

Another phase of the communications problem in the sciences approached by Unesco has had to do with abstracting scientific literature. In June of 1949 Unesco called an international conference to review science abstracting services and to consider what steps might be taken to coordinate their efforts and to extend their usefulness. Among the results of this conference was a recommendation that thought be given to the creating of a single international physics abstract journal. A special Unesco committee of physicists was appointed to look into the matter, and although the idea of a single multilingual journal had to be discarded as impractical, definite recommendations were made for the establishment of an international physics abstracting service to coordinate the efforts of existing abstracting journals and to help them to become part of a single international plan. Both the International Council of Scientific Unions and the committee of management of *Science Abstracts* were well represented on the Unesco physics abstracting committee, and the International Union of Pure and Applied Physics was approached for comment. It was recommended that the proposed physics abstracting service be sponsored by either the ICSU or IUPAP, since it is not the intent of Unesco to sponsor programs which might better be carried out by other agencies, national or international.

Paralleling Unesco's other projects is a program aimed at popularizing science and at raising the level of science teaching throughout the world. Although embryonic, this endeavor is fundamental to Unesco's long-term objectives and during recent months a number of documents bearing on the subject of popularizing science have been prepared and distributed. In this vein also, Unesco has sponsored an impressive list of exhibits on science aimed at explaining basic facts simply and understandably in order "to develop an attitude of mind and an understanding of the effects of applying science to modern conditions and to the development of human society".

It will be seen from these examples that Unesco's own involvement in international science has generally been held to a broad and unspecial level. The greatest emphasis has been placed upon cooperative efforts with other groups in encouraging all activities which Unesco feels to be properly oriented towards the fundamental aim of world wide understanding among people. The experimental nature of Unesco's projects has very nearly been dictated by its limited budget, the goal in each case being primarily to demonstrate that the idea itself is practical. It has been Unesco's often expressed hope that such pump-priming efforts might lead to expanded projects, based upon Unesco's prototypes, but organized and financed and carried out by the nations or groups concerned. Recent emphasis upon the establishment of Unesco-sponsored international scientific laboratories of a more specialized nature underlines the need for increased efforts to develop cooperative research activities among nations and to stimulate work in the sciences on broad and apolitical levels; but it remains to be seen how far Unesco will be able to go in aiding such projects and at the same time continue working effectively towards its very much broader objectives.

The proposal of the American delegation to the Florence Conference that an international nuclear physics institute be established in Europe with the cooperation of Unesco has much to recommend it. Physicists on the Continent have few opportunities to work with modern high-voltage equipment, and certainly in comparison with the laboratories of this country theirs provide little enough in the way of luxury equipment or in many cases of almost essen-

tial research instruments. If Unesco can provide the stimulus for the creation of an adequately equipped laboratory for the use of European physicists without at the same time sacrificing other and broader projects designed to benefit a larger segment of humanity than specialists in physics, then science and presumably the world will have profited greatly. It will be remembered that Dr. Rabi, who presented the American proposal, emphasized the importance of having the laboratory constructed and maintained under the joint financing of those nations participating in the project rather than by Unesco itself.

This attitude has deeper roots than simply the requirement that Unesco's available energies be distributed uniformly and thinly over a wide variety of deserving projects. It has its origins in much of the early thoughts of those who planned Unesco as an international service and information agency. In 1947, Julian Huxley, then director general, stated the case plainly and simply. "Unesco," he said, "cannot be highbrow and confine itself solely to 'pure' science and 'fine' art. It cannot do so, because it must concern itself with the whole of humanity, not only with the specialists, the highly educated élite, or the privileged few, and is expressly charged with advancing the ideals of equality of educational opportunity; and this is not possible if Unesco's concern with science and art is confined to the encouragement of the scientist and the artist and to the learned study of their achievements. It cannot do so for another reason—because its Constitution lays upon it the duty of advancing the common welfare of mankind . . . Unesco must therefore concern itself with the widest extension and the fullest application both of the sciences and the arts."

NATIONAL SCIENCE FOUNDATION

24 BOARD MEMBERS NAMED

Another step in the direction of an activated National Science Foundation was taken on November 2 when President Truman appointed twenty-four scientists, educators, and industrialists to the National Science Board in accordance with the terms of Public Law 507 of the 81st Congress, which established the Foundation as an independent agency in the executive branch of the government. This Act specified that persons named as Board members must be eminent in the fields of the basic sciences, medical science, engineering, agriculture, education, or public affairs and that they be selected solely in terms of their individual records. The Act asks further that the members be so chosen as to provide representation of the views of scientific leaders in all areas of the Nation.

Members named by the President come from sixteen states and the District of Columbia. Seven are presidents of universities, three are college deans, three head college departments, two are directors of research projects, and four others are professors. The remainder represent industry and public affairs foundations. Of the scientists on the board, two are physicists, one is a biophysicist, one is a mathematician, four are chemists, and ten represent variously the engineering, biological, medical, or agricultural sciences. The new Board members are listed below:

Sophie D. Aberle, special research director, University of New Mexico, Albuquerque, N. M.

Robert Percy Barnes, head of the department of chemistry, Howard University, Washington, D. C.

