

try's defense laboratories. This necessary security can be and is now maintained by the little publicized but ever vigilant security agencies which are already established and which operate under well-defined procedural regulations. It is clear that a real maximum of national security can be achieved only by an intelligent balance of security by secrecy against security by vigorous military research and continuing achievement.

"The point should be clearly made and emphasized that investigations which are characterized largely by sensational headlines and wholesale suspensions can, by crippling our defense research, actually result in a net gain for those who work against the interests of the United States. The effect on our national security would be extremely serious if such investigative methods are allowed to spread to other areas of this country's scientific effort."

## New NSF Advisory Committee

### On Government-University Relationships

The National Science Foundation announced on December 7th that an advisory committee\* has been formed to consider the effects of government support to colleges and universities on their research and teaching functions. Noting that while many millions of dollars have been spent by government agencies during and since World War II for the procurement of services in technological developments in universities and colleges, the Foundation added that relatively few millions of dollars have been provided for research and education in the sciences, although in many instances these institutions are uniquely fitted to carry on such activities. "A closely related question to which the Committee may also give attention," the announcement stated, "is how the Federal Government, in cooperation with the colleges and universities, may best develop and encourage research and education in the sciences. These matters will receive objective study and appraisal by the Foundation with the advice of the Committee. The results of the study may be expected to have substantial value both to government agencies and the institutions of higher education."

Statistics compiled by the Foundation indicate that during the year ending June 30, 1952, educational institutions received almost \$300 million from Federal agencies for development and research. Approximately \$136 million (46 percent) was spent by instructional departments. Of the rest, about \$3 million was spent by affiliated research organizations, \$12.5 million by agricultural experiment stations, and \$143.5 million by re-

search centers, which were administered by educational institutions for specific Federal agencies but organizationally segregated from the normal activities of the institutions. According to the Foundation a total of 225 educational institutions received some Federal support for development and research in 1951-52. These included 86 universities, 95 liberal arts colleges, 41 professional-technical schools, and three other educational institutions.

## Miscellany

Massachusetts Institute of Technology would withdraw from secret research "with enthusiasm and relief" whenever national policy might find it to be no longer necessary, according to MIT President James R. Killian, Jr. In his annual report to the MIT corporation, Dr. Killian noted that the Institute regards its research programs in support of the national security as an inescapable responsibility, but that under more normal conditions they would not be undertaken by choice.

A committee to study legal practices and decisions concerning complex scientific questions has been created at Columbia University under a \$50 000 grant donated by Edwin H. Armstrong, professor of electrical engineering at Columbia and inventor of frequency modulation in radio communication. The committee is headed by W. C. Warren, dean of the Columbia Law School, and includes three other legal experts and a physicist, K. T. Compton, former president of the Massachusetts Institute of Technology. Dr. Armstrong is quoted as saying that he made the grant after having observed that public bodies often were required to ascertain facts without the benefit of adequately developed techniques and procedures, with the result that "important decisions sometimes have been made, and important actions taken, upon erroneous findings of fact in technical and scientific fields".

In connection with the publication of the 30-year *Index of The Physical Review* (1921-1950), which is now available from the American Institute of Physics, the Treasurer of the American Physical Society informs us that while the publication of this valuable reference aid was made possible through a contract with the Office of Naval Research, that Office and the Society wish it to be known that the U. S. Army and the Atomic Energy Commission were also co-sponsors of the *Index* and each agency supplied one-third of the funds for the contract.

## New Research Facilities

The University of Maryland, College Park, Md., has completed a million dollar physics laboratory and an adjoining mathematics building, which houses the Institute for Fluid Dynamics and Applied Mathematics and an extensive physics-mathematics-engineering library. A laboratory for molecular physics, directed by Professor A. M. J. F. Michels, is now under construction and will be completed early next year. New research programs have been begun in cosmic rays, micro-

\* The appointment of the Committee was authorized by the National Science Board, which also selected its own chairman, Chester I. Barnard, to be the chairman of the Committee. The other members are:

Arthur S. Adams, President, American Council on Education  
Vannevar Bush, President, Carnegie Institution of Washington  
James S. Coles, President, Bowdoin College  
Harold W. Dodds, President, Princeton University  
Conrad A. Elvehjem, Dean, University of Wisconsin Graduate School  
T. Keith Glennan, President, Case Institute of Technology  
Virgil M. Hancher, President, State University of Iowa  
William V. Houston, President, Rice Institute  
Clark Kerr, Chancellor, University of California, Berkeley  
C. N. H. Long, Professor of Physiology, Yale University  
Don Price, Associate Director, The Ford Foundation  
Julius A. Stratton, Provost, Massachusetts Institute of Technology



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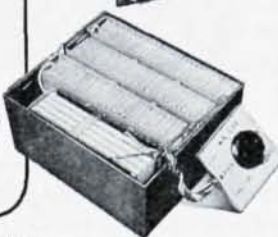
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wave physics, solid state theory and elementary particle theory, and statistical mechanics are being continued. Graduate assistantships in teaching or research are available, paying \$1200 minimum plus full tuition for the academic year. Requests for further information should be directed to Dr. John S. Toll, head of the physics department.

