

out of the defense program make it important that we know more about this largest sector of the Nation's total research and development potential". A complete report, giving results in greater detail, is being compiled.

Radiation Instruments

Growth of Industry Shown by AEC Survey

The radiation instrument industry, virtually nonexistent in 1946, had an annual business volume of approximately \$20,000,000 and employed more than 2400 persons in 1952, according to a survey conducted by the U. S. Atomic Energy Commission. Growth of the new industry has paralleled development of the nation's atomic energy program since early 1947, when the AEC adopted a policy of encouraging its operating contractors to procure radiation instruments from commercial manufacturers. Before that time, security restrictions had required contractors to the Manhattan Engineer District, predecessor to the AEC, to design, develop, and produce their own radiation instruments.

The survey shows an expanding market for radiation instruments outside of the atomic energy program as well as within AEC installations. According to the survey, military agencies of the government now provide about fifty percent of the total market; the AEC and its principal contractors provide about thirty percent, and the remainder is accounted for by private industry, universities, hospitals and research institutes, civil defense, export, and uranium ore prospecting. The AEC survey is believed to cover more than ninety percent of the radiation instrument industry in terms of business volume. Seven companies with probable business volume in excess of one million dollars each in 1952 account for about fifty percent of the industry's activity.

More than 50 patents in the field of radiation instruments are owned by the U. S. Government and held by the AEC. A total of 51 nonexclusive, royalty-free licenses have been granted on these patents. Application for such licenses may be made to the Chief, Patent Branch, Office of the General Counsel, U. S. Atomic Energy Commission, Washington, D. C.

Support for Education

Advisory Council Established

The Council for Financial Aid to Education, an organization formed last month to stimulate industrial and business support of the nation's colleges and universities, will serve as an advisory body and central agency for such programs, according to Frank W. Abrams, chairman of the Standard Oil Company of New Jersey, who is one of five industrialists heading the Council. Pointing out that "corporations pay the colleges little or nothing for training the personnel which they now eagerly recruit each June," he called for a better understanding by business and the public alike of the contributions made by higher education to the growth and development of industry. Mr. Abrams, who addressed a group of educators at the 13th Annual

Forum of the Tuition Plan in New York City last month, added that industry and business would be among the first to be adversely affected by any decrease in the number and quality of privately endowed educational institutions. Other members of the new Council include Irving Olds, former board chairman of the U. S. Steel Corporation, Walter Paepcke, chairman of Container Corporation of America, Henning W. Prentis, Jr., chairman of Armstrong Cork Company, and Alfred P. Sloan, Jr., chairman of General Motors Corporation.

APS Honors Shockley

Buckley Solid State Physics Prize

The first presentation of the American Physical Society's recently-created Oliver E. Buckley Solid State Physics Prize was made on January 23rd at the joint meeting of the APS and the American Association of Physics Teachers in Cambridge, Massachusetts. William Shockley, research physicist at the Bell Telephone Laboratories, received the \$1000 award for his contributions to semiconductor research. The prize was established last summer under the endowment of a \$50,000 trust fund provided by Bell Labs in honor of the Laboratories' former president, who recently retired after having served for thirty-eight years in scientific and administrative posts with the Bell System. The prize is administered entirely by a committee of the Physical Society.

New Computer

Argonne's AVIDAC is Completed

The successful operation of a new electronic digital computer, designed and constructed by staff members of the physics division of the Argonne National Laboratory, was announced at the end of January. The \$250,000 computer, based on an instrument recently constructed at the Institute for Advanced Study at Princeton, New Jersey, has been named AVIDAC, which is reported to stand for "Argonne's Version of the Institute's Digital Automatic Computer". AVIDAC is expected to facilitate the solution of mathematical problems of Argonne scientists engaged in reactor engineering and theoretical physics research. In the past, the lack of such a computing device has meant that many complex problems had to be solved by time-consuming methods or by the use of existing machines in other parts of the country. An additional computer is now being constructed at Argonne for use at the Oak Ridge National Laboratory. Another member of the same family of computers is the Los Alamos Scientific Laboratory's MANIAC, a device that was designed and constructed by members of the Los Alamos scientific staff.

Construction of the Argonne machine, according to the Laboratory's announcement, was proposed several years ago by Donald A. Flanders, senior mathematician in the physics division. The engineering and building