

and gold medalist of the American Society of Naval Engineers, and a member of many scientific and engineering societies in America, England and France. He was awarded the Daniel Guggenheim medal for aeronautical achievement in May, 1935. He was a trustee of the Guggenheim Fund for the Promotion of Aeronautics throughout the life of that organization. He is the author of technical books and general editor of a study of aerodynamic theory.

RECENT DEATHS

DR. JOSEPH COLT BLOODGOOD, professor of clinical surgery at the Johns Hopkins University and director of the Garvan Cancer Research Laboratory, died on October 23 in his sixty-eighth year.

DR. HENRY SCHWARZ, since 1921 professor emeritus of obstetrics and gynecology at the medical school of Washington University, St. Louis, died on October 23. He was seventy-nine years old.

DR. GEO. GAILEY CHAMBERS, professor of mathematics at the University of Pennsylvania, died on October 4 at the age of sixty-two years.

DR. D. ROBERTS HARPER, 3d, physicist in the coal research laboratory of the Carnegie Institute of Technology, Pittsburgh, died on October 19 at the age of fifty years.

DR. ARCHIBALD PATTERSON KNIGHT, who retired from the professorship of physiology and animal biology at Queen's University, Canada, in 1920, died on October 19, at the age of eighty-six years.

THE death is recorded in *Nature* of Edgar Thurston, formerly superintendent of the Government Museum, Madras, which took place at Penzance on October 5 at the age of eighty years.

THE death is announced, at the age of sixty-six years, of Dr. Gustavus Buchböck, professor of chemistry in the University of Budapest.

A CORRESPONDENT writes: "Gerrit P. Wilder, botanist on the staff of Bernice P. Bishop Museum, Honolulu, Hawaii, since 1924, passed away on September 29 at the age of seventy-eight years. One of the most active horticulturalists in the Pacific, Mr. Wilder made a series of expeditions to Tahiti, the Marquesas, Samoa, Fiji, New Zealand and Australia, the West Indies, Ceylon and other places, introducing into Hawaii many tropical plants and trees. He was a specialist in edible fruits and avocados. Among his publications are 'Fruits of the Hawaiian Islands,' 'The Breadfruit of Tahiti,' 'Flora of Rarotonga' and 'The Flora of Makatea.'"

SCIENTIFIC NOTES AND NEWS

THE Nobel Prize in physiology and medicine was awarded on October 24 to Dr. Hans Spemann, professor of zoology and director of the Zoological Institute at the University of Freiburg in Breisgau, for the discovery of "the organizing effect during embryonic evolution." Prior to the war Dr. Spemann was director of the Kaiser Wilhelm Institute of Biology at Dahlem. He gave the Silliman lectures at Yale University in 1933.

THE Council of the State Medical Society of Wisconsin at the recent annual session in Milwaukee presented its award for distinguished service to the society, the medical profession and public health to Edward Asahel Birge, LL.D., president emeritus of the University of Wisconsin, and to Dr. Arthur Jackson Patek, Milwaukee, founder and for several years editor of the *Wisconsin Medical Journal*. Dr. Birge, now eighty-four years old, was for fifty years associated with the university as instructor in natural history, professor of zoology, dean of the college of arts and sciences (1891 to 1918) and president (1918 to 1925).

DR. EDWARD C. WENTE, research physicist in charge of investigations in acoustics in the Bell Telephone Laboratories, New York, received on October 23 the

new Progress Medal, which is to be awarded annually by the Society of Motion Picture Engineers in recognition of leading inventions in motion-picture technology. The medal was awarded to Dr. Wente for his work in acoustics and acoustical instruments with special reference to their application to the recording, transmission and reproduction of speech and music.

FOR distinguished work in the field of ornithology on this continent during the past two years, Herbert L. Stoddard, of Beachton, Ga., was awarded the Brewster Memorial Medal at the Toronto meeting of the American Ornithologists' Union.

DR. LUDWIG PRANDTL, professor of applied mechanics at the University of Göttingen, has been awarded the Ernst Abbe Memorial Prize for Applied Mathematics and Physics, established by the firm of Carl Zeiss, Jena.

THE Harvard Medical School Alumni Association held on October 23 a dinner in honor of Dr. David L. Edsall, who recently retired as dean of the Harvard Medical School. Dr. James B. Conant, president of Harvard University, presided, and speakers included Dr. A. Lawrence Lowell, president emeritus of Harvard University, and Dr. Charles S. Burwell, dean of the Medical School. At a meeting preceding the din-

ner, addresses on "The Development of Medical Education in the United States Since the World War" were made by Dr. Walter A. Jessup, president of the Carnegie Foundation for the Advancement of Teaching; Dr. Eugene F. DuBois, professor of medicine, Cornell University Medical School, and Dr. Lawrence J. Henderson, professor of biological chemistry at Harvard University. Dr. Walter B. Cannon, George Higginson professor of physiology at Harvard University, presided at this meeting.

