

the 15 papers to be presented at this symposium will be grouped into (1) problems related to solar radiation, (2) problems related to surface-water temperature and (3) problems related to atmospheric circulation. The joint meeting of the sections of terrestrial magnetism and electricity, seismology and geodesy, to be held on the morning of April 26, will be devoted to a symposium and discussion on geophysical methods as applied in the study of geological structure; the program for the symposium will consist of six papers. The section of geodesy will hold a meeting on the morning of April 27 to hear reports of progress from representatives from Mexico, Canada and the United States, to be followed by a symposium on the figure of the earth. The section of volcanology will also meet on the morning of April 27, the program of scientific papers and discussion being devoted largely to questions of volcanic activity, the year's volcanologic publications and volcanologic work of the U. S. Geological Survey. The general assembly of the union is scheduled for the afternoon of April 27; in addition to business matters and reports concerned with the union's activities for the year, there will be reports of the delegates to the third general assembly of the International Geodetic and Geophysical Union at Prague and a general discussion with reference to the proposed publications of bulletins on geophysical methods, instruments, results, etc., under the auspices of the division of physical sciences of the National Research Council.

SCIENTIFIC NOTES AND NEWS

A CELEBRATION in honor of the fiftieth anniversary of the invention of the dynamo will take place at the Franklin Institute, Philadelphia, on April 18, where the first tests were made in 1878 by Dr. Elihu Thomson and Professor E. J. Houston. Dr. Thomson and Dr. Charles F. Brush, who invented the type of dynamo finally recommended, will be the guests of honor and will present papers.

THE Frank Nelson Cole prize of \$200 for original work in algebra was awarded to Professor L. E. Dickson, of the University of Chicago, at a meeting of the American Mathematical Society at Columbia University on March 7. The prize, which is awarded every five years, was established in honor of Frank Nelson Cole, who was secretary of the society for twenty-five years.

THE University of Dublin will confer the honorary degree of D.Sc. on Dr. G. L. Streeter, director of the department of embryology, Carnegie Institution of Washington, Baltimore, and Professor A. S. Eddington, Plumian professor of astronomy and experimental philosophy in the University of Cambridge.

DR. CARL STUMPF, the distinguished psychologist, celebrates his eightieth birthday on April 21. On that occasion a bronze bust of him by Georg Kolbe will be unveiled in one of the rooms of the University of Berlin.

DR. ADOLPH ENGLER, professor of botany in the University of Berlin, has been elected an honorary member of the Russian Academy of Sciences.

DR. ALFRED DENKES, professor of medicine at the University of Halle, has been elected a corresponding member of the Royal Society of Medicine, London.

DR. PAUL ALEXANDROFF, professor of mathematics at Moscow, has been elected a corresponding member of the Göttingen Scientific Society.

THE gold medal of the British Institution of Mining and Metallurgy has been awarded to Sir Alfred Mond, "in recognition of his scientific and industrial services in the development of the mineral resources and metallurgical industries of the British Empire."

THE Frank N. Meyer medal for distinguished service in plant introduction has been presented to H. N. Ridley, in recognition of the important part he played in establishing plantations of the Para rubber tree in the Oriental tropics. The presentation was made by the American consul-general on behalf of Mr. David Fairchild, president of the American Genetic Association, to whom the award is entrusted by the staff of the office of foreign plant introduction of the United States Department of Agriculture.

WE learn from *Nature* that elections to the following offices in the British Chemical Society have been made: *President*, Professor J. F. Thorpe; *Treasurer*, Dr. T. Slater Price; *Secretary*, Professor T. S. Moore. The retiring president, Professor H. Brereton Baker, delivered his presidential address, entitled "Constitution of Liquids: Some New Experiments," at the annual general meeting on March 22.

DR. JOSEPH S. ILLICK, state forester of Pennsylvania, was elected chairman of the Allegheny section of The Society of American Foresters at the annual meeting held at Harrisburg. The Allegheny Section comprises the states of New Jersey, Delaware, Maryland, West Virginia and Pennsylvania.

By the operation of the age limitation law, Edward Howe Forbush will retire on April 24 from his position as director of the division of ornithology of the Massachusetts State Department of Agriculture. His work will be taken up temporarily by Dr. John B. May, who has been his assistant for some years.

PROFESSOR F. O. DUFOUR, head of the civil engineering department of Lafayette College, has resigned to accept a position as engineer in charge of structural

work with the United Engineers and Constructors Company, of New York and Philadelphia.

