

American Association of Economic Entomologists, Pacific Slope Branch, J. F. Lamiman, University of California, Davis, Calif.

American Chemical Society, V. Sivertz, University of Washington.

American Mathematical Society, T. M. Putnam, University of California.

American Meteorological Society, Lawrence C. Fisher, U. S. Weather Bureau, Seattle.

American Physical Society, P. H. Kirkpatrick, Stanford University.

American Phytopathological Society, Pacific Division, B. A. Rudolph, University of California Deciduous Fruit Station, San Jose.

American Society of Ichthyologists and Herpetologists, Western Division, Arthur Svihla, State College of Washington.

American Society of Plant Physiologists, Western Section, H. F. Clements, State College of Washington.

Association of Pacific Coast Geographers, W. B. Merriam, University of Washington.

Astronomical Society of the Pacific, W. E. Harper, Dominion Astrophysical Observatory, Victoria, B. C.

Botanical Society of America, Pacific Section, Geo. B. Rigg, University of Washington.

Cooper Ornithological Club, Leo K. Couch, Old Capitol Building, Olympia, Wash.

Ecological Society of America, Orlando Park, Northwestern University, Evanston, Ill.

Geological Society of America, Cordilleran Section, Charles A. Anderson, University of California.

Oceanographic Society of the Pacific, C. L. Utterback, University of Washington.

Pacific Coast Entomological Society, E. G. Linsley, University of California, Los Angeles.

Pacific Northwest Bird and Mammal Society, Leo K. Couch, Old Capitol Building, Olympia, Wash.

San Francisco Aquarium Society, Mrs. Irwin Kramer, San Francisco.

Society of American Bacteriologists, Northern California, Hawaiian Branch, B. J. Olson, Stanford University.

Society for Experimental Biology and Medicine, Pacific Coast and Southern California Branches, D. M. Greenberg, University of California.

Western Psychological Association, R. C. Tryon, University of California.

Western Society of Naturalists, E. G. Moberg, Scripps Institution of Oceanography, La Jolla.

Western Society of Soil Science, S. C. Vandecaveye, State College of Washington.

Members who plan to attend the meeting and who wish to present papers are advised that titles of their communications, accompanied by brief abstracts, must be in the hands of the secretary or representative, given above, not later than April 27. The complete program will be distributed by mail to members of the association resident in the Pacific and far western states.

Of the evening addresses to be given before the association, one will be by Professor R. C. Tolman, president of the Pacific Division, on "The Present Status of Cosmology." Researches in the field of illumination with rare gases and metallic vapors under electrical stimulation, accompanied by physical demonstrations, will be presented by F. K. Kirsten.

The morning of Tuesday, June 16, will be devoted to a divisional symposium on "Oceanography" with addresses on marine biology, physical oceanography, fisheries and hydrographic survey. The progress of research in selected fields in astronomy, botany, chemistry and paleontology will be presented in a general session on Tuesday afternoon.

SCIENTIFIC NOTES AND NEWS

DR. FRANZ BOAS, since 1899 professor of anthropology at Columbia University, who will be seventy-eight years old on July 9, will retire from active service on June 30.

ON the occasion of the celebration of the seventieth anniversary of engineering at Lafayette College, the doctorate of science was conferred on Dr. Charles Franklin Kettering, president of the General Motors Research Corporation; on Almon H. Fuller, head of the department of civil engineering of the Iowa State College, and on George S. Rice, chief engineer of the U. S. Bureau of Mines.

AT a dinner given on March 17 by the Alumni Association of the Graduate Schools of Columbia University, Dr. Henry C. Sherman, Mitchill professor of chemistry, received a bronze plaque "for outstanding contribution to the human race." Among the

scrolls presented was one to Dr. Marston T. Bogert, professor of organic chemistry, as "professor, chemist, lecturer and author," and one to George Clyde Fisher, of the American Museum of Natural History.

THE degree of doctor of laws will be conferred in June by the College of William and Mary on Dr. James Bryant Conant, president of Harvard University.

THE doctorate of science of the University of Cambridge has been conferred on Dr. Ludwig Prandtl, professor of applied mechanics at the University of Göttingen.

THE Samuel D. Gross Prize of the Philadelphia Academy of Surgery has been awarded to Dr. Owen H. Wangensteen, professor of surgery and head of the department of surgery in the Medical School of

the University of Minnesota, in recognition of his work on intestinal obstruction.

