SCIENCE NEWS

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THE SCARCITY OF SCIENTIFIC AND TECHNICAL MEN

WAR has all but stopped basic, academic research in chemistry and has stopped the training of new research chemists and chemical engineers, Dr. Roger Adams, leading organic chemist, head of the department of chemistry of the University of Illinois and head of chemical work of the U. S. Office of Scientific Research and Development, charged in a recent radio talk.

"Basic scientific research finds new truths, and supplies new material upon which much of the industrial progress of the future depends," Dr. Adams said. "Years will be required before basic research activity again reaches its prewar level.

"The war also has stopped the training of new research chemists and chemical engineers. Thousands of academic and industrial chemists have been drafted into the armed services with only a few of them in a position where they can use their technical knowledge.

"The research organizations associated with industry, which find new products and upon which industry relies for expansion and for creation of new jobs, are at a low ebb. There is no possibility that they can recover quickly in the near future. This is a matter of great concern to the scientists and should be to the public, for only by years of patient research by trained and competent investigators can we maintain the high level of achievement in the field of science, on which is based position of eminence among nations."

Dr. Adams talked during the intermission of the New York Philharmonic Symphony broadcast sponsored by the United States Rubber Company.

R. J. DEARBORN, president of Texaco Development Corporation, reports that expansion of industrial research after the war by small companies will be limited by scarcity of scientific and technical men.

"One of the most serious problems of industry is the deficit in fully trained young professional men for postwar employment," Mr. Dearborn declared. "This country is faced with a period during which the demands of war-stimulated technology will not be met by an adequate supply of scientists and engineers. As research is the backbone of industrial progress and creation of jobs in the postwar era, the lack of a sufficient number of well-trained scientists will have a profound effect on invention and plans of corporations to provide for many new products."

War has prevented the normal flow of trained young men from the colleges, and a great number of trained men, now in the armed services and in war jobs, will find it difficult to return to their old work due to disuse of their technical abilities. Training of scientists in the colleges has almost come to a standstill, and it will be 1950 before a normal flow of technical graduates can be expected.

Government will probably compete with industry for scientific personnel after the war, Mr. Dearborn stated, since the government will probably intensify its research activities. In addition, there will be a great demand for United States technical personnel abroad, due to the tremendous reconstruction work which will be needed. Still other trained persons will go to colleges and universities as teachers.

ITEMS

THE two hundred and twentieth anniversary celebration of the Soviet Academy of Sciences, to be held late in June, will, in addition to meetings, include a popular festival honoring the scientists of the U.S.S.R and what they have done to serve their nation in peace and war. The academy consists now of 145 academies, including some of the leading figures in Soviet science, among them Dr. V. Komarov, botanist, who is president; Dr. P. Kapitsa, physicist; Dr. N. Semenov, chemist; Dr. I. Vinogradov, mathematician; Dr. I. Orbeli, physiologist, and Dr. N. Burdenko, surgeon. Fifty-seven institutes or sections equivalent to institutes are conducted by the Soviet Academy, with a total staff of more than 5,000 scientific and technical workers. The work is divided into eight departments: Physics and mathematics, chemistry, geology and geography, biology, technology, history and philosophy, economics and law, literature and language.

THE largest British airplane yet to take to the air is the 58-ton four-engined Shetland Flying Boat that could fly from London to Bombay, about 4,650 miles, non-stop at 184 miles an hour. It is larger and has a longer range than the American-built Martin "Mars," the largest U. S. flying boat. The airplane is a double-deck ship with accommodations for 70 passengers and a crew of 11, and is fully air-conditioned. There are three main compartments as well as a promenade on the after upper deck, a fully equipped kitchen and rest rooms. The new giant of the sky, built by Short Brothers, is powered by four 2,500 horsepower Bristol Centaurus air-cooled, 18-cylinder engines. These powerful engines turn four-bladed propellers which have blades measuring 15 feet, 9 inches in length. The wingspan of the Shetland is 150 feet, greater than of a B–29 Superfortress, and it has an overall length of 110 feet. Fuel tanks carry more than 6,000 gallons of gasoline and 320 gallons of oil.

A NEW fuel substitute for gasoline that gives one-fourth more power in a properly designed internal-combustion engine is reported by Donald B. Brooks, of the National Bureau of Standards. A blend of certain non-hydrocarbons, the fuel, if used in an ordinary gasoline engine, may give up to 5 per cent. more power than gasoline. Mr. Brooks stated that the components of the new blend are ethyl alcohol, diethyl ether, acetone and butanol. These can also be used "straight" in some cases. His conclusions are based upon tests of substitute motor fuels conducted in a precision single-cylinder variable compression engine in the bureau's automotive laboratory at the request of the Foreign Economic Administration of the Office for Emergency Management.