THE new Erdmann Auditorium was dedicated on October 21 at the New York Post-Graduate Medical School and Hospital. The auditorium was a gift of the board of directors, the faculty association and the members of the professional staff of the hospital and was named in honor of Dr. John F. Erdmann, "in recognition of his signal and devoted services to the institution during the twenty-seven years he has been professor of surgery in the Medical School, for more than twenty of which he has also acted as director of surgery in the hospital." A bronze bust of Dr. Erdmann, presented by the faculty association, was installed at the right side of the auditorium. Dr. Charles J. Imperatori, chairman of the faculty association, presided at the dedication ceremony. The speakers included Drs. Walter Gay Lough, Walter T. Dannreuther, Raymond B. Allen, William B. Talbot, Charles Gordon Heyd and Arthur F. Chace. Dr. Erdmann spoke briefly in acknowledgment.

DEXTER S. KIMBALL, dean of the Engineering College of Cornell University, celebrated his seventieth birthday on October 21.

DURING the recent International Physiological Congress, Professor Carl Voegtlin, of the National Institute of Health of the U. S. Public Health Service, was elected a member of the International Pharmacological Committee. Other members were elected as follows: Professor H. H. Meyer, Vienna; Sir H. H. Dale, London; Professor W. Straub, Munich; Professor Anitschkow, Leningrad, and Professor Tiffeneau, Paris.

OFFICERS of the American Ornithologists' Union have been elected as follows: *President*, A. C. Bent, honorary curator of zoology, Taunton, Mass.; *First Vice-president*, Dr. Herbert Friedmann, U. S. National Museum; *Second Vice-president*, Dr. James P. Chapin, American Museum of Natural History, New York; *Secretary*, Dr. T. S. Palmer, of the Bureau of Chemistry and Soils, Washington, D. C.; *Treasurer*, W. L. McAtee, of the Bureau of Biological Survey, Washington, D. C.

DR. L. WHITTINGTON GORHAM, of Albany, was elected to the presidency of the American Clinical and Climatological Association at the recent fifty-second

annual meeting of the association at Princeton. Dr. Alvah H. Gordon, of Montreal, and Dr. Chauncey W. Dowden, of Louisville, Ky., were named vice-presidents. Dr. Francis M. Rackemann, of Boston, and Dr. Francis B. Trudeau, of Saranac Lake, N. Y., were elected secretary treasurer and recorder, respectively. Dr. Walter R. Steiner, of Hartford, Conn., retiring president, together with Dr. O. H. Perry Pepper, of Philadelphia, were elected to the council of the association. Dr. Thomas Darlington and Dr. Alphonse R. Dochez, both of New York, were named delegate and alternate, respectively, to the Congress of American Physicians and Surgeons.

THE Virginia Chapter of Sigma Xi has elected the following officers for the academic session of 1935-36: Professor Walter S. Rodman, dean of engineering, *president*; Dr. Samuel A. Mitchell, director of McCormick Observatory, *vice-president*, and Dr. Joseph K. Roberts, professor of geology, *secretary-treasurer*.

GROVER C. DILLMAN, formerly Michigan state highway commissioner and state welfare director, has taken up his work as president of the Michigan College of Mining and Technology. He succeeds Dr. W. O. Hotchkiss, who resigned to accept the presidency of the Rensselaer Polytechnic Institute.

DR. JOHN H. FOULGER, associate professor of pharmacology at the University of Cincinnati College of Medicine, has resigned to join the staff of the Haskell Laboratory for Toxicological Research, Wilmington, Del. Dr. Norman A. David, assistant professor of pharmacology at the West Virginia University School of Medicine, has been appointed assistant professor at Cincinnati.

SUBRAHMANYAN CHANDRASEKHAR, fellow of Trinity College, Cambridge, has been appointed lecturer in cosmic physics at Harvard University.

AT Kansas State College, Dr. Julius T. Willard, formerly professor of chemistry, vice-president since 1918 and a member of the faculty for fifty-two years, will be relieved of his present work and will become college historian on January 1. It is expected that Dr. Willard will complete a history of the college in time for publication in 1938 when the seventy-fifth anniversary of the founding of the institution will be observed.

STAFF members of the Perkins Observatory, Delaware, Ohio, have been given faculty rank in the department of physics and astronomy of the Ohio State University. These appointments have been made in accordance with the agreement by which the observatory is now operated jointly by the Ohio Wesleyan and the Ohio State Universities. Dr. Nicholas T. Bobrovnikoff,

acting director, has been made an associate professor. J. Allen Hynek, first assistant, and Philip C. Keenan, second assistant, have been made instructors.

