

Vegas, with participation by the Department of Defense, the Federal Civil Defense Administration, and other agencies.

Grants and Scholarships

Research Corporation, nonprofit foundation for the support of scientific research, made a total of 258 grants during the past fiscal year, amounting in all to \$797,689, according to its annual report published on January 28th.

Central Scientific Company will offer two scholarships for graduate study in the physical sciences or engineering for the academic year 1953-54. The scholarships, which are limited to U. S. citizens, will provide an award of \$1000 for a student working for his master's degree and \$1500 for a student at the doctor's level. Those interested should apply not later than April 15th to the Scholarship Committee, Central Scientific Company, 1700 Irving Park Road, Chicago 13, Illinois. Applications should include personal data, school chosen for graduate study, courses contemplated, some description of applicant's research problem, and a transcript of college credits.

The **Texas A. & M. College** department of oceanography has announced graduate and research assistantships in physical oceanography, available to outstanding graduates in physics for 1953-54, amounting to \$1500 each. Also available are fellowships in engineering oceanography and assistantships in biological, geological, chemical, and meteorological oceanography, providing \$900 to \$3000 each. Assistants in physical oceanography take standard curricula leading to the MS or PhD degree, as well as additional graduate work in physics and in the basic sciences or in engineering. In the assistantships, duties with the department consist of aiding in the program of oceanographic research sponsored by various government agencies and by industry. Applications should be submitted by March 30, 1953. Most awards will be announced April 15, although additional openings are expected to occur after that date. Further information may be obtained by writing to the Head of the Department of Oceanography, College Station, Texas.

Colleges and Universities

A helium liquifier designed to cool helium and other gases to temperatures as low as -455° F has been placed in operation at Duke University's recently-established low-temperature laboratory, where research is in progress on microwave and radio frequency spectroscopy, superconductivity, and the superfluid behavior of helium. William M. Fairbank, associate professor of physics at Duke, is director of the laboratory.

Spectroscopia Molecular, a mimeographed bulletin of information and news of interest to molecular spectroscopists, is issued monthly (since May 1952) in the international language, Interlingua, by the physics department's spectroscopy laboratory at Illinois Institute of Technology, Chicago 16, Illinois. Forrest F. Cleveland, professor of physics at Illinois Tech, is the editor.

Industry

New developments in British scientific and optical instruments will be a feature of the British Industries Fair this spring when thirty-eight leading British manufacturers will display their products at Olympia Hall in London from April 27 to May 8.

The **spring session** of the semi-annual X-ray Diffraction School will be held at the plant of North American Philips Company, Inc., 750 South Fulton Avenue, Mount Vernon, N. Y. during the latter part of April. Basic subjects to be covered will include x-ray diffraction, new high and low temperature camera techniques, fluorescence analysis, geiger-counter x-ray spectrometry, and electron microscopy and diffraction.

Bendix Aviation Corporation has announced the formation of a new division for the development and production of digital computers. The new division, which will have its headquarters at Hawthorne, California, proposes to deal with "specific computing problems raised by scientific advances in various industries, in colleges and universities, and in the armed forces".

Resistance Products Company has announced the opening of a new plant at 914 S. 13th Street in Harrisburg, Pa., to provide increased facilities for the manufacture of resistors.

Clarence F. Hale, professor emeritus of physics at New York State Teachers College at Albany, died on January 30th at his home in that city after suffering a heart attack. He was seventy-five years old. A native of South Manchester, Connecticut, Dr. Hale was a graduate of Wesleyan University and received his PhD in inorganic chemistry at Cornell University in 1909. Dr. Hale was professor of physics at Teachers College for thirty-one years prior to his retirement in 1942. He was a visiting professor at Wesleyan from 1942 until 1945.

John J. Hopfield, physicist at the optics division of the Naval Research Laboratory at Bethesda, Maryland, died after a brief illness on January 8th at the age of sixty-one. Born in Poland, Dr. Hopfield was a graduate of the University of Syracuse and received his PhD degree from the University of California at Berkeley in 1924, where he taught until 1930. From 1930 to 1931 he worked at Purdue University on a research fellowship and from there went to the University of Chicago where he worked with A. H. Compton on cosmic radiation. After serving with the Libbey-Owens-Ford Glass Company for almost ten years he joined the staff of the Department of Agriculture in 1942 as a research physicist, and the following year was employed by the National Bureau of Standards. From 1945 to 1951 he did work on solar ultraviolet spectroscopy at the applied physics laboratory research center of The Johns Hopkins University. Dr. Hopfield was a fellow of the American Physical Society and a member of Sigma Xi.