

News and views

Industrial Research

Need for Full Investment Stressed

Research programs in industry must be protected from interruptions that might follow minor fluctuations in the business cycle, according to Harry A. Winne, General Electric's vice president of engineering, who delivered the keynote address of an industrial research conference sponsored by Armour Research Foundation during the Centennial of Engineering celebration at Chicago in September. Stressing the need for industry to invest an adequate portion of its profits in research, Mr. Winne urged that industry foster the kind of intellectual and physical environment that is essential to creative work and to make a place for free and uncommitted investigations. He cited figures from studies by the National Research Council indicating that industry spent more than one billion dollars on research in 1950 and employed some 165,000 scientists, engineers, and technical assistants in industrial laboratories—more than twice the number similarly employed in 1940 and almost ten times as many as in 1927. Pointing out that every one of America's one hundred largest industrial corporations have research programs, he said that the research investment expressed in terms of percentage of sales varies from one-half to four percent, with the average lying between one and two percent. Mr. Winne also urged the cultivation by industry's top management of a full understanding of the essential and relative characteristics of fundamental research, applied research, and advanced development.

Unesco in Latin America

Technical Assistance Under Way

A total of thirty-five technical specialists representing many fields of science and education have been sent by the United Nations Educational, Scientific, and Cultural Organization to assist governments in the Latin American area in planning and directing national development programs. A brief, but comprehensive, progress report, prepared by the U. S. National Commission for Unesco and issued in August by the Department of State, adds that Unesco had specific projects under way in ten Latin American countries by April of this year and was engaged in a number of related major activities affecting most countries in that part of the world. A regional field science office has also been established in Montevideo to make available the services of three science specialists to governments and scien-

tists in the region. It has prepared a register of more than fifteen thousand scientists and institutions with details of their particular field of activity and publishes brochures on the state of the various sciences in Latin America. These publications are mailed regularly to more than one thousand institutions and individuals, who are thus kept up to date on research in their particular fields.

Unesco's technical assistance program in a number of the countries (especially in Colombia, Costa Rica, El Salvador, Haiti, and Panama) is confined primarily to general education problems. In other countries, however, the projects are often highly specialized and diverse. In all cases, when an expert goes into the region, scholarships are provided whereby local persons are sent abroad to be trained as quickly as possible in the particular field needed to replace the international advisor. Forty-five individuals from Latin America are now studying abroad under this plan. Unesco does not enter a country under the technical assistance program as a single agency, the National Commission makes clear, but works in conjunction with experts from the United Nations and its other specialized agencies as part of an overall plan for economic development.

In Mexico, a center for scientific and technical documentation has been established by the government with the help of Unesco which is now receiving more than five thousand scientific and technical journals. These publications are classified, summarized, transformed into abstracts, and translated into Spanish for periodic distribution in a bulletin to scientists in Mexico and other Latin American countries. According to present plans, the bulletin will abstract nearly one million printed pages to permit rapid perusal of all publications on specialized topics. Research workers and institutions can write to the center for the article or periodical and will either be provided with a translation or a microfilm version of the entire work.

In Brazil, technical assistance by Unesco fits generally into the country's five-year economic development program which places heavy stress on scientific research. Six specialists and a continuing program of fellowships will be made available to the Brazilian Center for Physical Research over a three-year period. Scientists now in the field include: G. Hepp, an electronics expert from the Netherlands; the Italian nuclear physicists U. Camerini and M. Occhialini; Edmond Brun of France, a specialist in thermodynamics who is assisting in the development of the National Institute of Technology; and W. Parkinson, from the United Kingdom, who is directing a preliminary survey of the conditions of the local magnetic field to assist in identifying the mineral resources of Brazil and who is also training personnel.

In Ecuador, R. Ouvrard (France) has assisted in the development of the physics laboratory at the Central Technical College of Quito, has advised on the exploitation of water power for two nearby communities, and has made a scientific survey of Ecuador's earthquake region where construction work is going on.