DR. RUDOLF STUMMER-TRAUNFELS, professor of zoology at the University of Graz, has received the Linneus Silver Medal of the Swedish Academy of Sciences.

DR. A. C. SEWARD, professor of botany and master of Downing College, University of Cambridge, has been elected to an honorary fellowship at St. John's College.

THE title of "Fellow of University College, London" has been conferred among others on: Dr. Frederick George Donnan, professor of chemistry in the University of London; on Dr. Harold Percival Himsforth, deputy director of the Medical Unit at University College Hospital Medical School; on Dr. Reginald James Ludford, honorary lecturer in cytology at University College, and on Dr. Arthur Salusbury MacNalty, chief medical officer of the Ministry of Health.

A. M. BAILEY, of the Chicago Academy of Sciences, has been appointed director of the Colorado Museum of Natural History, to succeed J. D. Figgins, who resigned last November. Mr. Bailey will go to Denver shortly after the first of May.

ARTHUR J. ROY, who retired in January from the department of meridian astronomy of the Carnegie Institution of Washington, has been appointed research assistant of the institution. He plans to take up the reductions of observations made by the late Albert S. Flint in cooperation with the Dudley Observatory at Albany, N. Y. The work will be carried on at the observatory.

RANSOM A. MOORE, founder of the Wisconsin Agricultural Experiment Association, who has served continuously as its secretary since its organization thirty-five years ago, tendered his resignation to the association at its recent annual meeting. E. D. Holden, assistant secretary, was elected to succeed him.

DR. FRANKLIN C. BING, assistant professor of biochemistry, has been granted a leave of absence from Western Reserve University to assume the secretaryship of the committee on foods of the American Medical Association.

DR. OLIVER L. FASSIG, research associate of the Blue Hill Meteorological Observatory of Harvard University, returned to the School of Tropical Medicine to continue his studies, begun two years ago, on the climate of Puerto Rico.

H. K. HAYES, chief of the division of agronomy and plant genetics of the University of Minnesota, has

left for the National Agricultural Research Bureau, Ministry of Industries, Nanking, China, where he will undertake to advise on methods of breeding wheat, rice, cotton, sweet and Irish potatoes and possibly tobacco; to supervise a coordinated program for the whole nation in breeding these crops; to advise on breeding disease-resistant varieties, and to train in methods of plant breeding a selected group of Chinese field workers, most of whom have had graduate training abroad, especially in the United States.

JAMES M. ANDREWS, research associate in anthropology at the Peabody Museum, has returned from a year's study of conditions in Siam. Mr. Andrews's survey was financed by the Siamese government to carry on the study of that country made in 1931 by Professor Carle C. Zimmerman, of Harvard University. Professor Zimmerman, Professor Alfred M. Tozzer, Professor Earnest A. Hooton and the late Professor Roland B. Dixon participated in making plans for the survey.

DR. WARREN H. COLE, assistant professor of surgery at Washington University Medical School, has been named head of the department of surgery at the University of Illinois Medical College in Chicago. He will succeed the late Dr. Carl Hedblom.

DR. NEIL E. GORDON, professor of chemical education at the Johns Hopkins University and director of national fellowships, has resigned to become chairman of the department of chemistry at Central College, Fayette, Mo.

DR. HOWARD H. CUMMINGS has been made assistant director of graduate medical education at the Medical School of the University of Virginia.

DR. HOWARD B. LEWIS, professor of biological chemistry at the Medical School of the University of Michigan, lectured on March 15 before the Yale University Chapter of Sigma Xi at its annual banquet. His address was entitled "The Chemist Looks at Biology."

DR. R. A. EMERSON, head of the department of plant breeding at Cornell University, spoke before the Sigma Xi Club of the University of Florida on March 9 on "The Physical Basis of Heredity." On the afternoon of March 10 he led a symposium on Plant Improvement before a group of agricultural workers. On March 11 he gave the main address at the convocation of the College of Agriculture on "Heredity and Environment."

THE second John Howard Appleton Lecture of Brown University for the year 1935-36 will be delivered on April 6 by Professor Arthur Haas, of the University of Vienna. He will speak on "Fundamental Ideas of Modern Physics."

THE sixth lecture in the Smith-Reed-Russell series for this year at the School of Medicine of the George Washington University was given on March 17 by Dr. Henry E. Sigerist, of the Institute of the History of Medicine at the Johns Hopkins University. The title of his lecture was "The Philosophic Background of Medicine."

