### **New Products**

The information reported here is obtained from manufacturers and from other sources considered to be reliable. Neither Science nor the writer assumes responsibility for the accuracy of the information. All inquiries concerning items listed should be addressed to the manufacturer. Include the department number in your inquiry.

- TEMPERATURE-CONTROL SYSTEM is said to maintain temperature within ±0.2°C up to 1200°C. A platinum resistance thermometer, sealed to avoid contamination by gases, is used with an electronic controller to operate a saturable reactor that varies power input to the furnace windings. The electronic controller uses a slide-wire potentiometer that can be set with repeatability said to be one part in 4600. A 1-percent change in absolute temperature produces full-scale variation of control current. The same controller is used for furnaces of various capacities. Compensation for line voltage variation is provided. (Atkins Technical Inc., Dept. Sci212, 1276 W. 3rd St., Cleveland 13,
- MAGNETOMETER is said to be suitable for detecting magnetic anomalies of 0.1 gamma or less, and relays data in analog or digital form. In the digital mode, data are presented as a-c potentials varying in frequency with the polarity and magnitude of an ambient magnetic

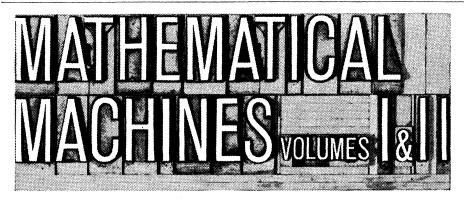
- field. Sensitivity, in terms of deviation from a center operating frequency, is typically 2.5 parts in 10<sup>5</sup> per gamma with an effective dynamic range of  $\pm 0.3$ gauss. Analog data are presented as a-c signals varying in phase as the ambient magnetic field varies. Sensitivity is ±4 deg/gamma over a dynamic range of up to 20 gammas. Operating range may be increased with a corresponding reduction in sensitivity. The instrument is 7 in. long and 3 in. in diameter, and consumes 0.8 watt at 200 ma from a 4-volt d-c source. (Arnoux Corp., Dept. Sci208, 11924 W. Washington Blvd., Los Angeles 66, Calif.)
- MICROSCOPES, featuring a completely integrated zoom optical system, provide a magnification range extending from 17.5 to 1940. The zoom optical system provides any magnification between 1 and 2 continuously. Six interchangeable bodies are available in the microscope series, including three monoculars, a binocular, a photo binocular, and a photomonocular. Focusing motion is applied to the stage so that the eye level remains constant. All bodies can be rotated through 360 deg on a common arm bracket. Eyepiece tubes are inclined. Cemented reflecting prisms are replaced by aluminum mirrors with protective coating. Attachments are available for 35-mm Polaroid Land

cameras. These are focused through visual eyepiece tubes. A closed-type base accommodates interchangeably a variety of light sources. (Bausch and Lomb Inc., Dept. Sci215, Rochester 2, N.Y.)

- HYDROGEN PURIFIERS produce pure hydrogen in milliliters per minute or cubic feet per hour quantities. In operation, an impure source gas containing free hydrogen flows under pressure into a stainless-steel jacket and over a bundle of palladium-silver alloy tubes. The tubes permit hydrogen to pass through their walls but bar all other gases. The alloy, unlike pure palladium, is said to exhibit no distortion when subjected to repeated heating and cooling cycles. Standard models for small volumes have capacities of 40 and 100 ml/min. The units operate on 115-volt a-c. (Milton Roy Co., Dept. Sci236, 1300 E. Mermaid Lane, Philadelphia 18, Pa.)
- OXYGEN SENSOR operating on the polarographic principle measures partial pressure of oxygen from 0 to 760 mm-Hg with an absolute range of 250 to 1000 mm-Hg. Full-scale response time is said to be less than 10 sec at 70°F; operating temperature range is 40° to 150°F. The sensor is designed to be used with the manufacturer's airborne high-impedance amplifier. Custom-built units can be produced to order for use with microammeters or conventional recorders. (Beckman Instruments, Inc., Dept. Sci234, 2500 Harbor Blvd., Fullerton, Calif.)
- TEMPERATURE CONTROLLER, designed for controlling the temperature of living specimens in medical and biological laboratories, uses a glass enclosed thermister of small mass to achieve rapid response. According to the manufacturer, any desired temperature between 25° to 50°C can be reproduced and indefinitely maintained within a few hundredths of a degree. Use to provide desired temperature environments for microscopic specimens during observation is suggested. (Oxford Laboratories, Dept. Sci238, 961 Woodside Rd., Redwood City, Calif.)
- POWER SUPPLY provides an output range up to 350 kv and is designed for applications such as dielectric testing of cables and klystron apparatus. The unit is oil insulated. A continuous current of 8 ma is provided at any output voltage setting within the range of the equipment. Ripple is 2 percent (r.m.s.). Auxiliary filters are available to reduce ripple to 0.01 percent. (Sorensen & Co., Dept. Sci213, Richards Ave., South Norwalk, Conn.)

Joshua Stern

National Bureau of Standards, Washington, D.C.



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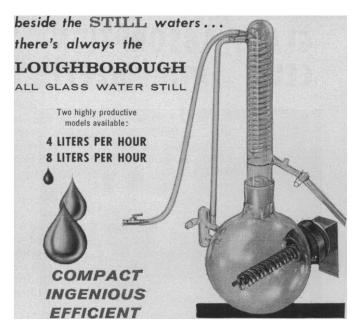
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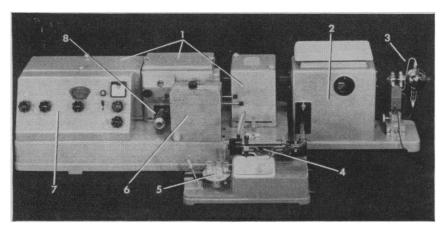
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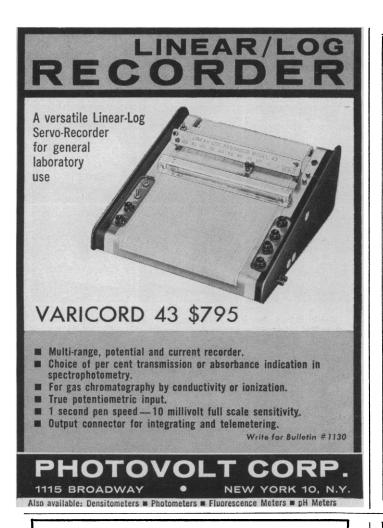
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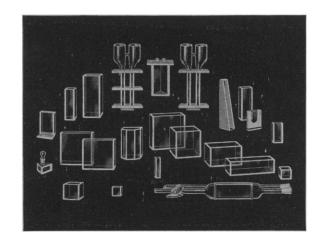
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