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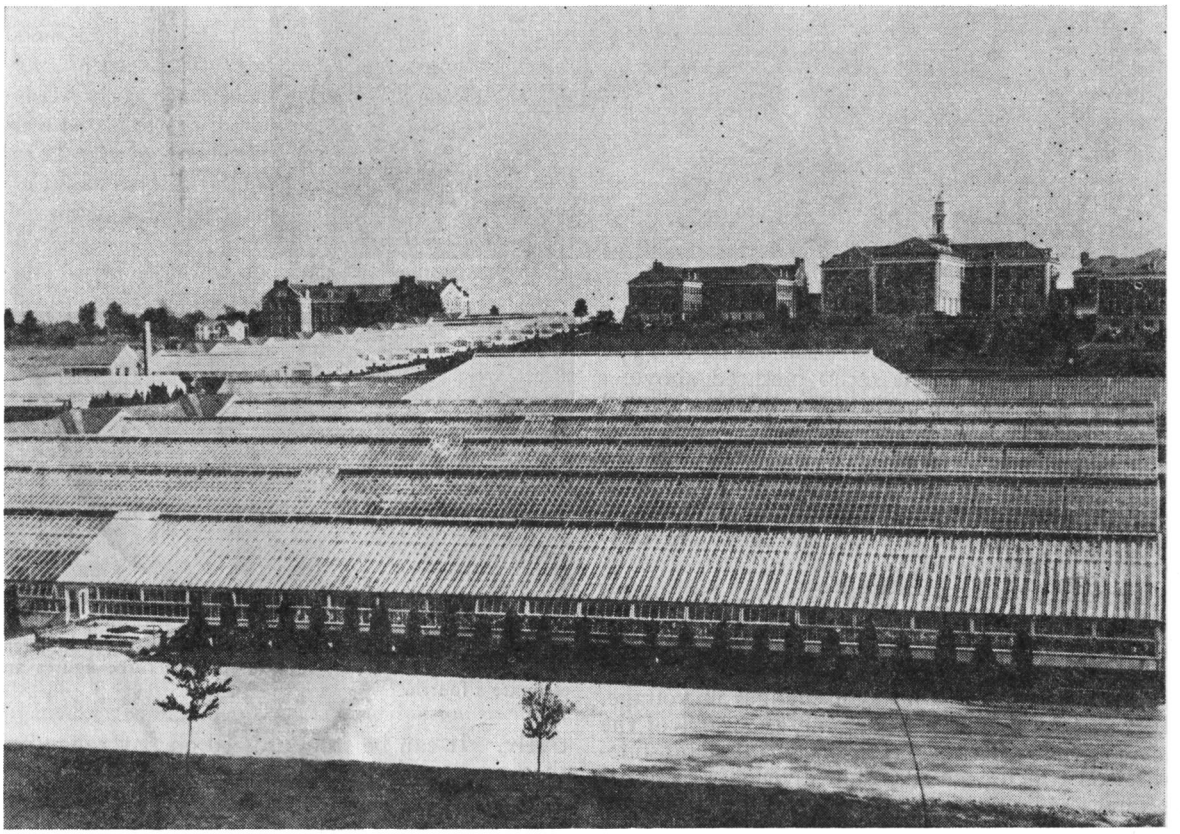

Plant Industry Station, Agricultural Research Administration, U. S. Department of Agriculture, Beltsville, Maryland, including a section of the extensive greenhouses.

