University of Chicago, died on September 12. He was seventy years of age.

Dr. George Frederick Arps, professor of psychology and dean of the School of Education of the Ohio State University, died on September 16 at the age of sixty-five years.

CHARLES LADD NORTON, director of the Division of Industrial Cooperation and Research at the Massachusetts Institute of Technology, died on September 8 in his sixty-ninth year.

Dr. Hall Canter, professor of chemistry and geology and dean of the faculty at Randolph-Macon College, Ashland, Va., died on September 2 at the age of sixty-six years.

Dr. Horace J. Child, instructor in zoology and physiology at Sacramento Junior College, California, died suddenly on August 31 at the age of thirty-seven years.

George W. Tower, Jr., mining engineer on the staff of Guggenheim Brothers from 1918 to 1937, died on September 13 at the age of sixty-seven years.

Dr. Heinrich Karny, an entomologist specializing in orthoptera, formerly a member of the staff at the Botanical Garden at Buitenzorg, Java, died on August 7.

SIR SPENCER LISTER, director of the South African Institute for Medical Research at Johannesburg, died on September 6 at the age of sixty-three years.

SCIENTIFIC NOTES AND NEWS

The National Academy of Sciences will hold its autumn meeting at Brown University, Providence, R. I., on October 23, 24 and 25. Dr. Henry Merritt Wriston, president of the university, will welcome the academy on Monday morning and there will be a response by the president of the academy, Dr. Frank B. Jewett. Scientific sessions will be held on Monday and Tuesday and on Wednesday morning. There will be luncheon daily in the Faunce House Art Gallery and dinners on the evenings of Monday and Tuesday.

Dr. M. R. Fenske, in charge of petroleum refining research and director of industrial research of the School of Chemistry and Physics at the Pennsylvania State College, has been elected a fellow of the Institute of Petroleum, London.

SIR DAVID MILNE-WATSON has been elected president of the newly established British Gas Research Board of the gas industry.

Dr. Frank N. Freeman, professor of educational psychology at the University of Chicago, has been appointed to succeed Dr. W. W. Kemp as dean of the School of Education of the University of California.

Dr. Beryl I. Burns, director of the department of anatomy in the School of Medicine of the Louisiana State University, has been appointed dean of the school to succeed Dr. J. Rigney D'Aunoy, who retired on August 19.

Dugald C. Jackson, Jr., from 1935 to 1938 president of the Lewis Institute, Chicago, has been appointed dean of the College of Engineering at the University of Notre Dame. Professor Carl Wilcox, of the university, has become dean of the department of mechanical engineering, succeeding Professor William L. Benitz, who retired last spring.

Dr. P. Swings, associate professor of astrophysics

and spectroscopy at the University of Liège, has been appointed a visiting member of the faculty of the University of Chicago. He plans to spend two months at McDonald Observatory and four months at the Yerkes Observatory. He will give lectures on astrophysics.

Dr. B. R. Teare, of the School of Engineering of Yale University, will direct the program of advanced study in electrical engineering at the Carnegie Institute of Technology, which has been made possible by a Buhl Foundation grant of \$50,000. The project will be supported over a five-year period by the Buhl grant. The program has been planned so that engineers, already well trained in the electrical field, will pursue industrially useful research.

Dr. Parker Dooley, assistant professor of pediatrics at the Cornell University Medical College and associate attending pediatrician at the New York Hospital, has been appointed assistant professor of pediatrics at the University of Chicago.

Dr. Albert B. Sabin, associate of the Rockefeller Institute for Medical Research, New York, has been appointed assistant professor of pediatrics at the University of Cincinnati.

Dr. L. R. Kuhn, of Pitcairn, Pa., has been appointed assistant professor of bacteriology at the University of Georgia.

Dr. Krauch, authority on special problems of chemical production, has been appointed to an honorary professorship in the University of Berlin. He has directed the technical development of benzine production by hydrogenizing coal.

The following appointments at the Faculty of Medicine of Paris are recorded in the *Journal* of the American Medical Association: Dr. Aubertin, professor of

therapeutics; Dr. Henri Bénard, professor of experimental pathology; Dr. Lévi Valensi, professor of the history of medicine, and Dr. Velter, professor of ophthalmology.

