

SCIENTIFIC NOTES AND NEWS

DURING the business meetings of the Pacific Division of the American Association for the Advancement of Science, held in Pasadena, from June 15 to 20, Professor A. O. Leuschner, of the University of California, was elected to the presidency of the division for the ensuing year. Dr. H. D. Babcock, of the Mount Wilson Observatory, was elected to membership on the Executive Committee in succession to Professor L. B. Loeb, who is retiring after five years of service. Under invitation from the State College of Washington the selection of Pullman, Washington, for the sixteenth annual meeting of the division and its associated societies was approved. In all probability the meeting will be held during the week of June 13, 1932.

THE provisional program of the James Clerk Maxwell Centenary celebration, to be held at the University of Cambridge on October 1 and 2, has been made public. There will be a memorial lecture by Sir J. J. Thomson, the master of Trinity College; addresses by Professor Planck, Professor Sir Joseph Larmor, Professor Langevin and Sir James Jeans. Receptions, a luncheon, conversaciones in the Cavendish Laboratory, an at home by the new Vice-Chancellor and Mrs. Spens, and a dinner at Trinity College have also been arranged.

THE honorary degree of LL.D. has been conferred by the University of Glasgow on Sir F. G. Hopkins, president of the Royal Society, and on Professor C. U. Ariëns Kappers, professor at the Central Institute for Brain Research, Amsterdam.

DR. HUGH H. YOUNG, director of the Brady Institute of Urology of the Johns Hopkins University, has received the degree of doctor of science from Queen's College, Belfast.

DR. J. SHELTON HORSLEY, ex-president of the Medical Society of Virginia and of the Virginia Academy of Science, received the honorary degree of LL.D. from the University of Richmond at its commencement exercises. Dr. Horsley was formerly professor of the principles of surgery at the Medical College of Virginia.

DR. ROSS V. PATTERSON, dean of Jefferson Medical College, Philadelphia, and president of the Medical Society of the State of Pennsylvania, received the honorary degree of doctor of science at the dedication of a new group of buildings at La Salle College.

THE degree of doctor of science was conferred on the Reverend Dr. George H. Richardson, rector of Christ Church, Lead, South Dakota, by Yankton College at its commencement on June 10, in recognition of his work in paleontology.

THE South Africa Medal for 1931 has been awarded to Professor H. B. Fantham, of the department of zoology and comparative anatomy in the University of the Witwatersrand, Johannesburg, for his researches on parasitic protozoa, soil protozoa and heredity.

AT the recent meeting of the British Institution of Gas Engineers medals were conferred as follows: Birmingham Medal, 1931, to Mr. Thomas Hardie, chief engineer of the Gas Light and Coke Company, for his work on behalf of the industry; the H. E. Jones London Medal, 1930, to Mr. Edward G. Stewart, of London, for his paper on "The Functions of Coke Ovens"; the Institution's Silver Medal, 1930, to Mr. A. L. Holton, chief engineer, Manchester Gas Corporation, for his paper on "The Utilization of Coke Breeze by the Trefois Process," and the Institution's Bronze Medal, 1930, to Mr. S. K. Hawthorn, Birmingham, for his paper on "Oxide Purification."

DR. R. W. DODGSON, of the British Ministry of Agriculture and Fisheries; Dr. C. M. Yonge, of the Marine Biological Association Laboratory at Plymouth, England, and Dr. John Eyre, of Guy's Hospital, London, are to be guests of honor at the annual joint meetings of the Oystergrowers and Dealers Association of North America and the National Shellfisheries Association at Sayville, Long Island, to be held from August 18 to 20. Scientific men, federal and state officials are expected to present papers and reports. The results of the investigations conducted for the research committee of the Growers Association, under the direction of Dr. H. D. Pease, of New York, will be shown as technical exhibits at the association's biological field station at West Sayville, Long Island.

MR. C. E. SKINNER, assistant director of engineering of the Westinghouse Electric and Manufacturing Company, has been appointed as the representative of the American Standards Association on the council of the International Standards Association. The International Standards Association is a federation of eighteen national standardizing bodies, its purpose being the systematic exchange of information on standardization work in the different countries and the promotion of uniformity among the various national standards. The council is composed of the president of the International Standards Association and six other members, each representing a national standardizing body. C. Hoenig, chairman of the Swiss national body, is now president of the association, and the six members of the council represent Italy, France, Holland, Russia, Denmark and the United States.

