tion of a scientific program on the continent of Antarctica. Two basic administrative concepts are used by Jones and his staff (which is composed largely of former IGY personnel): that scientific personnel at the various stations should be free of housekeeping duties during their stay, and that a dual command structure should be established, with a Navy doctor in charge of the service personnel who maintain the bases and a scientist in charge of the scientific party. This set-up has worked well, and differences between the military and the parties of scientists have been rare. The general attitude is one of cooperation, and many of the Navy personnel take considerable interest in the work of the scientists.

The National Science Foundation administrators have developed a familiarity with naval practices and procedures that is of value to them in their conduct of the program. When it has been determined that a certain action is needed, Jones makes a request to Rear Admiral David M. Tyree, commander of the Antarctic Support Force, who in turn issues an order to the relevant unit under his command. A parallel procedure is followed by representatives of the scientific parties at the various stations on the continent.

Jones, who had been acting head of NSF's Office of Scientific Information Services before taking on his current job, expects that the antarctic program will continue indefinitely. Behind the program and the new direction that it is taking lies a great deal of his thinking. In a recent interview in Christchurch, New Zealand, he explained his position on the continuation of the program: "In order to sustain and keep a research program virile over a long time, I believe it is essential to shift away from the wholly-planned program, carried on in the field by hired technicians and analyzed by scientists or machines at home, to support of the individual in a research program in which he is deeply interested, while at the same time maintaining a reasonable balance of subject areas."

Chemistry Teaching Method Being Tested

A new method for teaching beginning chemistry, one that teaches students "to think like chemists," is now being tested in nine United States high schools, according to Laurence Strong, professor of chemistry at Earlham College and director of the project that developed the method. The present test, financed by a $90,000 National Science Foundation grant, is the culmination of approximately 3 years of work by a number of college and high-school chemistry teachers. The program, which has been made possible by financial contributions from various foundations, has had the support of the Division of Chemical Education of the American Chemical Society.

The initial conference leading to the new course was held at Reed College in the summer of 1957, under the direction of Arthur Scott and Harry Lewis. The meeting was financed by the Crown Zellerbach Foundation. A year later the group met again, at Wesleyan University, this time supported by the National Science Foundation. A writing conference was held last summer, at Reed College, devoted to the actual construction of the new course and the writing of the textbook. This work, also financed by NSF, was directed by Strong and by Arthur H. Livermore, professor of chemistry at Reed.

The Idea for the Method

The idea for the new teaching method grew out of the conviction of Strong and others that the conventional beginning-chemistry course dealt with isolated facts and technology which students were required to memorize, rather than with the logical pattern of chemistry. As Strong explains:

"Until now the emphasis in beginning chemistry has been on the factual material of chemistry, but not on what lies behind the facts. No basis for understanding the basic ideas of chemistry has been given. The new course will present the facts against a background of ideas. It is our hope that tests will show that students can take these ideas and work out the answers to new problems for themselves."

Called the "Chemical Bond Approach Project," the new method is based on the idea that atoms are tied together by bonds and that the manner in which they are tied together is an important factor in determining the chemical makeup of a substance. Strong says that if students understand this basic factor, "they can gain an initial insight into the possibilities of predicting the properties of yet-to-be-made compounds. By such a procedure the student . . . is able to focus on some of the most dramatic aspects of chemistry. There are great possibilities in this new approach of enlisting the interest of students at every level of ability."

High schools which are participating in the present test are Central High School, Phoenix, Ariz.; Leonia High School, Leonia, N.J.; Chester High School, Chester, Pa.; Los Angeles High School, Los Angeles, Calif.; Shortridge High School, Indianapolis, Ind.; Grant High School, Portland, Ore.; Lawrenceville School, Lawrenceville, N.J.; University of Illinois High School, Urbana, Ill.; and Sunset High School, Beaverton, Ore. The teachers who are using the experimental course were all participants in last summer's conference at Reed.

Collaborating with Strong in the direction of the project are Livermore; H. A. Neidig, professor of chemistry at Lebanon Valley College (Annville, Pa.); and M. Kent Wilson, professor of chemistry at Tufts University. Periodic tests are given students who are taking the new course in order to determine their progress. The course will probably be revised at the end of the experiment and then released in final form.

Bureau for Research on Sources of Poverty Urged; Committee Formed for Social Action

Some problems in American society and some new approaches to their solution were discussed last month in Washington at the closing session of the biennial round-table conference of the American Public Welfare Association. Agnes E. Meyer, widow of the former chairman of the board of the Washington *Post and Times Herald*, addressing the group, called for a federal research bureau to study the causes of poverty. Such a study, she said, offers the only way of "breaking the vicious circle whereby dependency, disease, and crime are handed down from generation to generation. . . ." Later in her speech she disclosed that a committee of natural and social scientists has been formed to "narrow the gap between knowledge and action" in meeting the nation's pressing social needs.

