

1-4. National Council of Teachers of Mathematics, Dallas, Tex. (H. T. Karnes, Dept. of Mathematics, Louisiana State Univ., Baton Rouge 3.)

1-4. National Science Teachers Assoc., 7th natl. conv., Atlantic City, N.J. (R. H. Carlton, NSTA, 1201 16 St., NW, Washington 6.)

1-4. Neurosurgical Soc. of America, Hot Springs, Va. (F. P. Smith, 260 Crittenden Blvd., Rochester, 20, N.Y.)

1-29. World Meteorological Organization, 3rd session of congress, Geneva, Switzerland. (WMO, Campagne Rigot, 1, avenue de la Paix, Geneva.)

2-3. Electrically Exploded Wires, conf., Boston, Mass. (W. G. Chace, Thermal Radiation Laboratory, CRZCM, Geophysics Research Directorate, Air Force Cambridge Research Center, Bedford, Mass.)

2-4. Association of American Geographers, 55th annual, Pittsburgh, Pa. (J. E. Guernsey, 9707 Parkwood Dr., Bethesda, Md.)

2-4. Association for Computing Machinery, Cleveland, Ohio. (J. Moshman, Corporation for Economic and Industrial Research, 1200 Jefferson Davis Highway, Arlington 2, Va.)

2-4. Optical Soc. of America, New York, N.Y. (S. S. Ballard, Dept. of Physics, Univ. of Florida, Gainesville.)

3-4. Eastern Psychological Assoc., Atlantic City, N.J. (C. H. Rush, Standard Oil Co. of New Jersey, Rockefeller Plaza, New York, N.Y.)

3-5. American Soc. for the Study of Sterility, Atlantic City, N.J. (H. H. Thomas, 920 S. 19 St., Birmingham 5, Ala.)

(See issue of 16 January for comprehensive list)

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 286.

■ **RESISTANCE THERMOMETER** uses a silicon diode reference-voltage supply for the d-c measurement bridge. Reference voltage variation is less than 0.2 percent for a ± 15 percent change in line voltage. Temperature range is -200° to 1200° F. Operating power requirement is 120/240 v, 50 to 60 cy/sec, 15 w. (General Electric Co., Dept. 586)

■ **EVENT RECORDER** records duration of events from 0 to 15 sec across a 7-in. horizontal axis on an $8\frac{1}{2}$ by 11 in. sheet. Time of occurrence of each event is recorded along the 10-in. vertical axis for recording periods up to 48 hr. The unit can record either a continuous trace or a dot at the terminus of each event. Input signals close the circuit for the duration of the event. (Mast Development Co., Dept. 604)

■ **PYROMETER** scans a remotely located surface and presents a temperature profile on a cathode-ray oscilloscope. Surface temperatures within the range 50° to 1000° C are measured. Precision is $\pm 1^{\circ}$ C or ± 2 percent, whichever is larger. (Radiation Electronics Corp., Dept. 607)

■ **DIGITAL RATIO METER** measures ratios from 0 to 1.000. Input voltages range from 0 to 6.3 v a-c and 0 to 6 v d-c. With high-impedance input, accuracy is ± 0.1 percent of full scale. Nominal frequency for a-c measurements is 400 cy/sec; variations of ± 2 cy/sec are permissible. Reference input impedance is 1000 ohm; signal input impedance is 20 megohm for the a-c section and 10 megohm for the d-c section. (Performance Measuring Co., Dept. 591)

■ **GAS-POWERED TIMING UNIT** is designed for use with instruments requiring chart records for periods from 1 hr to 30 days. Compressed gas consumption is 5 ft³/hr at 5 lb/in.². All parts exposed to gas are made from aluminum or stainless steel. The clock is self-starting and is not affected by wide fluctuations in supply pressure. (American Meter Co., Dept. 612)

