

any point desired. Average access time is 1/2 sec. Individual units may be added to increase capacity. (Potter Instrument Co., Inc., Dept. 142)

■ **TRANSISTOR TEST SET** measures beta,  $I_{co}$  and  $I_{cbo}$  of both pnp and npn type transistors at any operating level. Component matching accuracy of approximately 2 percent is provided.  $I_{co}$  ranges are 0 to 50 and 0 to 500  $\mu$ a. Beta ranges are 10 to 100 and 100 to 1000,  $I_{cbo}$  range is 0 to 50  $\mu$ a. (Armour Electronics Inc., Dept. 135)

■ **FREQUENCY STANDARD** is said to have instability less than 2 parts in  $10^{10}$  per week. It is a servo-corrected quartz oscillator, of high inherent stability, contained in a double oven. The servo control eliminates errors resulting from changes in circuit and tube parameters. Outputs are 10 and 1 Mcy/sec and 100 kcy/sec. (Marconi Instruments, Dept. 141)

■ **X-Y RECORDER** includes a built-in time-base sweep circuit. Five time intervals from 5 to 500 sec for full-scale pen travel may be selected. The instrument is a flat-bed recorder accommodating 8 1/2-by-11-in. graph paper. Alternative use to plot one variable against another is available at the flip of a switch. (F. L. Moseley Co., Dept. 143)

■ **TUBE FURNACE** of carbon-resistor type provides temperatures to 5000°F. The furnace, of vertical design, is intended for use in testing of ceramic or metal-

lurgical specimens. The work load is raised or lowered hydraulically at a continuously adjustable rate. Temperature control is effected by a radiation pyrometer, a circular-chart recorder controller, and a saturable reactor. Controls are capable of holding to  $\pm 20^\circ$  at 5000°F in an atmosphere of inert gas. Heat-up from room temperature to 4500°F can be accomplished in 2 hr. (Pereny Equipment Co., Dept. 148)

■ **FREEZING UNIT** for tissue specimens uses compressed Freon-12 to maintain temperature constant at approximately  $-30^\circ$ F. Microtomes attach to the front plate of the device. The equipment is readied for use by turning on compressor standby switch in the morning. Standby power consumption is 50 w. (Scientific Products, Dept. 115)

■ **SAMPLE COATER** for laboratory study of painting materials operates on the timed-withdrawal principle. Withdrawal is accomplished by allowing the paint to drain by gravity flow from a tank suspending the samples to a second tank. Rate of withdrawal is controlled by valve adjustment. Tanks are raised and lowered by hand crank. (Gardner Laboratory Inc., Dept. 146)

■ **DIGITAL DELAY GENERATOR** produces two pulse delays independently adjustable from 1 to 10,000  $\mu$ sec in 1- $\mu$ sec steps. Continuous interpolation between steps is calibrated in 0.1  $\mu$ sec. Time intervals are accurate within 0.1  $\mu$ sec  $\pm$  0.001 percent of selected value. Intervals may be ini-

tiated from external pulses at repetition rates 0 to 10 kcy/sec, or from an internal rate generator 10 cy/sec to 10 kcy/sec. Total jitter does not exceed 0.02  $\mu$ sec. (Hewlett-Packard Co., Dept. 144)

■ **ION CHAMBERS** are designed for operation at temperatures up to 300°C. Available are compensated and uncompensated neutron-sensitive chambers, gamma-sensitive chambers, fission counters, and proportional counters for neutron-flux charges from  $10^{-1}$  to  $10^{11}$  NV. All are sealed-chamber units. The compensated chambers have a fixed geometrical compensation exceeding 95 percent. (General Electric, Dept. 121)

■ **INCUBATOR** provides visibility of every vessel inside without opening door. The incubator chamber, a cylinder 10 in. long and 14 1/2 in. in diameter cylinder, has four shelves. (Central Scientific Co., Dept. 152)

■ **STRIP-CHART RECORDERS** are available in a variety of widths and with a variety of movements. Recording is rectilinear and direct writing in both inkless and inking models. D'Arsonval movement is used for direct current; a rectifier is provided for alternating current. Dynamometer movements are used for ac r.m.s. The standard size has a chart width of 4-11/16 in. and accommodates up to three channels. Six chart speeds are selectable. (Curtiss-Wright Corp. Dept. 149)

JOSHUA STERN  
National Bureau of Standards

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7/11

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Experienced Histology Technician, ASCP registered preferred. Supervise histology laboratory in large midwestern teaching hospital, train technicians, opportunity for research. Box 163, SCIENCE. tf

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(a) Full Professor and Chairman, department of bacteriology and public health, state college; man with ability to teach successfully undergraduate and graduate students, productive investigator required; \$8500-\$13,250, academic year; opening also for Acting Instructor in Bacteriology and Public Health for this next year only; \$4800-\$5900, academic year. (b) Senior Biochemist with strong background in enzymology, particularly interested in enzymes affecting the central nervous system; research and development division, pharmaceutical company; East. (c) Psychologist to establish psychology section under department of pediatrics in medical school. (d) Biochemist; full-time research cardiac diseases; Florida. (e) Chemist-Pharmacist to serve as technical director in charge of production; pharmaceutical laboratory; Michigan. S7-1 Medical Bureau, Burnice Larson, Director, 900 North Michigan Avenue, Chicago. X

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