

schools, colleges and universities throughout the Commonwealth. This pamphlet summarizes the basic principles of geology and presents a condensed résumé of the geology of Pennsylvania. Following its distribution, return-reply cards were mailed to persons likely to be interested in field trips in two selected regions. It was thought advisable to begin with a limited number of trips until it was determined how the scheme would be received. Three excursions were subsequently held. On May 4, two trips were conducted, the first in the morning and the second in the afternoon, in the region of Chambersburg. These were in charge of R. W. Stone and Dr. Bradford Willard, of the Geologic Survey, and Walter E. Hess, of the Department of Public Instruction. Mr. Hess handled practically all the distributing of the literature and notifying the science teachers in high and normal schools. On May 11 a single trip was conducted by Dr. Willard at Stroudsburg. Mr. Hess again represented the Department of Public Instruction.

Elements of physiography, structural geology, paleontology, stratigraphy, mineralogy and economic geology were discussed on the trips with actual illustrations in the field. An average of 40 attended each of the three trips. The relatively small number made for easier handling of the parties and greater individual attention to questions. On the whole the trips were considered satisfactory both by the persons attending them and those who were instrumental in their planning and execution. Because of their success it is hoped to conduct similar trips in different parts of Pennsylvania in the future.

BRADFORD WILLARD

#### GRANTS FOR RESEARCH OF THE AMERICAN ACADEMY OF ARTS AND SCIENCES

At its meeting on April 10, the American Academy of Arts and Sciences announced grants-in-aid from the Permanent Science Fund as follows:

To Frank M. Carpenter, Museum of Comparative Zoology, Cambridge, \$350, for expenses in connection with a collecting expedition to Kansas for the purpose of adding material necessary for his work on a "Revision of the Lower Permian Insects of Kansas."

To Tenney L. Davis, Massachusetts Institute of Technology, \$300, for technical assistance in the preparation and analysis of certain compounds essential to the completion of his study of the reaction of phosphorus trichloride with cuprous chloride.

To Fred W. Emerson, New Mexico Normal University, Las Vegas, \$100, for aid in defraying expenses in connection with a study of the plant associations in the White Sands area near Alamogordo, New Mexico, and in collecting material for the study of palisade cells in desert plants.

To Walter S. Hunter, Clark University, \$150, for apparatus, assistance and other expenses to be incurred in investigating the inhibition and disinhibition of conditioned reflexes in human subjects.

To J. W. McBain, Stanford University, \$250, for material and equipment to be used in a study of adsorption in the air-water interface of various solutions.

To Arthur S. Graves, Brooklyn Botanic Garden, \$250, to help meet expenses in an investigation designed to produce a chestnut resistant to *Endothia parasitica*.

To Professor Robert Weill, of the Faculty of Sciences of the University of Paris, \$300, for aid in defraying expenses of a visit to the Bermuda Biological Station to study the nematocysts of Coelenterates.

Applications for grants-in-aid from the Permanent Science Fund of the American Academy of Arts and Sciences will be received by the committee until September 15, 1935, for action at the October meeting of the academy. Applications should be made to Professor E. M. East, *Chairman*, Permanent Science Fund Committee, Bussey Institution, Forest Hills, Boston, Mass.

#### AWARDS OF LATIN AMERICAN FELLOWSHIPS

THE award of six fellowships of the John Simon Guggenheim Memorial Foundation to Latin American scholars who will come to the United States has been announced.

These fellowships are granted on terms generally similar to those governing the John Simon Guggenheim Memorial fellowships awarded to citizens of the United States. They are awarded to men and women, married or unmarried, without distinction of race, color or creed. The stipends both for Latin America and for the United States are usually \$2,000 a year.

At the present time Latin American fellowships are available to citizens of Argentina, Chile, Cuba and Mexico, and also to Porto Ricans. The selection of the fellows whose names are now announced was made by a committee which met in New York, with the advice and assistance of leading scholars and advisory committees in the countries concerned. Two hundred applications were presented this year.

The awards now announced to assist the investigations specified are as follows:

PROFESSOR ALFREDO BAÑOS, JR., professor of theoretical physics, National University of Mexico: Studies of the physical nature of dielectric constant and of the conductivity of dielectrics, at the Massachusetts Institute of Technology.

DR. PEDRO J. BERMÚDEZ HERNÁNDEZ, assistant in zoology and paleontology, University of Havana, Havana, Cuba: Studies of Foraminifera, especially from the paleontological point of view, with the purpose of contributing to a correlation of the Eocene faunas of Cuba

with those of the Gulf Coast of the North American mainland, chiefly at the Cushman Laboratory for Foraminiferal Research at Sharon, Massachusetts.

