

RECENT DEATHS

DR. BANCROFT GHERARDI, vice-president and chief engineer of the American Telephone and Telegraph Company, retired, and formerly president of the American Institute of Electrical Engineers, died on August 14. He was sixty-eight years old.

DR. LUDWIG KAST, president of the Josiah Macy Jr. Foundation, previously professor of medicine and trustee of the New York Post-Graduate Medical School and consulting physician, died on August 13 at the age of sixty-four years.

GEORGE AUGUSTUS FICHT, for the past fourteen years in charge of European corn borer investigations of the Agricultural Experiment Station of Purdue University, with headquarters at Auburn, Indiana, died on July 29 at the age of forty years.

SIR ARTHUR EVANS, formerly professor of prehistoric archeology at the University of Oxford, died on

July 11. He had celebrated his ninetieth birthday on July 8.

DR. PAUL SABATIER, professor of chemistry at the University of Toulouse since 1882, died on August 15 at the age of eighty-seven years.

A CORRESPONDENT writes: "Professor Martin Jacoby died on July 25, in Manchester, England, in his seventieth year. He was professor extraordinarius in pharmacology at the University of Heidelberg until 1906 and thereafter, almost until his emigration from Germany in 1939, director of the laboratories at one of the large municipal hospitals in Berlin, the Krankenhaus Moabit. His working field was immunology, pharmacology and biochemistry, especially enzymology. Most of his publications appeared in the *Biochemische Zeitschrift*. Since his resignation from the Berlin hospital, he lived first in Berlin and then in his sixty-ninth year emigrated to England."

SCIENTIFIC NOTES AND NEWS

DR. OSCAR RIDDLE, of the department of genetics of the Carnegie Institution of Washington at Cold Spring Harbor, N. Y., has been elected a foreign corresponding member of the Academia Nacional de Medicina, Argentina.

DR. GEORGE D. BEAL, assistant director of the Mellon Institute, has been awarded the Remington Medal for 1941 of the American Pharmaceutical Association. The award was made "for distinguished service to the profession of pharmacy and for fundamental research in the pharmaceutical field."

THE American Chemical Society Prize of \$1,000 in pure chemistry has been awarded for 1941 to Dr. Karl A. Folkers, assistant director of research in the Merck Laboratories, Rahway, N. J. Presentation of the award, given annually "for outstanding research in pure chemistry by a man or woman less than thirty-six years old," will take place at the one hundred and second meeting of the society, which will be held from September 8 to 12 in Atlantic City. During the past five years Dr. Folkers has successfully isolated and determined the character of many new erythrina alkaloids.

MISS D. F. BLEEK, of Cape Town, in recognition of her researches on the Bushmen, has been awarded the South African Medal and grant for the year 1940-41 of the South African Association for the Advancement of Science.

ACCORDING to the *Journal* of the Canadian Dental Association, Dr. R. Gordon Agnew, professor of dental pathology at the West China University, Chengtu, received at the June commencement the

degree of Ph.D. in dentistry from the University of Toronto.

AMONG the honorary degrees conferred on July 10 by the University of Aberdeen was the doctorate of laws on Professor J. C. Philip, emeritus professor of physical chemistry in the Imperial College of Science and Technology, London, president of the Chemical Society.

SIR ALFRED WEBB-JOHNSON, professor of surgery and pathology of the Royal College of Surgeons, London, has been elected president of the college for the coming year. Surgeon Rear-Admiral G. Gordon-Taylor and L. R. Braithwaite have been elected vice-presidents.

THE following officers of the British Institution of Electrical Engineers have been elected for 1941-42: *President*, Sir Noel Ashbridge; *Vice-president*, Professor S. Parker Smith; *Honorary Treasurer*, E. Leete.

DR. BENJAMIN F. KINGSBURY, professor of histology and embryology at Cornell University, has retired with the title emeritus; Dr. Karl M. Wiegand, professor of botany and head of the department in the College of Agriculture, retired at the close of the summer session also with the title emeritus. He will be succeeded by Dr. Lewis Knudson, professor of plant physiology.

DR. OTTO GLASER, Stone professor of biology on the E. S. Harkness Foundation at Amherst College, has been appointed acting president of the college during the absence of the president.

DR. HELMUTH LANDSBERG, of the Pennsylvania

State College, has been appointed associate professor in the Institute of Meteorology of the University of Chicago.

