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SODIUM CHLORIDE • SODIUM CHLORIDE MONOCHROMATOR PLATES POTASSIUM BROMIDE • POTASSIUM BROMIDE PELLET POWDER • (through 200 on 325 mesh) • POTASSIUM CHLORIDE • OPTICAL SILVER CHLORIDE THALLIUM BROMIDE IODIDE • ULTHIUM FLUORIDE • LITHIUM FLUORIDE MONOCHROMATOR PLATES • CALCIUM FLUORIDE • BARIUM FLUORIDE • CESIUM BROMIDE • CESIUM IODIDE

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available; others are in the process of development:

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New Products

The information reported here is obtained from manufacturers and from other sources considered to be reliable. Neither Science nor the writer as-sumes responsibility for the accuracy of the insounds responsionly for the accuracy of the inter-formation. All inquiries concerning items listed should be addressed to the manufacturer. In-clude the department number in your inquiry.

NONREACTIVE DECADE RESISTOR is said to be direct reading with accuracy of ± 0.01 percent from d-c to at least 50 kcy/sec. Models are available with one to five dials for increments as small as 0.01 ohm and resistance values up to 100,000 ohm. Reactance compensation method permits choice of minimum inductance error, minimum reactance error, or best compromise. (British Industries Corp., Dept. Sci406, 80 Shore Rd., Port Washington, N.Y.)

SERVOMECHANISM BREADBOARDING SYSTEM is based on the provision of equally spaced gear centers established by pairs of accurately bored plates. The system uses gears whose pitch is a multiple of 24. Integral ratios of 1, 2, 3, 4, 5, 7, 8, 9 and 11 to 1 are possible, as well as a large number of nonintegral ratios. Completed units and stock components are illustrated in a 12-page catalog. 12-page catalog. (Gap Instrument Corp., Dept. Sci475, 116 Merrick Rd., Freeport, N.Y.)

ALTERNATING CURRENT METER is an a-c/d-c comparator for measurement of current, voltage, and power at frequencies up to 1000 cy/sec. Accuracy is said to be ± 0.05 percent. Current range is 125 amp with extension to 500 amp provided by an accessory transformer. Voltage range is up to 600, extendable to 1500. Power range is 100 amp and 600 volts. The instrument is direct reading to 0.1 percent. (Physics Research Laboratories, Inc., Dept. Sci468, P.O. Box 555, Hempstead, N.Y.)

PEAK VOLTMETER measures peak or peak-to-peak values of repetitive waveforms. The d-c component is not measured. Frequency range for sine waves is 5 cy to 500 kcy/sec, but distorted waveforms with harmonics extending up to 2 Mcy/sec can also be measured. Pulses with duration from 0.5 μ sec to 5 msec and with repetition rate to 500,000/per second can also be measured. Accuracy ranges from ± 2 percent to ± 5 percent, depending on the waveform measured. The instrument is useful also as a wide-band amplifier with gain of 86 db and source impedance approximately 3 ohm in series with 0.22 μ f. Maximum output is 150 volts peak-to-peak. (Ballantine Laboratories, Dept. Sci484, Boonton, N.J.)

NATIONAL APPLIANCE SAFETY-STAT Avoid losses due to thermostat failures. The National Safety-Stat is a self-contained, portable, hydraulic thermostat offering many uses in the lab-oratory. It can be used to regulate component water baths, ovens or incubators-or in conjunction with existing instrumentation for positive protection against thermostat failure. Can be set to 1° C. above the regulating thermostat - operates only if regulating thermostat fails. Installs easily by plugging-in apparatus cord to Safety-Stat and Safety-Stat cord to electrical outlet. Thermal bulb can be located in any desired location. Capillary tube can be inserted through walls using 3/8" pipe thread packing nut (No. 7644). Instrumentation includes off-on switch. calibrated hydraulic thermostat and pilot light. Two models. 115/230 volts A.C. 1700 watts 34" capillary tube (60" available). LED ENVIRO Model 7635: thermal bulb ¾" diam. x 4 ½", 0-100° C. ± 0.5° C, National Appliance Co. Model 7636: thermal bulb 3/16" diam. x 12". 7634 S.W. Capitol Hy. • Portland 19, Ore. 30-260° C. ± 1° C. Eastern Sales: H. Reeve Angel & Co., Inc. 9 Bridewell Pl. • Clifton, N. J. Write for bulletin or complete catalog. NATIONAL APPLIANCE 1056

■ DIODE BOX is a decade type substitution box with a selector switch that enables interchange of any one of eleven 10-watt silicon-type Zener diodes covering the voltage range from 3.6 to 30. (International Rectifier Corp., Dept. Sci471, 1521 E. Grand Ave., El Segundo, Calif.)

