has been such an outstanding factor in building up the scientific competence of the country, and which has thereby contributed essentially to the effort in meeting the present crisis.

SCIENTIFIC NOTES AND NEWS

In recognition of outstanding achievements in research in the nutrition of infants and children, Dr. S. Z. Levine, professor of pediatrics at Cornell University Medical College, and Dr. Henry Gordon, assistant professor, are joint recipients of the first annual Borden Award to be presented under the auspices of the American Academy of Pediatrics. The award carries with it a gold medal and the sum of \$1,000.

THE Herty Medal of the State College for Women at Milledgeville, Ga., has been awarded to Dr. Paul N. Gross, head of the department of chemistry of Duke University, in recognition of research on tobacco.

The Nicholas Appert Medal of the Institute of Food Technologists has been conferred on Dr. A. W. Bitting, of Lafayette, Ind., in recognition of his work as food technologist for the Bureau of Chemistry of the U. S. Department of Agriculture and for the National Canners Association, as director of research for the Glass Container Association and as a consulting food technologist.

Dr. E. EMMET REID, professor emeritus of chemistry of the Johns Hopkins University, has been elected an honorary member of the American Institute of Chemists, in recognition of "his contribution to organic chemistry and his outstanding services to the profession of chemist."

Among the degrees conferred by the University of California at Berkeley, on the occasion of its Charter Day exercises on March 23, were the doctorate of laws on Dr. J. N. LeConte, professor of mathematics emeritus, and on Dr. Wilbur A. Sawyer, director emeritus of the International Health Division of the Rockefeller Foundation.

The sixtieth birthday of Dr. Carl L. A. Schmidt, professor of biochemistry and chairman of the division of the University of California, was celebrated by a tea held on March 9. In honor of the occasion, a portrait of Professor Schmidt was unveiled and he was presented with a bound volume of congratulatory letters from his students and associates.

On the occasion of his seventy-third birthday, distinguished colleagues, students and Resistance members gathered in the Sorbonne to pay tribute to Professor Paul Langevin, of the University of Paris. Gustave Roussy, rector of the university, and Professor Lablenie, president of the National Front of Universities, spoke in praise of their colleague as

"the embodiment of French freedom of thought." Langevin's achievements in the scientific field, which include research on the electron and magnetism and the discovery of principles concerning modern submarine detection, were reviewed by Dr. Amié Cotton and Professor Frédéric Joliot-Curie of the Academy of Sciences.

A MEMORIAL volume has been issued in Sweden in honor of the sixtieth birthday of Dr. The Svedberg, professor of chemistry at the University of Uppsala and director of the Institute of Physical Chemistry.

A CHAPTER of the Society of the Sigma Xi was installed at the Catholic University of America, Washington, D. C., on March 12. Dr. Harlow Shapley, national president of the society, and Dr. George A. Baitsell, executive secretary, were the installing officers. Dr. Shapley gave the installation address and the charge to the chapter. The following officers were elected: Karl F. Herzfeld, President; Edward G. Reinhard, Vice-president; W. Gardner Lynn, Secretary-Treasurer. After a reception and dinner the National Sigma Xi Lecture was delivered by the Reverend James B. Macelwane, S.J., dean of the Institute of Geophysical Technology of Saint Louis University, who spoke on "The Interior of the Earth."

NEW officers for 1945 of the Society of Economic Geologists are O. E. Meinzer, *President*; T. B. Nolan, *First Vice-president*; J. T. Singewald, Jr., *Treasurer*; C. H. Behre, Jr., *Secretary*.

DR. CLAY B. FREUDENBERGER, professor and head of the department of anatomy of the University of Utah, is spending the spring quarter as visiting professor of anatomy at the School of Medicine of the Louisiana State University.

GERALD M. CLEMENCE has been appointed director of the Nautical Almanac Office, U. S. Naval Observatory. He is succeeded as assistant director by Dr. Paul Herget.

Dr. R. P. Anderson, member ex-officio of the Board of Directors of the American Standards Association, past-chairman of the Standards Council and secretary of the Division of Refining of the American Petroleum Institute, has retired from active duty after serving the association for eleven years.