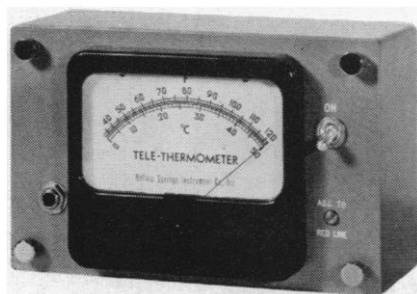
■ **POWER SUPPLY** is designed for activating and electrically balancing thermal-conductivity sensing cells. Normal voltage output is 17 v with current between 30 and 500 ma. Regulation against input a-c voltage changes between 100 and 130 v is better than 0.25 percent. Response time is less than 25 μ sec. (Industrial Instruments Engineering Corp., Dept. 615)

■ **LOW-TEMPERATURE CABINET**, cooled with Dry Ice, is available in two sizes with work space dimensions 24 by 24 by 24 and 18 by 16 by 20 in., respectively. Temperature range is $+200^{\circ}$ to -120° F. A thermostatically controlled blower mounted in the Dry-Ice compartment forces CO₂ into the working chamber as cooling is required. Temperature is controlled $\pm 0.5^{\circ}$ at -100° F and $\pm 1^{\circ}$ at $+200^{\circ}$ F. Time required to reach -100° F is approximately 90 min; maintaining this temperature requires 2 to 2.5 lb of Dry Ice per hour. (American Instrument Co., Dept. 601)

■ **CHROMATOGRAPHY COLUMN** for preparative chromatography, manufactured by LKB-Produtok of Sweden, is capable of separating gram quantities of materials that are separable on a microscale by paper chromatography. A roll of chromatographic paper is used as the column filling. The paper is wound tightly in ready-made rolls around a central polyethylene sheath. A pressure mantle, inflatable by hand pump, surrounds the filling, holds it in place, and removes any inhomogeneity that may be caused by irregular swelling of the paper. (Ivan Sorvall Inc., Dept. 603)

■ **GALVANOMETER AMPLIFIER** provides gain of 250,000 with noise level less than 0.025 μ v r.m.s. The signal is fed to the galvanometer, deflecting the light beam reflected from the galvanometer mirror.

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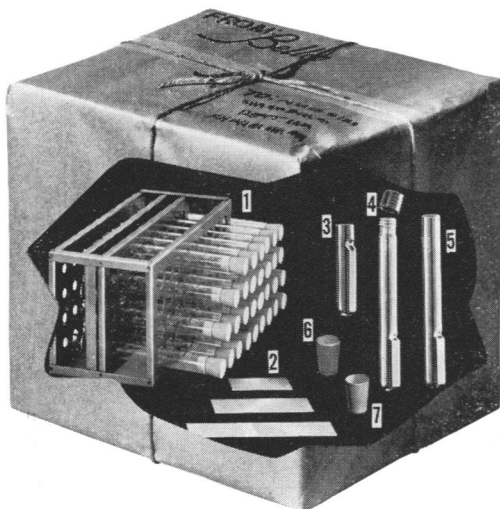
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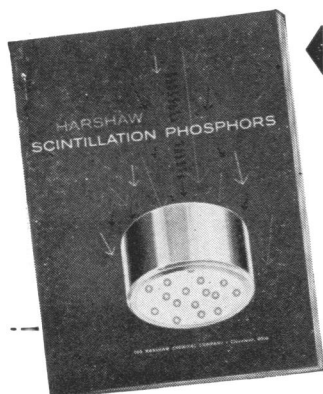
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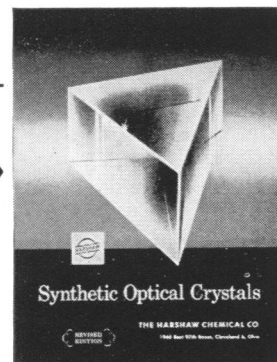
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■ **SHOCK-TEST MACHINE** is capable of reproducing shocks encountered in jet and missile flights as well as acceleration bursts resulting from vibrations and other transient conditions. It is also capable of reproducing normal shocks such as those encountered in handling and shipping. The machine provides a specified terminal-peak saw-tooth pulse shape rising to 100 g in 6 μ sec. The shock response spectrum is flat from 80 to 1000 cy/sec. Anvil, carriage, and superstructure are isolated from one another. (Avco Manufacturing Corp., Dept. 618)

