

importance on the papers program and discussion periods to take place at Cambridge: Factory, Office and Home Lighting, Aviation, Lighthouses and Buoys, Street Lighting, Traffic and Motor Vehicle Lighting, Floodlighting, Architectural Lighting, Natural Lighting, Laboratory Technique, Mine Lighting, Museum Lighting and Lighting Bureaus.

The U. S. National Committee of the International Commission has been charged with the responsibility of management and direction for four important divisions of the commission's activities. These are: Motor Vehicle Lighting, Factory and School Lighting, Aviation Lighting and Applied Lighting Practice in fields not otherwise specifically assigned. The need for agreement on some essential features of aviation lighting has already resulted in preliminary meetings abroad under the auspices of the International Commission and the forthcoming meetings will undoubtedly bring together important specialists in this newer field of lighting.

The American contributions to the papers program are under the supervision of a committee composed of Mr. A. L. Powell, of the General Electric Lighting Institute, Harrison, New Jersey; Dr. C. H. Sharp, Electrical Testing Laboratories, New York; H. H. Magdsick, Nela Park Engineering Department, Cleve-

land; F. C. Hingsburg, Airways Division, Department of Commerce, Washington, D. C.; E. C. Crittenden, Bureau of Standards, Washington, D. C.; L. A. S. Wood, Westinghouse Electric and Manufacturing Company, Cleveland, and G. H. Stickney, General Electric Company, Nela Park, Cleveland.

Members of engineering societies and others interested in the science and art of illumination are eligible to attend the congress. Those interested are requested to register as soon as possible by application to the Assistant Secretary of the Illuminating Engineering Society, 29 West 39th Street, New York City.

The officers of the U. S. National Committee are: *President*, E. C. Crittenden; *Secretary-treasurer*, G. H. Stickney. The membership includes representatives of the following societies: American Institute of Electrical Engineers, Illuminating Engineering Society, National Electric Light Association, American Physical Society, Bureau of Standards and the Optical Society of America.

The attendance and transportation committee for the congress includes Dr. C. H. Sharp, chairman; J. W. Barker, dean of engineering, Columbia University, and S. E. Doane, consulting engineer, New York City.

## SCIENTIFIC NOTES AND NEWS

DR. W. W. KEEN, emeritus professor of surgery at the Jefferson Medical College, Philadelphia, celebrated his ninety-fourth birthday on January 19.

MR. THOMAS EDISON will celebrate his eighty-fourth birthday on February 11. He left last week for Fort Myers, Florida, where he expects to continue his work on rubber from native plants.

THE Willard Gibbs Medal for 1931 has been awarded by the Chicago section of the American Chemical Society to Dr. Phoebus A. Levene of the Rockefeller Institute for Medical Research "as the outstanding American worker in the application of organic chemistry to biological problems." The citation eulogizes Dr. Levene for his studies in nucleic acid, amino sugars, lecithins, cephalins, fatty acids, cerebrosides, inorganic esters of sugars, thiosugars in yeasts, hydroxy acids, and amino acids, as well as for his work in stereochemistry. Dr. Levene will be the twentieth recipient of the medal at a formal ceremony to be held later in Chicago. Previous medalists have been Svante Arrhenius, of Sweden; Madame Curie, of France; Sir James C. Irvine, of Scotland, and the following Americans: T. W. Richards, L. H. Baekeland, Ira Remsen, Arthur A. Noyes, Willis R.

Whitney, E. W. Morley, W. M. Burton, W. A. Noyes, F. G. Cottrell, J. Stieglitz, G. N. Lewis, M. Gomberg, J. J. Abel, W. D. Harkins, Claude S. Hudson and Irving Langmuir.

It is announced that Sir Ernest Rutherford who was raised to a peerage in the British New Year's Honors List will henceforth be known as Lord Rutherford.

THE council of the Royal Astronomical Society has awarded its gold medal to Professor W. de Sitter, director of the Leiden Observatory, for his theoretical investigations on the orbits of the satellites of Jupiter, and his contributions to the theory of relativity. A Jackson-Gwilt Medal and Gift is awarded to Mr. Clyde W. Tombaugh, Lowell Observatory, Flagstaff, Arizona, in recognition of his discovery of Pluto.

DR. KURT RUMMEL, of Warmestelle, Dusseldorf, was presented with the Melchett Medal, awarded by the British Institute of Fuel, by the president, Sir David Milne Watson, at the Institute of Civil Engineers on January 23. The medal was instituted by the late Lord Melchett, founder-president of the Institute of Fuel.

