency of Dr. Francis X. Dercum.

THE regular spring meeting of the executive committee of the American Association for the Advancement of Science will be held in Washington on Sunday, April 22. Matters to be considered by the committee should be in the hands of the permanent secretary a few days before the meeting.

THE coinage of a medal commemorating the achievements of Thomas A. Edison was approved on March 29 by the house coinage committee in reporting a bill by Representative Perkins. An appropriation of \$1,000 would be made to enable the secretary of the treasury to prepare a suitable medal.

DR. ELIHU THOMSON, consulting engineer for the General Electric Company at its Lynn works, celebrated his seventy-fifth birthday on March 29. On that date a special resolution in honor of Dr. Thomson was passed by the executive committee of the National Electric Light Association.

THE Halley lecture at Oxford University will be delivered on June 18 by Dr. Harlow Shapley, director of the Harvard College Observatory, on "The Extent and Structure of the Milky Way."

DR. ERNEST W. BROWN, Sterling professor of mathematics at Yale University, has been elected to membership in the Royal Academy of Science of Belgium, "because of his eminent contributions to the science of mathematics."

THE cross of the Commander of the Order of the White Rose has been conferred by the Republic of Finland on Dean Albert R. Mann, of the New York State College of Agriculture, in recognition of his services in connection with the development of agricultural education. The award is the highest honorary decoration of Finland.

HENRY F. SCHMIDT, consulting engineer of the Westinghouse Electric and Manufacturing Company, has been awarded the medal of the American Society of Naval Engineers for the best article submitted during the year 1927. Mr. Schmidt, besides being awarded a gold medal, was given an honorary life membership in the society and a cash prize for his paper entitled "Some Screw Propeller Experiments with particular reference to Pumps and Blowers."

ON March 8 the University of Oxford conferred the honorary degree of M.A. on Mrs. Florence Joy Weldon, widow of the late Dr. W. F. R. Weldon, professor of zoology, who has given many valuable pictures to the university galleries.

THE German Academy of Sciences in Halle has elected Dr. M. Guggenheim, director of the F. Hoffman-La Roche and Company, Basle, to membership in recognition of his contributions to the biological sciences.

PROFESSOR JOLLY, who holds the chair of histophysiology at the Collège de France, has been elected a member of the French Academy of Medicine.

PROFESSORS NICOLAS and PIERRE DUVAL, of Paris, have been elected foreign corresponding members of the Royal Academy of Medicine of Belgium.

DR. EPHRAIM P. FELT, New York state entomologist, retired on March 31 to become adviser on shade tree and forest insect problems with the Bartlett Research Laboratories at Stamford, Conn.

DR. GEORGE R. MINOT, who was recently made director of the Thorndike memorial laboratory at the Boston City Hospital and professor of medicine at Harvard University, has been appointed consulting physician at the Peter Bent Brigham Hospital.

PROFESSOR G. S. PARKS, of the department of chemistry at Stanford University, has been elected chairman of the California section of the American Chemical Society for 1928.

DR. JOSEPH S. ILLICK, state forester of Pennsylvania, was elected chairman of the Allegheny section of the Society of American Foresters at its annual winter meeting.

AT the annual meeting of the American Heart Association, Boston, on February 6, the following officers were reelected for the ensuing year: Drs. James B. Herrick, Chicago, *president*; William H. Robey, *vice-president*; Haven Emerson, New York, *secretary*, and Paul D. White, Boston, *treasurer*.

DR. ERNEST J. HOFFMAN, research chemist, recently with W. B. Pratt, Boston, has been appointed associate chemist in the chemical engineering division, chemical and technological research, Bureau of Chemistry and Soils, to conduct research studies on farm fires with special attention to the causes of the spontaneous combustion of hay and other agricultural products.

IN the U. S. Department of Agriculture Dr. A. E. Wight has been appointed to succeed the late Dr. John A. Kiernan as chief of the tuberculosis eradication division. Dr. George W. Pope has been appointed chief of the field inspection division, succeeding Dr. A. W. Miller, who is now chief of the packers and stockyards division. Dr. Miller succeeds John T. Caine, resigned. Dr. W. E. Cotton has been designated as acting superintendent of the bureau's experiment station at Bethesda, Md., succeeding the late Dr. E. C. Schroeder. The administrative changes have also provided for two new positions, designated as associate chief of the bureau and assistant chief. Dr. U. G. Houck, who continues as chief of the division of hog-cholera control, also holds the title of associate chief of bureau. Dr. A. W. Miller, besides being chief of the packers and stockyards division, is assistant chief of bureau.