THE following have been elected honorary fellows

of New College, University of Oxford: Lord Donoughmore; Dr. J. B. Leathes, professor of physiology in the University of Sheffield and formerly a scholar of the college; Dr. A. E. Taylor, professor of moral philosophy in the University of Edinburgh.

DR. ARTHUR W. PROETZ, assistant professor of clinical otolaryngology in Washington University School of Medicine, has received the \$500 Casselberry prize of the American Laryngological Association for notable work in his field. The award was made at the recent annual meeting of the society in Atlantic City, in recognition of research work by Dr. Proetz on sinus diagnosis and treatment. This prize was established by the late Dr. William E. Casselberry, Chicago, to be awarded for outstanding work in laryngology and rhinology.

AN oil portrait of Dr. Frank C. Hammond, who was for twenty years dean of Temple University School of Medicine, Philadelphia, was presented to the school by the class of 1929 at an alumni dinner on June 10.

DR. C. W. STILES, of the U. S. Public Health Service, completed forty years of active government service on June 30, and will go on the retired list on October 1. His address will be from October 1 to June 1, Winter Park, Florida, and from June 1 to October 1, Morristown, New Jersey.

COLONEL CHARLES F. CRAIG, until recently assistant commandant of the Army Medical Center, Washington, D. C., and late director of the Army Medical School, will be retired from the Medical Corps of the army, at his own request, after more than thirty-three years service. Colonel Craig has accepted the appointment of professor of tropical medicine at the Medical College of Tulane University, New Orleans, and head of the department of tropical medicine at that university and will take up his duties there about September 15.

THE appointment of Colonel Edward L. Munson, Medical Corps, as assistant to Surgeon-General Robert U. Patterson, with the rank of brigadier-general, for the four-year period beginning on June 1, has been announced. Brigadier-General Munson has been professor of hygiene at the Army Medical School, Washington, D. C., and professor of preventive medicine at George Washington University School of Medicine.

MR. S. C. SALMON, who has been with the Kansas State College since 1913 and professor of farm crops in that institution since 1917, has resigned and after July 1 will be principal agronomist in the Office of Cereal Crops and Diseases of the U. S. Department of Agriculture.

MR. HERBERT J. GILKEY, professor of civil engi-

neering at the University of Colorado, has been appointed head of the newly organized department of theoretical and applied mechanics at Iowa State College.

DR. RICHARD W. LINTON has resigned as assistant professor of bacteriology in the College of Physicians and Surgeons, Columbia University, and is leaving in July for India, where he will take a position in cholera research with the Indian Research Fund Association.

DR. J. J. GALLOWAY has resigned his position as associate professor of paleontology at Columbia University to accept the chair of professor of geology and paleontology at Indiana University, his alma mater. He will continue his studies in micropaleontology in his new position.

THE trustees of the estate of John W. Sterling have given \$1,500,000 to Yale University for the endowment of five additional Sterling professors. One is to be allocated in the first instance to Charles Templeman Loram, chairman of the Native Affairs Commission and director of education at Natal, South Africa, who will join the graduate faculty as professor of education, with especial interest in social science; one of the professorships is assigned to Dr. James Harvey Rogers, now a member of the faculty and formerly professor of economics at Cornell University and the University of Missouri; one to Dr. Edward Sapir, formerly professor of anthropology and linguistics at the University of Chicago, and one to Dr. Oystein Ore, now professor of mathematics in the university and formerly of the University of Oslo, Norway. The fifth of the new Sterling professors has not yet been named.

PROMOTIONS to professorships in the University of Michigan include Dr. Ernest Franklin Barker in physics, Dr. Peter Olaus Okkelberg in zoology, William Platt Wood in chemical engineering, Arthur Dearth Moore in electrical engineering, Chester Owen Wisler in hydraulic engineering, Allen Firman Sherzer in mechanical engineering, Dr. Clifford Conklin Glover in pharmacognosy and Leigh Jarvis Young in silviculture.

THE following additions have been made to the staff of the New York State Agricultural Experiment Station at Geneva, effective on or about July 1: Dr. M. W. Yale, associate in research in bacteriology; A. W. Hofer, assistant in research in bacteriology; C. D. Kelly, technician in bacteriology; Dr. A. L. Shuck, associate in research in botany; Dr. Mabel Ruttle-Nebel, assistant in research in botany; Dr. H. S. Cunningham, associate in research in plant pathology; L. M. Cooley, associate in research in plant

pathology; E. C. Smith, assistant in research in chemistry, and R. R. Jenkins, assistant in research in vegetable crops. In addition, on July 1, Dr. C. S. Pederson was promoted from associate to chief in research in bacteriology, while J. C. Marquardt and W. F. Walsh were promoted from assistants in research to associates in research in dairying and chemistry, respectively.