PROFESSOR J. H. MATHEWS, chairman of the department of chemistry at the University of Wisconsin, lectured before a joint meeting of the Eastern New York Division of the American Chemical Society and the Rensselaer Chapter of Sigma Xi on March 11 at the Rensselaer Polytechnic Institute. His subject was "The Use of Scientific Methods in the Identification of the Criminal."

At the two hundred and seventy-first meeting of the Washington Academy of Sciences on March 19 two films were shown: "The Leeuwenhoek Tercentenary Film," presented by Morris C. Leikind, of the Institute of the History of Medicine, at the Johns Hopkins University, and "The Mammalian Egg: Its Ovulation, Fertilization and Development," presented by Everette I. Evans, of the Bureau of Dairy Industry, U. S. Department of Agriculture.

DR. WALTER SCHILLER, of the Woman's Clinic and the University of Vienna, has been appointed Ingleby Lecturer at the University of Birmingham for 1936, in place of Professor Frankl, Vienna, who is unable to go to England because of pressure of work. Professor Arvid Wallgren, physician-in-chief of the Children's Hospital, Gothenburg, Sweden, has been appointed Ingleby Lecturer for 1937.

At the third International Congress of Comparative Pathology to be held at Athens from April 15 to 18, the United States will be represented on the program of papers by H. B. Humphrey, principal pathologist, U. S. Department of Agriculture; Dr. A. J. Riker, professor of plant pathology, University of Wisconsin; Dr. H. S. Reed and Dr. H. S. Fawcett, professors of plant pathology, Citrus Experiment Station of the University of California, and Dr. E. C. Stakman, professor of plant pathology, University of Minnesota. They will present papers dealing with disease immunity in plants.

THE second preliminary program of the fourth International Congress for Experimental Cytology, which will meet at Copenhagen from August 10 to 15, has been issued. The opening session will take place on the morning of August 10. The afternoon and the four following days are set aside for scientific papers, each day being devoted to a special subject, as follows: "Physical Chemistry of the Soil," "Histological Problems and Cell Metabolism," "Experi-

mental Morphology," "Electrophysiology of the Cell," "Experimental Cell Pathology and Biology of Irradiation." Saturday will be devoted to excursions and visits to research institutions. The fee for the congress is twenty Danish crowns. Those desiring to present papers and demonstrations should submit the titles, together with brief summaries, before June 1. The time allotted for each paper should not exceed 15 minutes. The authors are further requested to give exact information on the nature of the material to be demonstrated and the size of lantern slides and cinema films. A definite program will be sent to the members of the congress before July 1. Those planning to attend the congress should notify Dr. Harald Okkels, secretary, Institute for Pathological Anatomy, 11 Frederik 51 Vej, Copenhagen, Denmark, to whom all communications should be addressed.

THE Ohio Academy of Science will hold its forty-sixth annual meeting on April 10 and 11, at the University of Toledo, Ohio, under the presidency of Dr. W. H. Bucher, of the University of Cincinnati. A general meeting will be held on Friday morning for the transaction of business, followed by a scientific session with an address of general interest. Friday afternoon will be devoted to sectional meetings, eight in number. The annual dinner will be given on Friday evening, at which the presidential address will be delivered and distinguished visitors introduced. On Saturday morning a business session for the report of committees, election of officers, etc., will be held, perhaps followed by sectional meetings. The afternoon will be given over to visiting exhibits and demonstrations, sight-seeing tours, etc. Dr. H. H. M. Bowman is chairman of the local committee.

THE Mobile Academy of Science, a local branch of the American Association for the Advancement of Science, closed its first year with the election of officers on March 5. Those elected were: *President*, Rev. Dr. P. H. Yancey, S.J., head of the department of biology in Spring Hill College; *Vice-president*, Dr. Toulmin Gaines, physician; *Secretary*, Matt J. Lawler, professor of science in Murphy High School; *Treasurer*, Dr. A. A. English, lapidarist; *Historian*, Miss Hazel Driver, head of the science department of the Murphy High School; *Members of the Board of Trustees*, Dr. Stephen Hale, physician, and Dr. L. A. Loveridge, head of the department of physics of Spring Hill College. During its first year the academy held bi-monthly lectures and field trips in the sciences of biology, chemistry, entomology, geology, medicine, mineralogy and physics. It also undertook the formation of a science museum in the Mobile Public Library. It now has fifty active members and one honorary member, Professor A. H. Sturtevant, of the California

Institute of Technology, who formerly resided in Mobile.

