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REVIEWS ATOMIC RESEARCH IN POLAND;
SCIENTIFIC EQUIPMENT EXPOSITION

CENTERED IN WARSAW INSTITUTE -- Frankfurt/Main, Wiadomosci Polskie, 3 Sep 50

Polish atomic research is centered in Warsaw in the Institute of Experimental Physics, which was organized and is directed by Professor Stefan Pienkowski. Professor Pienkowski, a physicist of international repute, has received many distinctions, including honorary degrees in foreign universities and membership in international commissions and scientific societies. He is vice-president of the Polish Academy of Learning and chairman of the mathematics and physics section of the first Polish Scientific Congress. In 1949 he received the award for science from the city of Warsaw. His work in the field of experimental physics, including X-ray and nuclear physics, gained worldwide recognition.

The Institute of Experimental Physics is conducting research on atomic and molecular optics, X-rays, atomism, electronics, and infra-red rays. Research is to be further expanded by activating, in 1951, the department of electron microscopy which will embrace also electronic diffraction, and, in 1952, a department of the physics of isotopes.

A remarkable feature of the work of the Institute of Experimental Physics is the close association between theory and practice. The research in atomic optics has practical value in the processing of metals, fibers, and textiles. The Institute of Experimental Physics is composed of four university faculties -- two experimental physics faculties the faculty of electronics and radiology, and the faculty of atomism. The institute's laboratories are used by many schools of higher education in Warsaw, including the Medical Academy, and the Main School of Rural Economy. About 1,600 undergraduate students use the laboratories annually. The laboratories for graduate studies are used for the preparation of these for the master's degree and for the doctorate.

The institute was opened in 1919. During the war, the occupation forces destroyed the installations, scientific equipment, book collections, and parts of the building. In 1945 the government helped to rebuild the institute. A very modern laboratory for nuclear physics is being built underground. Soviet scientists were the first to come to the aid of the institute by offering valuable spectrographic equipment.

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EXHIBIT SCIENTIFIC RESEARCH EQUIPMENT -- Warsaw, Rzeczpospolita, 2 Jul 50

The scientific and research equipment exhibit to be held in July in Warsaw is the first of its kind in the world. It is a proof of the close cooperation between Poland, the USSR, and the Peoples' Democracies. The exhibit will also acquaint Polish scientists and technicians with the achievements of these countries in this field and will facilitate the ordering of various scientific and factory laboratory equipment.

During the war, the equipment of scientific institutes and industrial laboratories was almost completely destroyed. What equipment remained was obsolete because of scientific discoveries and could not be used. After the war, the institutes were rebuilt and new vocational schools and higher schools were built. Industry was rehabilitated and required factory research laboratories to establish norms and control production. Research institutes were also being organized.

Domestic production of equipment, which even before the war was very small, could not supply the demand. Science and industry had to depend on imports which were very difficult to secure.

In recent times most equipment has been imported from the USSR, the German Democratic Republic, Czechoslovakia, and Hungary. In 1949, the USSR supplied equipment on consignment permitting scientific institutes to complete their plans.

The Six-Year Plan provides for a great expansion of industry. Besides training experts, Poland will have to provide the required scientific research equipment. The USSR and People's Democracies will supply part of the equipment and domestic industry will supply the rest. Scientific research institutes in Poland have already developed several models of required instruments.

The July exhibit in Warsaw will include the following equipment from the USSR and Peoples' Democracies: endurance-testing apparatus; X-ray and other apparatus for testing the composition of materials; various optical equipment including factory microscopes, photometers, spectrometers, refractometers, and calorimeters; chemical laboratory equipment; laboratory appliances; equipment for special research; geodetic equipment; hydrological and meteorological equipment; supersonic equipment; electrical measuring equipment; oscillators and oscillographs; and other items.

The USSR will exhibit various equipment, ranging from elementary school equipment to very complicated tensile-strength testing machines. The exhibit will include general purpose microscopes, large tool microscopes, polarimeters, biological polariscopes, dark field condensers, and others. The microphotometer and the quartz spectrograph are outstanding for their precision. This type of equipment has been produced heretofore only in England and the United States.

The German Democratic Republic has greatly developed its precision instrument production. Fine precision optical instruments, electrical testing equipment, oscillographs, and many types of strength-testing apparatus are exhibited.

Czechoslovakia and Hungary have also developed the precision instrument and optical industry. Czechoslovakia manufactures interesting apparatus for the analysis of the structure of materials, optical equipment, and electrical equipment.

Hungary also has a well-developed industry for the production of electrical apparatus, strength-testing machinery, and X-ray apparatus for structural analysis.

Polish industry produces the larger microscopes, strength-testing machines and apparatus, electro-technical, chemistry, and physics apparatus, telecommunications and other equipment.

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