

necessary for light emission. This compound, called ATP, is present in all living things and plays a part in the utilization of energy.

McElroy for a number of years has been using large quantities of fireflies' tails in his efforts to learn how energy is liberated. Through this work with fireflies, he discovered that luciferin, a compound in the firefly's tail or lantern, when combined with ATP and the enzyme luciferase, produces light. The amount of light varies with the amount of ATP; hence, the combination of small amounts of tissue of the lantern with a fixed amount of luciferin and luciferase will determine how much ATP is in the tissue. McElroy will use clams in this study for the first time.

New Nuclear Laboratory

The \$50 million atomic research laboratory in Middletown, Conn., where the Air Force intends to develop a nuclear aircraft engine, received its first employees last month. Pratt and Whitney Aircraft Corporation, which will operate the laboratory for the Air Force, has moved equipment and 500 employees who have been working on the project from South Windsor, Conn., into the Maromas section of Middletown. The Air Force facility, known as CANEL, covers a 1200-acre tract in an isolated area bordering the Connecticut River. Under construction for almost 2 years, the plant will employ about 3500 when it goes into full operation late this year.

Educational TV

The Fund for the Advancement of Education (New York) has announced the establishment of the National Program in the Use of Television in the Public Schools, for which the fund is making available \$986,000. Taking part in this program initially are eight large cities—Atlanta, Cincinnati, Detroit, Miami, Norfolk, Oklahoma City, Philadelphia, and Wichita—and two states, Nebraska and Oklahoma. Grants have been made to the public school authorities in these cities and states on a matching dollar basis to begin regular classroom instruction over television in the elementary and high schools. In each case television teaching to large classes will begin next September.

The fund has over the past 2 years supported a number of experiments in the use of television in the public schools—notably in Hagerstown (Md.), St. Louis, Pittsburgh, and Chicago. These demonstrations have already shown that a teacher can extend his services through the use of television, that pupils learn at

least as much in television classes as with conventional instruction, that television saves a great deal of time and thus permits teachers to give pupils more individual attention. The National Program in the Use of Television in the Public Schools will try to find out whether the experience in a few communities can be applied to most American schools.

Proposed Legislation

Of the many bills introduced in Congress, some have a special relevance to science and education. A list of such bills introduced recently follows.

HR 7431. Make an appropriation to National Science Foundation to construct and equip a geophysical institute in Territory of Hawaii. Burns (D Hawaii) House Appropriations.

HR 7245. Authorize Secretary of Army, Secretary of Navy, and Secretary of Air Force to make grants to educational institutions for construction of military and naval science buildings. Rabaut (D Mich.) House Armed Services.

HR 7171. Create a Federal Advisory Council of Health in Executive Office of the President. Wainwright (R N.Y.) House Interstate and Foreign Commerce.

HR 7388. Regulate interstate distribution and sale of packages of hazardous substances intended for household use. Curtis (R Mo.) House Interstate and Foreign Commerce.

H Res 243. Express sense of House that Secretary of Health, Education and Welfare should investigate the Santa Cruz plan for rehabilitation of hospitalized mental patients. Gubser (R Calif.) House Interstate and Foreign Commerce.

S J Res 85. Amend act approved 7 Aug. 1935 (P.L. 253) concerning U.S. contributions to International Council of Scientific Unions. Green (D R.I.) (by request) Senate Foreign Relations.

HR 7167. Amend section 1314 of act of 7 Aug. 1953 (P.L. 207) 83rd Congress (67 Stat. 418) *re* authority of Federal officers and agencies to withhold information and limit availability of records. Hoffman (R Mich.) House Appropriations.

HR 7172. Amend section 3 of chapter 324 of act of 11 June 1946 (60 Stat. 238) to clarify and protect right of public to information. Dawson (D Ill.) House Judiciary.

S 1949. Facilitate the administration of the public lands. Murray (D Mont.) (by request). Senate Interior and Insular Affairs.

S 2119. Expedite utilization of television facilities in our public schools and colleges and in adult training programs. Magnuson (D Wash.) Senate Interstate and Foreign Commerce.

