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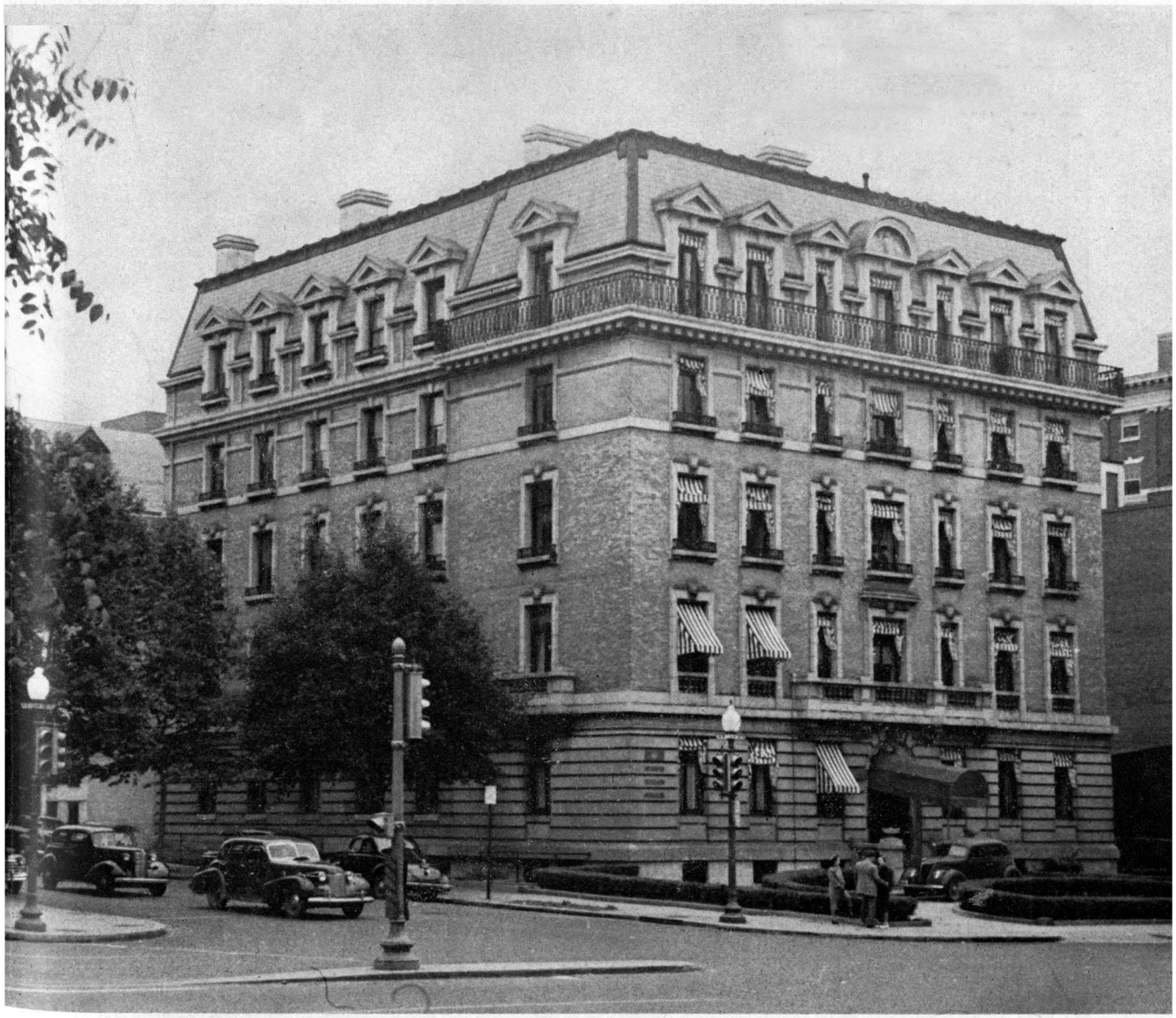
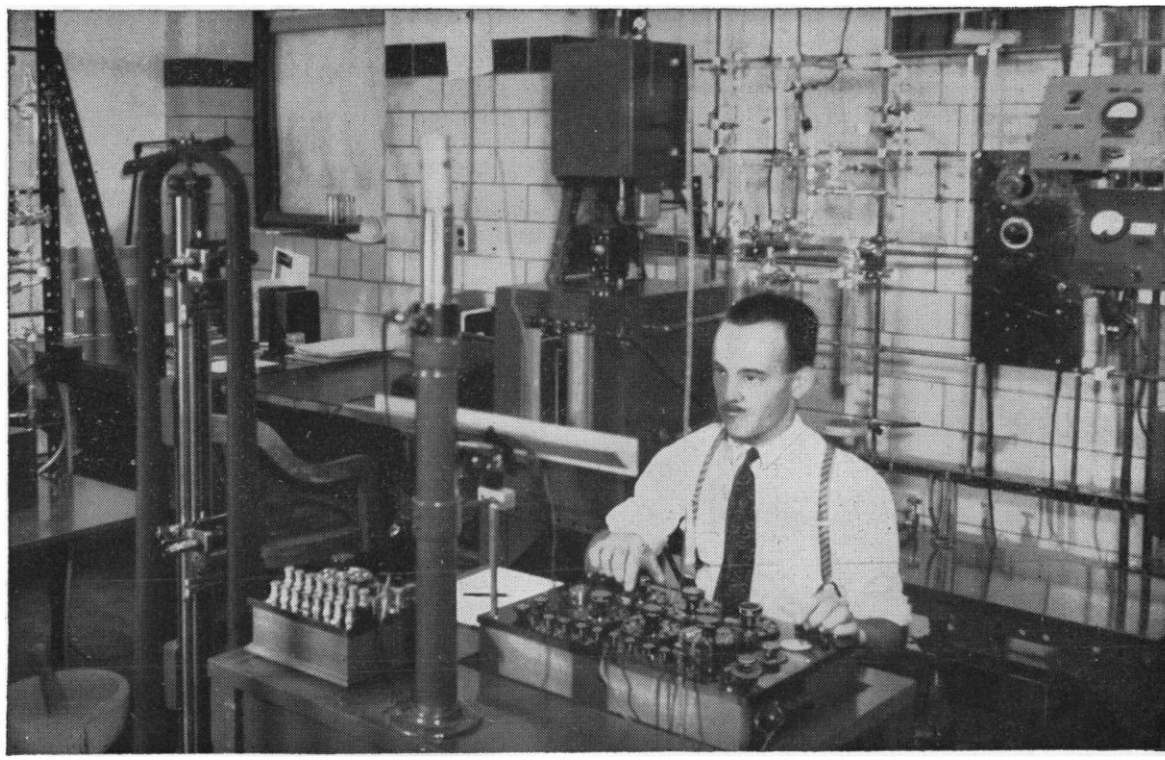
Science