Chester I. Barnard, president of the Rockefeller Foundation, New York City.

Detlev Wulf Bronk, president of The Johns Hopkins University, Baltimore, Md.

Gerti Theresa Cori, professor of biological chemistry, Washington University Medical School, St. Louis, Missouri.

James Bryant Conant, president of Harvard University, Cambridge, Massachusetts.

John W. Davis, president of West Virginia State College, Institute, West Virginia.

Charles Dollard, president of the Carnegie Corporation, New York City.

Lee A. Dubridge, president of the California Institute of Technology, Pasadena, California.

Edwin B. Fred, president of the University of Wisconsin, Madison, Wisconsin.

Paul M. Gross, dean of Duke University graduate school, Durham, North Carolina.

George D. Humphrey, president of the University of Wyoming, Laramie, Wyoming.

O. W. Hyman, dean of medical school and vice president, University of Tennessee, Knoxville, Tennessee.

Robert F. Loeb, Bard professor of medical services, College of Physicians and Surgeons, Columbia University, New York City.

Donald H. McLaughlin, president of Homestake Mining Company, San Francisco, California.

Frederick A. Middlebush, president of the University of Missouri, Columbia, Missouri.

Edward L. Moreland, partner, Jackson and Moreland, engineers, Boston, Massachusetts.

Joseph C. Morris, head of physics department and vice president of Tulane University, New Orleans, Louisiana.

Harold Marston Morse, professor of mathematics, Princeton University, Princeton, New Jersey.

Andrey A. Potter, dean of engineering, Purdue University, Lafayette, Indiana.

James A. Reyniers, director, bacteriology laboratories, Notre Dame University, South Bend, Indiana.

Elvin C. Stakman, chief, division of plant pathology and botany, University of Minnesota, Minneapolis.

Charles Edward Wilson, president, General Electric Company, Schenectady, N. Y.

Patrick Henry Yancey, professor of biology, Spring Hill College, Spring Hill, Alabama.

The next step, unaccomplished at this writing, is for the President to call the first meeting of the Board, at which time the first order of business will be the election of a chairman and a vice chairman. These officers are to serve until the first Monday in December next succeeding the date of election, when another election will be held to fill the offices for a term of two years. After the Board has had an opportunity to make recommendations regarding the appointment of the Foundation's director, according to the terms of the Act, the President will appoint this officer (by and with the advice and consent of the Senate) as a non-voting ex officio Board member for a six-year term. The Board is also empowered to appoint an executive committee from among its members which will have the authority to carry out such work of the Foundation as may seem appropriate under the Act, except that the executive committee will not have the power to establish policy or to make major decisions.

A primary assignment of the Foundation is to strengthen basic research and education in the sciences, including independent research by individuals, throughout the United States and its territories and possessions, and to avoid undue concentration of such research and education. Specifi-

cally, the Foundation has been directed to pursue the following eight-point program:

To develop and encourage the pursuit of a national policy for the promotion of basic research and education in the sciences;

To initiate and support basic scientific research in the mathematical, physical, medical, biological, engineering, and other sciences, by making contracts or other arrangements (including grants, loans, and other forms of assistance) for the conduct of such basic scientific research and to appraise the impact of research upon industrial development and upon the general welfare;

At the request of the Secretary of Defense, to initiate and support specific scientific research activities in connection with matters relating to the national defense by making contracts or other arrangements (including grants, loans, and other forms of assistance) for the conduct of such scientific research;

To award scholarships and graduate fellowships in the mathematical, physical, medical, biological, engineering, and other sciences;

To foster the interchange of scientific information among scientists in the United States and foreign countries;

To evaluate scientific research programs undertaken by agencies of the Federal Government, and to correlate the Foundation's scientific research programs with those undertaken by individuals and by public and private research groups;

To establish such special commissions as the Board may from time to time deem necessary for the purposes of this Act; and

To maintain a register of scientific and technical personnel and in other ways provide a central clearinghouse for information covering all scientific and technical personnel in the United States including its territories and possessions.

It should be noted that the Foundation has specifically been forbidden to operate any laboratories or pilot plants, so that in no sense is the Foundation to be considered a competitor of research establishments. Its function is to provide material encouragement for fundamental researches in the sciences within the limits of its budget, which has been set at fifteen million dollars per year. It should also be remarked that authority has been given the Foundation to cooperate in any international scientific research activities consistent with the purposes of the Act and, where appropriate, to defray the expenses of those attending accredited international scientific congresses and meetings. Contractual or other arrangements entered into with representatives of foreign governments require the concurrence of the Secretary of State, and in all matters involving foreign policy close liaison is to be maintained between the State Department and the Foundation. Since many of the proposed functions of the Science Office of the Department of State, as outlined in its report "Science and Foreign Relations", coincide at least in intent with the functions of the Foundation, there is reason to expect that the two departments will exert every effort to develop a cooperative relationship.

The wide latitude given the Foundation by the 81st Congress offers to the members of the National Science Board an opportunity to create a structure which can become increasingly helpful to those doing fundamental scientific research. The Foundation itself represents an idea that scientists have fought for willingly over a period of many years and it will have easy access to their enthusiasm and their support.