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.

* * *

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