

1953, is now professor of biological chemistry at Harvard Medical School and head of the Biological Research Laboratory at Massachusetts General Hospital. He will take up residence in New York in the summer of 1957.

Work on the biochemical conversion of food into various forms of energy has brought Lipmann worldwide acclaim. His research will be continued in new laboratories to be constructed for him at the Rockefeller Institute, where he will also participate in the program of graduate education that was begun a year ago.

ROBERT F. THORNE of the State University of Iowa, and ROBERT L. WILBUR of North Carolina State College, share this year's George R. Cooley award of the American Society of Plant Taxonomists. They received the \$500 prize for their outstanding papers published during 1955 on the flora of southeastern United States. Thorne's paper, which appeared in the *American Midland Naturalist*, is entitled "The vascular plants of southwestern Georgia." Wilbur's paper, published in *Rhodora*, is entitled "A revision of the North American genus *Sabatia* (*Gentianaceae*)."

The Cooley award of \$100 for the outstanding paper presented before the society at its annual meetings went to HENRY J. THOMPSON, of the University of California at Los Angeles. Thompson's paper was entitled "A genetic approach to the taxonomy of *Mentzelia lindleyi*."

Four awards for outstanding services to forestry were made at the 56th annual meeting of the Society of American Foresters.

SAMUEL T. DANA of Ann Arbor, Mich., received the Sir William Schlich memorial medal for distinguished services to forestry. Dana, a past president of the society and a former editor of the *Journal of Forestry*, is dean emeritus of the University of Michigan School of Natural Resources.

INMAN F. ELDREDGE of New Orleans, La., received the Gifford Pinchot medal, for outstanding service to forestry. Eldredge is a former member of the council of the society, a long-time officer of the U.S. Forest Service, and a well-known consulting forester. Until his retirement from the Forest Service he was director of the Forest Survey of the South.

LEO A. ISAAC of the Pacific Northwest Forest and Range Experiment Station, Portland, Ore., and PHILIP C. WAKELEY of the Southern Forest Experiment Station at New Orleans, each received two special awards for outstanding achievement in biological research contributing to the advancement of forestry.

TIBOR BENEDEK, associate clinical professor of dermatology, Stritch School of Medicine, Loyola University, has been appointed editor-in-chief of *Mycopathologia et Mycologia Applicata*, an international journal for pure and applied mycological research.

HARRY D. BRUNER, chairman of the department of physiology at Emory University, has been appointed chief of the Medical Branch of the Atomic Energy Commission's Division of Biology and Medicine. He succeeds ROY E. ALBERT, who has accepted a research and academic appointment at George Washington University (Washington, D.C.)

Recent Deaths

HUGH CHRISTISON, Methuen, Mass.; 72; retired chief chemist at Arlington Mills; 5 Nov.

WINIFRED C. CULLIS, London, England; 81; professor emeritus of physiology at the London School of Medicine for Women; 13 Nov.

HENRY A. HAUGH, JR., New Haven, Conn.; 59; electrical engineer; 14 Nov.

JAMES KNIVETON, Wyncote, Pa.; 58; heating engineer and vice president of Sales Corporation of America; 12 Nov.

EWING C. McBEATH, New York, N.Y.; 72; professor emeritus of dentistry at Columbia School of Oral and Dental Surgery; 13 Nov.

BENJAMIN SALZER, New York, N.Y.; 76; retired associate professor of neurology at the College of Physicians and Surgeons, Columbia University; 12 Nov.

HARRY S. TSCHOPIK, JR., Pleasantville, N.Y.; 41; assistant curator of ethnology of the American Museum of Natural History; 12 Nov.

Education

■ The Soviet Government has adopted new regulations for advanced scientific education, apparently with the objective of improving the training of persons receiving the Soviet degrees of Candidate and Doctor of Science, equivalent in the United States to the degrees of Master of Arts or Science and Doctor of Philosophy. The new decree was adopted by the Soviet Government and the Central Committee of the Communist party last August, but it was not publicized in the Soviet press until some time later. Its regulations replace rules governing graduate study that had been in force since 1937.