Mrs. Meyer suggested that a bureau to study the sources of poverty could properly be set up in the Department of Health, Education, and Welfare. State offices working with the department now have research staffs that

could readily be augmented and improved. The cost of expansion for such a study to "understand the nature of our social illnesses" would be only a few million dollars. The flow of the preponderance of all tax revenues to the federal government, according to Mrs. Meyer, has made it impossible to carry out the suggestion that state and local funds be used more extensively to support the public-assistance program. About 75 cents of every tax dollar now goes to the federal government, she reported, with the state and local governments getting only 15 and 10 cents, respectively. "Obviously," Mrs. Meyer said, "our state and city governments cannot meet their social obligations without federal aid or without a thorough revision of our tax structure."

New Committee Described

Mrs. Meyer ended her talk with a description of a new committee, of which she is a member, which was recently formed to integrate the results of research with programs attacking social problems. The group, called the Committee on Problems of the American Community, is composed of 16 natural and social scientists from universities and foundations throughout the country. It will not conduct new research but will experiment with ways of applying the results of past research.

The first problem that the committee will concern itself with is that of the social aspects of housing—the relationship of housing to the problems of family stability, population trends, child welfare, minority groups, care of the aged, juvenile delinquency, and community organization. The committee will operate for one year within the Conference Program on Public Affairs of the Brookings Institution in Washington.

Lawrence Memorial Award Established by AEC

The Atomic Energy Commission has announced the establishment of an Ernest Orlando Lawrence Memorial Award for recent, especially meritorious contributions to the development, use, or control of atomic energy in areas of the sciences related to atomic energy, including medicine and engineering. The award was established to honor the memory of the late Ernest O. Lawrence, director of the Radiation Laboratory at Berkeley and Livermore, which is operated for the commission by the University of California. Lawrence died in 1958. The laboratory has since been named the E. O. Lawrence Radiation Laboratory in his honor.

The award, which will be made by the commission upon the recommendation of its General Advisory Committee and with the approval of the President, will consist of a medal, a citation, and up to $25,000. It will be made to not more than five recipients in any one year, in the amount of not less than $5000 each; it will not necessarily be made every year. It will be presented in the spring of the year, to men or women who are not more than 45 years of age, at a time and place to be determined by the commission. The recipients must be United States citizens.

In contrast to the commission's Fermi Award, the Lawrence Award is designed especially for the recognition of young scientists who have made recent outstanding contributions to the development, use, or control of atomic energy. The Fermi Award is based upon the lifetime contributions of theoretical and experimental scientists.

Science Talent Search Shows Sharp Increase in Interest

Steadily increasing interest in scientific training and professional careers is reflected in the growing number of students competing in the annual Science Talent Search for the Westinghouse science scholarships and awards, according to Watson Davis, director of Science Service. More than 33,000 sets of entry materials have been requested by the teachers and counselors of outstanding high-school seniors who wish to compete in the 19th Science Talent Search. This represents an 18-percent increase over last year, according to Dorothy Schriver, executive secretary of Science Clubs of America, which conducts the Search as an activity of the Science Service science youth program.

A comprehensive science aptitude examination to measure ability in scientific thinking is being given for the Search this month in public, private, and parochial schools throughout the United States. The 2½-hour test may be scheduled for any time up to 27 December; all completed entry materials must arrive at Science Clubs of America headquarters in Washington by midnight of that date. Requests for the examination will be filled up to the last day.

In addition to taking the aptitude test, each applicant must submit school records, faculty recommendations, and a report of approximately 1000 words on a scientific study he or she has carried out. Research papers entered last year dealt with such subjects as a linear induction accelerator for use in studying resonant nuclear reactions; six unusual land snails found in the Maryland Piedmont; new postulates in Boolian algebra; measurement of the infinitesimal amount of heat released when a solid is immersed in a liquid; the possible influence of radioactivity in speeding up evolution; the finite sums of polynomials; somersaulting Egyptian spiny mice; the biochemistry of vinegar; the digestive processes of the Venus-flytrap; and the use of solar energy for space cooling.

Approximately 10 percent of the students who fulfill all entry requirements of the Science Talent Search will be named members of the honors group and recommended to colleges and universities for admission and scholarship awards. From the honors group, 40 top winners will be selected to come to Washington for the Science Talent Institute, 3–7 March 1960. During the 5-day institute the 40 winners will be interviewed, and their potential ability will be further evaluated by a board of judges to determine how $34,250 in science scholarships and awards provided by the Westinghouse Educational Foundation shall be distributed.

Volunteers Needed To Record Scientific Textbooks for the Blind

Scientists can perform valuable service by reading aloud textbooks for Recording for the Blind, which has headquarters at 121 E. 58th St., New York, N.Y. The organization has 14 centers throughout the country. A volunteer must be able to devote at least 2 hours a week to recording. It takes 25 hours to read an average textbook of 500 pages. To be effective, a technical work must be recorded by someone with a knowledge of the subject.

More than 1400 blind persons now use RFB's recorded books, which they obtain free of charge from 12 regional public libraries. About 700 of these subscribers are college students; the rest are adults who wish to continue their education.

Recording for the Blind has recorded