Alignment telescope consists of a 17-in. telescope and an 8-in. reflector. The telescope remains fixed while the reflector moves along the line of inspection. Discrepancies are measured between the optical center of the reflector and the optical axis of the telescope within the limits ±0.04 in. Flatness, alignment, and concentricity are measured to 0.00005 in. Addition of a divergent lens to the telescope permits angular measurements. Precision of ±0.25 sec is obtainable. (F. T. Griswold Mfg. Co., Dept. 441)

Experimental earphones effect noise reduction by furnishing an interfering wave. A miniature microphone in the earpiece creates a signal opposite in phase and equal in amplitude to the ambient noise. Low-pitched sounds are reduced to one-tenth their original volume. Higher pitched sounds are absorbed by a foam cushion. (Radio Corporation of America, Dept. 442)

Vertical illuminator for stereoscopic microscope provides vertical shadowless illumination of deep, small-diameter orifices when the angle is too acute for standard oblique illumination methods. The illuminator consists of a lamp housing with bracket for attachment to the manufacturer’s microscope stand, a vertical reflector, and a variable transformer. (American Optical Co., Dept. 444)

Gas chromatograph achieves detection by burning gases emerging from the column and monitoring the temperature of the flame. A thermocouple of very low thermal inertia is used to measure flame temperature. A mixture of hydrogen and nitrogen is used as the carrier gas. Exit gas is ignited initially by a spark. A regulated compressed-air supply is fed into the combustion chamber to support combustion. On full sensitivity, 10⁻⁷ g of hydrocarbon per milliliter of carrier gas is said to be detectable. The area of the chromatogram peak, corrected for heat of combustion, is proportional to the weight of the substance present. Sensitivity and stability are independent of temperature. Substances with boiling points up to 375°C can be analyzed. (Shandon Scientific Co., Ltd., Dept. 448)

Carbon-14 labeled compounds listed in 1958 catalog include 38 new compounds. Prices and ordering information are given. Among the new compounds are guanine-2-C¹⁴, guanine-8-C¹⁴ and thymine-2-C¹⁴. (Research Specialties Co., Dept. 454)

Centrifuge features a control panel that may be lifted out of the basic instrument housing for remote operation. Interchangeable rotors provide versatility. Among these are an anodized aluminum rotor providing forces up to 34,800 g with capacity of 400 ml divided among eight compartments; an eight-tube continuous flow system; and an eight-cell particle-counting rotor (Ivan Sorvall, Inc., Dept. 453)

Permanent magnet has field strength 1,717.5 gauss ± 0.1 percent and maximum field inhomogeneity at gap center of 40 mgauss over a 2-in. region. Gap is 2-in. thick by 10-in. in diameter. Series-connected sweep coils provide a maximum sweep amplitude of 40 gauss peak-to-peak with current sensitivity of 750 mgauss/ma. Weight is 375 lb. (Schlumberger Well Surveying Corp., Dept. 447)

Joshua Stern
National Bureau of Standards

---

**RESEARCH OPPORTUNITY**

**Bio-Chemist**

If you are interested in conducting fundamental research as well as investigating, developing and evaluating new products, send your resume, including present and expected salary, in confidence to Mr. N. R. Olsen.

**GILLETTE SAFETY RAZOR CO.**

Gillette, a world-wide leader in consumer products, is expanding its Research and Development activities, and is seeking a chemist with an advanced degree and thorough knowledge of skin and hair chemistry.

**GLASS ABSORPTION CELLS made by KLETT**

Makers of Complete Electrophoresis Apparatus

- **Scientific Apparatus**
  - Klett-Summersport Photoelectric Colorimeters
  - Colorimeters — Nephelometers — Fluorimeters

Klett Manufacturing Co.
179 East 87 Street, New York, New York