PROFESSOR WILLIAM H. HOBBS, professor of geology at the University of Michigan, will sail for Europe on August 22 and remain on leave during the fall semester of the next academic year. He will attend the International Geographical Congress in Paris in September as the representative of the university and will participate in the excursion to the Sahara.

MR. COLEMAN S. WILLIAMS, paleontologist of the American Museum of Natural History, returned on June 23 from Argentina, bringing more than thirty cases of mammal remains of the Eocene period, unearthed in Patagonia.

To make a collection of the birds of Trinidad for the Philadelphia Academy of Natural Sciences, H. Radelyffe Roberts, of Villa Nova; George R. Clark, of Cynwyd, and W. Wedgwood Bowen, assistant curator of birds at the academy and leader of the expedition, have sailed for that island. They will spend three months exploring the tropical forests.

MR. J. R. SWALLEN, of the Grass Herbarium, U. S. Department of Agriculture, has returned from a three months' trip to Texas and northeastern Mexico. The object of the field-work was to study and collect the grasses of the region. Especial attention was given to the distribution of species in the border region of both countries.

DR. HERMAN PRINZ, professor of pharmacology in the Medical School of the University of Pennsylvania, lectured from July 10 to 15 at the University of Frankfurt.

DR. ALEXANDER VON LICHTENBERG, of Berlin, gave recently a lecture before the Royal Society of Medicine, London.

THE James A. Patten lecture in bacteriology was given at Northwestern University Medical School by Dr. Arthur Isaac Kendall, of the department of research bacteriology, on July 22. The title of the lecture was "Observations upon the Filterability of Bacteria, including a Filterable Organism Obtained from Cases of Influenza."

PRINCETON UNIVERSITY announces that provision has been made for work toward advanced degrees in

mathematical physics. During the fall term of this year graduate courses in this field will be offered by Professors E. P. Adams, J. vonNeumann, E. P. Wigner, E. U. Condon and H. P. Robertson. Dr. P. A. M. Dirac, of Cambridge, will lecture on the relativistic formulation of quantum mechanics up to the Christmas vacation.

DURING the session of 1930-1931, the Mayo Foundation Chapter has held five regular meetings. The list of speakers and their subjects are Professor D. E. Minnich, department of zoology, University of Minnesota, "The Mine of an Insect"; Professor A. E. Jenks, University of Minnesota, "Excavating American Prehistoric Culture—the Unique Art of Mimbres Pottery"; Dr. J. H. Mathews, University of Wisconsin, "Scientific Methods in the Detection of Crime"; Professor Ralph Linton, "The Life of the Madagascar Native"; Dr. Walter M. Boothby, "Concepts of Relativity as Applied to Social Bridge." The officers for the coming year are: *President*, Dr. E. S. Judd; *Vice-president*, Dr. A. E. Osterberg, and *Secretary*, Dr. J. L. Bollman.

THE International Congress on Radiology meets at Paris from July 26 to 31. Mme. Marie Curie, co-discoverer of radium, is honorary president of the congress. She will be presented with the gold medal of the American College of Radiology. Standardization of such a unit of measurement is one of the principal problems to come before the meeting. Dr. Lauriston Taylor, of the Bureau of Standards, and Dr. Edwin C. Ernst, of St. Louis, will represent the Radiological Society of North America, and will be the United States members on the committee, which will consider this matter of standardization. Other delegates from the United States to the congress are: Dr. Albert Soiland, of Los Angeles, representing the American Medical Association; Dr. Benjamin Orndoff, of Chicago, representing the American College of Radiology; Dr. George Grier, of Pittsburgh, representing the American Radium Society, and Dr. George E. Pfahler, of the University of Pennsylvania, representing the American Röntgen Ray Society.

THE late Samuel Betts, patent lawyer, by his will left \$426,658 to Yale University. Of this amount the residuary estate, \$276,533, was left to Yale College, \$50,000 to the Law School to provide books on patent law, a like sum to the Art School for use in collecting representative works by Yale graduates or other Americans distinguished in the arts, and \$50,000 to the Yale University Library. \$100,000 is left to the Kingsley Trust Association, otherwise known as the Scroll and Key Society, and \$5,000 to the Yale alumni fund through the class of 1875.

