

amounting to \$495,000, provide for the establishment of two "Units for Research in Physiology as Related to Physical Medicine," for the purpose of improving knowledge in the field.

The larger of these two units will be at the Medical School of the University of Minnesota, for which the grant amounts to \$320,000. The work to be undertaken there will be an expansion of a project previously inaugurated designed to throw new light on the physiological problems encountered and on the clinical application of methods in the field of physical medicine. The general direction of the proposed investigation will be assigned to a committee consisting of the heads of the departments concerned, with Dr. Maurice B. Visscher, head of the department of physiology, as chairman.

Under a grant for \$175,000 the second unit will be established at the Medical School of Northwestern University, which was one of the first institutions to adopt a department of physical medicine and to encourage research in this specialty.

The third long-term grant of \$325,000 was made to the School of Public Health of the University of Michigan to finance a virus study unit. This unit represents a direct attack on the cause of the disease since it provides both for virus research and for the training of virologists. The work at the University of Michigan will continue to be under the direction of Dr. Thomas Francis, Jr., professor of epidemiology.

#### THE NEW YORK ZOOLOGICAL SOCIETY

AFTER an informal luncheon meeting of the New York Zoological Society on June 15, which was at-

tended by forty-three fellows representing various branches of science, it was announced by Fairfield Osborn, president of the society, that after the war it is proposed to erect at a cost of \$200,000 a biological and pathological research center in the Bronx at or near the Zoological Park.

It was stated that in no case does the plan entail use of any of the animal collections for experimental purposes in pathological studies. Only animals that become sick or die will be used. It is planned to keep the center open twenty-four hours a day, available to students in medical centers and universities.

The tentative plans call for a two-story building consisting of laboratories for research in chemistry, biology, bacteriology, parasitology, physiology, photography, etc. It is proposed to appoint a scientific advisory council to put the plans into effect.

Fellows present at the meeting who took part in the discussion included Dr. Francisco Duran-Reynals, associate professor of medicine at the medical school of Yale University; Dr. George M. Smith, associate of the department of anatomy, School of Medicine of Yale University; Dr. Robert Cushman Murphy, chairman of the Department of Birds, American Museum of Natural History; Dr. Ernst Mayr, curator of the Whitney-Rothschild Collections, Department of Birds, American Museum of Natural History; Dr. John S. Nicholas, Sterling professor of zoology, Yale University; Dr. A. E. Parr, director of the American Museum of Natural History; Dr. Horace W. Stunkard, professor of physiology, New York University, and Dr. William Beebe, honorary curator and director of the department of tropical research of the society.

## SCIENTIFIC NOTES AND NEWS

THE honorary degree of doctor of science was conferred by Tulane University at its commencement on May 31 on Dr. T. Wayland Vaughan, B.S., 1889, associate in paleontology of the U. S. National Museum, in recognition of his contributions to geology and oceanography.

DR. AUSTIN McDOWELL PATTERSON, professor emeritus of chemistry of Antioch College, now principal specialist in chemical education for the Engineering, Science and Management War Training Program of the U. S. Office of Education, received the honorary degree of doctor of science at the annual commencement exercises of the college.

THE staff of the department of botany, and graduate students in plant physiology, of the University of Chicago gave a dinner on June 5 in honor of Dr. and Mrs. Charles A. Shull. There were twenty-nine persons present. Dr. E. J. Kraus was toastmaster.

After the dinner, Dr. Walter F. Loehwing spoke on Dr. Shull's influence on plant physiology through his researches, his leadership in the American Society of Plant Physiologists and as editor of *Plant Physiology*. Dr. Scott V. Eaton presented a bound volume of eighty-eight letters from students, colleagues in the department of botany and a few friends to which Dr. Shull responded. Mrs. Shull, who recently published her second volume of poems, read a poem composed especially for the occasion. Dr. Shull will retire at the end of September. He and Mrs. Shull will move to Asheville, N. C.

CLIFFORD H. POPE, curator of amphibians and reptiles at the Chicago Natural History Museum, and Dr. Ernst Mayr, curator of the Whitney-Rothschild Collections of the American Museum of Natural History, have been elected fellows of the New York Zoological Society.

PROFESSOR SOLOMON LEFSCHETZ, of Princeton University, who is lecturing at the Institute of Mathematics of the University of Mexico, was the guest of honor on the occasion of the Guanajuato City meeting of the Mathematical Society of Mexico.