Dr. Cornelius P. Rhoads, associate member of the Rockefeller Institute for Medical Research, has been elected director of the Memorial Hospital, New York City, in succession to Dr. James Ewing, professor of oncology at the Cornell University Medical College.

Bartlett Frost has been appointed dioramist and Virginia S. Eifert, director of publicity, at the Illinois State Museum. Mr. Frost had been previously for four years dioramist with the National Park Service Museum Laboratories, and for one year with Joe Mora, the California sculptor, in preparing dioramas for the Golden Gate Exposition at San Francisco. At the Illinois State Museum he will continue a series of cultural dioramas begun last year by H. Brainerd Wright.

W. STEPHEN THOMAS, director of education at the Academy of Sciences of Philadelphia, has been appointed executive secretary of the Committee on Education and Participation in Science of the American Philosophical Society. This committee, under the chairmanship of Professor Edwin G. Conklin, executive vice-president of the society, will make a survey of adult education in science, using the Philadelphia region as an experimental area. The Franklin Institute, the Academy of Natural Sciences of Philadelphia, the Wagner Free Institute, the Museum of the University of Pennsylvania and other organizations will cooperate. Mr. Thomas has been granted a year's leave of absence by the Academy of Natural Sciences and during that time his place will be filled by Charles E. Mohr, of Reading.

Dr. Carl L. Hubbs, curator of fishes at the University of Michigan, is making an investigation for the U. S. Fisheries Service of the fisheries, fur seals and other problems in Alaska. The work of the Bureau of Biological Survey is also being studied. Dr. Hubbs sailed from Seattle on July 4. He has traveled on the *Brant*, the vessel of the service, as well as by airplane and other means.

Dr. W. C. MUENSCHER, professor of botany at Cornell University, who had leave of absence during the spring term, returned to Ithaca on September 8 from a trip of seven months through the southern and western states. The departments of botany in a number of colleges and universities were visited, and material for research and teaching was collected. More than 3,000 numbers of plant collections for the herbarium of Cornell University were obtained. Dr. Muenscher was one of the survivors of the party that was struck by an avalanche on July 22, on Mount

Baker, Washington, in which six of the climbers lost their lives.

Dr. Harold H. Plough, Rufus Tyler Lincoln professor of biology at Amherst College, and Dr. Philip Ives and Dr. George Child, members of his department, who were passengers on the *Athenia*, are reported to have returned to the college.

THE first series of William Alanson White Memorial Lectures on "Modern Psychiatric Conceptions" will be given by Dr. Harry Stack Sullivan, president of the William Alanson White Psychiatric Foundation and president of the Washington School of Psychiatry, on Friday evenings in the auditorium of the Department of the Interior, Washington, D. C. The titles of the lectures are: October 27, "Conceptions of Modern Psychiatry"; November 3, "Organism and Environment"; November 10, "Diagnostic and Prognostic Syndromes"; November 17, "Explanatory and Therapeutic Conceptions"; November 24, "Prospective Developments and Research."

APPLICATIONS must be on file with the United States Civil Service Commission at Washington, D. C., not later than October 12 for the position of director of the Nautical Almanac at the Naval Observatory, Washington, D. C., at a salary of \$6,500 a year. The qualifications of candidates will be passed upon by a special board of examiners composed of Dr. James Robertson, retired, formerly head of the Nautical Almanac Office; Dr. Dirk Brouwer, of Yale University; Dr. H. R. Morgan, principal astronomer, Naval Observatory, and A. W. Volkmer, examiner of the U. S. Civil Service Commission. The duties of the position will be to act as scientific and administrative head of the Nautical Almanac Office and professional consultant of the Navy Department in theoretical astronomy, calendarization and allied subjects: to have independent technical and administrative charge of the important, highly difficult work of producing the annual issue of the American Ephemeris and its supplementary volumes and to be responsible to the Navy Department for their scientific accuracy; to initiate, direct and report upon basic research problems in theoretical astronomy, performing developmental work in connection therewith and to be responsible for the difficult and highly technical mathematical deductions having to do with improving the tables forming the fundamental basis underlying the production of the annual volumes; to act as a member of the Astronomical Council of the Naval Observatory, advising as to the planning and execution of its work, and to take part in astronomical conferences of a national or international character, acting as the Navy Department's representative.