■ THERMOELECTRIC GENERATOR ELE-MENTS of lead telluride are available for experimental applications in six standard sizes with positive types designated TEG2P and negative type TEG2N. Hot-junction surfaces are prefinished, and cold-junction surfaces are pretinned. Over-all efficiencies of 6 percent are reported. (Minnesota Mining and Manufacturing Co., Dept. Sci411, 900 Bush Ave., St. Paul 6, Minn.)

■ PULSE-HEIGHT ANALYZER is a fivechannel differential analyzer designed to accept balanced or single-ended pulses of rise time and duration in the range 0.1 to 10 msec, as encountered, for example, in the observation of the passage of action potentials down nerve fibers. Sorted pulses are counted by glow-transfer scalers and mechanical registers. Total capacity per channel is 99,999, and maximum average counting rate in each is 150 pulses per second. A nonoverloading internal preamplifier of continuously adjustable gain between 0.1 and 1000 is provided. A preselected portion of the pulse-height spectrum may be further expanded by a factor up to five. The basic range of the analyzer proper is 10 to 70 volts peak. (Elex, Dept. Sci473, 1417 Slaterville Rd., Ithaca, N.Y.)

■ ANALOG-COMPUTER CONTROL SYSTEM employs a control unit composed of operational magnetic amplifiers and passive network elements. Analog signals received from transducers are subjected to the mathematical operations of addition, subtraction, ratioing, integration, differentiation, and mutiplication. The output signal is then used to adjust final control elements to act on the process function under control. (Hagan Chemicals and Controls Inc., Dept. Sci477, Hagan Building, Pittsburgh 30, Pa.)

■ CABLE TESTER is designed to prove cables and fixtures without destruction. A typical model tests five cables from 3 to 10 ft long simultaneously. Load is hydraulically applied, up to a maximum of 2000 lb, and is maintained for a preset period. Breakage of a defective cable does not overstress any of the others. (Steel City Testing Machines, Inc., Dept. Sci476, 8817 Lyndon Ave., Detroit 30, Mich.)

JOSHUA STERN National Bureau of Standards, Washington, D.C.

SCIENCE, VOL. 131

PERSONNEL PLACEMENT

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Immunopharmacologist, Ph.D., desires to conduct research on purification and therapeutic uses of antibodies and enzymes. P.O. 333, Davis, California. 4/15, 22, 29

International Technical/Scientific Liaison or Mar-keting; D.Sc.; 6 years chemical industry, 3 years technical representative. Have worked in United States, Europe, Venezuela. Available for foreign assignment. Box 73, SCIENCE. 4/8

Parasitology-Biology, Ph.D.; taught bacteriology-public health, 6 years; parasitologist on animal health products, 2 years; desires research or ad-ministrative appointment. (b) Cytogenetics, Ph.D., with plant taxonomy minor; available for re-search-teaching position. S4-2 Medical Bureau, Inc., Science Division, Burneice Larson, Presi-dent, 900 North Michigan Avenue, Chicago. X

POSITIONS OPEN

AGRICULTURAL RESEARCH COUNCIL OF RHODESIA AND NYASALAND Applications for the new post of Director are invited from Research Scientists with extensive experience in research and administration and fully competent to initiate, co-ordinate and ad-minister programs of agricultural and cognate research. The post will be tenable at Salisbury, Federation of Rhodesia and Nyasaland, but the incumbent must be prepared to travel extensively, both within and outside the Federation. Appointment on contract for five years subject to renewal, with a commencing salary of £7500. Superannuation provision. Contributary medical scheme. Good educational facilities available for children. Low taxation. First-class passages to the Federation for the incumbent and his family on first appointment. Three months' paid leave with return passages to any destination in Europe or necessary equivalent once during term of con-tract. One month's local leave in other years. Cadidates wishing to obtain particulars of duties and service conditions should submit their ducies (429 Strand, London, W.C.2, by 30 April.

