

Defense Research Committee of the Office of Scientific Research. Since 1946 he had been with Philips Laboratories as a research physicist, where his contributions encompassed the fields of transistors, bolometers, optics, thermistors, infrared instrumentation, electroacoustics, and photographic materials. His appointment as Administrative Advisor was in 1960. He was a member of the American Physical Society.

#### **Sidney Krasik**

A leading reactor physicist died in Pittsburgh on Oct. 17. Sidney Krasik had been senior consultant to the atomic, defense, and space group of Westinghouse Electric Corporation. He was 54 years old. A native of Brownsville, Pa., he was awarded his BS by Carnegie Institute of Technology in 1932. His PhD was earned at Cornell University in 1947.

Krasik first joined Westinghouse in 1941 as a research engineer and successively became scientific advisor to the Westinghouse Atomic Power Division, manager of the physics department, and technical director of Astro-nuclear Laboratory.

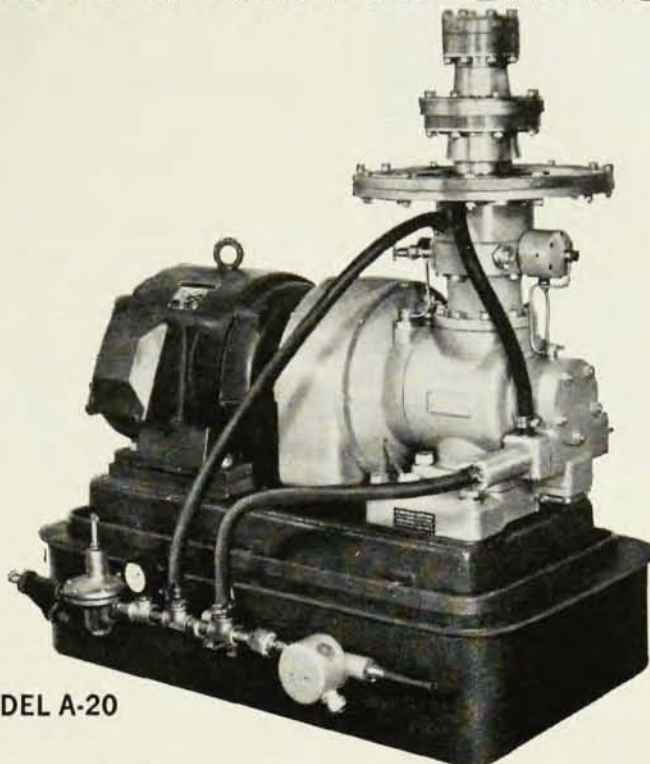
He was a member of the American Physical Society.

#### **John R. Roebuck**

A physical chemist who later included physics in his research died on October 9 in Schererville, Ind. Born in London, Ontario, Canada, in 1876, John R. Roebuck took his BA at Toronto University in 1902 and his PhD at Toronto in 1906. After a year as a chemistry instructor at McGill University, he joined the physics department of the University of Wisconsin at Madison, and remained there until his retirement as chairman in 1947. He continued his research work at Wisconsin until 1961. During World War I he worked at the New London, Conn., submarine base on early sonar devices.

Roebuck made many definitive measurements of intermolecular forces in gases, the most noted of which was his measurement of Joule-Thompson effect of many important gases. He was a member of the American Physical Society.

## NEW ULTRA-LOW CRYOGENIC REFRIGERATION CAPACITY

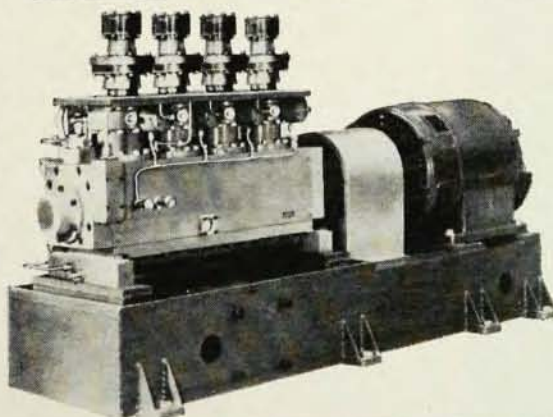


**MODEL A-20**

The Model A-20 Cryogenerator, utilizing the proven Stirling cycle principle, is capable of furnishing refrigeration at temperatures ranging from ambient down to 12°K. Its useful operating range extends from 80°K to 12°K. The thermodynamic design permits simultaneous extraction of refrigeration at two levels—50°K to 80°K at the intermediate freezer, and 40°K to 12°K at the cold freezer.

This unusual versatility makes the A-20 suitable for many ultra-low temperature applications including cold-spot cooling of IR systems, masers, lasers and other electronic devices; superconduction, cryo-pumping, and hydrogen or neon liquefaction/recondensation. Coupled with an external helium JT loop, the A-20 provides a compact, reliable helium liquefier or a 12°K-4°K dense gas refrigerator system.

In addition, the A-20 can be furnished with an optional basic flange provided with feed-throughs suitable for mounting an insulating enclosure.



**MODEL B-20**

The B-20 Cryogenerator, like its counterpart the A-20, has been similarly designed with cold and intermediate take-offs. However, refrigeration capacity is four times that of the A-20 Model.

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