PREPARATIONS are being made to hold the annual conference of the Textile Institute in London in June, when the annual Mather Lecture will be delivered by Dr. Ernest Goulding, of London, who until recently was the fiber expert at the Imperial Institute. His subject will be "Textile Fibers of Vegetable Origin: Forty Years of Investigation at the Imperial Institute." The conference papers will be generally devoted to textile raw materials, dealing with their production and properties. Textile Institute medals have been awarded to J. E. Dalton, the divisional inspector of the Technical Branch of the Board of Education for Lancashire and Yorkshire, and to T. Morley, of Leicester.

THE National Institute of Industrial Psychology has arranged an Easter week-end study school to be held at Exeter College, Oxford, from April 9 to 13. The subject of study will be "Problems of Work and Leisure." Among the speakers will be Dr. A. T. P. Williams, dean of Christ Church, Oxford; Dr. E. K. Le Fleming, chairman of Council of the British Medical Association; E. J. Patterson, head of the Department of Extra-Mural Studies, University College, Exeter; Captain C. R. Coote, and Professor J. H. Jones, professor of economics in the University of Leeds.

THE golden jubilee of the establishment of the first alternating current system in America was celebrated on March 20, under the auspices of the American Institute of Electrical Engineers in forty-eight principal cities throughout the country. The central celebration was held in New York City at a dinner at the Hotel Astor, which was attended by nearly six hundred people. The event commemorated was the lighting, on the night of March 20, 1886, of the village of Great Barrington, Massachusetts, with electric lights supplied from alternating current. The occasion was the first of its kind and demonstrated that alternating current was commercially practicable. Speakers at the dinner were F. A. Merrick, president of the Westinghouse Electric and Manufacturing Company, whose

founder, George Westinghouse, backed Stanley in his work; C. W. Appleton, vice-president of the General Electric Company; Gano Dunn, president of the J. G. White Corporation, and Bancroft Gherardi, vice-president of the American Telephone and Telegraph Company. Frank W. Smith, president of the Consolidated Gas Company, was the toastmaster. The first practical transformer was built by a young engineer, William Stanley. At the celebration at Pittsfield, Mass., Cummings C. Chesney, the last surviving associate of Stanley and an honorary vice-president of the General Electric Company, was present. A portrait of Stanley was unveiled and the original Great Barrington experiment was repeated in miniature.

AN Associated Press dispatch reports that Professor Auguste Piccard has ordered a new balloon from the Polish Jablonna factory to ascend to the stratosphere to 30,000 meters (about 98,430 feet). The bag is to have a capacity of 10,000 cubic meters. Professor Piccard, it is said, intends to try the new ascension somewhere in Poland late this summer. He made the first stratosphere flight in 1931, reaching an altitude of 51,775 feet over Germany and Austria. The present record of 72,395 feet was set last November 11 in the United States by Captains Albert W. Stevens and Orvil A. Anderson, of the American Army.

THE board of trustees of the New York Medical College and Flower Hospital has authorized the immediate construction of a new medical college behind the present Flower Fifth Avenue Hospital between 105th and 106th Streets. The new building will be nine stories high and will be along the same lines as the present hospital. The cost will be about \$1,000,000. It will extend from 105th to 106th Street and will be 125 feet in depth. The medical college will contain all the latest features in medical college construction. It is planned to accommodate four classes of seventy-four students. There will also be a nurses' training school and room for 200 nurses. It is hoped that the architects' plans will be ready by September and that the building will be ready for occupancy by September, 1937.

DISCUSSION

GLOBIGERINA BEDS AS DEPTH INDICATORS IN THE TERTIARY SEDIMENTS OF FIJI

GLOBIGERINA oozes, composed largely of the shells of pelagic foraminifera, cover very extensive areas in modern seas at depths between 500 and 2,000 fathoms, but under proper conditions similar deposits

accumulate in shallower waters.¹ The fact that the Neogene Suva formation of Vitilevu, Fiji, contains beds rich in Globigerinidae has been used to support the idea that at least a part of the formation was deposited in depths of not less than 150 fathoms.

¹ W. H. Twenhofel, "Treatise on Sedimentation," 2d ed., pp. 165-166, 1932.