DR. LUIS HOWELL RIVERO, assistant in anthropology, University of Havana, Havana, Cuba: Continuation of taxonomical and biological studies of West Indian fishes, chiefly at the Museum of Comparative Zoology, Harvard University. The fellowship now awarded to Dr. Rivero is a renewal of a fellowship granted a year ago.

DR. ATILIO MACCHIAVELLO VARAS, chief of the Sanitary Inspection Service of the Northern Sanitary Zone of Chile, Antofagasta, Chile: Continuation of studies in the fields of preventive medicine and public health, with especial reference to typhus, at Harvard University. The grant now made to Dr. Varas will enable him to spend a second year at work on problems of typhus in Chile, in collaboration with Professor Hans Zinsser, of the Harvard Medical School.

DR. TRÓFILO ORTIZ Y RAMÍREZ, professor of clinical

medicine, Faculty of Medicine, National University of Mexico, Mexico, D.F.: Clinical studies in the field of cardiac physiology, at Harvard University.

DR. ENRIQUE SAVINO, bacteriologist in the Bacteriological Institute of the National Department of Hygiene, Buenos Aires, Argentina: Studies in the field of public health, with emphasis on epidemiology, chiefly at Harvard University.

The Committee of Selection which met in New York consisted of President Frank Aydelotte, Swarthmore College, *chairman*; Dr. Thomas Barbour, professor of zoology and director of the Museum of Comparative Zoology, Harvard University; Dr. Elmer Drew Merrill, director of the New York Botanical Garden; Dr. Antonio G. Solalinde, professor of Spanish in the University of Wisconsin, and Dr. Richard P. Strong, professor of tropical medicine in the Harvard University Medical School.

## SCIENTIFIC NOTES AND NEWS

AMONG the honors awarded on the occasion of the seventieth birthday of King George and the twenty-fifth year of his reign, the Order of Merit was conferred on Sir Frederick Gowland Hopkins, Sir William Dunn professor of biochemistry at the University of Cambridge and president of the Royal Society.

THE trustees of the Humane Society of the Commonwealth of Massachusetts have awarded the gold medal of the society to Dr. George R. Minot and Dr. William Parry Murphy, in recognition of their successful discoveries in the treatment of pernicious anemia. The medals were presented by Charles P. Curtis, president of the society, at the Peter Bent Brigham Hospital on May 23. The awarding of the medal to Drs. Minot and Murphy marks a change in the policy of the society, which for a hundred and fifty years has awarded the medal for heroic rescues, where the life of the rescuer was at stake.

MEMORIAL tablets to Samuel F. B. Morse and to Professor John W. Draper were unveiled at the Washington Square Center of New York University on May 28. The tablets were erected by the State Education Department and the Greenwich Village Historical Society to mark the site of the original New York University building, where Morse sent the first message by electric telegraph and Draper made the first photographic portrait of a living person. The tablets were presented by Catherine Parker Clivette, founder and president of the Greenwich Village Historical Society. Granddaughters of the two inventors, Clara Morse and Dorothy Draper Nye, unveiled the plaques. Chancellor Harry Woodburn Chase made the dedicatory address.

THE honorary degree of doctor of engineering was conferred on May 30 by the South Dakota School of Mines on Dr. Lyman J. Briggs, director of the National Bureau of Standards, who gave the commencement address. Degrees were also conferred on the Honorable George H. Dern, Secretary of War; Dr. Gilbert H. Grosvenor, president of the National Geographic Society; Dr. John Oliver La Gorce, vice-president of the National Geographic Society, and Captain Albert W. Stevens, U. S. Army, leader and scientific observer of the stratosphere flight. The ascent from Rapid City, S. D., of the stratosphere balloon under the auspices of the National Geographic Society and the U. S. Army corps is planned to take place as soon as weather conditions are favorable.

HONORARY degrees were conferred by McGill University on May 30 on Dr. A. S. Eve, retiring professor of physics at the university; on Dr. O. T. Avery, of the Rockefeller Institute for Medical Research; on Adelard Godbout, Quebec Minister of Agriculture, and on Abbé Georges Lemaître, professor of astrophysics at the University of Louvain.

AT the seventy-second annual commencement of Kansas State College on May 27 the honorary degree of doctor of science was conferred on James T. Jardine, chief of the Office of Experiment Stations, U. S. Department of Agriculture. The honorary degree of doctor of engineering was conferred on George W. Wildin, of the class of 1892, consulting engineer, of Pittsburgh, Pa., and on Ernest H. Freeman, of the class of 1895, professor of electrical engineering at the Armour Institute of Technology.

OGLETHORPE UNIVERSITY, Atlanta, Ga., at its com-