

TRIBUTE to the late Dr. W. E. Britton, Connecticut state entomologist from 1901 until the time of his death last February, was part of the program of the sixteenth annual conference of Connecticut entomologists that met on October 27 at the University of Connecticut at Storrs. The principal address was given by Dr. E. Porter Felt, formerly state entomologist of New York and now director of research at the Bartlett Tree Laboratories at Stamford.

THE *Journal* of the American Medical Association states that, in response to the request of many mem-

bers, the council of the Minnesota State Medical Association sponsored a memorial pilgrimage to Rochester on October 27 to pay tribute to Drs. William J. and Charles H. Mayo. Every member of the association was invited to participate in the ceremonies at Plummer Hall in the Mayo Clinic and at Oakwood Cemetery. With Dr. George A. Earl, St. Paul, president of the state medical association, presiding, Dr. Edward L. Tuohy, Duluth, gave the address entitled, "An Expression from the Medical Profession of Minnesota." There followed a procession to the cemetery.

SCIENTIFIC NOTES AND NEWS

THE Nobel Prize in physics for 1939 has been awarded by the Swedish Academy of Science to Dr. Ernest O. Lawrence, professor of physics and director of the radiation laboratory of the University of California, in recognition of his research into the structure of atoms and the use of radiation in problems affecting biology and medicine.

THE Nobel Prize in chemistry for 1939 has been divided between Professor Adolf Butenandt, director of the Kaiser Wilhelm Institute for Biochemistry at Berlin-Dahlem, and Professor Leopold Ružička, of the Technische Hochschule, Zurich, in recognition of their work on hormones. The prize in chemistry, which was withheld last year, has been awarded to Professor Richard Kuhn, of the Kaiser Wilhelm Institute of Berlin, for his work on carotinoids and vitamins. It is expected that if Professor Butenandt and Professor Kuhn are unable to accept the prizes the money will be returned to the Nobel Foundation.

THE University of Paris on November 9 conferred honorary degrees on Dr. Robert Andrews Millikan, chairman of the executive committee of the California Institute of Technology; on Sir Humphry Rolleston, who was from 1925 to 1932 regius professor of physic at the University of Cambridge, and on Dr. Philippe Roy, Montreal physician, since 1928 Minister to France from Canada. President Lebrun and the Minister of Education, M. Yvon Delbos, attended the ceremony.

THE Gordon Wilson Medal of the American Clinical and Climatological Association was presented at the meeting on October 10 at Saranac Lake, N. Y., to Dr. George R. Minot, professor of medicine at the Harvard Medical School. On that occasion he gave the Gordon Wilson Lecture before the association.

DR. LOUIS DAVIDSON RICKETTS, of Arizona, consulting engineer, has been chosen the James Douglas gold medalist for 1940 by the American Institute of Mining and Metallurgical Engineers, in recognition

of his "inspirational leadership and distinguished achievements in the metallurgy of copper." Dr. Ricketts, who is now eighty years old, was at one time state geologist of Wyoming and was later associated with Phelps, Dodge and Company.

At the meeting of the American Public Health Association in Pittsburgh, on October 18, the 1939 awards of the Pennsylvania Public Health Association were presented to Professor C. G. King, of the department of chemistry, University of Pittsburgh, in recognition of his research work in biochemistry and nutrition, and to Professor H. T. Price, of the School of Medicine, for his clinical and educational work in the field of pediatrics.

THE Royal Australian Ornithologists Union has elected Dr. Robert Cushman Murphy, of the American Museum of Natural History, a corresponding member in recognition of his active interest in the conservation of wild life.

DR. PERCY BARTLETT, for thirty-five years a member of the faculty of the Medical School of Dartmouth College, has retired with the title of professor emeritus of surgery.

DR. CARLO J. TRIPOLI has been appointed professor of medicine in charge of the department of medicine of the Graduate School of Louisiana State University.

DR. RAYMOND L. GREGORY, professor of medicine at Howard University College of Medicine, Washington, has been appointed professor and head of the department of medicine at the University of Arkansas School of Medicine.

DR. ROBERT M. DICKEY, since 1936 head of the department of geology and mineralogy of the Michigan College of Mining and Technology, has resigned to become an engineer with the Bucyrus-Erie Company. His headquarters are in Chicago. Dr. Thomas M. Broderick will serve as acting head of the department until a permanent successor can be named, probably

about January 1. Dr. Broderick is chief geologist of the Calumet and Hecla Consolidated Copper Company, and has been also for some years a special lecturer at the college.

