

engineering and aeronautics; geological sciences; and physics, mathematics, and astronomy.

Now in the sixth year, the Gravity Research Foundation's annual contest for "the best 1500-word essays on the possibilities of discovering: (a) some partial insulator, reflector, or absorber of gravity, or (b) some alloy, or other substance, the atoms of which can be agitated or rearranged by gravity to throw off heat, or (c) some other reasonable method of harnessing the power of gravity," offers five awards of from \$100 to \$1000. The essays must be received by the Foundation before October 15, 1954, and the prizes will be awarded on December 1st. One stipulation is that, in any proposed scheme, no outside energy be required. Further information can be obtained from the Gravity Research Foundation, New Boston, New Hampshire.

Laboratories

The Raw Materials Development Laboratory at Winchester, Massachusetts, operated by the American Cyanamid Company for the Atomic Energy Commission since 1951, will henceforth be operated by the National Lead Company. This Laboratory is devoted to the development of processes for the treatment of uranium-bearing ores in the production of uranium concentrates. The National Lead Company has had considerable experience in the recovery of metals from various kinds of ores, and maintains a research division working on process development. The change at Winchester took place on July 1st.

Arthur D. Little, Inc. has acquired the research and development division and the laboratories of the Merrill Company of San Francisco to be its base on the West Coast. The Merrill laboratories and their present staff will make up the Western Laboratories Division of ADL under the technical direction of Charles G. Harford. The laboratories are expected to develop along lines of particular interest to industry along the West Coast.

The Remler Company, electronics manufacturer in San Francisco, has announced the creation of a new research division, Gray Scientific. The division will be active in research and development work for industry and the armed services; devoted principally to the fields of radio, radar, and electronic physics, it "will perform only research and development services", according to a release by Remler. Winfield W. Salisbury, until recently director of accelerator research at the California Research and Development Company, will direct work at Gray Scientific.

Albert E. Caswell, professor emeritus and former head of the department of physics at the University of Oregon, died on June 18th in Eugene, Oregon, at the age of seventy. He was born in Winnepeg, Manitoba and received his doctor's degree from Stanford Univer-

sity in 1911. After two years at Purdue University he came to the University of Oregon in 1913. He was appointed chairman of the department in 1934 and served in that capacity until 1949. He was a National Research Fellow at Princeton in 1919-20 and during World War II was a member of the Radiation Laboratory at Massachusetts Institute of Technology. Professor Caswell was the author of several papers and of a widely used text in general physics. *An Outline of Physics*. He was a fellow of the American Physical Society and a member of the American Association of Physics Teachers.

Saul Dushman, assistant director of the General Electric Research Laboratory from 1928 until his retirement in 1948, died on July 7th at his home in Scotia, New York. He was sixty-five years old. A naturalized citizen of the United States, Dr. Dushman was born in Russia and educated in Canada, graduating from the Toronto high school with the highest scholastic record ever achieved there. He received his PhD at the University of Toronto in 1911 and shortly thereafter joined the G-E Laboratory in Schenectady. His early work was in physical chemistry but he soon began working in the field of electron emission from hot filaments, studies which provided basic information in the development of electron tubes. It was during the course of these researches that he began investigations in high vacuum. His interest in this field continued until long after his retirement following some thirty-seven years as a G-E scientist. As one of the Laboratory's pioneer staff members, Dr. Dushman always took a deep interest in the human side of Laboratory activities. Known unofficially as the Laboratory's "dean of men", he made a special effort to welcome new members of the staff and make them feel at home. His colleagues referred to him as the Laboratory's "greatest morale builder". He served for many years on the committee of awards for G-E's Coffin Fellowships, and was named to the advisory council of Princeton University's department of physics in 1942. Dr. Dushman was a fellow of the American Physical Society.

J. C. Hubbard, research professor of physics at the Catholic University of America, died on August 2nd of a heart attack. He was seventy-five. He received a BS degree from the University of Colorado and a PhD from Clark University. An instructor at Simmons College, 1904-05, and an assistant professor at New York University the following year, he was professor and head of the physics department at NYU from 1916-27. Following his retirement from Johns Hopkins in 1947, where he had taught for twenty years, he joined the staff of the Catholic University where he was in charge of the ONR ultrasonics contract. A pioneer in the field of ultrasonics, he was awarded the Mendel Medal of Villanova College in 1946. Dr. Hubbard was a charter member of the Acoustical Society of America and a fellow of the American Physical Society.