The most radical change has been made with respect to the degree of Doctor of Science. This will now be awarded

only to persons making a significant contribution to knowledge. The 2-year period of study and research for the doctorate formerly customary in the Soviet Union has been abolished. Instead, persons seeking the doctorate are now expected to write their dissertations while they work in teaching or research posts.

Two major innovations have been made in the requirements for the Candidate of Science degree. Except for a few fields, such as mathematics and theoretical physics, no person will be accepted as a graduate student unless he has had at least 2 years of practical experience. In the past, most graduate students have been persons who had just finished their undergraduate training.

In addition the requirement of a dissertation for the Candidate of Science degree has been abolished and the new requirements demand only passing of examinations. However, persons writing a candidate's dissertation will be given preference in assignment of teaching and research positions.

The number of Soviet institutions permitted to grant doctors' or candidates' degrees has been sharply curtailed, particularly with respect to the higher degree. To attract people who are already working in scientific fields to graduate study, stipends for graduate study have been raised to match previous incomes, with a maximum of 1000 rubles monthly.

To assure tightening of requirements on dissertations, a Central Certification Commission with 77 members has been set up to review all dissertations. The power of this commission has been assured by two new regulations.

1) Persons receiving a higher degree on the basis of a dissertation will no longer receive an automatic pay increase after their departments have accepted the dissertation. The pay increase is now to go into effect only after the Central Certification Commission has accepted the dissertation.

2) Any department that approves a dissertation that is later rejected by the Central Certification Commission will lose for 2 years thereafter the right to accept candidates who intend to defend dissertations.

■ High school seniors throughout the country have been invited to compete in the 16th annual Science Talent Search of the Westinghouse Educational Foundation. Winners of the contest will share \$11,000 in Westinghouse science scholarships. A 5-day trip to Washington, D.C., for the Science Talent Institute is also awarded to the 40 finalists in the contest. In the past 15 years, 4500 high-school seniors have won scholarships and honorable mentions in the Science Talent Search.

Entrants must report on an original

science project and take an aptitude examination. Their schools then submit scholastic records and teachers' estimates of the entrants' ability. To be eligible, entries must be received in Washington by *midnight 27 Dec.* The program is administered for Westinghouse by Science Service, Washington, D.C.

Grants, Fellowships, and Awards

■ The Markle Foundation has announced that it will continue for the tenth year its program of 5-year grants for young medical school faculty members seeking careers in academic medicine. The fund's Grants for Scholars in Medical Science were first offered in 1948 to give academic security and financial help to selected teachers and investigators. During the 9 years of the program a total of \$5,320,000 has been appropriated toward the support of 181 doctors in 69 medical schools in the United States and Canada.

John M. Russell, executive director and vice president, has reviewed the program in the annual report of the foundation that has just been released. All but four of the Scholars "are active in academic medicine and are doing their part to improve teaching and research in medical science." A few have been forced to supplement low academic salaries from sources outside their medical schools, chiefly from private practice. Twenty-three have become heads of departments in medical schools, one directs an important cancer research institute, two head research divisions in government laboratories, one is dean of a medical school, and five are assistant or associate deans. Twenty-five have the title of full professor, and 51 are associate professors. Twenty-three of the group hold both the Ph.D. and the M.D. degrees, 142 have M.D.'s, and 16 have Ph.D.'s.

Approximately two-thirds of the scholars have taught and conducted research in the clinical sciences (pediatrics, surgery, medicine, and so forth), and approximately one-third are teachers and investigators in the preclinical sciences (anatomy, bacteriology, physiology, and so forth). "A study of the research of both groups indicates, however, that the great majority of those listed as 'clinical' are really conducting investigations at the basic level, while many listed as 'pre-clinical' have contacts with patients and are working to some extent, at least, at the applied level."

Russell reports that for the second year in its history, the income of the foundation totaled more than \$1 million. The largest allocation, \$690,000, was appropriated for support of the 23 Scholars in Medical Science, at the rate of \$6000 a year for 5 years.