Dr. LLOYD PRESTON SMITH, professor of physics at Cornell University, has been appointed associate research director of the laboratories of the Radio Corporation of America at Princeton, N. J. The appointment fills a vacancy caused by the death last July of B. J. Thompson, who was killed in action during a flight in an Army airplane in the Mediterranean area while on a special mission for the Office of the Secretary of War. Since February, 1941, Dr. Smith has been associated with the RCA Laboratories as a research consultant.

Dr. ROBERT PENQUITE, of the Oklahoma Agricultural and Mechanical College, has been appointed associate professor of poultry husbandry at Iowa State College.

ALASTAIR WORDEN, a member of the staff of the Institute of Animal Pathology at the University of Cambridge, has been appointed to the research professorship in animal health recently endowed by Lord Milford at the University College of Wales, Aberystwyth, to investigate the health and productivity of livestock with special reference to human nutrition.

Dr. R. E. Lane, who has been lecturer in factory hygiene and lecturer in medicine at the University of Manchester, has been appointed to the chair of industrial health, for the establishment of which the Nuffield Foundation lately made a grant of £70,000. He is expected to take up his new work next September.

THE British Medical Research Council has appointed Dr. A. A. Miles, professor of bacteriology at University College Hospital Medical School, to their staff at the National Institute for Medical Research as from October 1, with a view to his becoming director of the Department of Biological Standards on the retirement next year of Sir Percival Hartley, F.R.S.

Dr. J. R. Van Pelt, Jr., until recently technical director of the Museum of Science and Industry, Chicago, has joined the staff of the Battelle Memorial Institute at Columbus, Ohio, as head of the program of research education.

Dr. Paul E. Klopsteg, director of research at the Technological Institute of Northwestern University, has been reelected chairman of the governing board of the American Institute of Physics. This is Dr. Klopsteg's fifth consecutive term. The previous incumbents of the office were Dean John T. Tate, of the University of Minnesota, and President Karl T. Compton, of the Massachusetts Institute of Technology.

SIR JOHN BOYD ORR has tendered his resignation from the directorship of the Rowett Research Institute after holding that post since its foundation, in which he took a prominent part. Under his direction the Rowett Institute became an important research center for the investigation of problems relating nutrition to agriculture.

Dr. E. C. Stakman, chief of the Division of Plant Pathology and Botany of the Department of Agriculture of the University of Minnesota, spoke on February 12 before the Plant Institute of the Ohio State University on "The Genetics of Plant Pathogens." At a dinner held at the Faculty Club, he led a discussion on the demands of the post-war economy and the changing status of scientific research. On the following day he spoke on "Improvement in Agriculture in Mexico." His visit was sponsored by the graduate school of the university.

Dr. VICTOR LOPEZ, director of the Geological Survey of Venezuela, presented on March 12 an illustrated lecture before the faculty and students of the department of geology of Columbia University and officials from mining and petroleum companies with headquarters in New York City. He described particularly those geological features which apply to phases of mineral production other than petroleum.

LECTURES before the American Institute of Chemists were given on March 20 by Dr. E. H. Northey, assistant director of research of the Calco Chemical Division of the American Cyanamid Company, on "The Chemistry of the Sulfa Drugs," and by Dr. Walter Modell, of the department of pharmacology of Cornell University Medical College, on "The Therapeutic Implications of the Sulfa Drugs and Penicillin."

Dr. George J. Heuer, professor of surgery at Cornell University Medical College, New York, gave on February 20 the eighth Roger S. Morris Memorial Lecture at the College of Medicine of the University of Cincinnati. He spoke on "The Surgical Treatment of Chronic Constrictive Pericarditis."

Dr. George D. Scarseth, director of research for the American Farm Research Association, who has been associated for many years with research problems vital to agriculture in Central America, addressed on February 15 the Biology Club of the Ohio State University. His topic was "The Control of the Panama Disease of Bananas."