DR. JOSEPH FRANCIS MERRILL, after an official connection of thirty-five years with the University of Utah, thirty years of which time he served as director of the school of mines and engineering and professor of electrophysics, has accepted the position of commissioner of education of the Church of Jesus Christ of Latter-day Saints.

DR. JAMES F. NORRIS, director of the research laboratory of organic chemistry of the Massachusetts Institute of Technology, has undertaken the consulting editorship of the International Chemical Series, published by the McGraw-Hill Book Company. Dr. Norris succeeds the late Dr. H. P. Talbot.

THE managers of the Royal Institution have appointed Dr. Alex. Muller, known for his work on crystals, to be assistant director of the Davy Faraday Research Laboratory.

ACCORDING to *Nature* the appointments made by the British secretary of state for the colonies during the month of February, in addition to those for the East African Agricultural Research Institute, Tanganyika Territory, include the following: Dr. H. Scott, entomologist, Iraq; J. L. Illingworth, curator and agricultural superintendent, Virgin Islands; C. B. C. Handley, assistant agricultural officer, Kenya; Mr. H. Marsland, cotton investigator, Agricultural Department, Tanganyika Territory; R. S. Kyle, veterinary officer, Tanganyika Territory.

THE annual medical clinic of the State University of Iowa College of Medicine will be held at Iowa City from April 10 to 11. Dr. Dallas B. Phemister, professor of surgery, University of Chicago, will give an address, Tuesday evening, April 10, and Dr. Louis B. Wilson, Rochester, Minn., will give an address on Wednesday.

DR. HARRY B. WEISER, head of the department of chemistry of Rice Institute, Houston, Texas, will give two courses of thirty lectures each in the field of colloid chemistry in the forthcoming summer session at Western Reserve University, beginning on June 18.

DR. C.-E. A. WINSLOW, professor of public health at Yale University, has been appointed Cutter lecturer on preventive medicine for 1928-29 at Harvard University.

DR. GEORGE OTIS SMITH, director of the U. S. Geological Survey and newly elected president of the American Institute of Mining and Metallurgical Engineers, will deliver the commencement day address at the Colorado School of Mines.

DR. THOMAS ADDIS, professor of medicine at the Stanford University school of medicine, will deliver the seventh Harvey Society lecture at the New York Academy of Medicine, on Friday evening, April 27. His subject will be "The Renal Lesion in Bright's Disease."

DR. ROBERT BALK, of New York, addressed the Boston Geological Society, on March 23, on "Movements in Rocks."

ON March 31 Dr. Ralph Linton, of the Field Museum of Natural History, Chicago, delivered an address to the Royal Canadian Institute, on the subject "Two Years in Madagascar."

L. W. KEPHART, of the U. S. Department of Agriculture, will address the Philosophical Society of Washington, on April 14, on "Plant Hunting through East Africa."

DR. W. J. V. OSTERHOUT, of the Rockefeller Institute for Medical Research, has sailed for Bermuda, to spend three weeks at the biological laboratory.

DR. WILLIAM BEEBE, of the New York Zoological Society, has returned from a month's photographic expedition to the Florida Keys.

R. A. CUSHMAN, assistant custodian of hymenoptera at the U. S. National Museum, who went to the Philippines last fall to attend to the packing and shipment of the C. F. Baker collection of insects, which had been bequeathed to the museum, returned to Washington on March 27. The collection is now on its way to the museum.

SIR JOHN RUSSELL, director of the Rothamsted Experimental Station, will soon leave England to visit Australia, where he is going at the invitation of the Australian universities to lecture on the applications of science to agriculture.

DR. J. BRACE CHITTENDEN, professor of mathematics at the Brooklyn Polytechnic Institute, died on March 20, aged sixty-four years.

DR. CHARLES H. VIOL, director of the radium research laboratory of the Standard Chemical Company of Pittsburgh, died on April 6 at the age of forty-one years.

SIR AUBREY STRAHAN, formerly director of the Geological Survey of Great Britain and the Museum of Practical Geology, died at the age of seventy-five on March 4.

PROFESSOR ANTONIO ABETTI, director of the Astrophysical Observatory of the Royal University of Florence from 1894 to 1922, died at his home in Florence on February 20, in his eighty-second year.

ACCORDING to an Associated Press dispatch, Dr. Alexander A. Bogdanoff, director of the State Scientific Institute for Blood Transfusion at Moscow, died on April 8. It is reported that his death was caused by the effects of a transfusion experiment made on himself.