DR. DAVID MARINE, assistant professor of pathol-

ogy at the College of Physicians and Surgeons of Columbia University since 1920, and director of laboratories at Montefiore Hospital, was presented with the gold medal of the New York Academy of Medicine on January 7, for his research into the structure, functions and diseases of the thyroid gland. Dr. Marine was unable to attend the ceremony on account of illness.

At the Cleveland meeting, the American Society of Parasitologists elected its first group of foreign honorary members as follows: Emile Brumpt, France; Otto Fuhrmann, Switzerland; Akira Fujinami, Japan; Friedrich Fülleborn, Germany; G. H. F. Nuttall, England; Edoardo Perroncito, Italy, and Arnold Theiler, South Africa.

THE Chilean Nitrate of Soda Nitrogen Research Award of \$5,000, administered by the American Society of Agronomy, was, at the recent meeting of the society in Washington, divided equally among Dr. J. J. Skinner, senior biochemist of the Bureau of Chemistry and Soils, U. S. Department of Agriculture; Professor L. G. Willis, soil chemist of the North Carolina Experiment Station, and Dr. James K. Wilson, professor of soil technology, Cornell University.

AN exhibit of reproductions from x-rays prepared by Clinical Professor Harold Brunn and Instructor Selling Brill, in the J. J. and Nettie Mack Thoracic Surgery Clinic of the University of California, has been awarded first prize by the Scientific Section of the Radiological Society of America.

MR. FRANCIS LEE STUART, consulting engineer, of New York City, was inducted as president of the American Society of Civil Engineers at the opening session of its annual meeting on January 14.

DR. VICTOR G. HEISER, of the Rockefeller Foundation, was elected president of the newly organized International Leprosy Association at the meeting in Manila of the Congress of Leprologists, which adjourned on January 22; the vice-presidents, Dr. Chagas, of Brazil, and Dr. E. Muir, of Calcutta; the secretary, Dr. R. G. Cochrane, of London, and the treasurer, Dr. Brown, of the Bureau of Science, Manila. The temporary editors of the new journal on leprosy will be Dr. H. Windsor Wade, of Cullion, the Philippines, as editor, and Dr. Lee, of Norway, and Dr. Maxwell, of China, as his assistants.

MR. STANLEY FIELD was reelected president of Field Museum of Natural History for the twenty-third time at the annual meeting of the board of trustees of the institution held on January 19. All the other officers who served during 1930 were also reelected for 1931. They are: Martin A. Ryerson, *first vice-president*; Albert A. Sprague, *second vice-president*;

James Simpson, *third vice-president*; Stephen C. Simms, *director and secretary*, and Solomon A. Smith, *treasurer and assistant secretary*. The membership of the board now includes, in addition to these officers, the following: John Borden, William J. Chalmers, R. T. Crane, Jr., Marshall Field, Ernest R. Graham, Albert W. Harris, Samuel Insull, Jr., William V. Kelley, Cyrus H. McCormick, William H. Mitchell, Frederick H. Rawson, George A. Richardson, Fred W. Sargent, Silas H. Strawn and William Wrigley, Jr.

DR. MAZYCK P. RAVENEL, professor of preventive medicine and bacteriology at the University of Missouri, has been appointed consultant in public health and medical education to the Missouri State Board of Health.

DR. CALVIN H. KAUFFMAN, professor of botany and director of the University of Michigan Herbarium, retires with the title of professor emeritus of botany and director emeritus of the university herbarium, at the end of the academic year. He will be succeeded by Dr. Edwin B. Mains beginning with the second semester.

PROFESSOR WILLIAM M. GOLDSMITH has resigned his position as head of the department of biology of Southwestern College, Winfield, Kansas, to accept the position as professor of embryology and histology and lecturer in eugenics in the Municipal University of Wichita. Dr. Goldsmith was succeeded at Southwestern College by Dr. B. R. Coonfield.

DR. JOHN SHAW DUNN, professor of pathology in the University of Manchester, has been appointed to the chair of pathology in the University of Glasgow.

DR. WALDEMAR KAEMPFERT, after having spent two and a half years in organizing the Museum of Science and Industry at Chicago, has handed in his resignation as director, to take effect on March 1. Mr. Kaempfert will become a member of the editorial council of the *New York Times* and will direct that paper's policy so far as science, engineering and industry are concerned. The work of designing and collecting exhibits for the museum will go forward uninterruptedly in accordance with the program originally formulated by Mr. Kaempfert and approved by the board of trustees. No successor has as yet been considered.

