Meritorious Service award from Augustana College. He was honored for "his outstanding contributions to society" and also in recognition of the fact that, as a near-octogenarian, he published two major books within a few weeks of each other. One was the *Education of Mentally Handicapped Children,* a volume in Harper's "Education for Living Series," edited by H. H. Rammera, and the other was *The Odyssey of a Psychologist,* a personal record of "pioneering experiences in special education, clinical psychology, and mental hygiene," that was published under his own imprimatur.

The following members of the Columbia University faculty retired on 30 June: HARRY STOLL MUSTARD, professor of public health practice and director of the De Lamar Institute of Public Health; JAMES BURNS ANDERSON, professor of medicine; GEORGE FRANCIS CAHILL, who joined the Columbia faculty in 1917 as an instructor in urology; MAURICE LENZ, professor of clinical radiology; FRANK LAMONT MELENY, who began teaching surgical techniques in 1919 and who was a codiscoverer of bacitracin; and WILLIAM BELL DINSMOR, professor of archeology.

A. G. LOCHHEAD, since 1923 chief of the bacteriology division of the Canadian Department of Agriculture, Ottawa, retired last month. Before joining the department he lectured at the University of Alberta. Through his leadership, the division has become known throughout the world as a center of fundamental research in soil microbiology. Lochhead is a member of many scientific societies. In 1940 he became a fellow of the Royal Society of Canada, and last year he was president of the Canadian Society of Microbiologists.

HARRY KATZNELSON, head of the general agricultural microbiology unit, has been appointed successor to Lochhead. His interest in bacterial viruses led to the development of a widely used diagnostic procedure for detecting bacterial plant pathogens in seed. He is also known for his research on diseases of the honeybee.

A bronze bust of the late ALEXANDER FLEMING, discoverer of penicillin, which is to be erected in the city park in Gijon, Spain, was completed recently by Manuel Laviada.

A travel award fund honoring the memory of ERWIN BRAND for his many years of service to the division of biological chemistry of the American Chemical Society was established by the division through donations from its members and from certain industrial firms. Travel expenses paid from this memorial fund enabled two biochemists, Sidney Schulman of the University of Buffalo and T. R. Riggs of Tufts College of Medicine, to attend the International Congress of Biochemistry in Brussels, Belgium, 1–6 Aug. Industrial firms that contributed were A. E. Staley Manufacturing Co., Decatur, Ill.; Burroughs Wellcome and Co., Inc., Tuckahoe, N.Y.; and Merck and Co., Inc., Rahway, N.J.

Necrology

EGON BRUNSWIK, Berkeley, Calif., 52, professor of psychology at University of California, 7 July.

DAVID CHEEVER, Boston, Mass., 79, associate professor of surgery emeritus at Harvard Medical School, former president of American Surgical Association, 13 Aug.

ALAN DEVOE, Hillsdale, N.Y., 45, author and naturalist, 17 Aug.

HERBERT J. FRENCH, New York, 62, metallurgist, vice president of International Nickel Company, formerly on research staff, 17 Aug.

GEORGE F. PADDOCK, Providence, R.I., 76, professor emeritus of astronomy at Lick Observatory in Mount Hamilton, California, 16 Aug.

THOMAS A. WAINWRIGHT, Dhahran, Saudi Arabia, 50, executive and engineer for Arabian Oil Co., 12 Aug.

ROBERT W. WOOD, Baltimore, Md., 87, research physicist at Johns Hopkins, authority on spectrum research, 11 Aug.

JOSEPH C. YASKIN, Philadelphia, Pa., 64, head of neurology department at Graduate School of Medicine, University of Pennsylvania, 10 Aug.

Education

■ The University of California and the Atomic Energy Commission have entered into a research contract under which the university will construct a nuclear reactor specifically designed for medical treatment and research. The AEC will contribute $75,000 toward the accomplishment of the project and will support an extensive program of research utilizing the reactor. The commission will also make available enriched uranium as fuel for the reactor, which will be constructed at the new medical center in Los Angeles. The university will erect a building to house the reactor at an estimated cost of $400,000.