DR. COLIN M. MACLEOD, associate of the Rockefeller Institute for Medical Research, has become professor of bacteriology in the New York University College of Medicine and director of the bacteriological laboratories. Assistant Dean John H. Mulholland has been appointed professor of clinical surgery, and Dr. Frank C. Combes has been promoted to a professorship of dermatology and syphilology.

DR. HENRY F. VAUGHAN, formerly health commissioner of Detroit, has been made dean of the new School of Public Health of the University of Michigan. Dr. Vaughan, who has served since early spring as professor of public health, was also made chairman of the department of public health practice. Continuing the transfer of public health work from the old Division of Hygiene and Public Health, Dr. Thomas Francis, Jr., has been made professor of epidemiology and chairman of the department, and Dr. Lowell J. Coggeshall has been made professor of epidemiology. Among others whose appointments are either in whole or in part transferred to the faculty of the new school are Dr. John Sundwall, professor of hygiene and public health, and Dr. Nathan Sinai, professor of public health.

DR. R. M. MELAMPY, who has been associated with the Federal Southern States Bee Laboratory, has become assistant professor in the department of zoology of the Louisiana State University. He will give primarily courses in insect physiology.

DR. ALBERT R. MANN, vice-president of the General Education Board, formerly dean of the College of Agriculture and provost of Cornell University, has been reappointed a member of the New York State Flood Control Commission.

DR. DAVID M. GREENBERG has been promoted from an associate professorship of biochemistry in the Medical School of the University of California to a full professorship. Dr. Eric Ogden has been promoted to an associate professorship of physiology.

DR. EDWIN H. PLACE, a member of the staff of the division of industrial hygiene of the National Institute of Health at Bethesda, Md., has been appointed director of the division of industrial hygiene of the Alabama State Department of Health.

ROBERT M. SALTER, director of the North Carolina Experiment Station, has been appointed head of the Division of Soil and Fertilizer Investigations in the Bureau of Plant Industry, effective in October. This division comprises the former Divisions of Soil Chem-

istry and Physics, Fertilizer Research and Soil Microbiology. He will direct research in soil microbiology, legume inoculants, fertilizer manufacture and use.

GOSTA AKERLOF, associate professor of physical chemistry at Yale University, formerly of the University of Stockholm, has resigned to engage in research with the Thomas and Hochwalt Laboratories, a division of the Monsanto Chemical Company at Dayton, Ohio. John Butler, of the Bakelite Corporation, at Bloomfield, N. J., has also become a member of the staff at Dayton as research chemist.

DR. HANS JENSEN, formerly associate in laboratory endocrine research of the Medical School of the Johns Hopkins University, who has been associated with the Squibb Institute for Medical Research, has joined the staff of the Upjohn Company Research Laboratories, Kalamazoo, Mich.

HERMANN C. FROELICH has resigned his position with the Harshaw Chemical Company, Cleveland, to join the research staff of the Lamp Development Laboratory of the General Electric Company, at Nela Park, Cleveland.

THE annual meeting of the American Electrochemical Society will be held at Chicago from October 1 to 4 under the presidency of Raymond R. Ridgway, of the Norton Company, Chippawa, Ontario, Canada. An extensive industrial exhibit, educational in character, will be an integral part of the meeting. In the same convention hall, the universities in the Chicago area will display material representative of their contribution to science and industry. All exhibits will be constantly supervised by representatives of the industries and schools who are cooperating.

THE American College of Dentists will hold a convocation at the Rice Hotel in Houston, Texas, on October 26.

A UNITED PRESS dispatch states that according to the will of Miss Martha A. Jamison, who died on July 16, religious, charitable and educational institutions will benefit from the income from an estate estimated at \$20,000,000, which will form the Arbuckle Jamison Foundation. Miss Jamison was a niece of Charles and John Arbuckle, coffee and sugar merchants. She and her sister, Miss Margaret Jamison, inherited the bulk of the Arbuckle fortune. On the death of her sister the money will go to the foundation.