**Westminster College**, New Wilmington, Pa., formally dedicated its new Freeman Science Hall, a \$350 000, three-floor addition to the old science building, at ceremonies held in mid-October. The ground floor contains a lecture room seating 200 which is shared by all the science departments, the physics equipment storage, a dark room, and a class room and two offices. Chemistry and biology laboratories and offices are located on the second and third floors, respectively, and each floor is connected to the corresponding floor of the old building, which was completely remodeled during the past summer at a cost of about \$85 000. The various laboratories and offices in the old building were rearranged so that each department is all on one floor. Dr. James A. Swindler is chairman of the physics department and senior member of the science division.

## Fellowships

**Argonne National Laboratory** has announced that applications for temporary research appointments in physics, biology, chemistry, engineering, medicine, and metallurgy are being accepted. The Laboratory reserves positions each year for faculty members on leave, post-doctoral investigators, and graduate students wishing to use its research facilities. Appointments will ordinarily be made for a period of approximately one year although applications for the summer, or for other periods less than a year, will be considered in cases where useful results can be anticipated in the shorter time. Each applicant must be endorsed by his own academic institution. Further information and applications may be obtained by communicating with J. C. Boyce, Associate Laboratory Director, Argonne National Laboratory, P. O. Box 299, Lemont, Illinois.

**MIT** has announced the availability of The Owens-Corning Fiberglas Fellowship in Acoustics for 1954-55, which is open to outstanding graduate students whose research interest lies in the area of acoustics. The recipient, whose bachelor's degree may have been obtained in physics, electrical engineering, mathematics, or any other subject contributory to acoustics, will be selected competitively, on the basis of scholastic attainment and evidence of promise as a research scholar. Candidates must fulfill requirements for admission to the Graduate School. The fellowship covers full tuition plus \$1800. Requests for application forms or for further information should be addressed to: The Dean of the Graduate School, Massachusetts Institute of Technology, Cambridge 39, Massachusetts.

**Fellowship programs** in radiological physics and industrial hygiene for 1954-55 have been announced by the Atomic Energy Commission. Supported by the AEC

to supply the critical need for personnel trained in these fields, the programs in radiological physics deal with health problems associated with the handling of radioactive materials and with the release of nuclear energy, while the industrial hygiene program encompasses the usual industrial hazards in addition to those peculiar to the atomic energy program. Radiological physics fellowships are carried out in three separate programs at Vanderbilt University and Oak Ridge National Laboratory, at the University of Rochester and Brookhaven National Laboratory, and at the University of Washington and the Hanford Works. In each case, nine months of course work at the university is followed by three months of additional study and field training at the cooperating AEC installation, and the course work may be applied toward an advanced degree. The industrial hygiene program supports a limited number of individuals who are studying for the master's degree in this field at Harvard and at the University of Pittsburgh. Application forms and additional information may be obtained from the Fellowship Office, University Relations Division, Oak Ridge Institute of Nuclear Studies, P. O. Box 117, Oak Ridge, Tennessee. Completed applications must be submitted before March 1, 1954.

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**Herbert E. Ives**, a charter member of the Optical Society of America and its president in 1924, died at his home in Upper Montclair, N. J., on November 13th. Born in Philadelphia seventy-one years ago, Dr. Ives did his undergraduate work at the University of Pennsylvania and received his PhD at Johns Hopkins in 1908. He worked for a time as a physicist at the National Bureau of Standards and later was associated with several private research firms. In 1919 he joined the Western Electric Company in New York and in 1925 transferred to the Bell Telephone Laboratories where he served until his retirement in 1947. His early work in the telephone laboratories was on electrical contacts, followed by investigations of photoelectric cells and their uses in communication. Dr. Ives was in charge of the development of picture transmission over telephone lines, a procedure that was first demonstrated in 1924 with wirephotos of the political conventions. He was also responsible for the celebrated demonstrations of television in 1927, of outdoor and color television in 1929, and of two-way television in 1930. In later years he made important contributions to the projection of three-dimensional motion pictures, to the theory of the artist's palette, and to an understanding of photoelectric emission. In 1928, in honor of his father, Frederic Ives, who is known for his pioneer contributions to color photography, color engraving, and other branches of applied optics, Dr. Ives endowed the Optical Society's Frederic Ives Medal, an award for outstanding work in the field of optics. Nine years later Dr. Ives was fittingly honored by the Society as Ives Medalist for 1937 in recognition of his own outstanding contributions to the science of optics.