PROMOTIONS at the Michigan College of Mining and Technology include: from associate professor to professor of geography and modern languages, Dr. Ella Lucille Wood; from assistant to associate professors, J. M. Harrington and Fay Partlo, of the mathematics and physics staff, Dr. L. A. Rose in English and Dr. E. W. Schilling in electrical engineering; from instructors to assistant professors, J. L. Byers and Frank Tolonen, of the department of metallurgy, Russell Johnson in mechanical engineering, H. E. Krumlauf in mining engineering and D. P. Sherman in economics; from research assistant to research engineer, Walter Keck; from assistant to instructor in geology, Kiril Spiroff. Mr. Spiroff was also named assistant curator of the mineralogical museum. U. J. Noblet adds the title of assistant professor of physical education to that of director of athletics.

THE following new appointments have been made to the faculty of the Duke University School of Medicine. Instructors: biochemistry, Drs. T. B. Coolidge and H. D. Tidwell; medicine, Dr. W. M. Nicholson; bacteriology, Dr. N. F. Conant and Dr. Louis Spekter.

THE resignation of Professor Harlow Shapley, head of the Harvard College Observatory, from the Harvard council of the faculty of arts and sciences has been announced. Professor Shapley gave as his reason for resigning the increased pressure of duties in preparation for Harvard's tercentenary celebration in 1936. He will be replaced by Dr. Julian Coolidge, professor of mathematics and master of Lowell House.

MICHAEL I. TOMILIN, research assistant in the laboratory of comparative pathology at Yale University under Dr. Yerkes, has been appointed anthropologist at the Philadelphia Zoological Garden.

MISS ETHEL ZOE BAILEY has been appointed curator of the Bailey Hortorium at Cornell University. Miss Bailey has been associated for many years with her father, Dr. Liberty Hyde Bailey, in the collection, preparation and care of the materials in the Bailey collection.

DR. WILLIAM BEEBE, with staff of five, has returned from the twenty-first expedition of the department of tropical research of the New York Zoological Society. Five months were spent in field work in Bermuda. Attention was chiefly directed to development and other ecological studies of deep-sea eels, *Histrio* and shore fishes, to the food of tunas and to experiments with powerful, submarine, ultra-violet beams.

PROFESSOR MORTIER F. BARRUS, of the department of plant pathology at Cornell University, is spending

a year's leave reorganizing the agricultural extension service of the University of Puerto Rico.

DR. WILLIAM M. WHEELER, professor of entomology, emeritus, and associate curator of insects at the Harvard Museum of Comparative Zoology, attended the meeting of the British Association for the Advancement of Science, at Norwich, from September 4 to 11, and, with Dr. Neal A. Weber, presented a paper on "Unusual Prevalence of Sex-Mosaics (Gynandromorphs) in a Colony of Trinidad Ants."

DR. HAROLD C. UREY, professor of chemistry at Columbia University, gave a lecture on "Heavy Water" on October 16, before the Franklin Institute, Philadelphia.

THE fall lecture before the Sigma Xi Club of Massachusetts State College, Amherst, on the evening of October 31 by Dr. C. Stuart Gager, of the Brooklyn Botanic Garden, was entitled "The Greatest Scientific Discovery." In the morning, Dr. Gager addressed the convocation of the college, speaking, by request, on "The Work of the Brooklyn Botanic Garden," using that as a concrete illustration of ways in which botanical science may serve the public.

THE date of meeting of the conference at Luzerne of the International Union of Chemistry has been changed. It will open on the evening of Sunday, August 16, 1936, and will last until August 22.

DR. H. B. GOODRICH, Wesleyan University, Middletown, Conn., secretary of the American Society of Zoologists, writes that the society will meet in association with a regional meeting of the Genetics Society of America at Princeton University on Monday, Tuesday and Wednesday, December 30, 31 and January 1. In addition to the usual program of papers and demonstrations there will be a joint symposium of the two societies on the "Species Problem" on Monday afternoon. The speakers are to be Dr. Edward M. East, Dr. W. H. Longley, Dr. Alfred C. Redfield and Dr. Curt Stern. A biologists' smoker will be held Monday evening in Proctor Hall of the Graduate College. The annual dinner open to members of both societies will be held on Tuesday evening at which the address will be given by the president of the society, Dr. Robert Hegner, on the topic "Multum ex Parvo." Visits to the Rockefeller Laboratories in Princeton and to the Wistar Institute Farm will probably be arranged. The last date for submitting papers to the secretary to be placed on the program is November 10. Any member who has not received the annual announcement of the meetings should make certain that his correct address is on file with the secretary.