National Headquarters, American Chemical Society

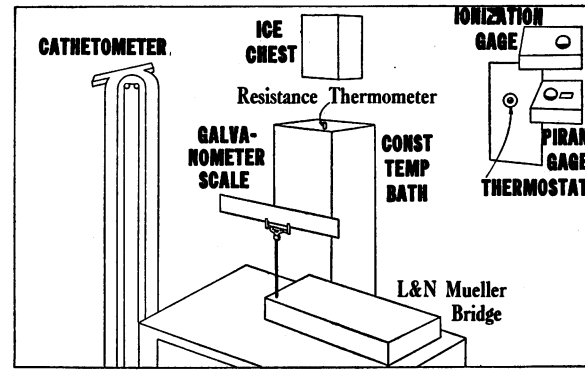
(See *page 205*)

Mueller Bridge for Measuring Temperature During Precise Vapor Pressure Studies



Apparatus for precise measurement of vapor pressures, photographed above and diagrammed at right, shows use of manometer, cathetometer, and G-2 Mueller Bridge at Bureau of Mines, Bartlesville, Okla. Manometer and sample container are immersed in the constant temperature bath. Before the compound to be studied is introduced into the container, the system is evacuated, using the Pirani gage to indicate pressure down to one micron and the ionization gage for lower pressures.

During measurements, the cathetometer is used to read the vapor pressure as indicated by the mercury manometer. The thermostat automatically regulates the bath temperature, and the Mueller Bridge precisely indicates temperature of the sample.



Two features make the G-2 Mueller Bridge suitable for this type of work:

Wide Range: The Bridge is calibrated in ohms, with a resistance range equivalent to temperatures of – 190 to + 500C.

High Precision: The Mueller Bridge offers the limit of certifiable precision. It measures the resistance of its 25-ohm platinum resistance thermometer, within a limit of error of a few ten-thousandths of an ohm, or a few parts per hundred-thousand, whichever is greater.

Catalog E-33C(1) describes the instrument in detail. Write to Leeds & Northrup Co., 4926 Stenton Ave., Philadelphia 44, Pa.

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