DR. JOHN G. B. CASTOR, assistant in plant physiology at Harvard University, has become a member of the Division of Viticulture at Davis of the University of California. He will work on the microbiology of wine.

DR. WILLIAM G. GORDON, for the past four years instructor in biochemistry at Stanford University, has been appointed Smith, Kline and French Laboratories research fellow in the department of agricultural biochemistry at the Pennsylvania State College. He will work in the field of milk protein.

DR. WALTER M. SCOTT, for the last nine years consulting chemist for G. J. Esselen, Boston, has been appointed chief of the Cotton Chemical Finishing Division of the Southern Regional Research Laboratory at New Orleans of the U. S. Department of Agriculture. He will be responsible for the scientific and administrative work of the division, which will involve research and development work to improve or modify by chemical treatment cotton fiber, cotton yarns, cotton textiles and cotton fabrics. Dr. Evald L. Skau, International Cancer Research Foundation fellow at Yale University, has been appointed senior chemist in the Oil, Fat and Protein Division of the laboratory. Dr. Skau's investigations will involve a study of various physical and chemical methods of separation of the fatty acids and glycerides, of cottonseed and peanut oils.

DR. ARLIE V. BOCK, Henry K. Oliver professor of hygiene at Harvard University, has been elected a member of the board of overseers of the Browne and Nichols School, Cambridge.

E. O. ESSIG, professor of entomology and entomologist of the Agricultural Experiment Station of the University of California, has been appointed advisory representative to the National Research Council from the Entomological Society of America. He also has become a director of the American Iris Society.

THE Committee on Scientific Research of the American Medical Association has made the following grants: To Dr. Wallace D. Armstrong, assistant professor of physiological chemistry at the University of Minnesota, to aid him in his work on the mechanism of the calcification process; to Dr. H. D. West, professor of biochemistry at Meharry Medical College, Nashville, Tenn., a renewal of the grant made last year for the continuance of his work on the synthesis of dl-threonine, and to Dr. H. P. Lankelma and Dr. B. S. Kline, of Western Reserve University, in

aid of their work on the isolation of a substance in tissue extracts for use as antigen in tests for syphilis.

THE John and Mary R. Markle Foundation has appropriated a sum of \$2,900 for an investigation of the viscosity of the blood to be carried out at Lafayette College under the direction of Professor Eugene C. Bingham. He continues the work begun a hundred years ago when Poiseuille made the first experiments leading to our knowledge of viscosity as a part of a study of the circulation of the blood.

THE Tuberculosis Institute of Chicago and Cook County, through the Theodore B. Sachs Memorial Fund, will support at the University of Illinois College of Medicine a study on bronchiectasis and pulmonary abscesses. This study, for which \$1,000 is available, is being conducted by Dr. Felix Basch, of the department of pediatrics, and Dr. Paul H. Holinger, of the department of otolaryngology.

THE Elizabeth McCormick Child Research Grant of \$1,000 for 1939-40 of the Institute of Medicine of Chicago will be used for the encouragement of research. Awards have been made to Dr. Mila I. Pierce for a program of research on leukemia; to Dr. Heyworth N. Sanford for a study of the role of the qualitative platelet factors in the coagulation of the blood, and to Dr. Clayton J. Lundy for a study of heart murmurs in children with rheumatic heart disease.

DR. A. A. BITANCOURT, sub-director of the Institute of Biology, São Paulo, Brazil, has completed a three-months official visit to the United States. He came as a delegate from the Brazilian Government to attend the third International Microbiological Congress held in New York from September 2 to 9. During his stay in the United States he visited various state agricultural experiment stations and colleges in Florida, New York, Wisconsin, Iowa, California and elsewhere, at some of which he made addresses on agriculture and plant pathology as related to Brazil. He also spent a month in Washington, conferring with members of the Department of Agriculture, and was for nearly two weeks at the Citrus Experiment Station, Riverside, Calif. On his way back to Brazil he planned to stop at Panama and several South American countries to make a study of citrus diseases.

DR. DENIS L. FOX, assistant professor of marine biochemistry at the Scripps Institution of Oceanography at La Jolla of the University of California, who has had a year's leave of absence as Rockefeller research fellow, has returned to the United States. He has been making a study at the University of Cambridge of pigments in lower plants and animals.