In 1940 the spring meeting of the American Chem-

ical Society, which now has 22,374 paid members, the largest number in its history, will be held in Cincinnati, Ohio; the autumn meeting in Detroit, Mich. In 1941 the spring meeting will be in St. Louis, and the autumn meeting in Atlantic City under the auspices of the Philadelphia section.

THE Bronx Health Unit, New York City, which is being erected at a cost of \$400,000, was dedicated by Mayor Fiorello La Guardia on September 18. It is expected that the building will be completed by May, 1940. Health Commissioner John L. Rice presided. Invited speakers included Borough President James J. Lyons, Dr. George E. Milani, president of the Bronx County Medical Society, and Commissioner Irving V. A. Huie, of the Department of Public Works. The unit will include an auditorium, an exhibit room for health education, a staff lunchroom and kitchen and an air-conditioned storage vault in the basement. The first floor will contain the Bronx offices and child health, dental and maternal care quar-Tuberculosis and venereal disease prevention activities will be housed on the second floor. Administrative headquarters for the health officer and his staff and health education and conference rooms will be on the third floor. The fourth floor will include borough offices for the sanitary superintendent, the Bureaus of Food and Drugs and Preventable Diseases and offices for visiting nurses and cooperating health agencies.

The forty-fourth annual meeting of the American Academy of Ophthalmology and Otolaryngology will be held in Chicago from October 8 to 13 at the Palmer

House. The academy will present courses of instruction to be given by more than a hundred specialists. There will be four afternoon programs of motion pictures and a scientific exhibit in addition to its formal scientific program. There will be one joint session at which Dr. George M. Coates, Philadelphia, will deliver his presidential address and Dr. Burt R. Shurly, Detroit, will be introduced as the guest of honor for the year and will deliver an address. At this session a symposium on essential hypertension will be presented by Drs. Albert C. Furstenberg, Ann Arbor, Mich., speaking from the standpoint of the otolaryngologist; Henry P. Wagener, Rochester, Minn., the ophthalmologist, and Roy W. Scott, Cleveland, the internist. Two foreign guests will address the section meetings, which will be held on alternate afternoons. Professor Josef Igersheimer, Istanbul, will discuss "The Optic Nerve and Diseases of Hypertension," and Arthur DeSa, Pernambuco, Brazil, will speak on "Ethmoiditis."

The New York State Geographical Association will meet on September 23 at Syracuse University. In the morning there will be a series of papers on the teaching of geography. In the afternoon, Dr. Roy Price will lead a round table discussion on "The Relation of Geography to the Regents Investigation," and a similar discussion will be conducted by Dr. George B. Cressey on "The Place of Geography in the Secondary and High School." Dr. C. Grove Haines, of the department of history of Syracuse University, will speak at the banquet on "The Relationship of Geography and History in the Present European Crisis."

DISCUSSION

NUTRITIONAL PHYSIOLOGY OF THE ADULT RUMINANT¹

In this monograph Ritzman and Benedict set forth results of their own researches and also undertake to present a review "chiefly of the American literature" dealing with "the researches of the last few decades."

The authors' investigations are set forth in extenso, but the recognition of the work of others is highly inadequate.

The digestibility of the ash of feeding stuffs, as indicated by comparison of the constituents of feed and feees, is discussed (p. 13) as though significant, whereas it is thoroughly understood that the quantities of mineral substances in the feees signify nothing definite in relation to the digestibility of these components of the food.

¹ Comments on the monograph on this subject by E. G. Ritzman and F. G. Benedict, Carnegie Institution of Washington Publication No. 494.

The authors write uncritically as to certain practical matters; thus (p. 21) their statement that "at the larger stock yards of the country—fat steers are always bought subject to a 3 per cent. shrinkage in weight" is not true. Upon arrival at the central live-stock markets cattle are first given an opportunity to eat and drink. After they have been sold the packer-buyer pays for them at their actual weight, as they go over the scales, after eating and drinking.

In regard to methane production Ritzman and Benedict say (p. 26), "On the basis of seven "discordant results" in their calorimeter experiments Armsby and Fries concluded that 4 grams of methane result from every 100 grams of carbohydrate ingested, and this factor was later used largely by Forbes and by Mitchell to estimate the losses of energy by this path."

As a matter of fact the methane production has been experimentally determined in every calorimetric experiment conducted with cattle at this institute, and