MR. WILLIAM K. VANDERBILT'S yacht *Alva*, left Northport, Long Island, on June 7, for a voyage of exploration around the world during which specimens of marine life will be collected. Special equipment has been installed on the *Alva* for collecting and preserving the marine specimens which will be brought to the Vanderbilt Marine Museum at Centerport, where specimens gathered during the past twenty-five

years are to be found. The trip of the *Alva*, which will take several months, will include the Panama Canal, Galapagos Islands, the Society Islands, Samoa Islands, the Fijis, New Hebrides, New Caledonia, Australia, the south coast of New Guinea, the islands of Flores, Java, Sumatra, Singapore, Burma, Ceylon, the Red Sea, the Mediterranean and then home by the Canaries and the Windward Islands.

DISCUSSION

THE DECLINE IN THE AVERAGE LENGTH OF LIFE

IN SCIENCE for July 26, 1929,¹ H. C. Forsyth discussed "The Decline in the Average Length of Life" and concluded that "the average length of life—or at least the expectation from age 10—is already going down. It will be noted that the expectation from age 45 to 50 is the lowest of which we have any record—and is still going down, not up." In a letter in SCIENCE for September 13, 1929,² Mr. J. T. Ryan criticizes Professor Forsyth's conclusions as unjustified. He explains the apparent increased mortality at advanced ages on the ground that the reduction in infant mortality and in deaths from communicable diseases (later specifying croup, diphtheria and small-pox) has postponed death in those who were thus saved. He concludes that these prolonged lives are usually sustained by diminished vitality and would therefore lower the average general health of the community. The effect of this lowered average general health of the community would manifest itself later by an increased death-rate at early advanced ages.

Apart from the question of the influence of these lives saved in early life on the lowering of the average general health of the community, which is debatable, there is a fallacy in the bases for Mr. Ryan's conclusions to which I desire to call attention.

Professor Forsyth's figures indicate an increased death-rate at advanced ages which is remarkably concentrated at age 70, although it extends back as far as age 40. The last statistics which Professor Forsyth quotes are for the year 1927. A man dying in 1927 at age 40 would have been born in 1887. The period of his infancy (first 2 years, according to pediatricians; 7 years, Oxford Dictionary) would have extended, using the larger figure, through part of the year 1894.

Fatal forms of croup are, practically without exception, diphtheria. Although diphtheria antitoxin was discovered by v. Behring in 1892, its practical pro-

duction was first made possible by the work of Roux, reported in 1894. The influence of its general use, even in Boston, where its exhibition—notably in the highly efficient massive doses—was practiced earlier than elsewhere throughout the country, began to appear in the death-rate from the disease in 1899. Since the maximum mortality from diphtheria occurs at ages two to five it is evident that few if any persons dying at age 40 in 1927 could have been saved by antitoxin from diphtheria during the early years of their lives. Diphtheria prophylaxis with toxin-antitoxin or toxoid has been carried out only in recent years.

There is little evidence that the practice of vaccination had any greater influence on the mortality rate in the period 1887–1927 than during the preceding generation. Scarlet fever antitoxin was introduced in 1923. The use of convalescent serum in measles and anterior poliomyelitis is of recent development. The mortality from whooping-cough still remains high.

Finally, diarrheal diseases, which were the most potent killing agencies among the young, continued to be active up to the decade 1910–20. The growing practice of Pasteurization of milk then began to produce the most marked lowering of the death-rate among infants of any known prophylactic or therapeutic treatment for any disease. The man of 40, dying in 1927, however, could not have been helped in infancy by this procedure.

It is clear that the lowering of infant mortality or that due to the communicable diseases, upon which Mr. Ryan bases his strictures on Professor Forsyth's conclusions, could have had little or no influence on the death-rates of individuals age 40 in the year 1927, with which Professor Forsyth's study deals. If this is true for the man dying at 40 years of age in 1927, it is of course much more true for the more advanced ages and for the years preceding 1927.

If Mr. Ryan's thesis—that the lives saved in infancy will be associated with a lowered average general health at later ages and a resulting higher mortality at early advanced ages—is correct, the outlook for the future is even more serious than Professor Forsyth's paper indicated.

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¹ SCIENCE, 70: 85, 1929.

² SCIENCE, 70: 260, 1929.