DR. D. S. VILLARS, assistant professor in physical chemistry at the University of Minnesota during the school year 1929-30, who later spent five months working in the research laboratory of the General Electric Company in Schenectady, has been appointed physical chemist in the research laboratory of the

Standard Oil Company of Indiana at Whiting, Indiana.

DR. MAJOR G. SEELIG, professor of clinical surgery in the Washington University School of Medicine, who retired from active practice last June, assumed the directorship on January 1 of a program of cancer research to be initiated at Barnard Free Skin and Cancer Hospital.

DR. C. C. YOUNG, director of laboratories of the Michigan Department of Health, has been appointed head of the department of preventive medicine at the Detroit College of Medicine and Surgery. He will continue in the same capacity in Lansing, having supervision of the work in Detroit.

DR. M. C. HALL, chief of the zoological division, Bureau of Animal Industry, has been designated president of the Permanent International Committee on Parasitology of the International Zoological Congress. This congress, which held its convention in Padua, Italy, in 1930, meets every four years to discuss subjects of international scope in the study of animal life. The committee is primarily concerned with the nomenclature of parasites.

MM. ROUX, Painlevé, Bouvier, Urban, Perrin, Grignard and Weiss and the permanent secretary have been appointed by the Paris Academy of Sciences members of the executive committee of the "Fondation nationale pour la découverte scientifique."

DR. A. J. GROUT will be at the Biological Laboratory at Cold Spring Harbor, Long Island, for six weeks each summer (in 1931, from July 31 to September 10) to take charge of such students and investigators as may wish to take up any problems connected with bryophytes: ecology, morphology, physiology or taxonomy.

DRS. DAVID H. KLING and Louis Nathan have been awarded fellowships of \$2,400 each for 1931 by the committee of the Brown Orthopedic Research Fellowship of the Hospital for Joint Diseases; Dr. Kling won a scholarship last year. He will continue his researches on the fluids of joints; Dr. Nathan's research will deal with osteomyelitis and infantile paralysis.

DR. DAVID M. DENNISON, associate professor of physics at the University of Michigan, has leave of absence for the second half of the academic year to enable him to complete his work on the "Infra-red Band Spectra," undertaken at the request of the American Physical Society for publication in its quarterly journal, *Review of Modern Physics*.

DR. ROBERT P. MARSH, professor of biology at Gettysburg College, has been granted a sabbatical

leave for the second college semester to be spent in travel and study in Europe. He will sail on January 30 for Italy and will return from Scotland in the fall.

DR. WOLFGANG PAULI, of the Technische Hochschule at Zurich, and Dr. Arnold Sommerfeld, of the University of Munich, were appointed to special lectureships in theoretical physics for the summer session of 1931 at the University of Michigan.

DR. ALBERT LA FLEUR, head of the department of science at Ball State Teachers College, Muncie, Indiana, has been invited to act as director of geography for a field trip organized by the department of geography in the University of Nebraska. The trip, which will start on July 18, is to continue for seven weeks. The itinerary includes Memphis, Chattanooga, Nashville, Washington, D. C., Boston, Baltimore, Philadelphia, New York, Quebec, Montreal, Toronto, Niagara, Detroit, Chicago, then back to Lincoln, Nebraska, the starting point. A region of special interest for study will be the lower St. Lawrence. The trip will include more than six thousand miles.

DR. C. H. MYERS, professor of plant breeding at Cornell University, left Ithaca on January 24 for China where he will serve as expert in the cooperative crop improvement project now in its fifth year. Other experts from Cornell University who have cooperated in this project are Professors H. H. Love and R. G. Wiggans.

ON January 8 and 9, Dr. E. M. East, professor of genetics at the Bussey Institution, Harvard University, lectured at the University of Michigan under the auspices of the Department of Zoology on "Heredity and Human Problems," "Possible Immunological Reactions in Plants" and "The Self-Sterility Problem."

PROFESSOR JAMES G. NEEDHAM, of Cornell University, lectured at the University of Michigan under the auspices of the Department of Zoology on January 19 and 20. A lecture on "War a Biological Phenomenon" was presented before a general audience. Two lectures of a technical nature, "May Flies" and "Transformations in Insects," were subsequently given.

DR. ROBERT H. GAULT, professor of psychology at Northwestern University, lectured at the University of Iowa on January 16 under the auspices of the Baconian Lecture Series on "Hearing through the Sense of Touch."

DR. OLIVER D. KELLOGG, of the department of mathematics of Harvard University, will open a course of lectures on February 9 as exchange professor at Knox College. Professor Proctor F. Sherwin, of the English department, will lecture at Harvard.