■ **RARE-EARTH METALS**—praesodymium, neodymium, terbium, holmium, thulium, ytterbium, and lutetium—are available from inventory in commercial quantities. Ingots are 1, 1.5, 2, 3, and 3.5 in. in diameter. Purity is greater than 99 percent. (Michigan Chemical Corp., Dept. 609)

■ **VACUUM-BAKING OVEN** is a heat-insulated chamber with temperature control equipment and a vacuum pumping system. The front flange of the chamber attaches to a box, filled with inert gas, in which semiconductor components are manufactured or assembled. The components are placed in the chamber, which is then evacuated to 10^{-6} mm-Hg and heated to 450°C. Upon completion of the bake, the vacuum is broken to the inert-gas atmosphere of the dry box. (F. J. Stokes Corp., Dept. 610)

■ **TEMPERATURE SENSOR** is designed to permit air-temperature measurements substantially independent of solar or other radiation. The thermally sensitive element is surrounded by an inner shield of stainless steel with a high surface-to-mass ratio. Surrounding this is a second cylinder, of aluminum. A third hat-shaped element reduces solar-radiation error. An aspirating blower is integrally mounted. Maximum temperature deviation is said to be 0.2°F. (Beckman & Whitley, Inc., Dept. 611)

JOSHUA STERN

National Bureau of Standards

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POSITIONS WANTED

Bacteriologist, B.S. (chemistry); M.S. (physiology major); Ph.D., bacteriology major; mycology minor; 9 years, chief bacteriologist, large teaching hospital; on faculty medical school as instructor. Medical Bureau, Burnside Larson, Director, 900 North Michigan, Chicago. X

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M.D., M.S., biochemistry, desires teaching position, fall; medical school or college. Box 16, SCIENCE. X

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Microbiologist-Biochemist, Ph.D.; 7 years of industrial and academic experience including fermentation, enzymology, antifungal materials, and plant pathology. Box 12, SCIENCE. X

Organic Chemist, Ph.D., 1953. 5 years' research, physical-organic, tracer work, isolation characterization. Desires permanent research position, Northeast. Box 13, SCIENCE. X

Parasitologist-Medical Entomologist, Ph.D.; 3 years' experience teaching and research; publications. Desires teaching-research or research position. Box 19, SCIENCE. X

Pharmacologist-Physiologist, Ph.D.; 6 years' experience in most laboratory procedures including radioisotopes. Desires position in academic or industrial research. Box 14, SCIENCE. X

Ph.D., February 1959. Experienced in enzymology. Interested pharmacology, physiology, or biochemical research. New York, Connecticut, New Jersey. Box 11, SCIENCE. X

Scientist Ph.D., whose research program in aging and heart disease is receiving considerable financial support from granting agencies requires source of personal income. Box 10, SCIENCE. X

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Applications are invited for the position **Assistant Professor of Biology** to give instruction in physiology, embryology, and histology. Opportunities for research are available. The salary scale is \$5400–\$7000. A contributory pension scheme is in operation. Moving expenses are payable by the university to a maximum of \$750. Applications containing a complete curriculum vitae and the names and addresses of three referees should be sent to the Head, Department of Biology, Memorial University of Newfoundland, St. John's, Newfoundland. 1/23, 30

Biologists, Ph.D.'s, new state college, southern California. Prefer background in physiology, genetics, embryology, microbiology, or botany. Please send full résumé to Ralph Prator, President, San Fernando Valley State College, Northridge, California. 1/9, 16, 23

Biologist. Experienced teacher of general biology, genetics, botany; small undergraduate northeastern liberal arts college for men; prefer Ph.D.; academic year 1959–60; salary dependent on training and experience. Box 21, SCIENCE. X

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The starting salary is in the \$7000 to \$7500 annual range, and ultimate financial advancement will compare favorably with the annual salary earned by the chairman of a university department of biology. Benefits include annual paid vacations, generous sick leave, medical and hospital insurance, life insurance, and retirement pension which pays up to \$350 per month for life after age 65.

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Applications, three copies, stating age, details of qualifications and experience, publications, research work in progress and completed and an outline of the proposed field of research, together with the names of two referees, should be received not later than 14th February, 1959, by the Registrar, from whom further particulars may be obtained. (Candidates overseas who find it more convenient to do so may send 1 copy only by air-mail.)