The central figure of the memorial exhibit will be a large globe, on which will be traced the long wake The Carnegie left on the seven seas during her twenty years and more of voyaging. Further exhibits will show how the data on the magnetism of the earth gathered on these cruises have been put to use in scientific work and in the highly practical field of guiding ships safely to port. There will also be a model of the apparatus used to correct the compass determinations against the errors introduced by the roll and pitch of the ship, as well as displays of specimens, photomicrographs, microscope slides and graphs illustrating the many studies conducted by the scientific staff of The Carnegie on the physics and biology of the ocean and the geology of its bottom.

The annual exhibition of the Carnegie Institution attracts visitors from all parts of the country. In addition to the memorial exhibit of the work of the ill-fated *Carnegie*, there will be displays of the work of other departments of the institution.

Of especial interest will be the display of archeological specimens and photographs showing the progress of excavations in Central America and the southwestern United States. Both of these exhibits will show the airplane photographs taken by Colonel and Mrs. Charles A. Lindbergh, which have opened up an entirely new technique in the study of American antiquity.

A still greater antiquity is studied by the institution's workers in paleobotany. Examination of petrified logs from Yellowstone National Park by Dr. A. E. Douglass, using the same methods of tree-ring counting that enabled him recently to date the ancient Pueblo ruins of the southwest, has shown that the same cycles of sun-spot numbers we know to-day prevailed 20,000,000 years ago, when these forests were overwhelmed by showers of volcanic ash and sand.

Plant life in the present-day west will be graphically shown by a cross-section of a typical desert area near Tucson, Arizona. The model shows a granite mountain, a volcanic mountain, the talus slopes and outwash slopes, an undrained basin and the floodplain of a large river, and indicates the plant associations that have established themselves on each of these soil areas.

Life on a much smaller scale will be shown by the exhibit of the work on diatom investigation. Diatoms are exceedingly minute one-celled plants that live in both fresh and salt water. There is an immense number of species of them, many of them displaying great beauty of form and markings under the microscope. They have lived in the past in such vast numbers as to form great deposits of the economically valuable "diatomaceous earth"; and those living today are giving esthetic inspiration to artists and designers of such various wares as dress goods and stained-glass windows.

## SCIENTIFIC NOTES AND NEWS

On the occasion of the dedication of the John Markle Mining Engineering Hall, Lafayette College conferred a doctorate of science on Dr. William Otis Hotchkiss, the dedication speaker, president of the Michigan College of Mining and Technology.

Dr. G. Canby Robinson, director of the new medical center of the New York Hospital and Cornell Medical College, has been made president of the Harvey Society for the ensuing year.

THE Philadelphia Pathological Society has awarded the William Wood Gerhart medal to Dr. Eugene L. Opie, professor of pathology at the University of Pennsylvania School of Medicine, who delivered the Gross lecture before the society on November 14 on "Occurrence and Spread of Tuberculosis Infection."

THE Physical Society of Pittsburgh tendered a dinner on November 21 in honor of Dr. Clinton J. Davisson, preceding his lecture on "The Wave Properties of Electrons" at the Carnegie Institute of Technology.

Dr. George T. Hargitt, of Syracuse University, addressed the Biological Journal Club of the North

Carolina College for Women, Greensboro, at a dinner given in his honor on November 21. His subject was "The Germ Cells of Mammals."

On November 26 there was held at the Queen City Club of Cincinnati a dinner celebrating the twentyfifth year as professor of biochemistry of Dr. Albert Prescott Mathews, head of the department of biochemistry in the University of Cincinnati. Some one hundred scientific colleagues, friends and students of Dr. Mathews were present. The toastmaster was Dr. Frederick C. Hicks, president emeritus of the University of Cincinnati, and the speakers were Dean Basil C. H. Harvey, of the college of medicine, University of Chicago; Dr. George W. Crile, of Cleveland, and Dr. Nevin M. Fenneman, professor of geology in the University of Cincinnati. Dr. Mathews expressed his appreciation of the honor done him and told of the early development of biochemistry in this country and the rôle it will play in the future.

In addition to the degree of doctor honoris causa recently conferred on Professor Albert Einstein by the University of Paris, the degree was conferred on Dr. Roux, professor of clinical surgery in the University of Lausanne.