The North American Aviation Corp. will design and build the reactor, which will be of the low-power water-boiler type. It will operate at a heat power level of about 5 kilowatts, with a maximum power of 50 kilowatts, and it will provide neutron flux up to 10^9 neutrons per square centimeter, per second.

The reactor, which will provide both gamma rays and thermal neutrons, will be used for the treatment of human patients and the training of students in radiation therapy and in reactor techniques and theory relative to the field of medicine. This installation will provide the West Coast with its first source of slow and fast neutrons sufficient for experimental work with animals and for treatment of human beings. The unit also will produce short-lived isotopes for experimental biology and medicine.

The reactor core will be located inside a 5- by 5- by 8-foot stack of graphite bars, shielded by a 5-foot thickness of high-density concrete. Radiation ports will lead from the core to a patient treatment room, laboratory, and another room where research on animals can be performed. An access port will permit materials to be irradiated in a channel leading inside the core itself, where radiation will be the strongest. The underground reactor wing housing the complete installation will be about 45 feet wide, 60 feet long, and 27 feet high. Welton Becket and Associates have been named architects. Rate of fission will be controlled by boron control rods.

■ Under the Oak Ridge Traveling Lecture Program, a joint activity of Oak Ridge National Laboratory and the Oak Ridge Institute of Nuclear Studies, 109 Oak Ridge scientists will make available their services as lecturers to colleges and universities, particularly those in the southern region, during the coming academic year. The lecture series is part of the Atomic Energy Commission's program for disseminating scientific and technical information to institutions of higher education.

According to a brochure that has just been issued, the participants have supplied a total of 188 possible topics, touching virtually every field of scientific endeavor. Copies of the brochure and additional information concerning the lecture program may be obtained by writing to the Chairman, University Relations Division, Oak Ridge Institute of Nuclear Studies, Box 117, Oak Ridge, Tenn.

■ In Indonesian and Jordanian elementary schools, where pupils once learned science only by repeating passages from textbooks, lessons are now being taught with laboratory equipment assembled from odds and ends—burned-out light bulbs, ink bottles, rubber tubing, and bits of string. The man who is chiefly responsible for introducing this practical apparatus, which costs from $10 to $11 per school, is a Canadian educator, Herbert H. Grantham of Vancouver, B.C.

In 1953, Grantham completed a 2-year mission in Indonesia for the United Nations Educational, Scientific and Cultural Organization under the technical

assistance program. Then in Sept. 1954, while on a leave of absence from his post as acting vice principal of the Provincial Teachers College at Vancouver, he went on a UNESCO assignment to develop science teaching in Jordan.

Seventy-five of his "kits," with the tools and raw materials needed to make a science "laboratory" for an elementary school, are now ready for distribution to Jordanian teachers. One hundred teachers have been trained in their use in refresher courses conducted by Jordanian educators and by Grantham.

At one village near Jerusalem, pupils have started their own natural science museum by bringing in leaves, butterflies, and lizards. Outside the school, a paper weather-vane tells wind direction, and the wind's speed is measured by an anemometer consisting of four paper cups whirling on an axle. Low-cost, locally made equipment for science laboratories has also been introduced by UNESCO technical assistance missions in Thailand, Peru, and the Philippines.

Grants, Fellowships, and Awards

■ A fellowship in pediatric neurology is available at the Children's Neurology Clinic of the Cook County Hospital in Chicago, Ill. The fellowship will provide clinical training in the diagnosis and rehabilitation of children with neuromuscular handicaps. In addition, the trainee will be expected to participate in a clinical laboratory problem. The annual stipend will range from $3000 to $5000, depending upon the qualifications of the applicant. For further information, write to Dr. M. A. Perlstein, 4743 N. Drake Ave., Chicago 32, Ill.

■ Lederle Medical Faculty awards for 1956–57 have been announced by the Lederle Laboratories Division of American Cyanamid Co. The award program will provide financial aid for a limited period to young individuals who have demonstrated capacities both as teachers and investigators in the fields of anatomy, biochemistry, microbiology, pathology, pharmacology, and physiology. This Lederle program is also intended to assist departments in offering opportunities for development to promising individuals.