Botanist (1-year replacement). Taxonomy, gen-eral biology. Starting salary for Ph.D., \$458 for 12 months. Write Dr. G. A. Noble, California State Polytechnic College, San Luis Obispo, California. X

Chemist, M.S. or Ph.D., for GI research labora-tory, experience steroid analysis desirable. Up to \$9600 for Ph.D. Begin 1 July 1960. Write Dr. Rodman Finkbiner, Pennsylvania Hospital, 811 Spruce Street, Philadelphia 7, Pa. X

Chemist-Biochemist, M.S. level or above. Medical research program. Particular emphasis on cellular physiology, enzymes, and electrolytes. Position in Career Civil Service. Reply to Manager, Veteran Administration Hospital, East Orange, N.J. 4/15

Indexers. East Coast science publication is seek-ing qualified graduates in biology or cognate science for full-time employment in index de-partment. Junior, intermediate, and senior level positions with salary range \$3600-\$6900. Indexing experience preferred. Box 69, SCIENCE. X

8 APRIL 1960

POSITIONS OPEN

(a) **Biochemist** for gastrointestinal research laboratory in large university hospital; around \$10,000 year; East. (b) **Physiologist** for basic research in background in tissue culture techniques to learn simian virus identification and assume responsibility of division in pharmaceutical firm; Midwest. (c) **Research and Development Director** for foreign unit of large pharmaceutical firm; Kidwest. (d) **Research**, clinical evaluation and liaison duties; \$14,000-\$19,000 year. (e) **Bacteriologist** to head section in 400-bed hospital; East. (f) **Zoology Assistant or Associate Professor** with teaching-research experience for state university with new science building; Midwest. (g) **Pharmacologist** for cardiovascular research in new nutrition laboratories at university; Midwest. (i) **Biochemist** to conduct and direct research in new nutrition laboratories at university; Midwest. (i) **Diany-Pharmacognosy Assistant Professor** for science college; September reporting; East. (f) **Pharmacognosy Assistant Professor** for details; also many other positions available through our nationwide service.) S4-2 Medical Bureau, Inc., Science Division, Burneice Larson, President, 900 North Michigan Avenue, Chicago. X

North Michigan Avenue, Chicago. X Chemical Engineering Professor. An opening ex-ists for an assistant professor of chemical engi-mencing September 1960. A Ph.D. or equiv-alent is desired. Duties include graduate and undergraduate instruction, and direction of grad-uate research. Salary range \$7000-\$8500. Inquiries and names of three references should be ad-dressed to Head, Department of Chemistry and Chemical Engineering, University of Saskatche-wan, Saskatcon, Saskatchewan, Canada. Clinical Chemist to head chemistry laboratory af

wan, Saskatoon, Saskatchewan, Canada. X Clinical Chemist to head chemistry laboratory at Children's Hospital of Pittsburgh (300 beds), University of Pittsburgh School of Medicine. Op-portunity for independent research in this field. Modern instrumentation. Salary and responsi-bilities can be varied to the applicant's qualifica-tions. Degree in chemistry and experience in clinical chemistry required. Apply to Director, Clinical Chemistry Laboratory, Children's Hos-pital of Pittsburgh, Pittsburgh 13, Pa. X

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Challenging opportunity as independent investigator in ethical pharmaceutical house to conduct and supervise research in general endocrinology. Ph.D. in endocrinology or related field required. Please send complete résumé to

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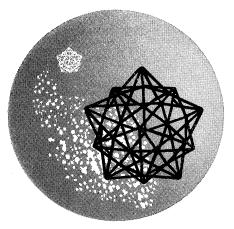
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Excellent position available for physician who has writing and editorial experience to head up Medical Writing Division of a midwest pharmaceutical firm. Should have administrative ability to supervise Technical Scientific writers and clerical personnel. Clinical or laboratory experience desirable. Write

