with "cold" neutrons used to study the motions of atoms in crystals.

Hughes has written several books: *Pile Neutron Research* (Addison-Wesley, Cambridge, Mass., 1953), *Neutron Optics* (Interscience, New York, 1954), *Neutron Cross Sections* (Pergamon, New York, 1957), and *On Nuclear Energy* (Harvard University Press, Cambridge, Mass., 1957). In addition, he has written many articles for various technical and nontechnical journals and periodicals. He spent the 1953–54 academic year as a Fulbright professor in Europe, served as chairman of the Federation of American Scientists, and prepared the compilation *Neutron Cross Sections,* which was distributed at the Geneva Atoms for Peace Conference in August 1955. *Pile Neutron Research, Neutron Optics,* and *Neutron Cross Sections* have all been translated by the U.S.S.R. into Russian. At present he is managing editor for a series of books entitled *Progress in Nuclear Energy,* published by Pergamon Press, London. Several trips to Europe have afforded him an opportunity to keep in touch personally with atomic energy research in many countries on both sides of the Iron Curtain, the latest visit having been a trip to Poland and the U.S.S.R. at the invitation of the respective Academies of Science of these countries.

Hughes will be in Geneva, Switzerland, late this summer as one of the U.S. representatives to the Second International Conference on Peaceful Uses of Atomic Energy. He has been requested by the secretary-general of the conference to present a paper reviewing the most recent world-wide nuclear data of technical importance. In connection with the conference, a second, completely revised edition of *Neutron Cross Sections* has recently been completed at Brookhaven National Laboratory under Hughes' supervision. It is now being published by the U.S. Government Printing Office for distribution at the Geneva meeting and for general sale.

The Physical Science Study Committee, recognizing the scarcity of interesting literature of science at the high school level, has launched a new program, under a grant from the National Science Foundation to the Massachusetts Institute of Technology, to revise the teaching of physical sciences in the high schools. As a supplement to this program, Hughes has recently completed a monograph for the committee, entitled *The Story of the Neutron.*

In addition to being an authority on nuclear physics, Hughes has also written on the relationship of science to society for newspapers and magazines, and has recently completed a chapter "Atoms, energy and peace" for Lyman Bryson's

forthcoming book, *An Outline of Man's Knowledge.*

Hughes' wide experience in research and in publishing make him particularly well qualified for membership on the Editorial Board. The editorial staff takes pleasure in announcing his appointment and in welcoming him to the board.

Relocation of the 1959 and 1961 Annual Meetings of the AAAS

When Denver was chosen as the site of the December 1959 annual meeting of the AAAS, it was expected that new, large hotel and exhibit facilities, now under construction, would go into operation by September 1959. It is now unlikely that the contract date will be met. The other facilities of Denver, though some have been increased, are inadequate for a large-scale meeting that would also be compact and convenient. Accordingly, the AAAS Board of Directors authorized a postponement of the Denver meeting until 1961 and other arrangements for next year. The Executive Committee has just approved the following schedule: December 1959, Chicago (instead of Denver); December 1960, Philadelphia (no change); December 1961, Denver (instead of Milwaukee); December 1962, Boston (no change); December 1963, Milwaukee.

It is regretted that these changes are necessary. Some of the societies have already appointed representatives on the AAAS Council from the Denver area and many have already given thought to local program chairmen for 1959. It is hoped, however, that this announcement arrives in time to avert any serious inconvenience.

The association has not met in Chicago since 1947 and next year's meeting there—in large hotels in the "Loop," such as the remodeled Morrison and the Sherman, will be of maximum convenience. The first winter meeting of the AAAS in Denver in 1961 will profit by the 2-year delay.

RAYMOND L. TAYLOR

AAAS

Science Education for Negroes

The National Urban League, New York, a voluntary interracial agency, has announced plans for a nationwide educational program designed to direct a larger number of Negro students into careers in scientific and technical fields. The program, entitled Tomorrow's Scientists and Technicians, will be conducted by local Urban Leagues throughout the nation "to search for and discover youth who have high potential ability for careers as professional workers and technicians, and to provide them with adult encouragement, guidance and assistance to help them reach their potential." While the program is designed especially for Negro youths, it will not be restricted to them.

A National Technical Advisory Committee of scientists and technicians drawn from business, industry, labor, and education will serve as program consultants. This group will be headed by J. Ernest Wilkins, Jr., assistant manager of research and development for the Nuclear Development Corporation of America at White Plains, N.Y. Also, a national sponsoring committee representing varied civic interests is supporting the 10-year effort, which is expected to cost at least $100,000 a year.

The program will acquaint adult leadership groups in hundreds of communities with ways to help motivate students to raise their career aspirations. The program will include group guidance sessions for parents and youth; face-to-face meetings with persons of achievement; visits to colleges to learn about admission requirements; scholarships; occupational trips to offices and industrial plants; visits to science exhibits and fairs; and part-time and summer jobs.

Although the present occupational position of the Negro in America is better than it has ever been, many gains remain to be made. Negroes are very poorly represented among the nation's scientists and in the professions generally. Of the 28,000 engineers who were graduated from the nation's schools last year, fewer than 200 were Negroes. The situation is similar for other professional fields.

Thousands of able Negro youths do not get encouragement, either at home or in school, to work toward high scholastic goals. With no motivation, and with fear that years devoted to difficult studies would lead only to frustration, these

young people lose ambition. Many leave high school before graduation. Others remain to graduate but find occupations far below their potential. Only 5 percent of all Negro high-school graduates enter college, as against 25 percent of white graduates.