THE colleagues of the late dean of the Stanford University School of Medicine, Dr. Albion W. Hewlett, who died in 1925, have revised his book "Pathological Physiology of Internal Diseases—Functional Pathology," as a memorial. In the foreword the president of the university, Dr. Ray Lyman Wilbur, says: "Dr. Albion Walter Hewlett, the author of this book, was primarily a trained physiologist who developed into a skilled practitioner. No one in America was better fitted to present the various subjects covered."

ACCORDING to the will of Dr. William Charles Lawson Eglin, his collection of books, pamphlets and manuscripts relating to science and technology, one of the largest and most valuable privately owned collections of its kind in this country, will go to the Franklin Institute. Prior to his death on February 8, Dr. Eglin had given much of the collection to the institute, of which he was president.

THE Maryland chapter of Sigma Xi was installed at the University of Maryland on Friday afternoon, March 2, by the national treasurer, Dr. G. B. Pegram, of Columbia University. There were twenty-three charter members. After the installation ceremony there was a banquet. In the evening, addresses were given by Dr. Pegram and Dr. A. F. Woods, ex-president of the university. The chapter officers are: Dr. C. O. Appleman, dean of the graduate school, *president*, Dr. E. C. Auchter, *vice-president*, and Dr. M. M. Haring, *secretary-treasurer*.

A NEW organization, composed for the present of those interested in bacteriology in central California, to be known as the Society of Bacteriologists (geographically qualified by terms not yet defined), was organized in San Francisco on March 27. Dr. J. Russell Esty was elected *president*; Dr. William V. Cruess, *vice-president*; Dr. M. S. Marshall, *secretary-treasurer*, and Captain V. H. Cornell, M.C., U.S.A., and Dr. Harry E. Foster, *councillors*. Dr. Karl F. Meyer, director of the George Williams Hooper Foundation for Medical Research and professor of bacteriology of the University of California, addressed the meeting, giving his recent observations of research work being performed in various eastern institutions. At the close of the meeting 78 were definitely enrolled in the organization.

THE House Committee on Foreign Affairs on March 31 voted a favorable report on a resolution

to extend invitations to foreign nations to participate in the International Congress on Entomology to be held in the United States in 1928.

NEXT September a meeting of the International Illumination Commission, which was formed in 1900 and includes both gas and electrical interests, is to be held in the United States. The objects of the commission are the study of all subjects bearing on illumination and the cognate sciences and the establishment of international agreements in illumination matters. There are at present National Illumination Committees in Austria, Belgium, France, Germany, Great Britain, Holland, Italy, Japan, Switzerland and the United States. C. C. Paterson, director of the research laboratories of the General Electric Co., Ltd., Wembley, was unanimously voted president at the Bellagio meeting in September, 1927.

A NATIONAL agricultural museum and a research institute on rural affairs, both planned as centers of international interpretation and research, are being advocated by Dr. Nicholas Murray Butler, president of Columbia University. Dr. Butler estimates that \$50,000 would be needed to effect a realization of the institutions to work cooperatively with the present research work at Columbia.

A GIFT of \$180,000 by Eversley Childs, of New York, to establish a treatment station for the milder cases of leprosy at Cebu, in the Philippine Islands, has been announced by General James G. Harbord, national chairman of the Leonard Wood memorial for the eradication of leprosy. The new station will consist of laboratories, a medical center, clinics, wards, a pharmacy, a dispensary for out-patients, cottages for the staff and all necessary equipment.

NEW appropriations by the Kentucky legislature for research, topographic mapping and administration for the oncoming biennial budget of the Kentucky Geological Survey, amounting to \$264,000, are announced by Dr. Willard Rouse Jillson, state geologist. To this amount an additional \$30,000 has been added from the state highway revenues, making a sum of \$294,000 of state money available for the various activities during the coming biennium. Federal mapping funds to match a portion of this will be secured.

THE University of California College of Dentistry Alumni Association have announced plans for accumulating a \$50,000 fund, the interest of which will be used as a traveling fellowship to carry students of dentistry or allied subjects to other countries to study, or to bring students of other countries to California.

THE United States Department of Agriculture has organized an expedition, under the leadership of Dr.