S 2039. Clarify the requirements *re* performance of labor imposed as a condition for the holding of mining claims on Federal lands pending the issuance of patents therefor. Bible (D Nev.) Senate Interior and Insular Affairs.

HR 7253. Amend section 27 of act entitled "An act to promote the mining of coal, phosphate, oil, oil shale, gas and sodium on the public domain" to increase the aggregate acreage of coal leases that may be held by one person in any one state. Thomson (R Wyo.) House Interior and Insular Affairs.

S 2072. Establish a Chiropractic Section in Medical Service Corps of Army. Case (R S.D.) Senate Armed Services.

HR 7542. Authorize Secretary of Navy to take possession of naval oil shale reserves and to experiment in extraction of synthetic liquid fuels from oil shale in interest of national security. Staggers (D W.Va.) House Armed Services.

HR 7444. Amend Veterans' Readjustment Assistance Act of 1952 to make educational benefits provided for therein available to all veterans, whether or not they served during a period of war or of armed hostilities. Beckworth (D Texas) House Veterans' Affairs.

S 2077. Direct Secretary of Department of Interior to undertake a survey in order to assist in promoting the production of concentrated iron ore and steel in southern Appalachian area. Talmadge (D Ga.), Russell (D Ga.), Thurmond (D S.C.), Johnston (D S.C.), Sparkman (D Ala.), Hill (D Ala.), Kefauver (D Tenn.), Ervin (D N.C.), Scott (D N.C.).

Scientists in the News

H. BURR STEINBACH, professor of zoology at the University of Minnesota, has been appointed chairman of the department of zoology at the University of Chicago, effective 1 July. He succeeds the late Carl R. Moore. Steinbach is well known for his work in bioelectric phenomena, injury potentials, the sodium-potassium equilibrium of cells, ontogenesis of enzyme systems in chicks, and the enzyme systems of cellular inclusions.

HARVEY BROOKS, investigator of nuclear power and solid-state physics, will become dean of engineering and applied physics at Harvard University on 1 Sept. Brooks, who is Gordon McKay professor of applied physics, is in England this year conducting research as a Guggenheim fellow at the Cavendish Laboratory, Cambridge.

He will succeed JOHN H. VAN VLECK, Hollis professor of mathematics and natural philosophy, who plans to resume his research in mathematical

physics. Van Vleck also expects to prepare a greatly enlarged edition of his *Theory of Electric and Magnetic Susceptibilities*, published in 1932.

MARGARET G. ARNSTEIN, who is to become chief of Public Health Nursing for the U.S. Public Health Service on 1 July, has been named the first visiting professor under the Annie W. Goodrich Endowment at the Yale University School of Nursing. She will take a leave from her Government post to teach at Yale University next spring.

CARL H. KOONTZ, professor of civil engineering at Worcester Polytechnic Institute, has been named head of the department. He succeeds the late Andrew H. Holt.

D. J. RICHEY and C. L. MORGAN, both of Clemson College, have received the annual Jefferson award of the South Carolina Academy of Science for their paper "Control of leucocytozoon infection in turkeys." The award is sponsored by the Phipps and Bird Company, Richmond, Va.

PAUL F. RUSSELL, chief malaria consultant for the Rockefeller Foundation, has received the Darling Foundation prize for "outstanding achievements in the control of malaria." The presentation was made in Geneva, Switzerland, by Sabih Hassan al-Wahbi of Iraq, president of the World Health Assembly.

ROBERT L. FRENCH, research psychologist for the Air Research and Development Command, has been appointed technical director of the Operator Laboratory belonging to ARDC's Air Force Personnel and Training Research Center, Lackland Air Force Base, Texas.

RICHARD A. GOFF has replaced J. TEAGUE SELF as chairman of the department of zoology at the University of Oklahoma in accordance with the university's policy of rotating departmental chairmanships. Self had served as chairman for the past 12 years because he had been reappointed to serve two extra terms.