M. MAURICE DE BROGLIE has been elected a foreign member of the Upsala Academy of Sciences.

At the meeting last month of the British Institution of Civil Engineers, the Kelvin gold medal was accepted by the French ambassador on behalf of M. André Blondel, the distinguished French engineer, who was unable to visit England on account of ill-health.

Dr. Motoji Shibusawa, dean of engineering of the Tokio Imperial University, has been awarded an honorary membership in the American Institute of Electrical Engineers.

Dr. Fred H. Albee, professor of orthopedics at the Post-Graduate Hospital, New York, has been made a Commander of the Order of Merit of Hungary in recognition of his work in bone surgery. Dr. Albee received the medal at the hands of the Hungarian consul general.

PROFESSOR AMÉDÉE GRANGER, of the graduate school of medicine of Tulane University, has received the decoration of Chevalier of the Order of the Crown of Belgium. The knighthood was conferred in gratitude to Dr. Granger for permitting Belgium to equip its surgeons with a device which he invented to locate minute bullets imbedded in the body.

Dr. J. C. Meakins, Toronto, has been elected president of the Royal Canadian College of Physicians and Surgeons, which obtained a parliamentary charter last session. As vice-presidents there have been elected Dr. F. N. Starr and Dr. Duncan Graham, both of Toronto.

THE new advisory board of the Chicago Public Health Institute consists of Drs. Joseph Capps, Charles Elliott, Walter Hamburger, Ludvig Hektoen, Ernest Trone, Joseph Miller and Arthur D. Black.

Among appointments by the trustees of the British Museum are Mr. John Ramsbottom, to be keeper of botany on the retirement of Dr. A. B. Rendle on January 19, and Mr. Gilbert John Arrow, to be deputy keeper in the department of entomology. Mr. Ramsbottom has been deputy keeper in the department of botany since 1927. He has been in charge of the mycetological section, and has especially studied fungi in relation to economic questions. Mr. Arrow is an authority on Coleoptera and has produced three volumes on the fauna of British India.

THE Association of Official Agricultural Chemists, at its annual meeting in Washington, elected Dr. E. M. Bailey, New Haven, president; Dr. H. B. Haskins,

Amherst, vice-president, and Dr. W. W. Skinner, chief of the chemical and technological unit of the Bureau of Chemistry and Soils, Department of Agriculture, secretary and treasurer, Dr. Skinner by reelection

Grants of £50 have been made from the Thomas Smythe Hughes Medical Research Fund for 1929-30 to H. Avery for research on the localization and treatment of cerebral tumors produced experimentally with Jensen's yeast cultures and with neoplastic grafts, and to Mary F. L. Keene and Evelyn E. Hewer for the continuation of research on the development of the human foetus.

Professor A. C. Grubb, of the department of chemistry of the University of Saskatchewan, who, with his family, has been spending a year's sabbatical leave at Pasadena, California, has returned to Saskatoon.

C. W. BISHOP, associate curator of the Freer Gallery of Art, has left Washington to resume archeological research work in China.

Dr. R. Kimura, chief geologist of the Geological Survey of the South Manchuria Railway Company, and Dr. T. Ito, assistant professor in the Tokyo Imperial University, are visiting the United States.

Dr. Murray P. Horwood, associate professor of bacteriology and public health at the Massachusetts Institute of Technology, has completed a health survey of Holyoke, Massachusetts, with relation to tuberculosis.

PROFESSOR NORBERT WIENER, of the Massachusetts Institute of Technology, is visiting professor of physics at Brown University.

THE AMERICAN PHILOSOPHICAL SOCIETY, in association with the National Broadcasting Company, broadcasted the address of Dr. Elihu Thomson on "Why the 200-inch Telescope?" on December 6.

Dr. Edwin Bidwell Wilson, president of the Social Science Research Council and professor of vital statistics in the Harvard School of Public Health, is to be the orator at the one hundred fifty-eighth convocation of the University of Chicago on December 17.

Dr. Louis Navias, ceramist in charge of research of the General Electric Company, will deliver the fourth series of Priestley lectures at the Pennsylvania State College from December 16 to 20. The lectures will deal with the interrelation of physical chemistry and ceramics.

Dr. Dean D. Lewis, professor of surgery in the Johns Hopkins School of Medicine, gave on November 7 the first of the Albert Berney lectures at Mount Sinai Hospital, New York, a series which has been provided for by Mr. Berney's friends in appreciation of his interest in the hospital.