Three other grants were made in the

field of medical science. The sum of \$75,000 was given to Northwestern University Medical School for a 3-year study of an integrated program between pre-professional and professional training in medicine, and \$115,000 was appropriated to the National Research Council Division of Medical Sciences; of this, \$15,000 is for a study to determine whether an adequate number of young medical men and other scientists are being trained in research techniques in the health sciences, and \$100,000 is for support of the council's fellowship program during the study. The third grant of \$25,000 was made to the Harvard Divinity School as a contribution toward matching funds to meet a provision in the will of Mrs. T. W. Lamont. The late Mr. Lamont was president of the foundation.

In the Laboratories

■ Two United States firms have been selected to design and manufacture Venezuela's first atomic reactor and to furnish consulting engineering services, according to Humberto Fernandez-Moran, director of Instituto Venezolano de Neurologia e Investigaciones Cerebrales. The General Electric Company will design and manufacture a research reactor rated at 3000 kilowatts of heat, while the General Nuclear Engineering Corporation of Dunedin, Fla., will act as consulting engineers for the project. Walter H. Zinn, former director of Argonne National Laboratory, is president of General Nuclear.

The 2-year old IVNIC is an autonomous government agency and is international in character and scope. More than \$5 million has already been spent on its buildings and equipment, and when the new facilities are completed more than ten times that amount will have been spent.

■ Houston Technical Laboratories, instrumentation subsidiary of Texas Instruments Incorporated, has officially opened its new plant in Houston, Tex. The company manufactures seismic exploration equipment, including the Worden gravity meter.

■ Battelle Memorial Institute has announced completion of the nation's first privately owned Nuclear Research Center. The announcement followed the initial start-up of the institute's 1-million-watt reactor. The new machine is the largest pool-type reactor yet to be put in service in this country. It is designed exclusively for research purposes.

It uses solid uranium-235 fuel. The core, composed of fuel elements and boron control rods, is suspended 22 feet below the surface of a large pool of

highly purified water. The water serves as the coolant and as a shield to protect personnel from radiation. It is expected that the reactor will be operated 24 hours a day, 6 days a week. It was designed by Battelle physicists and engineered and built by the American Machine and Foundry Company.

■ Baxter Laboratories, Inc., Morton Grove, Ill., celebrated its 25th anniversary on 19 Oct. The company has been a pioneer in the commercial preparation of intravenous solutions.

Miscellaneous

■ Interscience Publishers, Inc., 250 5 Ave., New York, has announced publication of a new journal, *Combustion and Flame*, which will be the official journal of the Combustion Institute (International). Sir Alfred Egerton, F.R.S., is general editor. The journal is designed to act as a vehicle for papers that are at present widely scattered in many journals, and as an international forum for the discussion of problems of common interest to those working in the field of combustion. The journal will be quarterly and will have 500 pages and four issues per volume. The subscription price is \$16 a year, postage free.

■ The U.S. Civil Service Commission has announced a new examination for filling engineering and physical science positions in activities of the Potomac River Naval Command in and near Washington, D.C., and in the Engineer Center, U.S. Army, Fort Belvoir, Va. The entrance salaries range from \$4480 to \$11,610 a year.

■ A German firm, Deutscher Buch-Export und -Import GmbH, Leipzig C-1, Postfach 276, has announced that it has available German translations of current Soviet scientific and engineering publications.

Appearing in the December issue of *The Scientific Monthly* are the following articles: "Man as a link in complex machine systems," G. H. Mowbray; "Genetic principles in human populations," H. J. Muller; "Some peaceful uses of atomic energy," W. Kenneth Davis, Shields Warren, Walker L. Cisler; and "Gravity program of the U.S. National Committee for the IGY," George P. Woollard. The "Association Affairs" section includes a proposed change in the AAAS constitution, a report of the Traveling High-School Science Library Program, and some programs of the 1956 AAAS New York Meeting. Eleven books are reviewed. The index to volume 83 of *The Scientific Monthly* is also included.