PRESENTATION was made at the St. Louis meeting of the American Institute of Electrical Engineers of the Faraday Medal, which was awarded in February to Dr. Irving Langmuir, associate director of the General Electric Research Laboratory. The presentation was made by Dr. A. P. M. Fleming, director and manager of research and education of Metropolitan-Vickers Electrical Company, Ltd., Manchester, England.

AT a recent meeting of the American Society of Mechanical Engineers Orville Wright and Dr. Harvey N. Davis, president of Stevens Institute of Technology, received certificates of honorary membership in the British Institution of Mechanical Engineers. Lord Halifax, the British Ambassador, made the presentation to Dr. Davis, and Dr. Robert Gates, president of the American Society of Mechanical Engineers, accepted for Mr. Wright in his absence. Dr. Gates presented to Lord Halifax a certificate of honorary membership in the American society to be transmitted to Dr. Harry R. Ricardo, in recognition of "his work in the field of internal combustion and as president of the British Institution." A copy of the Breda portrait of James Watt, inventor of the steam engine, was presented as a gift from the British Institution.

PROFESSOR W. N. HAWORTH, professor of chemistry at the University of Birmingham, has been elected president of the Chemical Society, London.

ON the joint recommendation of the presidents of the Royal Society and the British Institution of Civil Engineers, the council of the institution has awarded the James Alfred Ewing Medal for 1943 to Group Captain Frank Whittle. The Ewing Medal is awarded annually for specially meritorious contributions to the science of engineering in the field of research.

THE Colwyn Gold Medal has been awarded by the British Institution of the Rubber Industry to A. Healey, a director of the Dunlop Rubber Company, for conspicuous services in connection with the technique of tire manufacture, with special reference to the use of synthetic rubbers.

PROFESSOR ALEXANDER FLEMING, F.R.S., has been appointed Harben lecturer for 1944 by the Royal Institute of Public Health and Hygiene. His lectures, which will be given at the end of the year, will deal with penicillin—its discovery, development and uses in medicine and surgery.

DR. C. H. BEST, F.R.S., professor of physiology at the University of Toronto, has been elected a member of the Athenaeum, London.

THE American Society of Plant Physiologists has elected the following officers for terms beginning on July 1: Dr. H. A. Spoehr, *President*; Dr. F. W. Went, *Vice-president*; Dr. Charles A. Shull, *Member of the Executive Committee*; Professor D. R. Hoagland, *Member of the Editorial Board*. The term of the present secretary, Dr. Earl S. Johnston, continues for another year.

AT the recent annual banquet of the Florida Chapter of the Society of the Sigma Xi the following officers were installed: Professor T. H. Hubbell, *President*; Professor A. A. Bless, *President-elect*; Professor H. H. Hobbs, Jr., *Secretary*; Professor R. H. Westveld, *Treasurer*, and Professor F. B. Smith, *Marshal*.

DR. ROLLO C. BAKER, chairman on leave of the department of anatomy of the University of Illinois, will retire at the close of the academic year. He will retain his position as acting dean of the College of Medicine. The retirement is also announced of Dr. J. Ernest Carman, since 1929 head of the department of geology.

DR. CAREY CRONEIS, professor of geology at the University of Chicago, has been chosen the fifth president of Beloit College. He will take office on September 1.

AT Yale University in the department of astronomy Dr. Dirk Brouwer has been designated Munson professor of natural philosophy and astronomy. Dr. Lyman Spitzer, Jr., has been appointed research associate in astrophysics with the rank of associate professor, but he will continue during the coming academic year to work with the Division of War Research at Columbia University. Dr. Victor Goedicke has been promoted to the rank of assistant professor.

DR. T. W. DANIEL, of the Western Washington Agricultural Experiment Station at Puyallup, Wash., formerly a member of the California Forestry and Range Experiment Station and the School of Forestry of the University of California, has been appointed professor of silviculture at the Utah State Agricultural College at Logan. He will be in charge of instruction in silviculture and will manage the forest nursery maintained jointly by the school and the U. S. Forest Service.

AT the University of London, Dr. T. A. Bennet-Clark, professor of botany at University College, Nottingham, has been appointed to the chair of botany, and Dr. C. T. Ingold, head of the department of botany at University College, Leicester, has been appointed to the chair of botany in Birkbeck College.