THE sixth Harvey lecture, by E. J. London, director of physiology at the University of Leningrad, on "Experimental Fistulae of Blood Vessels," which

was announced for April 13, has been postponed until April 20 at 8:30 o'clock.

DR. J. J. R. MACLEOD, of the University of Toronto, lecturer for 1928 under the Louis Clark Vanuxem foundation at Princeton University, gave four lectures during March under the general title "The Fuel Used for Energy Production in Animals." These recent investigations in animal metabolism are to be published in book form.

DR. DAVID RIESMAN, of the University of Pennsylvania, gave an illustrated lecture at the annual meeting of the George Washington University Medical Society in Washington, March 17, on "Man before the Dawn of History."

EDWARD W. BERRY, professor of paleontology at the Johns Hopkins University, delivered an address entitled "Idols of the Market Place" before the Yale University geology club on March 29.

DR. W. H. EMMONS, professor of geology at the University of Minnesota and state geologist of Minnesota, delivered a lecture on March 22 to the students in geology at the University of Toronto, on "The Relation of Metalliferous Lodes to Igneous Intrusions."

DR. BORIS SOKOLOSS, a former deputy in the North Russian government, who has paid especial attention to cancer research, is in this country and will work in the Rockefeller Institute.

PROFESSOR MARGARET C. FERGUSON, of the department of botany at Wellesley College, is giving a series of six lectures, under the auspices of the Ropes memorial organization of Salem. The lectures center around the subject of plants and advancing civilization and are being given in Salem at the Ropes memorial building on consecutive Wednesday afternoons in March and April.

LIEUTENANT-COLONEL CHAS. F. CRAIG, of the Army Medical School, Washington, D. C., lectured to the research club of the department of medical zoology of the Johns Hopkins School of Hygiene and Public Health on March 30 on the subject of "Complement Fixation in Amoebiasis."

GERRIT S. MILLER, JR., curator of the division of mammals in the U. S. National Museum, has arrived in Sanchez, Dominican Republic, where he will spend the next few months investigating the caves of the region for bones of the extinct fauna of the island. A. J. Poole was expected to return to the museum early in April, having spent about four months in the same kind of work in Haiti, on the opposite side of the island.

PROFESSOR YOSHINORI TAKEZAKI, in charge of the plant-breeding work of the department of agriculture,

Kyoto Imperial University, Japan, is visiting the United States.

RICHARD S. SCHONLAND, of the forest service of the Union of South Africa, has been in the United States for a year studying forest conditions and practices and the organization of forest experiment stations.

PROFESSOR JIRI V. DANES, of Charles University, Prague, who is in this country as an official lecturer under the auspices of the International Institute of Education, lecturing at various colleges and universities, is taking the opportunity to study some of the karst areas of the United States.

DR. ALFONS JACOB, lecturer in psychiatry at Hamburg, has been invited by the Brazilian government to undertake the establishment of an institute for the study of the anatomy of the brain at Rio de Janeiro, and to deliver a course of lectures on nervous and mental diseases from May to July.

BEGINNING May 14 and continuing until June 24, E. O. Essig will conduct a University of California course in field entomology in the Yosemite National Park, with headquarters at the new Yosemite Park Museum. From July 1 to August 1 of the same season he will be at his permanent summer camp at Echo Lake, in the High Sierras, 7,500 feet altitude, eleven miles from Lake Tahoe. Entomologists visiting California are invited to call on Professor Essig at either of the above places and he will be very glad to assist them in the various types of entomological work in those regions.

DR. R. A. MILLIKAN, director of the Norman Bridge laboratory of physics of the California Institute of Technology, gave one of the Proctor Foundation lectures at the Brooklyn Institute of Arts and Sciences on April 5. His subject will be "Recent Advances in Spectroscopy."

DR. WILLIS R. WHITNEY, director of research of the General Electric Company, has been selected by Midwest Association of Sigma Xi to deliver its inaugural addresses on April 12, in Chicago. The midwest association is an affiliation of the three university chapters of the national honorary research fraternity in Cook County, Illinois, with about five hundred other members in the Chicago district engaged in professional work outside university circles. The address will be preceded by a banquet.

