

Miscellany

Education

A broad program for improving science teaching, particularly at the secondary school level, has been launched by the American Association for the Advancement of Science with the help of a \$300 000 grant from the Carnegie Corporation of New York to provide the initial financing of the program for a three-year period. Additional funds will be sought to implement fully the projects outlined by the AAAS Cooperative Committee on the Teaching of Science and Mathematics in a report published in the July 22nd issue of *Science*.

The first part of the AAAS program is aimed at enlisting more aggressive assistance from research scientists and mathematicians in the recruiting and training of science teachers. Efforts will be made to provide accelerated programs in professional education for science-trained individuals with an interest in secondary school teaching. Graduate schools will be asked to devise more appropriate science programs for in-service training of teachers who need additional background in science fields. The Association will foster a science-teacher recruiting program and will support efforts to increase salaries and improve the working conditions of high school teachers. To highlight the importance of science teaching and to increase public appreciation of teachers, a nationwide plan for Distinguished Science Teaching Awards will be initiated. Finally, an experiment will be devised for using experienced successful teachers as counselors to assist groups of less-experienced and less-adequately prepared teachers in high schools in the selected experimental areas. If the experiment results in a marked improvement in teaching, it is hoped that local and state school authorities will adopt the plan. The Association has announced that it will seek and welcome the assistance of all interested scientific and educational groups in its efforts to meet the crisis in science education.

John R. Mayor, professor of mathematics and education and acting dean of the School of Education at the University of Wisconsin, has been named by the AAAS as director of the science teaching improvement program. Dr. Mayor is currently chairman of the AAAS Cooperative Committee on the Teaching of Science and Mathematics which has developed the new program.

330 students from nearly one hundred secondary schools took part in the high school physics test for 1955 conducted by the Southern California Section of the American Association of Physics Teachers. Ten

scholarships were awarded to the highest scoring students by the following universities and colleges: California Institute of Technology, the University of Southern California, the University of California, the University of Redlands, Whittier College, San Diego State College, Pomona College, and Occidental College. The Southern California Section of AAPT reports that its testing and scholarship program, which is held annually with the intent of discovering physics talent among high school students, has proved to be an outstanding success. Follow-up studies have shown that winners in previous years have done very commendable work in their college careers. The Section's work, it will be recalled, was praised by the Education Committee of the NRC-AIP Conference on the Production of Physicists, and it was recommended (see *Physics Today*, June 1955, p. 15) that other local sections of AAPT and other societies adopt the testing plan developed by the Southern California Section. Details of the program and its operation may be secured by writing to the chairman of the Section's Test Committee, Professor Thomas N. Wilson, El Camino College, El Camino College, California.

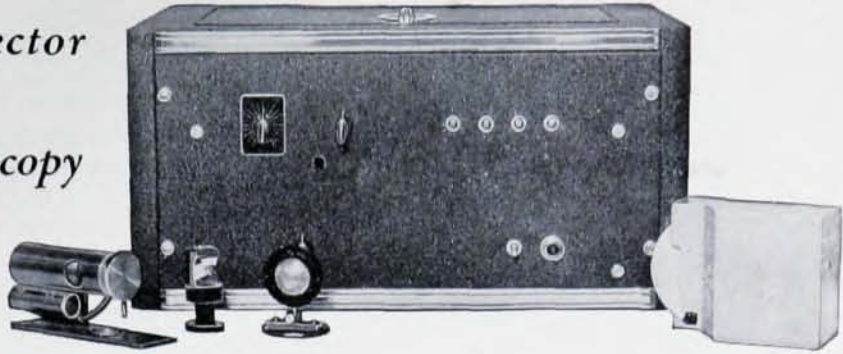
A weekly series of two-hour lectures, beginning September 26th on group theory and its applications, will be given by the Polytechnic Institute of Brooklyn. The course is designed to familiarize graduate students and research workers with the principles and techniques of group theory and its use as a tool of research. Topics to be discussed include abstract group theory and the theory of matrix representations. Further information may be obtained by writing to Professor E. M. Loebl, PIB, 99 Livingston Street, Brooklyn 1, New York.