DR. WILLIAM S. MARSHALL, professor emeritus of entomology of the University of Wisconsin, has been appointed research associate in entomology at the Milwaukee Public Museum, and Dr. Lloyd H. Shinners, of the Milwaukee County Park System, has been appointed research associate in botany.

DR. GEORGE B. CRESSEY, chairman of the department of geology and geography of Syracuse University, representative in China of the U. S. Department of State, who has been in China since September as a visiting professor, will return to the United States in the near future.

DR. DONALD C. MACLACHLAN, associate professor of geology at Wayne University, will continue this summer his survey of ancient lake beaches in the Saginaw Valley to determine the nature and location of areas believed to contain important oil and gas pools. The survey was initiated a year ago as part of a project conducted by the Geological Survey Division of the Michigan Department of Conservation to discover undeveloped mineral deposits throughout the state.

THE annual science lecture of the Santa Barbara State College Club of the Society of Sigma Xi was delivered on the evening of June 3 by Dr. Francis Marsh Baldwin, chairman of the division of biology of the University of Southern California, president of the Southern California Chapter of the society. The title of the lecture was "How Burn the Fires of Life."

THE thirty-ninth annual meeting of the American Dairy Science Association was held on June 20, 21 and 22 at the Ohio State University under the presidency of Dr. A. C. Dahlberg, of the department of dairy industry of Cornell University. He is succeeded by the vice-president of the association, Dr. A. C. Ragsdale, of the University of Missouri.

THE department of pathology and bacteriology in the School of Medicine of the Louisiana State University received the gold medal, the highest award for

exhibits at the meeting of the American Society of Clinical Pathologists in Chicago. The title of the exhibit was "The Pathology of Amebiasis, Malaria and Histoplasmosis."

A SCHOOL of Veterinary Medicine at Davis will be established by the University of California as soon as construction can be undertaken. On recommendation of Dean C. B. Hutchison, of the College of Agriculture, an appropriation of \$500,000 has been made by the Legislature for the new school, and an additional \$500,000 is expected from the post-war building funds provided by the Legislature. The department will be set up in the College of Agriculture, coordinate with the departments of agriculture, forestry and home economics. The faculty of the school will be drawn not only from the department of veterinary science, but from other departments, including the department of agriculture and the Medical School.

THE National Geographic Society has issued a ten-color wall map of Germany and its approaches. Taking in the Channel Coast of England and the coast of continental Europe from Le Havre to Copenhagen, the map reaches south to the industrial cities of northern Italy and includes nearly all Hungary and Yugoslavia as far as Belgrade.

*The Times*, London, states that the British Colonial Office has made arrangements for scientific research and survey work to be resumed in some of the most remote British possessions, the Dependencies of the Falkland Islands, the most important of which are the South Shetlands, South Orkneys, South Georgia and Grahamland. The research party and administrative officials have arrived, and bases have been established. The bases are fully equipped and self-contained, and the party is expected to remain in the Antarctic for a long time. The expedition is under the direction of Lieutenant-Commander J. W. S. Marr, R.N.V.R.

## DISCUSSION

### LIQUEFIED-GAS METHOD OF PRODUCING GERMICIDAL AEROSOLS

THE liquefied-gas method of producing insecticidal aerosols, as described by Goodhue and Sullivan,<sup>1</sup> Goodhue,<sup>2</sup> and Sullivan, Goodhue and Fales,<sup>3</sup> has

<sup>1</sup> L. D. Goodhue and W. N. Sullivan, U. S. Patent 2,321,023, issued June 8, 1943.

<sup>2</sup> L. D. Goodhue, *Indust. and Engin. Chem.*, 34: 1456-9, 1942.

<sup>3</sup> W. N. Sullivan, L. D. Goodhue and J. H. Fales, *Jour. Econ. Ent.*, 35: 48-51, 1942.

proved very useful in the control of disease-carrying mosquitoes. It is especially well adapted to military needs in remote tropical areas, where transportation, simplicity of equipment and ease of operation are important. The product consists of a solution of pyrethrum extract and sesame oil in dichlorodifluoromethane, which is held in a pound-size handy container ready for use at any moment. The dichlorodifluoromethane acts as the solvent, furnishes the pressure for spraying and provides the energy to disperse the