A DISCUSSION on "Science and the Press" will be held under the auspices of the New York chapter of

the American Association of Scientific Workers in the Engineering Societies Building, New York City, on November 17 at 8:15 P.M. The speakers announced are: Dr. Waldemar Kaempffert, science editor, *The New York Times*, and Dr. Leslie C. Dunn, professor of zoology at Columbia University.

DR. VICTOR G. HEISER, consultant for the Committee on Healthful Working Conditions of the National Association of Manufacturers, formerly director for the East of the International Health Board of the Rockefeller Foundation, spoke on November 2 before the Lancaster Branch of the American Association for the Advancement of Science. His subject was "Adventures in International Health."

DR. ELLICE McDONALD, director of the Biochemical Research Foundation of the Franklin Institute, made a report on the work of the foundation at a stated meeting of the institute on the evening of November 15.

DR. JOHN T. AUTEN, silviculturist at the Central States Forest Experiment Station, spoke at the Iowa State College on October 24, at a meeting of Sigma Xi on "Forests and Soils" and on October 26, under the auspices of the Research Council, on "The Significance of the Physical Properties of Forest Soils."

DEAN B. E. LISCHER, of the School of Dentistry of Washington University (St. Louis), gave a course of lectures on the "Diagnosis of Dento-facial Anomalies" to graduate students of the School of Dental and Oral Surgery of Columbia University, during the week of November 6 to 11.

THE forty-first annual meeting of the American Physical Society will be held in Columbus, Ohio, on Thursday, Friday and Saturday, December 28, 29 and 30, in affiliation with the section of physics of the American Association for the Advancement of Science.

THE fourth annual meeting of the Carolina Geological Society was held at Spruce Pine, N. C., on October 21 and 22. B. C. Burgess, of Tennessee Mineral Products, Incorporated, was chairman of the local committee, which arranged visits to mines and plants in the region. About twenty-five members and forty-five guests were present. The pegmatites with their associated minerals and the kaolins were studied and discussed in the field. The following were elected officers for the coming year: *President*, Major J. H.

Watkins, Charleston, S. C.; *Vice-President*, W. J. Alexander, Bryson City and Spruce Pine, N. C.; *Secretary-Treasurer*, Professor Edward Willard Berry, Duke University; *Chairman Membership Committee*, Professor J. J. Petty, University of South Carolina.

THE American Association for the Advancement of Science is desirous of obtaining for its annual exhibition, which this year will be held at Columbus, Ohio, exhibits of recent advances in the various fields of pure and applied science. Space will be provided for exhibits of special interest to members of the association attending the meeting. Applications should be made to the Director of Exhibits, 3941 Grand Central Terminal, New York, N. Y.

ANNOUNCEMENT has been made by the Finney-Howell Research Foundation, Inc., that all applications for fellowships for next year must be filed in the office of the foundation, 1211 Cathedral Street, Baltimore, by January 1. This foundation was provided for in the will of the late Dr. George Walker, of Baltimore, for the support of "research work into the cause or causes and the treatment of cancer." The will directed that the surplus income from the assets of the foundation together with the principal sum should be expended within a period of ten years to support a number of fellowships in cancer research, each with an annual stipend of two thousand dollars, "in such universities, laboratories and other institutions wherever situated, as may be approved by the Board of Directors." Fellowships carrying an annual stipend of \$2,000 are awarded for the period of one year, with the possibility of renewal up to three years; when deemed wise by the Board of Directors, special grants of limited sums may be made to support the work carried on under a fellowship.

THE 1939 award for achievement in chemical engineering of the American Institute of Chemistry has been given to the Standard Oil Development Company "for its work in developing processes for the large-scale production of new aviation fuels and other synthetic chemical products from petroleum." The award was established in 1933 by *Chemical and Metallurgical Engineering*. It will be presented by the publishers to a representative of the company on December 4 at the opening of the national exposition of the chemical industries in the Grand Central Palace.

DISCUSSION

THE ALLOWED DIRECTIONS OF COSMIC RAYS AS AN EXISTENCE PROBLEM OF MATHEMATICAL ANALYSIS

It is a wide-spread opinion and a matter of fact that the physicist may be interested only in an actual

solution of a mathematical problem, whereas the question of the *existence* of a solution is without interest to him, for the existence of a solution may be always easily inferred from the physical meaning of the mathematical formulation of the problem.