SIR WILLIAM B. HARDY, director of the Low Temperature Research Station of Biochemistry at the University of Cambridge, who will deliver the Abraham Flexner Lectures for 1931 in the Vanderbilt University School of Medicine, will arrive in Nashville to begin his work on February 15. Sir William will remain in residence at the School of Medicine for a period of two months, during which time he will lecture to the students and faculty of the School of Medicine, and will possibly deliver some public lectures. The Abraham Flexner Lectureship was established in the Vanderbilt University School of Medicine in 1927 by Dr. Bernard Flexner, of New York City. The lectureship brings in alternate years a scientific man of international reputation to the School of Medicine. Dr. Henrich Pohl, director of the Anatomical Institute of Hamburg, delivered the first lectures during the spring of 1928.

THE Galton Lecture, entitled "Warnings from Nature," will be given by Sir J. Arthur Thomson before the Eugenics Society, London, at the Galton Anniversary Dinner on February 16.

THE Hunterian Lecture was delivered before the Hunterian Society of London on January 19, by Dr. Arnold Lorand, of Carlsbad, on "The Problem of Rejuvenation."

THERE will be held in Rome, from June 3 to 7, an International Scientific Congress on Population in connection with the Second General Assembly of the International Union for the Scientific Investigation of Population Problems, this congress to be open to scientific papers by non-members as well as by members of the International Population Union. The congress will be divided into the following sections, for the reading of scientific papers, subject to possible changes as the plans develop: biology, demography, economics, anthropology, sociology, history, methodology.

THE eleventh summer session of the American School of Prehistoric Research will open in London

on Wednesday, July 1, 1931, and close on the continent about September 8. The program includes lectures by the director and by foreign specialists, study of museum collections, excursions to important prehistoric monuments and sites, and actual experience in digging. Countries to be visited include southern England, France, Switzerland, Germany and Czechoslovakia. Students will have digging practice in a Paleolithic rock shelter (Dordogne) France. The last four weeks of the term will be devoted to digging in Neolithic and Metal-Age sites of Czechoslovakia; this part of the program will be in charge of Dr. V. J. Fewkes, of the University Museum, Philadelphia, assisted by Robert W. Ehrich, of Harvard University. Preference will be given to applicants who have a knowledge of French and German and who already have a bachelor's degree. Those who wish to enroll should apply immediately. Applications and requests for further information should be addressed to Dr. George Grant MacCurdy, Director, American School of Prehistoric Research, Peabody Museum, New Haven, Connecticut.

THE Eighth Congress of the Far Eastern Association of Tropical Medicine opened at Bangkok, Siam, on December 8. British India and the various provinces were represented by nine delegates, all Europeans. Japan, Formosa, Korea and Kwantung together sent seven; the Dutch East Indies five; the Straits Settlements, Federated Malay States, Hongkong and Indo-China three each; the Philippines two; other countries represented being Hawaii, British North Borneo and Macao. China was the only far eastern country not represented. The League of Nations was represented by Professor B. Nocht, and the Rockefeller Foundation by Dr. Victor G. Heiser. Some 177 medical men took part. The King of Siam sent a message of welcome and the congress was formally opened by the Minister of the Interior. The president elected for this congress was the King's physician (Prince Thavara), who in his address sketched the history of both old and modern medicine in this country.

## DISCUSSION

### THE VAMPIRE BAT

BLOOD-FEEDING bats in tropical America are mentioned by some of the earliest writers following the conquest of South America.<sup>1</sup> The exact species of these bats responsible for attacking man and other animals apparently remained unknown until Charles Darwin,<sup>2</sup> naturalist, on the memorable voyage of the

<sup>1</sup> Flower and Lydekker, "Introduction to Study of Mammals, Living and Extinct," p. 676, 1891.

<sup>2</sup> "Journal of Researches into the Natural History and Geology of the Countries Visited during the Voyage of H.M.S. *Beagle* Round the World," p. 22, 1838.

*Beagle*, caught one in the act. He writes under the entry of April 9, 1832:

The Vampire bat is often the cause of much trouble, by biting the horses on their withers. The injury is generally not so much owing to the loss of blood as to the inflammation which the pressure of the saddle afterwards produces. The whole circumstance has lately been doubted in England; I was therefore fortunate in being present when one (*Desmodus d'orbigny*, Wat.) was actually caught on a horse's back. We were bivouacking late one evening near Coquimbo, in Chile, when my