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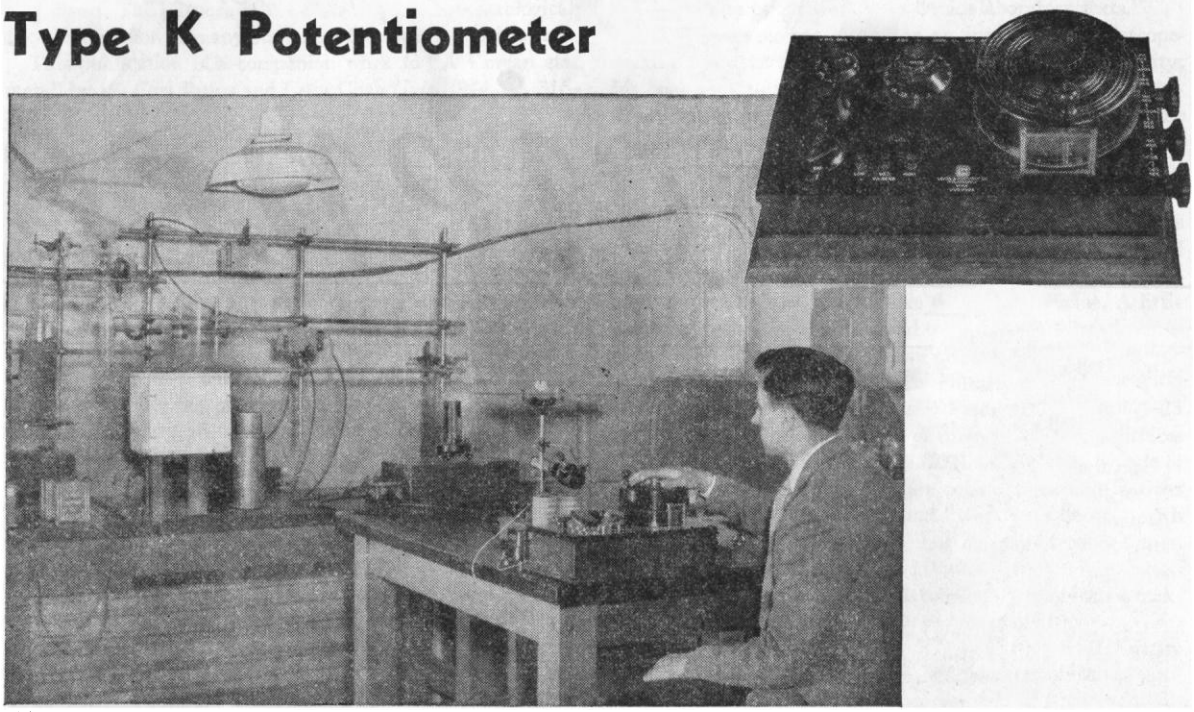
OF SCIENCE

Discharge Through Gases

Leonard B. Loeb

Low Pressures Measured Electrically Using Type K Potentiometer

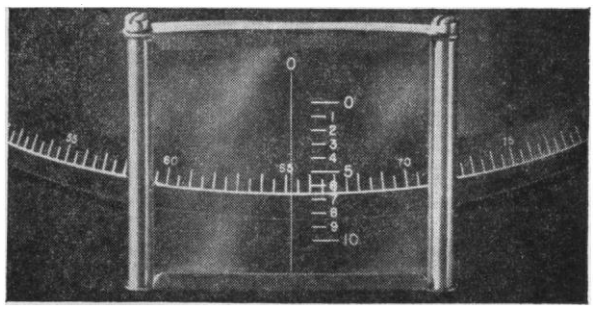


In measuring extremely low vapor pressures, a physicist at Duke University uses an L&N Type K Potentiometer in the setup pictured above.

The vessel containing the sample is covered with a diaphragm which tends to move as vapor pressure changes. The diaphragm is pulled back to the null position by a solenoid. Solenoid voltage and current are measured with a Type K Potentiometer, and these readings are converted to pressure units.

The speed and ease of standardizing and measuring with the K are especially valuable where a number of readings are made in quick succession. It's simple to read the instrument to high accuracy and to follow small changes in voltage. In the Type K-2 Potentiometer, about 6% of the instrument's range is spread across a 5-meter slidewire, on which each 2½ mm. division represents 0.5 microvolt on the lowest or 16.1 millivolt range.

In addition to this range, the potentiometer has two others, 0–1.61 and 0–0.161 volts respectively. It can be standardized on any range and then read on that or any other.



One-half size closeup of the scale of the Type K Potentiometer's slidewire shows how easy it is to read to three figures and estimate a fourth.

For a detailed description, see Catalog E-50B(3), sent on request. Leeds & Northrop Company, 4926 Stenton Avenue, Philadelphia 44, Pa.

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