JOHN P. NASH, for the past 7 years research professor of applied mathematics at the University of Illinois, has been appointed manager of the information processing division of Lockheed Missile Systems division's research and development branch. Nash, who has offices at the missile division's research and development center in Palo Alto, Calif., will supervise the activities of the mathematics and computer services department.

JOHN J. SHEININ, president of Chicago Medical School, was one of several Americans to receive the Horatio Alger award for 1957. The award was established several years ago by the American Schools and College Association as an effort to combat a trend of thought that equal opportunity was a thing of the past.

Each year the association has awarded medals to six or seven people whose careers typify the results of individual initiative, hard work, honesty, and adherence to traditional ideals. Hundreds of names of business and professional leaders from all walks of life are submitted to the nominating committee. After screening, some 18 or 20 of these names are submitted to about 3000 campus leaders in more than 500 colleges and universities. These people, by their votes, select those whose careers they consider best reflect the spirit of achievement in spite of obstacles.

JOHN H. PETERS, clinical associate professor of medicine at Emory University, has been appointed assistant medical director for research for the American Heart Association. He will be responsible for administering the national research support program conducted by the association and its affiliates.

UGO FANO, chief of the nuclear physics section of the National Bureau of Standards, has been awarded the Department of Commerce gold medal for exceptional service, the department's highest employee honor. This award recognizes his "outstanding scientific accomplishment in the development of radiation theory." Fano is a specialist in the penetration and diffusion of radiation through matter, and his theories are widely used in connection with nuclear reactor shielding problems. At present he is on leave from the bureau, on a Rockefeller public service award, to write a book on quantum physics for nonphysicists.

GEORG VON BÉKÉSY, senior research fellow in psychophysics at the Psycho-Acoustic Laboratory, Harvard University, has received the 1957 gold medal of the American Otological Society for his contributions to the progress of otology.

JEROME HUNSAKER of Boston, Mass., has received the gold medal of the Royal Aeronautical Society (London). He was cited for "his contributions to aeronautical research and education, including his inspired chairmanship of the National Advisory Committee for Aeronautics, whose work has so greatly benefited aeronautical activities everywhere."

B. D. THOMAS, director of the Battelle Institute, Columbus, Ohio, has been awarded an honorary degree of doctor of engineering by the Michigan College of Mining and Technology (Houghton, Mich.) "in recognition of his high attainments in engineering." The degree was presented on 10 May on the occasion of the inauguration of J. R. VAN PELT as sixth president of the college. Thomas was principal speaker at the inauguration.

JOHN J. BITTNER, director of the University of Minnesota's division of cancer biology, will receive the honorary degree of doctor of medicine and surgery from the University of Perugia, Italy, on 28 July during the second International Symposium on Mammary Cancer.

ULF GRENANDER of the University of Stockholm will fill the newly established chair of mathematical statistics and probability at Brown University. He will develop courses, teach, and direct research when he takes up his duties on 1 Sept.

ARTHUR C. TOTTEN, chairman of the department of orthodontics of the Columbia University Faculty of Medicine, was honored recently at a testimonial dinner. He will retire at the end of the current term after 28 years of service. He plans to continue in private practice.

Recent Deaths

HAVEN EMERSON, New York, N.Y.; 82; public health physician, former Health Commissioner of New York City and founder of the New York Heart Association; 21 May.

HAROLD M. HIPSH, University Park, Pa.; 34; head of the department of aeronautical engineering at Pennsylvania State University; 23 May.

MAURICE J. LEWI, New York, N.Y.; 99; president of the New York College of Podiatry and early campaigner for recognition of podiatry as a branch of the medical profession; 27 May.

HENRY H. PARKE, Sycamore, Ill.; 81; at one time professor at West Virginia State College of agriculture and assistant state director of agriculture for Illinois, a founder of the American Farm Bureau Federation and the National Live Stock Producers Association; 26 May.

ROY W. SCOTT, Cleveland, Ohio; 69; professor of medicine at Western Reserve University School of Medicine, director of City Hospital's department of medicine, and former president of the American Heart Association; 25 May.