Box 82, SCIENCE

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Box 71, SCIENCE. 4/8, 15 (a) Pharmacologist; M.D. with some research contact or above-average basic science training; prominent midwestern pharmaceutical company; \$13,000. (b) Microbiologist; M.S., research potential to supervise three-man diagnostic microbiology laboratory serving research institute and affiliated chronic disease hospital; \$7000 plus grant supplementation for research; East. (c) Biochemist; Ph.D. experienced clinical chemistry to supervise busy section, large teaching hospital; West Coast. (d) Microbiologist; Ph.D. familiar single, suspended, monolayer cell culture techniques to serve as head, cell production facility, conduct cell culture research; well-known midwestern company. (e) Medical Director; research division, outstanding eastern company; report to director, clinical investigation for work of proprietary, cosmetics division; liaison with other departments; expanding service to the medical profession; serving medicine with distinction over half a century.) Science Division, Woodward Medical Bureau, Ann Woodward, Director, 185 North Wabash Avenue, Chicago. X

Pharmacology Consultant. Pharmaceutical house wishes to engage Ph.D. or M.D. pharmacologist in academic position as a consultant to arrange for and supervise pharmacological studies on new drugs. Should have animal facilities. Eastern location preferred but not essential. Box 79, SCIENCE. X

Physiologist or Biophysicist. To direct research laboratory concerned with effects of very strong electromagnetic fields on normal and neoplastic tissues in animals and man. Appropriate faculty rank and staff status in large midwestern hospital and medical school. Salary, \$10,000 to \$15,-000, depending on qualification. Box 80, SCI-ENCE. 5/6; 6/3; 7/8

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Senior Technician. Research projects in virology, tissue culture, and cancer. New laboratory in southern Florida. Connected with university and children's hospital. Send complete résumé. Box 75. SCIENCE. 4/8, 15

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Write: State Personnel Board, 801 Capitol Avenue, Sacramento, Calif.

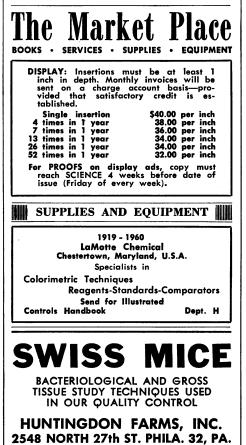
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Zoologist. Elementary genetics, laboratory in freshman entomology. Starting salary for Ph.D., \$458 for 12 months. Write Dr. G. A. Noble, California State Polytechnic College, San Luis Obispo, Calif. X

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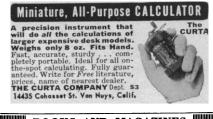


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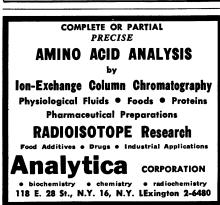
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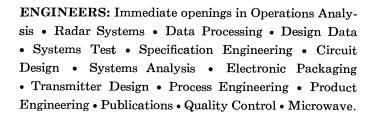
Catapults like this hurled darts and iron ball missiles from castle strongholds. Medieval knights considered these the most formidable defense weapons in their arsenal.

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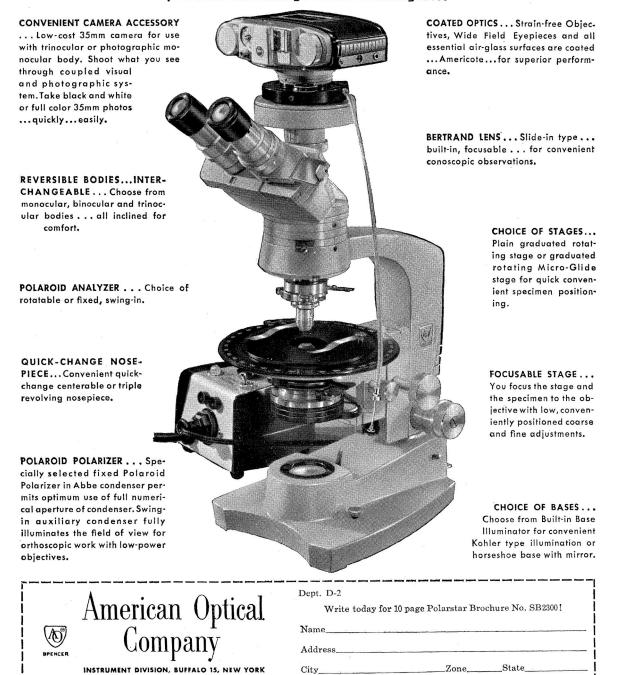
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