The establishment of a postdoctoral fellowship in the physics and chemistry of the solid state has been announced by Horizons Incorporated, industrial research organization of Cleveland. The grant is for research to be carried out at the Cavendish Laboratory of the University of Cambridge, England, under the guidance of Professor N. F. Mott, director of the Laboratory. Applicants for the fellowship, which includes fees, tuition, living expenses, and "other emoluments", should write to Dr. John T. Burwell, Associate Director of Research, Horizons Incorporated, 2903 East 79 Street, Cleveland 4, Ohio.

Physics and chemistry departments at Tulane University are participating in a cooperative effort with the Perkin-Elmer Corporation in providing students with an opportunity to receive some basic instruction in infrared absorption spectroscopy. For the past two years the "contemporary physics" class has attended laboratory sessions of two to three hours in absorption and infrared absorption spectroscopy (in general), infrared instrumentation, and its application to chemical and physical problems. The group is kept small enough to permit student operation of equipment. In addition, Perkin-Elmer has offered graduate students the opportunity of investigating the applicability of infrared to

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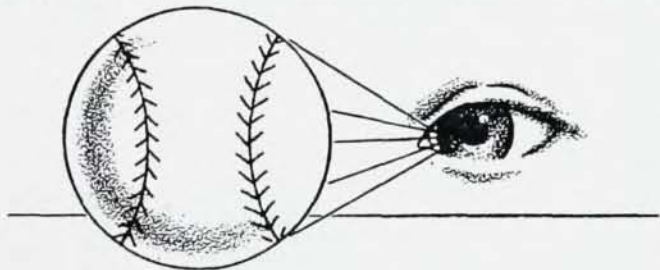
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their particular problems. They are assisted in the running and interpretation of their spectra. Inquiries concerning similar programs from institutions located near Perkin-Elmer Service Centers in Norwalk, Chicago, and New Orleans are invited.

The Chemical Education Committee of the Philadelphia Section of the American Chemical Society will present a continuation course during the fall entitled, "The Rheological Behavior of Materials". Lectures will be given by specialists on Tuesday evening at 7:30-9:30 for eleven weeks starting October 4, 1955. The course will be given at the Philadelphia College of Pharmacy and Science, 43rd Street and Kingsessing Avenue, Philadelphia. The cost is \$10 for the course for members of the American Chemical Society and \$12 for nonmembers. Further information may be obtained from Dr. Walter Clavan, P. O. Box 4388, Philadelphia 18, Pennsylvania.

A new interdepartmental program, in science engineering, has been added to the curriculum at the University of Michigan for 1955-56. The program is one of three such programs established by the College of Engineering in response to "two developments of concern to engineering educators": first, the time lag between scientific advances and their application to engineering practice and, second, the blurring of traditional lines separating various engineering specialties. Interdepartmental programs in nuclear engineering and in instrumentation engineering, also administered by a committee composed of engineering, mathematics, chemistry, and physics professors, were instituted in 1952. During the current academic year the nuclear engineering program will be broadened and PhD's will be awarded in the field.

Two grants, one for \$50 000 from the Rockefeller Brothers Fund, and the other for \$5000 from the Johnson Foundation, have been accepted by the Fund for Peaceful Atomic Development, according to Fund president Walker L. Cisler. The money will be used to expand the nonprofit organization's "people to people" program to provide maximum interchange of information in the exploitation of the peaceful atom".

Scientific Manpower

A report on scientific and engineering manpower shortages in industry, prepared for the National Science Foundation by the U. S. Department of Labor's Bureau of Labor Statistics, was released by NSF on July 24th. Based on interviews with officials of approximately 200 large companies employing well over half of the nation's industrial research scientists and engineers, the report found that the lack of trained personnel was felt most keenly in the aircraft, electrical equipment, petroleum, paper, food, and primary metals industries. At least half of the 200 companies reported that they were unable to hire enough research scientists and engineers to meet their needs, and one out of three reported major or substantial shortages of such personnel. The

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