Equipment

The information reported here is obtained from manufacturers and from other sources considered to be reliable. Science does not assume responsibility for the accuracy of the information. A coupon for use in making inquiries concerning the items listed appears on page 1590.

**WATER-FLOW SWITCH** allows water-cooled chemical apparatus to be left unattended in safety. Cooling water flowing through the device produces a hydrostatic head that is used to actuate a diaphragm-type switch. Failure of flow cuts off power to the apparatus and actuates an alarm. A short time delay permits brief interruption of flow for adjustment purposes without actuating the safety device. (Instruments for Research and Industry, Dept. 536)

**POWER-SUPPLY** provides 0.002 percent regulation over the operating range 160 to 600 v and 0 to 100 ma. Ripple is 100 µv. Internal impedance is less than 0.1 ohm for frequencies as high as 100 kcy/sec. Transient response is 0.001 msec. Ten-hour drift is typically ± 0.05 percent. (Krohn-Hite Corporation, Dept. 527)

**COLORIMETRIC POWER METER** measures power from 10 mw to 10 w full scale at any frequency from d-c to 10 kMcy/sec. Response time is less than 5 sec in all ranges. Nominal accuracy is ± 5 percent, but ± 2 percent performance is said to be obtainable in some operating circumstances. Power is read directly in watts. Operating controls are a meter-range switch and a zero-set control. (Hewlett-Packard Co., Dept. 528)

**TEMPERATURE INDICATOR** uses thermistors to indicate temperature at ten different points to ± 0.1°C accuracy. Range is 60° to 90°C. Indication is by a meter calibrated in 0.2°C graduations. Other ranges and coverage of more or fewer than 10 points can be provided. (Fenwal Electronics Inc., Dept. 538)

**LABORATORY SINK** is made of 1/8-in. thick, high-temperature, high-density polyethylene. Inside dimensions are 12 by 60 in. A 1-in. flange surrounds the open top. A 1 1/8-in. flanged center sink trap provides drainage. (American Agile Corp., Dept. 541)

**SCALE-DRAWING MACHINE** is a hand-operated device that allows the redrawing of any electrical indicating instrument whose angular deflection is not greater than 90 deg. Thus electrical indication may be returned to original accuracy after repair or calibration. Purchase of the device includes a 40-hour-in-plant course of instruction in its operation. (Sensitive Research Instrument Corp., Dept. 543)

**WHEATSTONE BRIDGE** features accuracy of ± 0.02 percent for most measurements from 0 to 12,000 megohm. The lowest range has a resolution of 10 µohm per dial division. The range-switching circuit is designed so that switch contacts never appear in series with a low-resistance bridge arm. A ratio adjustment is provided for each range setting so that each range can be independently adjusted to a known reference standard. The variable resistance arm is a five-place decade rheostat initially adjusted to accuracy of ± 0.005 percent + one dial division. (Electro Measurements Inc., Dept. 593)

**FREQUENCY STANDARD** features stability better than 1 part in 10⁸ for a 24-hour period. A two-stage oven keeps the crystal at a temperature at which it has zero temperature coefficient. Output frequencies of 1 Mcy and 100 kcy/sec at 1.0-v r.m.s across a 50-ohm load are produced. Frequency is adjustable over a range of ± 5 parts in 10⁸, readable to 1 part in 10¹⁰. The unit operates from a nominal 115-v, 60-cy/sec or a 26-v d-c source. (George W. Borg Corporation, Dept. 540)

Joshua Stern
National Bureau of Standards

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In a PHASE-CAMERA-MICROSCOPE
Only UNITRON offers all three:

- **CONVENIENCE**
- **VERSATILITY**
- **ECONOMY**

UNITRON'S unique Phase-Camera-Microscope will assure you a CONVENIENCE of operation impossible to duplicate with a conventional microscope stand. For example, a specimen consisting of a tissue culture or aqueous solution may be examined in the very petri dish in which it has been prepared. Merely place the dish on the microscope stage, examine the contents visually, project the image on the viewing screen, or photograph — all in rapid sequence and at magnifications up to 2000x. With the inverted design, there is no need to contend with slipping cover glasses or evaporating fluids. Using the phase optics, you dispense with messy chemical staining. Aided by the self-contained illumination system and built-in cameras, you eliminate troublesome problems of alignment and vibration. UNITRON'S Phase-Camera-Microscope, optically equipped for Bright and Dark Phase Contrast, bright and dark field, and polarized light, offers the microscopist a working tool of unmatched VERSATILITY. The overhead turret phase condenser is centerable, divisible, and provides long working distances sufficient even for micro-manipulation. Provision is included for four different cameras — 3 ½" x 4 ½", 35mm., Polaroid, and motion picture. Available at extra cost are macro accessories for magnifications as low as 5X and accessories for opaque specimens. UNITRON's model meets not only your urgent needs of today — its versatility is your assurance of continued usefulness in the future.

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Equipment

JOSHUA STERN

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