Dr. LIBERTY HYDE BAILEY spoke at Smith College on November 22 on "The Palm Hunter."

LECTURES at the experimental station of the Pennsylvania State College include Dr. S. A. Waksman, New Jersey Agricultural Experiment Station, on December 19; Dr. Roy Chapman, University of Minnesota, on January 16; Dr. C. H. Eckles, University of Minnesota, on February 20; Dr. Earl H. Clapp, U. S. Forest Service, on March 20; Dr. E. B. Hart, University of Wisconsin, on April 16; Dr. W. W. Garner, U. S. Department of Agriculture, on May 15, and Dr. J. B. Davidson, Iowa State College, on a date not yet announced.

Dr. George D. Beal, assistant director of the Mellon Institute of Industrial Research, addressed the Lehigh Valley section of the American Chemical Society on November 14. He spoke on "Some Contributions which Science is Making to Industry." Dr. Lawrence W. Bass, executive assistant, spoke before the Northern West Virginia section of the American Chemical Society on November 22 on "The Economic Effects of Industrial Research."

Dr. Harry N. Holmes, professor of chemistry at Oberlin College, will give the three Christmas week lectures for young people, on the James Mapes Dodge Lecture Foundation of the Franklin Institute, Philadelphia, on December 26, 27 and 28. The title of the series is "It is a Colloidal World after all."

Dr. Max Bodenstein, director of the Physical Chemistry Institute, University of Berlin, gave a series of three public lectures on the "Chemical Actions of Light" on December 9, 10 and 11, at the Carnegie Institute of Technology, Pittsburgh. Dr. Bodenstein went from the Johns Hopkins University where, as the James Speyer visiting professor of chemistry, he has been giving a series of lectures.

LLEWELYN B. ATKINSON delivered on November 6 his inaugural address as chairman of the council of the Royal Society of Arts on "Fifty Years of Electrical Science and Industry."

M. DE DONDER, professor at the University of Brussels, gave recently six lectures at l'Institut Henri Poincaré, Paris, on the Einsteinian theory of gravitation.

THE meeting of the Colorado Wyoming Academy of Science was held in Colorado Springs with an attendance of 138. Seventy papers on original research were presented at the meeting. The Colorado Social Science Association also voted to join with the acad-

emy as a separate section. The following officers for the coming year were elected: L. W. Durrell, president; J. D. Heilman, vice-president; J. Harlan Johnson, secretary; W. C. Binkley, treasurer. The executive committee for the coming year is as follows: P. T. Miller, P. A. Boucher, F. C. Jean and R. A. Niswanger.

GENETICISTS attending the Des Moines meeting of the American Association for the Advancement of Science have been invited to visit the campus and exhibitions at Iowa State College at Ames, on Sunday, December 29, prior to the regular meetings on Monday, December 30, when the joint genetics sections and the organization of Geneticists Interested in Agriculture hold their sessions at Ames. The college, departmental exhibits and the headquarters (Memorial Union Hall) will be open Sunday and guides will arrange for inspection trips. Arrangements have been made to accommodate any number of guests at a new, convenient dormitory on Sunday night. Rates are \$1.50 per day and reservations should be mailed to E. W. Lindstrom, Department of Genetics, Iowa State College, Ames, Iowa. Meals and group luncheons or dinners are easily and conveniently arranged at the Memorial Union Hall. Frequent and inexpensive bus service to and from Des Moines (34 miles south) will be available. Bus arrangements may be made at the headquarters hotel in Des Moines and at the Memorial Union Hall in Ames. Special buses may be had for any groups wishing to leave at specific times, especially for returning to Des Moines on Monday after the meetings.

The American Astronomical Society will meet from December 30 to January 2, under the presidency of Dr. Raymond S. Dugan, at the Harvard College Observatory. One of the sessions will be held at the Whitin Observatory of Wellesley College. Aside from the usual features of the meetings, an excursion is planned for January 2 to West Lynn to visit the General Electric plant there and in particular to see the work on fused quartz mirrors.

THE annual general meeting of the American Philosophical Society will be held at Philadelphia on April 24, 25 and 26, 1930, beginning at 2 P. M., on Thursday, April 24.