E. W. Brandes, sugar plant specialist, which will use an airplane in searching the unexplored wilds of New Guinea for disease-resistant varieties of sugar cane that may prove valuable to the industry in Louisiana and other parts of the South. Dr. Brandes will sail from San Francisco April 12, accompanied by Dr. Jakob Jesweit, who was formerly chief of sugar-plant breeding work in Java and now of the University of Wageningen, Holland, and Richard K. Peck, who will pilot the plane. They will be joined at Honolulu by C. E. Pemberton, entomologist of the Hawaiian Sugar Plant Association Experiment Station, and proceed to Port Moresby, the base of the expedition on the southeast coast of New Guinea.

LECTURES will be given during April and May at the New York Botanical Garden on Saturday afternoons at 4:00 P. M. as follows: April 7, "Beauties from the Flower Shows," Kenneth R. Boynton; April 14, "On the Long's Peak Trail," Howard H. Cleaves; April 21, "Gladiolus, Wild and Cultivated," Dr. Forman T. McLean; April 28, "Insects of Shade Trees and Ornamentals," Dr. E. P. Felt; May 5, "Daffodils," B. Y. Morrison; May 12, "Farming for Bouquets on the Cote d'Azur," Mrs. Wheeler H. Peckham; May 19, "How to Study Ferns," Professor Henry J. Fry, and May 26, "Chinese Asters," Professor Roland H. Patch.

THE summer school for engineering teachers which was established by the Society for the Promotion of Engineering Education in 1927 is to continue its sessions during the coming summer. Two schools will be held: one for teachers of physics and the other for teachers of electrical engineering. As in 1927, when mechanics was the subject studied, the purpose will be to study the principles and methods of teaching rather than to review actual content of subject-matter. The session on the teaching of physics will be held at the Massachusetts Institute of Technology, under the directorship of Dr. S. W. Stratton, president of the institute. The session on electrical engineering will be held at Pittsburgh, under the joint auspices of the University of Pittsburgh and the Westinghouse Electric and Manufacturing Company. Dr. F. L. Bishop, of the University of Pittsburgh, secretary of the Society for the Promotion of Engineering Education, and Professor Charles F. Scott, of Yale University, chairman of the society's board of investigation and coordination, will serve as codirectors of the Pittsburgh session of the school. Professor H. P. Hammond, associate director of the society's investigation of engineering education, is in general charge of the school. Both sessions will be of three weeks' duration and will begin shortly after July 4.

THE Rockefeller Foundation has taken action converting its previously made pledge to an appropriation of \$312,500 for the support of fellowships in physics, chemistry and mathematics by the National Research Council during the years 1928 to 1930, inclusive, at the rate of \$125,000 a year for 1928 and 1929, and \$62,500 for the year 1930.

UNIVERSITY AND EDUCATIONAL NOTES

DARTMOUTH COLLEGE will receive about \$1,500,000 from the estate of the late Edwin Webster Sanborn.

PHILIP S. BIEGLER, professor of electrical engineering at the University of Southern California, has been appointed acting dean of the college of engineering just created at that institution.

PROFESSOR LESTER S. GRANT, dean of the faculty and professor of mining engineering at the Colorado School of Mines, has resigned.

PROFESSOR A. I. KENDALL has left the medical school of Washington University to become research professor of bacteriology at Northwestern University.

DR. CLARENCE ERROL FERREE, of Bryn Mawr College, has been appointed resident lecturer at Wilmer Institute at the Hopkins Medical School and director of the research laboratory in physiological optics.

DR. ERICH BRENNKE, of the Geodetic Institute in Potsdam, has been called to the professorship of geodesy at the Berlin Institute of Technology.

DISCUSSION AND CORRESPONDENCE

THE AURORA OF MARCH 28, 1928

THE peculiar combination of an aurora with a lunar halo as visible in Cambridge on the night of March 28 is such an unusual occurrence that the event seems deserving of more than passing mention.

The lunar halo first attracted my attention about 11 P. M., Eastern Standard Time. A few minutes later the halo bore a fringe strikingly suggestive of a solar corona. By 11:30 a well-defined auroral fan was centered at a point on the horizon directly under the moon (at first quarter) with a streamer extending from the horizon directly past the moon and vertically upward. Oblique streamers arranged themselves approximately symmetrically about this line. One of these passed above Capella and at 11:50 P. M. extended across Polaris, and between Vega and Hercules to the eastern horizon.

A similar brilliant streamer mounting from the auroral center extended southward, passing Procyon and Regulus in Leo. These two streamers crossed the