THE program of the Conference on the Training of Biologists, to be held between September 18 and 20, as part of the fiftieth anniversary celebration of The University of Chicago, is as follows: *First Session*: Introduction—Presentation of educational programs in biology currently in operation in some

major universities. *Second Session:* Contribution to the training of biologists from the physical sciences and other related disciplines. *Third Session:* The basic educational needs of the biologist. *Fourth and Fifth Sessions:* The specific preparation of biologists for professional specialization (research, teaching, medicine, etc.). The following speakers will take part in the Round Table discussion (Dr. Paul Weiss, University of Chicago, chairman): *From the University of Chicago:* Emmet B. Bay, John M. Beal, William Bloom, Anton J. Carlson, Merle Coulter, Earl A. Evans, Jr., Ralph W. Gerard, Victor Johnson, Wilton M. Krogman, George K. K. Link, Carl R. Moore, William H. Taliaferro and Ralph W. Tyler. *From Other Institutions:* Detlev W. Bronk, University of Pennsylvania; Karl S. Lashley, Harvard University; Dwight E. Minnich, University of Minnesota; Karl P. Schmidt, Field Museum of Natural History; Francis O. Schmitt, Massachusetts Institute of Technology; Edmund W. Sinnott, Yale University; Laurence H. Snyder, Ohio State University; C. V. Taylor, Stanford University, and Benjamin H. Willier, Johns Hopkins University. For further information and reservations, write to the Director of the Fiftieth

Anniversary Celebration, The University of Chicago, Chicago, Illinois.

GOVERNOR M. M. NEELY, of West Virginia, dedicated on August 2 the new fluorescent lamp works at Fairmont, W. Va., of the Westinghouse Electric Manufacturing Company, in ceremonies which marked the start of manufacturing operations. The building, erected at a cost of \$3,000,000, is a one-story structure, 884 feet long and 240 feet wide. It has no windows. Heat and humidity of the air are regulated by an air-conditioning system which has its source of coolness in subterranean waters of a sealed, abandoned coal mine situated on the 90-acre property. The air is kept free of dust by a precipitron, a Westinghouse device which cleans air by electricity. Fluorescent lights bring artificial daylight into every part of the building. At a dinner in the evening a lecture and demonstration entitled "Horizons of To-morrow" was given by Samuel G. Hibben, of Bloomfield, director of applied lighting for the Westinghouse Company. He illustrated the research work carried out in the laboratory in the various fields of lighting. On a near-by site there is being constructed a glass factory at a cost of \$1,800,000.

DISCUSSION

NUTRITIONAL DEFICIENCY AS A FACTOR IN THE ABNORMAL BEHAVIOR OF EXPERIMENTAL ANIMALS

THE albino rat has been observed to exhibit a behavior pattern characterized by epileptoid seizures when subjected to auditory stimulation.¹ Different authors have associated such seizures with a variety of etiological factors,² but there can be no doubt concerning (a) the important role that nutrition plays in the manifestation of this type of behavior, or (b) the effect of auditory stimulation alone as an inciting cause of the seizures.

Recent studies in the laboratory for experimental psychology at the University of Pittsburgh have demonstrated clearly that vitamin B-complex deficiencies and inanition both induce sensitivity to the epileptoid seizures. Specific members of the vitamin B-complex, particularly thiamin (B₁), can effect significant protection at intake levels above those required for growth and reproduction. Paired feeding experiments have been used to avoid possible errors caused by inanition, and although the latter is clearly an important factor in the susceptibility to seizures, pure

vitamin supplements and empirical concentrates such as provided by yeast exert an effect in addition to that afforded by pure thiamin.

A comprehensive program of investigation in this field is under way, supported by research grants from the Buhl Foundation of Pittsburgh and from the Williams-Waterman Fund of the Research Corporation of New York. It is evident that the results of such experiments are applicable to the detection and quantitative evaluation of certain nutritional deficiencies of marginal type, where there is physiological injury without external evidence of malnutrition. It is believed that such investigations also point unmistakably toward the need for an increasing degree of attention to the nutritional state of experimental animals that are used in psychological studies. No record of a comparable type of behavior pattern in clinical observations under controlled conditions has come to the attention of the authors, but neurological manifestations of marginal type vitamin B-complex deficiencies have been observed frequently.^{3,4}

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¹ Robert A. Patton and Harry W. Karn, *Jour. Comp. Psych.*, 31: 43, 1941; Robert A. Patton, *Jour. Comp. Psych.*, 31: 215, 1941; Robert A. Patton, Harry W. Karn and C. G. King, *Jour. Comp. Psych.* (in press).

² N. R. F. Maier, "Studies of Abnormal Behavior in the Rat," Harper, New York.

³ R. R. Williams and T. D. Spies, "Vitamin B₁ (Thiamin) and Its Use in Medicine," Macmillan, 1938.

⁴ R. D. Williams, H. L. Mason, R. M. Wilder and B. F. Smith, *Arch. Int. Med.*, 66: 785, 1940.