AAAS Theobald Smith Award

The Theobald Smith Award of $1000 and a bronze medal, which has been given yearly since 1937 (except for a lapse during the war years) by Eli Lilly and Company of Indianapolis, Ind., under the auspices of the AAAS, will be presented at the association's 125th meeting in Washington, 26–31 Dec. Nominations are now being requested for the award. They may be made by fellows of the AAAS and should be sent to the secretary of the Section on Medical Sciences, Dr. Allan D. Bass, Department of Pharmacology, Vanderbilt University School of Medicine, Nashville 5, Tenn.

The prize is given for "demonstrated research in the field of the medical sciences, taking into consideration independence of thought and originality." Any investigator is eligible who was less than 35 years of age on 1 Jan. 1958 and who is a citizen of the United States. The research is not to be judged in comparison with the work of more mature and experienced investigators.

Nominations must be received *before 1 Sept.* The secretary requests that six copies of all data be submitted. The nomination should include a curriculum vitae, a statement summarizing the nominee's scientific contributions with an evaluation of their significance, and reprints of his or her more important publications.

The committee of judges consists of Alfred Gellhorn, Institute of Cancer Research, Columbia University College of Physicians and Surgeons, New York; Horace W. Magoun, University of California Medical School, Los Angeles; Joseph L. Melnick, Baylor University College of Medicine, Houston, Texas; and Albert B. Sabin, Children's Hospital Research Foundation, Cincinnati, Ohio. Gordon K. Moe, New York Medical Center at Syracuse, chairman of Section N–Medical Sciences, is chairman, *ex officio*; Dr. Bass will serve as *ex officio* secretary.

New Electromagnet

A continuously operating electromagnet of approximately 100,000 gauss has been constructed and put into operation at the Berkeley campus of the University of California. The new machine, which was built at the university's new low-temperature laboratory, has the features of ultra-high strength, continuous operation, homogenous field, and a volume of field of about 30 cubic inches. These characteristics make the instrument suitable for precise measurement of the effect of a magnetic field on the properties of materials.

Extremely low temperature-readings are expected during the course of experiments conducted with the magnet. William F. Giauque, Nobel laureate and head of the laboratory, expects to reach temperatures below those reached in past work. In the 1930's Giauque attained a reading of −459.55°F.

The magnet is a solenoid 26 inches long and 15 inches in diameter, with a center hole 4 inches in diameter. Despite its small size, in comparison with the magnets used in cyclotrons, the new device produces a much larger magnetic field than cyclotron magnets.

Using 10,000 horsepower of electrical energy, which is converted into heat in the course of maintaining the field, the magnet requires large-scale auxiliary equipment for cooling. Approximately 300 cubic feet of kerosene are pumped each minute through annular spaces between layers of the conductor in the solenoid and then are passed through pipes over which water flows. The magnet is operated in an atmosphere of carbon dioxide and nitrogen.

The magnet will be used for study in a variety of fields, among which are: entropy measurements, solid-state physics, nuclear alignment of radioelements, temperature scale and thermometry, heat capacity, magnetic measurements, thermodynamic relationships of magnetic data, and spectroscopic observations at low temperatures.

IGY Notes

A suggestion for a 6- to 12-month extension of the International Geophysical Year was made by the vice president of the U.S.S.R. IGY Committee in a recent issue of the Soviet magazine *New Times*. Citing the late starts of many IGY participants, the atypicality of meteorological phenomena since the opening of the study period on 1 July 1957, and the waste inherent in abandoning uncompleted antarctic programs, Y. Boulanger concluded his statement by saying: "We Soviet scientists are confident that the extension of the IGY and the antarctic program and broader international cooperation in these fields would be of inestimable value to science."

* * *

Data from the antarctic phase of the United States' IGY effort will be processed at two midwestern universities. Ohio State University will analyze glaciological information gathered at six IGY stations, and the University of Wisconsin will handle material from the fields of seismology and gravity. The two data-reduction centers, designated and supported by the National Science Foundation, will be staffed largely by personnel recently returned from Antarctica where they collected the data that will now be subjected to analysis.

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Another IGY project, the Dolphin Expedition, carried out by the Scripps Institution of Oceanography and the U.S. Fish and Wildlife Service, has mapped a new subsurface current of gigantic dimensions in the area of the intersection of longitude 140° W with the Equator. Flowing east along the Equator to the Gallapagos Islands, the "river" is calculated to be 3500 miles long, 250 miles wide, and 1000 feet deep, and to lie only 100 feet below the westward-flowing surface South Equatorial Current. Held to be comparable in importance with the discovery of the jet stream in the atmosphere, the new current, it is hoped, will be named in honor of Townsend Cromwell, who discovered it in 1952 while working for the Fish and Wildlife Service.

Soviet Education

Edward H. Litchfield, chairman of a group of American educators which has just completed a survey of higher education in the Soviet Union, recently issued a preliminary report on the findings of the group.

Two aspects of the report stand out, particularly when a comparison is made with American educational patterns: first, the general attitude of Soviet society toward higher education, and, second, the physical plant of the educational system.

There is, among policy makers and students in the Soviet Union, "an almost universal belief in the value of higher education." "Students . . . regard higher education as of tremendous importance. Two to three times as many apply as are accepted. Many now and 80 percent in a few years will be required to work in industry for two years before entering the university. Those who are finally admitted are expected to work from nine to ten hours each day six days a week plus home study on Sunday in many cases. In addition, they are expected to participate actively in scientific societies and sports clubs. . . .

"Industry releases its employes at full pay for more than 250 million man hours each year in order to permit the workers to do work in universities or in