The next annual meeting of the Federation of American Societies for Experimental Biology will be held in Chicago from March 26 to 29, 1930.

THE fifty-ninth annual meeting of the American Public Health Association will be held in Fort Worth, Texas, during the week of October 27, 1930, with the Hotel Texas as headquarters.

THE Harriman memorial gold medal for 1928, awarded for the best safety record by a railroad operating 10,000,000 or more locomotive miles a year, was formally presented to the Union Pacific Railway by the American Museum of Safety at a luncheon on December 5 in the Metropolitan Club, New York City.

THE corporations of the New York Post-Graduate Medical School and Hospital and of the Reconstruction Hospital, at separate meetings on December 4. ratified the consolidation of the two institutions. The announcements were made by Dr. Edward Hume, executive vice-president of Post-Graduate, and by Allen Wardwell, president of the Reconstruction Hospital. After the merger is approved by the State Board of Charities and by the courts, the new institution will be known as the New York Post-Graduate Medical School and Hospital. Unified operation is expected to be effected about January 1. The Post-Graduate Hospital was founded a little more than forty-seven years ago. Its buildings are at 303 East Twentieth Street, at Second Avenue. The Reconstruction Hospital, which came into being during the Spanish-American War, is at 395 Central Park West. The combined capacity of the two institutions will be 500 beds.

THE establishment of a national land-grant college and university institute in Washington, D. C., to enable the land-grant institutions to contribute more effectively toward the solution of national problems, was urged by Anson Marston, dean of engineering of Iowa State College, in an address at the annual dinner of the Association of Land-Grant Colleges and Universities in Chicago, the evening of November 12.

The New York State Psychiatric Institute and Hospital was dedicated on December 3 at the medical center of Columbia University. Addresses of welcome were delivered at the morning session, at which Dr. Nicholas Murray Butler and Acting Governor Herbert H. Lehman spoke. The afternoon meeting was devoted to the reading of scientific papers. Dr. Butler welcomed the institute to the medical center and declared that the new unit represents the cooperation

of public and private services that is characteristic of American life.

THE Elizabeth Thompson Science Fund makes grants of small amounts of money for scientific research. The secretary will be glad to receive applications from men and women working in specialized fields of science, whether or not in academic institutions, who are unable to obtain funds elsewhere to initiate or complete investigations. Applications should be addressed to the secretary of the fund, Professor E. B. Wilson, 55 Van Dyke Street, Boston, Massachusetts.

The future of the Radcliffe Infirmary and the Radcliffe Observatory, Oxford, are involved in a provisional agreement which has been concluded between Sir William Morris and the Radcliffe trustees. The trustees undertake to sell the observatory site to Sir William Morris for the sum of £100,000 and will lease the observatory buildings from him for a period of five years, after which the observatory will be removed to South Africa. Meanwhile the needed extensions to the Radcliffe Infirmary will be begun on the observatory grounds in the course of the next few months. The Radcliffe Observatory is said to be the second oldest observatory in the British Isles.

Industrial and Engineering Chemistry reports that the British Color Council was established October 9 as the result of a meeting supported by leading representatives of the textile trades, the dyeing industries and other interested industries, such as leather and shoe manufacturing firms. The proper classification of colors and the establishment of names to avoid a great variety for the same color was suggested as a reform to be brought about by the council. An international color conference was also suggested, as a preliminary to the adoption of an international color card, to facilitate the standardization of colors. At present entirely independent color cards are published in England, France, Germany, Switzerland and the United States. Another suggestion was the appointment of a technical adviser on the council, to advise members processing different types of fiber how the particular colors agreed upon could be supplied.

## UNIVERSITY AND EDUCATIONAL NOTES

At the dedication of the John Markle Mining Engineering Hall of Lafayette College on December 6, which was built at a cost of \$500,000, given by Mr. John Markle, it was announced that \$400,000 more had been given by Mr. Markle for endowment.

A GIFT of \$1,000,000 from the family of the late Charles Dering, of Evanston, Illinois, has been made to Northwestern University for the construction of a new general library building. Dr. J. Ernest Carman, professor of geology at the Ohio State University since 1917, has been made chairman of the department of geology. Dr. E. Willard Berry, who studied at the Johns Hopkins University and who has been with the International Petroleum Company in Peru for several years, has been appointed instructor.

CARL D. BRANDT, general superintendent and as-