Candidates for these awards must hold faculty rank, such as instructor or assistant professor, and should be persons who plan to continue teaching and research within the disciplines named. All awards will be made directly to a designated medical school in the United States or Canada and will be specified for the use of the department for the support of the stated grantee and his academic activities.

Awards will be made for a term not exceeding 3 years. The only restriction in the case of each recipient is that the total amount, which will be awarded at a rate to be determined by the award committee, shall not exceed $10,000 in any one year to any one grantee.

In general, three types of awards will be considered with favor: (i) an award that will bring into the department a new person who has not previously been supported either by the departmental budget or by research grants; such an award will be expected to strengthen both the teaching and research activities of the department; (ii) an award that will continue the salary of an individual previously supported on research grants when those grants have terminated; such an award will be expected to strengthen the teaching activities and to maintain the research activities of the department; (iii) an award that will supplement the salary of an individual to enable the department to retain him to perform teaching and research functions vital to the department.

There are no formal application blanks. Nominations for Lederle Medical Faculty awards should be submitted to the committee through the office of the dean of a medical school and should be endorsed by him. Only one candidate from each school will be considered in any given year. It is suggested that the most suitable candidate be selected by a faculty committee.

Nominations for awards to be activated during the academic year 1956–57 *should be submitted by 31 Oct.* For information address: Lederle Medical Faculty Awards, Office of the Secretary, Pearl River, N.Y.

■ The American Cancer Society has announced that its program of clinical fellowships begun in 1948 will continue through the year 1 July 1956–30 June 1957. The regulations governing this fellowship program are the same as those for 1955–56, with a single important change: a brief annual report of the fellow's activities shall be submitted to the medical and scientific director of the American Cancer Society via the executive officer of the institution in which the fellow is working. In addition, a brief statement concerning the clinical activities of each fellow shall be submitted by the chief of service.

In some instances, grants may be awarded directly to institutions in support of graded intramural training programs. Such traineeship grants may be fluid in nature.

Fellowships will be made available primarily to teaching institutions approved by the Council on Medical Education and Hospitals of the American Medical Association. Application for one or more fellowships should be submitted by the executive officer of the applicant's institution to Dr. Brewster S. Miller, American Cancer Society, 521 W. 57 St., New York 19.

The deadline for filing is 15 Sept. No application forms are necessary, but letters of application should include (i) number of fellowships applied for, (ii) funds available to the institution from other sources for partial support of fellows, (iii) nature of specialty contemplated for the fellow's training, (iv) name of individual under whose supervision the fellow will be trained and to whom he will be directly responsible, (v) date the fellowship will commence, and (vi) thorough documentation concerning the training the fellow will receive at the institution, including facilities available—that is, tumor clinics, opportunities for diagnosis, treatment, clinical research, and so forth.

In the Laboratories

■ The Atomic Energy Commission has announced that projects proposed by the Detroit Edison Co. and Associates and by the Nuclear Power Group led by Commonwealth Edison Co. of Chicago give promise of significantly advancing power reactor technology and providing an acceptable basis for negotiation under the Power Demonstration Reactor Program (PDR). Accordingly, the commission has authorized negotiations with the two groups.

Detroit Edison and Associates propose construction and operation of a fast-breeder reactor plant with 100,000-kilowatt capacity to be completed in late 1959. The plant is to be located within the Detroit Edison's service area.

The Nuclear Power Group's proposal, which needs only to satisfy requirements applicable to AEC licenses in order that the project may proceed, is for a boiling-water reactor plant of 180,000-kilowatt capacity to be completed in 1960. The planned location is at the junction of the Kankakee and Des Plaines rivers about 44 miles southwest of Chicago. The group's license application is under consideration by the AEC.

The AEC also announced that, as submitted, the proposals of the Consumers Public Power District of Columbus, Neb., and the Yankee Atomic Electric Co. were not acceptable bases for negotiation. However, the commission has authorized discussions with both to determine whether their proposals can be changed so that negotiations can be undertaken.

The Consumers Public Power District proposes a sodium graphite reactor plant of 75,000-kilowatt capacity to be completed in 1958. The location is not yet determined. The Consumers District is