DR. ARTHUR D. LITTLE, president of Arthur D. Little, Inc., delivered the Aldred lecture at the Massachusetts Institute of Technology, March 23, on "Chemical Industry."

PROFESSOR WILLIAM L. BRAGG, of the University of

Manchester, addressed the physics colloquium at Harvard University, March 26, on "A Direct Determination of Zero Point Energy."

PROFESSOR A. S. EDDINGTON, F.R.S., Plumian professor of astronomy at the University of Cambridge, has accepted an invitation to deliver the Adamson memorial lecture. His subject will be "Philosophical Tendencies in Modern Science," and the lecture will be delivered in the university on May 4.

E. W. MAUNDER, who was for many years superintendent of the solar department at Greenwich Observatory, died on March 21 at the age of seventy-six years.

SIR DAVID FERRIER, the distinguished English neurologist, died on March 19 in his eighty-sixth year.

THE diamond anniversary of the founding of the California Academy of Sciences was celebrated in the building of the academy on April 4. After a formal reception, brief addresses were given by the Honorable William H. Crocker, president of the board of trustees; Dr. C. E. Grunsky, president of the academy, and Dr. Barton Warren Evermann, director of the museum.

THE annual meeting of the Federation of the American Societies for Experimental Biology will take place at Ann Arbor, Michigan, on April 12, 13 and 14. The federation includes the American Physiological Society, the Society of Biological Chemistry, the Society of Pharmacology and Experimental Therapeutics and the Society of Experimental Pathology. The annual Conference of Biological Chemists will be held in connection with this meeting; the main topic for discussion this year is the proposed changes in the biochemical curriculum in the medical schools.

THE Society of Experimental Biology and Medicine during the past few years has established branch sections in several institutions in the United States. Recently the question has been raised as to whether a branch should be established in Rochester, Minn. There are at present sixteen members of the national organization in Rochester. At a meeting of this group it was decided to form a local society and to hold meetings at which the results of experimental work could be presented and discussed. Final decision in regard to affiliation with the national organization was postponed until after the organization of the local group has been perfected.

THE National Colloid Symposium has accepted the invitation of the University of Toronto to hold the Sixth Symposium there on June 14, 15 and 16. The guest of honor at this meeting will be Sir William Hardy, of Cambridge, England. Arrangements have

been made for an exhibition of experimental methods in colloidal work; a large hall has been secured adjoining the building in which the symposium will be held, and space will be offered free for exhibits accepted by the local committee. It is thought that in this way workers in colloids may be enabled to bring to the attention of their colleagues many details of experimental arrangement and technique which are necessarily crowded out of the limited program of papers; it is hoped that those presenting papers at the symposium will accept this opportunity of displaying the apparatus used in their work and that others with novel types of apparatus will take advantage of the opportunity to exhibit them.

ONE of the features of the second session of the Institute of Chemistry of the American Chemical Society, to be held at Northwestern University, Evanston, Ill., from July 23 to August 18, will be a series of lectures, specialized in character and treating thoroughly a variety of topics of interest alike to academic and industrial men. Those taking part include Harry N. Holmes, head of the department of chemistry of Oberlin College, who will take for his subject "Colloids." B. S. Hopkins, of the University of Illinois, will lecture on "Modern Inorganic Chemistry." Arthur I. Kendall, of the Washington University School of Medicine at St. Louis, will lecture on "The Chemistry of Bacteria." Victor K. La Mer, of Columbia University, will present a series of lectures on "Modern Physical Chemistry." W. T. Read, now of the Texas Technological College and formerly at Yale University, will discuss "Modern Industrial Chemistry." G. L. Wendt, at present dean of chemistry and physics at Pennsylvania State College and director of the Battelle Memorial Institute, will lecture on "Industrial Research." F. C. Whitmore, the director of the second session of the Institute of Chemistry and professor of chemistry at Northwestern University, will lecture on the subject of "Modern Organic Chemistry."

THE former section of history of chemistry of the American Chemical Society is now a division, and members who wish to be enrolled in this division are invited to send their names to Dr. Tenney L. Davis, Massachusetts Institute of Technology.

THE first convention of Sigma Pi Sigma, national physics fraternity, will be held at Davidson College, Davidson, N. C., on April 10 and 11. Dr. Marsh W. White, of Pennsylvania State College, will be the principal speaker.

