

dounding to the public good. For instance, the laboratories of the Bureau of Agricultural Chemistry and Engineering have been most helpful in working out problems of general interest. The four new regional research laboratories now under construction by the United States Department of Agriculture will no doubt be anxious to render similar assistance under suitable cooperative arrangements.

The government agency most frequently called upon to aid trade-association research is probably the National Bureau of Standards. This agency, as its name implies, is most important in standardization research, but arrangements can be made with it to supply research associates for work on particular industrial problems. More often, however, a grant in money is made to the bureau to provide funds for a specified task. One particularly important phase of the bureau's work is the preparation and distribution of standard analytical samples and standard test specimens. The analyses and physical properties are carefully determined by the bureau so that they can be used by individual laboratories to check the accuracy of their own methods and determinations.

#### SUMMER COURSES IN APPLIED MECHANICS AT BROWN UNIVERSITY

A STAFF of sixteen experts from Europe and America, representing "the best men available in the fields of mathematics, engineering and physics," has been selected to take charge of summer instruction and research in applied mechanics at Brown University, where special problems in defense industry will be studied by prospective defense technicians. Beginning on June 23 and continuing through September 13, the summer session is designed to help overcome a bottleneck in the supply of men with highly specialized knowledge who are needed in defense industry.

The first program of its kind will bring together, according to a statement made by Dr. R. G. D. Richardson, dean of the Graduate School, those "who are now so widely scattered that their work is relatively ineffective for instruction purposes." The courses to be offered will deal largely with higher mathematics. They will include "Partial Differential Equations," "Fluid Dynamics," "Elasticity," and seminars in fluid dynamics and elasticity. The personnel of the staff has been chosen "for their practical knowledge and experience, the high degree of their past achievements; and their grasp of the fundamental problems in mathematics which are related to defense preparations."

There will be six full-time professors and ten visiting lecturers. In the group of professors, one is Polish, two are Russian and three are German by birth. The German specialists are among those who have left their native country since Hitler's rise to power and whose outstanding achievements in applied mechanics have helped bring about the high quality and efficiency of Nazi planes and other fighting equipment.

The professors are:

*Richard von Mises*, now lecturer on aerodynamics and applied mathematics at Harvard University, and formerly director of the Institute for Applied Mathematics at the University of Berlin. One of the most eminent European authorities on aerodynamics, hydrodynamics and the theories of elasticity and probability, von Mises is known particularly for his studies of airplane body shapes and vibrations. His book on aeronautics has gone through five editions.

*Kurt O. Friedrichs*, professor of mathematics at New York University and formerly professor of mathematics at the Technological Institute at Braunschweig. He is widely known for his work in applied mathematics, including his mathematical investigations of the stresses on thin metal plates, like those used in airplane construction.

*Ivan S. Sokolnikoff*, professor of mathematics at the University of Wisconsin and expert for the National Defense Research Committee. He is known for his work in the theory of elasticity, mathematical physics, partial differential equations and boundary value problems.

*Jacob D. Tamarkin*, professor of mathematics at Brown University, formerly professor of mathematics at the University of Petrograd and the Petrograd Electrotechnical School. An editor of the international journal, *Mathematical Reviews*, his field is pure mathematics, particularly the Fourier Series and Laplace integrals.

*Willi Prager*, professor of engineering at the University of Istanbul, formerly associated with the Aerodynamical Institute of Göttingen. He is a world-recognized authority on structural statics, the theory of vibrations, hydrodynamics and the theory of plasticity.

*Stefan Bergmann*, lecturer at the Massachusetts Institute of Technology and formerly instructor at the Institute for Applied Mathematics at the University of Berlin. His specialized studies deal with applied mathematics, the theory of elasticity, fluid dynamics and electromagnetic theory.

The lecturers will include Professor R. D. Courant, mathematics, New York University; R. M. Foster, Bell Telephone Laboratories; Dr. Thornton C. Fry, mathematical research director, Bell Telephone Laboratories; Professor James N. Goodier, mechanics of engineering, Cornell University.

Professor Robert B. Lindsay, physics, Brown University; Dr. A. L. Nadai, mechanical engineering, Westinghouse Electric and Manufacturing Company; Dr. Hillel Poritzky, mathematician, General Electric Company; Dr. Theodore Theodorsen, chief, physical research division, National Advisory Committee for Aeronautics, Langley Field.

Professor Stephen P. Timoshenko, theoretical and applied mechanics, Stanford University; Professor Norbert Wiener, mathematics, Massachusetts Institute of Technology.