THE Department of Physics of the University of Pittsburgh is sponsoring on November 15, at the Uni-

versity Club, a Conference on Industrial Physics. The purpose of this conference is to direct attention to the increasingly important part which physics and physicists are playing in industry and to provide facilities for the interchange of ideas on industrial physics. The tentative program follows: "Putting Physics to Work," Dr. A. W. Hull, General Electric Research Laboratory; "New Electronic Tubes and their Uses," Dr. D. L. Ulrey, Westinghouse Electric and Manufacturing Company; "What X-rays Can Do for Industry," Dr. V. Hicks, University of Pittsburgh; "Copper-Oxide Rectifiers and Their Applications," Dr. L. O. Grondahl, Union Switch and Signal Company; "How Physics Is Applied in the Oil Industry," Dr. P. D. Foote, Gulf Research Laboratory; "Spectroscopy in Industry," Dr. Keivin Burns, Allegheny Observatory; "Applications of Thermodynamics to Alloy Systems," Dr. William L. Fink, Aluminum Company of America; "Physics and Air Conditioning," Dr. Emerson Pugh, Carnegie Institute of Technology.

THE Central Pennsylvania Branch of the Society of American Bacteriologists held its annual fall meeting at the Pennsylvania State College on October 18. A dinner was held at the University Club at which Dr. R. R. Mellon, of the Western Pennsylvania Hospital of Pittsburgh, addressed the members and their guests on "Life Cycles of the Mycobacterium Tuberculosis." Dr. John W. Rice, of Bucknell University, succeeds Dr. J. A. Sperry, head of the division of bacteriology of the Pennsylvania State College, as president of the branch.

THE A. Cressy Morrison Prize in Natural Science of the New York Academy of Sciences, for the most acceptable paper in a field of science covered by the academy or by an affiliated society, will be awarded on December 16. The papers submitted must embody the results of original research not previously published.

THE U. S. S. R. has been admitted to membership in the International Commission on Illumination, according to an announcement by G. H. Stickney, president of the United States National Committee. With the addition of Spain, which was admitted to membership during the convention in Germany last July, there are now seventeen countries affiliated with the commission.

APPLICATIONS for various grades of public health consultants, and for public health research assistant, must be on file with the U. S. Civil Service Commission, Washington, D. C., not later than November 25. Optional subjects for the consultant positions are: Maternal and child health, general public health practice and orthopedics. The specialty for the research assistant is maternal and child health. Entrance salaries for the consultant positions range from \$2,600 to \$4,600 a year. The entrance salary for research assistant is \$2,000 a year. These salaries are subject to a deduction of $3\frac{1}{2}$ per cent. toward a retirement annuity. Vacancies in these positions in the Children's Bureau, Department of Labor, and in the U. S. Public Health Service, Treasury Department, both in Washington, D. C., and in the field, will be filled from these examinations. Certain education and experience are required.

MOUNT SINAI HOSPITAL, New York City, as the residuary legatee, receives more than \$1,300,000 from the estate of Miss Bertha Weinman. A bequest of \$25,000 is made to the College of the City of New York for its library, in memory of Moses Weinman.

PUBLIC bequests amounting to \$902,553 are made in the will of Mrs. Margaret I. Howe, who died in Brooklyn on January 8. The largest single bequest is the sum of \$200,000 to the Brooklyn Museum of Arts and Sciences. Seven other institutions received shares of the residuary estate and remainder interests in trust funds after the deaths of the life beneficiaries.

THE Society of the New York Hospital, as residuary legatee, is the principal beneficiary of the estate of the late Mrs. Jane O. Sheldon, which includes also the residuary estate of Mrs. Sheldon's sister, Susan E. Urie. Fourteen charitable and civic institutions receive bequests amounting to \$177,000. The residuary estate is of undetermined value.

DR. AVERY A. ASHDOWN writes: "In examining the obituary notice of Arthur Dehon Little, *SCIENCE* 82, 362 (1935), I noticed, with regret, that an error had slipped my attention in the galley proof. The fifth paragraph, line two, should read William H. Walker where Willis R. Whitney stands."

DISCUSSION

"REMARKS ON SULAIMAN'S THEORY OF RELATIVITY"

UNDER the above heading, D. R. Hamilton, of Princeton University, has criticized my theory.¹ My

¹ *SCIENCE*, 81: 2098, 271-272, March 15, 1935.

humble claim is that, without making the unconvincing assumptions and involving oneself in the serious anomalies of the generalized theory of relativity, all its results can be obtained from the Newtonian mechanics if Newton's method of working, based on the as-