At a meeting of the chemistry research club of Columbia University on March 29, papers were presented on "The Hydrolysis of Sucrose by In-

vertase," by Maxwell Schubert, and "Activity Coefficients of High Valence Ions and a Simple Method of Handling the General Solution of the Debye Theory of Electrolytes," by Victor K. La Mer.

THE National Park Service announces plans for the fourth summer school for the training of naturalists, nature guides and teachers of natural history, to be opened on June 25 in the Yosemite National Park. The work was inaugurated by the California Fish and Game Commission and is also participated in by the Yosemite Natural History Association. The school has a faculty of seven, under the leadership of Ansel F. Hall, chief naturalist.

THE Whiting Corporation, Harvey, Ill., has established in the Mellon Institute of Industrial Research an industrial fellowship, whose holder, Dr. Edward E. Marbaker, will conduct research on cast iron. The results of these investigations will be published for the general benefit of the foundry industry.

JEFFERSON MEDICAL COLLEGE has given notice in Orphans Court of an intention to claim a \$67,000 trust fund left by Dr. James Ewing Mears to Harvard University for the study of eugenics, which that university rejected a year ago.

PROFESSOR R. P. COWLES has presented to the department of zoology of the Johns Hopkins University his collection of gastropod shells, marine and terrestrial. These shells were collected at the Marine Biological Station in the Philippine Islands, located at Puerta Galera, on the Island of Mindoro.

THE United Engineering Society has received a bequest of \$1,000 through the will of the late Oberlin Smith, president of The American Society of Mechanical Engineers in 1890.

WITH the aid of students now in residence, the Brooks research fund, designed to aid students in botany and zoology at the Johns Hopkins University, has now passed the ten thousand dollar mark.

ADDITIONAL funds have been received by the Fitzwilliam Museum, of the University of Cambridge, completing the fund of £100,000 required for the proposed extension.

THE widow of the late Professor Emanuel Kayser, paleontologist and geologist, of Munich, desires to sell his library. It has about 11,000 pamphlets and 500 to 600 books. Those interested should address his daughter, Frau Cilly Engelmann, Weissenburgstrasse 3, Marburg, Germany.

THE Comité National Belge de l'Eclairage has accepted the task entrusted to it by the International Commission on Lighting of establishing in Brussels an international research department on the distribution

of electrical illumination with the view of drawing up a series of standards.

THE British National Institute of Industrial Psychology, London, which was founded seven years ago for the application of the human sciences to the everyday needs of industry, has received an anonymous gift of £4,000 towards the cost of new premises.

THE Martin Johnson African Expedition Corporation, through its president, Daniel E. Pomeroy, has presented to the American Museum of Natural History 200,000 feet of film taken by Mr. and Mrs. Martin Johnson during their four years in Africa. The museum has placed the 8,000 feet of this film, which made up the motion picture "Simba," in a vacuum sealed container, which will not be opened for fifty years, when it is believed that a majority of the animals now constituting the wild life of Africa will have disappeared.

UNIVERSITY AND EDUCATIONAL NOTES

PRINCETON UNIVERSITY has received a quarter of a million dollars in pledges toward the alumni fund to raise teachers' salaries as the result of the first month of the canvassing for a \$2,000,000 endowment.

BEQUESTS of the late James Ward Packard include \$20,000 to Lehigh University. After Mrs. Packard's death one third of the residuary estate will go to the university.

THE University of Buffalo has received a gift of \$100,000 from Mr. Darwin D. Martin to establish the Martin professorship of mathematics.

GEORGETOWN UNIVERSITY has received \$250,000 from Mr. and Mrs. Thomas J. Maloney, of Waldwick, N. J., for the Chemo-Medical Research Institute to be built on the university grounds.

DR. ARTHUR L. TATUM, of the University of Chicago, has been appointed professor of pharmacology at the University of Wisconsin, in association with Dr. A. S. Loevenhart. He will assume his duties at Madison on September 15.

PROFESSOR H. B. WALKER, head of the department of agricultural engineering at Kansas State Agricultural College, has resigned to accept a similar position with the agricultural branch of the University of California at Davis.

AT Yale University, Professor William R. Longley, professor of mathematics, has been appointed to the Colgate professorship in place of Professor Luquiens. The following assistant professors were promoted to the rank of associate professors: Dr. Oystein Ore,