fied scientists and engineers needed to meet the growing demand of Europe's industries. Alexander King, while continuing as deputy director of the European Productivity Agency, has been appointed director of the new office and will report directly to the secretary general of OEEC. The scientific manpower program to be carried out by the office will be under the direction of a governing committee composed of high-ranking officials of the 17 European members of OEEC, the United States, and Canada.

The organization has already initiated several projects in this field which will now come under the direction of the new office. These include an annual review of the policies and programs of member countries for the training of scientists and engineers; a study of techniques for forecasting demands for scientific and technical personnel; and a series of summer training courses for science and mathematics teachers. The first of these courses will be held at Keele, England, and will be open to selected teachers and educational administrators from any of the member countries. It is expected that it will be followed by two more courses this summer in France and Germany.

Funds for this program and for further action projects to be determined by the governing committee will come from an allocation of $500,000 by the U.S. Government, together with an initial contribution by the OEEC countries and special additional contributions as projects are approved.

Visiting Scientists Program

The National Academy of Sciences–National Research Council has been administering, for the International Cooperation Administration, a visiting scientists program under which more than 200 young scientists at the postdoctoral level have been brought to the United States for 2 years of basic research experience in American universities. Recently ICA asked the Academy–Research Council to continue the program and to extend it to other countries of the world.

The expanded program will bring approximately 150 young scientists to the United States and will serve essentially the same purpose as the original program. However, it will now bring young scientists from countries in Asia, Africa, and South America, as well as from Europe.

The program will be administered by the Office of Scientific Personnel with the cooperation of the Office of International Relations and the Pacific Science Board. Representatives of these three offices of the Academy–Research Council are visiting the countries that are cooperating in the program for the purpose of developing mutually acceptable procedures whereby the scientific academies or equivalent institutions in these countries may assist in the selection of candidates. Walter F. Colby, who has served as assistant to the director of the Office of Scientific Personnel for the Foreign Research Scientists Program, will continue to direct the expanded program for visiting scientists.

Ovulation Test

A new color test for determining a woman's ovulation time, said to have the approval of some Roman Catholic officials, was described in April to the American College of Obstetricians and Gynecologists. Joseph Doyle of Tufts University reported that a special tape, held against the womb, will change color if the uterine secretions contain sugar, which is present only when a fertilizable egg is released from the ovary. Doyle said the procedure, if confirmed, would help make the rhythm method of birth control more reliable.

Soviet Specialists Graduate

The Soviet Ministry of Higher Education reports that Soviet colleges and higher institutes will graduate more than 100,000 specialists in the coming weeks. A complete breakdown of the figure is not available. However the largest single group, 17,000, consists of machine and instrument-making specialists. There will be about 8000 construction engineers, 5000 power engineers, more than 5000 geologists, 5000 chemical technicians, and 3200 metallurgists. The remainder will include "many economists, philologists, biologists, and so forth."

K. G. Nozhko, an official of the Ministry, told the newspaper *Sovetskaya Rossiya* that most of the new specialists would get jobs in Siberia and other eastern sections of the country.

United States Research and Development, 1953–1956

The National Science Foundation reports, on the basis of a recently completed survey, that industrial expenditure for research and development increased more than 75 percent during the three years 1953–1956, and that almost half the costs represented performance for the Federal Government.

"A carefully documented survey, completed for the foundation by the Bureau of Labor Statistics, shows that costs of research and development performed by industry in 1956 were $6.5 billion," said Alan T. Waterman, director, in releasing data from the survey, *Research and Development Costs in American Industry, 1956—A Preliminary Report.* "A similar survey, completed earlier for the foundation by the bureau, showed that industrial research and development cost $3.7 billion in 1953. Many factors have contributed to the increasing growth of industrial research and development during recent years, including the development of new materials and processes completely unknown a decade ago and the increasing use of industrial contracts for carrying out the Federal Government's expanding research and development program. Whereas in 1953 federal contracts for industrial research and development stood at 37 percent of total industrial research and development ($1.4 billion related to $3.7 billion), they rose to almost 50 percent in 1956 ($3.1 billion related to a total of $6.5)."

On the basis of the industrial and Federal Government surveys completed for 1956 and estimates for other sectors of the economy, the National Science Foundation has stated that the country's total research and development effort amounted to approximately $9 billion in 1956, or 67 percent more than the 1953 figure of $5.4 billion. Thus, industry's share in this performance of research and development in 1956, totalling $6.5 billion, was slightly less than three-fourths of all research and development performed in the United States.

A comparison of data from the 1953 survey with data from the more recent survey show the following important changes:

1) Total industrial research and development costs increased 76 percent, from $3.7 billion in 1953 to $6.5 billion in 1956.

2) Research and development financed and performed by industry itself increased 44 percent, from $2.3 billion in 1953 to $3.3 billion in 1956.

3) Federal Government financing of industrial research and development increased 131 percent, from $1.4 billion in 1953 to $3.1 billion in 1956—an increase of from 37 to 49 percent of total industrial research and development funds.

The survey showed that 13 industries accounted for more than 85 percent of all research and development performed by industry in 1956. One-half of all industrial research and development expenditures was concentrated in the aircraft and parts and in the electrical equipment industries. The aircraft and parts industry accounted for 32 percent of the total industrial research and development, and the corresponding figure for the electrical equipment industry was 18 percent. The machinery and chemical industries accounted for 9 and 8 percent, respectively, of the total. The