AT a meeting of the council of the American Mathematical Society, held on February 24 at Columbia University, it was voted unanimously to cancel the meetings of the society scheduled for April 27 and 28 in New York City and Chicago. No action was taken by the council regarding the 1945 summer meeting which has been scheduled for June 24 and 25 in Montreal, at the close of the Canadian Mathematical Congress. It is hoped that conditions will be such that it will be possible for the society to take part.

CANCELLATION of the thirty-sixth annual meeting of the American Oil Chemists' Society, which was to have been held in New Orleans on May 9, 10 and 11, has been announced by Dr. Klare S. Markley, president of the society. This action was taken in order to cooperate with the Office of Defense Transportation.

At the annual meeting of the Texas Society of Pathologists in Dallas, which was held on January 28, it was voted unanimously to become affiliated with the Texas Academy of Science, which is in turn affiliated with the American Association for the Advancement of Science.

The New York Association of Teachers of the Biological Sciences has announced the founding of an annual High School Congress of Biology in memory of the late Paul B. Mann, who left a fund to advance the cause of scientific thinking among high-school students. The first congress will assemble on May 19 at the American Museum of Natural History. Students in the senior high schools are invited to present reports of research work in biology.

A COMMITTEE of representatives of several chemical and pharmaceutical concerns to raise \$500,000 for the enlargement of the library of the New York Academy of Medicine has been organized with Carleton H. Palmer as chairman. The fund would permit comstruction of a nine-floor addition to the stack room, which would increase the capacity to 374,000 volumes. It would also provide for a new catalogue of 2,800,000 cards, and improved handling, delivery, photostating and bibliographical service.

THE U. S. Public Health Service, in cooperation with the National Foundation for Infantile Paralysis offers graduate fellowships for work in public health

to men and women between the ages of 22 and 40 who are citizens of the United States and who hold a bachelor's degree from a recognized college or university. Fellowships will lead to a master's degree in public health. The twelve months' training period will consist of nine months in the School of Public Health at the University of North Carolina, Yale University or the University of Michigan and three months' field experience in community health education under supervision. Applicants must meet the requirements for admission to the schools of public health. Training in science, sociology, education and psychology, plus experience working with people, are desirable prerequisites. Application forms may be obtained from the Surgeon General, U. S. Public Health Service, Washington 14, D. C., and must be returned not later than June 1.

THE New York Heart Association is making a campaign to raise \$150,000 to be used to develop a competent staff of field workers, to establish new head-quarters and to inaugurate new projects. Dr. Edward P. Maynard, Jr., president of the association, has his headquarters at the New York Academy of Medicine.

A GROUP of mineralogists has formed a committee for the restoration of the Liége mineral collection. The council of the Mineralogical Society of America will sponsor the project, and has appointed Dr. Charles Palache, professor of mineralogy, emeritus, of Harvard University, chairman of the Continental Committee, which will coordinate the work of local committees. Funds for the shipment to the University of Liége of the new collection have been provided by the Belgian-American Educational Foundation.

DISCUSSION

THE DEMOGRAPHIC DILEMMA

Professor Mather in his discussion of "The Needs of Man" assumes that because the potential resources of the world are sufficient for a considerably larger world population, we need only the proper economic organization to provide the needs of all. His lack of realism in dealing with problems of agriculture and of population growth does little to clarify the demographic problems and only obscures the major issues.

In his book "Enough and to Spare" Professor Mather states that "the gloomy prediction of Malthus does not now apply and, if present trends continue, never will apply to man." The fact is that most of

the human race is now living in Malthusian equilibrium, with high birth rates nearly balanced by high death rates. Only a relatively small proportion of the world's population has been able to escape the consequences of the Malthusian Law.

The modern Western nations were able to escape excessive population pressure by industrialization, migration and control of the birth rate. Their populations are becoming stabilized in accord with their resources. The transition from a high birth rate and a high death rate culture to a low birth rate and a low death rate culture was made only under exceptionally favorable circumstances. These countries were not densely populated in respect to potential agricultural resources, vast areas of land were open

¹ K. F. Mather, Science, 101: 198-200, 1945.

² K. F. Mather, "Enough and to Spare." New York: Harper and Bros., 1944.