#### THE UNIVERSITY OF CHICAGO FIFTIETH ANNIVERSARY SYMPOSIA

A CORDIAL invitation is extended to scholars and scientific men to attend a series of Symposia with the general title "New Frontiers in Education and Research" in celebration of the fiftieth anniversary of

the University of Chicago next September. The program comprises sections in the Divisions of the Biological Sciences (including the Medical School), the Humanities, the Physical Sciences and the Social Sciences, the Law School and the School of Social Service Administration. The School of Business participates in the program of the Social Sciences and the Divinity School in that of the Humanities.

Nearly all the symposia will be held during the five days from September 22 to 26. The American Association for the Advancement of Science will meet at the University of Chicago during this period, and the symposia in the sciences will be under the joint auspices of the university and the association. The symposia of the university on Respiratory Enzymes and the Biological Action of the Vitamins (September 15 to 17) and the Training of Biologists (September 18 to 20) will be held in advance of the meeting of the American Association for the Advancement of Science.

The following societies, in addition to the American Association for the Advancement of Science, have accepted an invitation to hold meetings at the university in September, and copies of their announcements will be sent on request: September 2-6, the American Mathematical Society, the Mathematical Association of America, the Econometric Society, the Institute of Mathematical Statistics and the Sixth International Congress for the Unity of Science; September 7-10, the American Astronomical Society at Yerkes Observatory, Williams Bay, Wisconsin; September 25, 26, the American Meteorological Society.

In view of the limited capacity of the lecture halls, those who desire to attend should send their names and addresses as soon as possible, and indicate the particular sessions in which they are interested.

The student resident halls of the university, all of which are exclusively for men or for women, and International House, which has separate sections for men and for women and a common dining-hall, will be available, up to their capacity, at the rate of \$2.00 per day for room and breakfast or \$3.00 per day for room and all meals. Reservations will be made in the order of receipt of applications. Applications must state precisely the period for which a reservation is desired.

There are a number of good hotels within a radius of two miles from the university, including the Chicago Beach Hotel, Del Prado Hotel, Shoreland Hotel and Windermere East Hotel. In addition there are a number of residential hotels. All inquiries should be addressed to The Director of the Fiftieth Anniversary Celebration, The University of Chicago, Chicago, Illinois.

#### AWARD OF THE MEDALS OF THE AMERICAN MEDICAL ASSOCIATION

THE gold medal of the American Medical Association,

given annually for exhibits based on individual investigations, was presented on June 4 at Cleveland to Professor A. C. Ivy, of the Northwestern University Medical School, and his associates, Drs. Alvin L. Berman, F. S. Grodins, H. Wigodsky, B. Phibbs and A. J. Atkinson, for their exhibit demonstrating the proper use of bile salts in disorders of the liver and the gallbladder. The silver medal was awarded to Drs. Harold Thomas Hyman, William Leifer and Louis Chargin, of Mount Sinai Hospital, New York, for an exhibit describing massive dose chemotherapy of early syphilis by the intravenous drip method. The bronze medal was awarded to the Mayo Foundation group, of Rochester, Minn., for investigations into physiological problems in aviation medicine conducted by Dr. Walter M. Boothby, Dr. W. R. Lovelace, Dr. C. W. Mayo and Dr. A. H. Bulbulian.

Three medals were given for exhibits not devoted to experimental investigations; of these the gold medal was awarded to Dr. Waltman Walters, Dr. Howard K. Gray and Dr. James T. Priestly, of the Mayo Clinic, for an exhibit on cancer of the stomach, demonstrating the importance of early treatment. The silver medal was received by Dr. Grover C. Penberthy and Dr. Charles N. Weller, of the Children's Hospital of Michigan and the Wayne University College of Medicine, for an exhibit illustrating the treatment of burns, and a bronze medal was presented to Dr. G. V. Brindley, of the Scott and White Hospital, Temple, Texas, who illustrated operations for cancer of the colon. There were also four certificates of merit and six honorable mentions in this group of exhibits.

#### RECENT DEATHS

DR. LEE ABRAM STRONG, since 1934 chief of the U. S. Bureau of Entomology and Plant Quarantine, died on June 2. He was fifty-four years old.

THOMAS ULVAN TAYLOR, dean emeritus of the College of Engineering of the University of Texas, died on May 23 at the age of eighty-three years. He joined the university as professor of mathematics in 1888.

DR. ALBERT GRAEME MITCHELL, professor of pediatrics at the University of Cincinnati, director and chief of staff of the Children's Hospital, died on June 1. He was fifty-two years of age.

DR. CLAUDE HALE BIRDSEYE, topographer, explorer, geographer, and chief of the division of engraving and printing of the U. S. Geological Survey, died on May 30 at the age of sixty-three years.

*Nature* records the following deaths: Francis Druce, the well-known botanist, honorary treasurer of the Royal Meteorological Society during 1913-18 and 1925-32, and of the Linnean Society during 1931-40, by enemy action, and Dr. F. Francis, emeritus professor of chemistry at the University of Bristol, on April 15.