

is ± 0.5 percent. Response time is 0.1 sec/sec of arc, and warm-up time is eliminated by use of transistor circuitry. Output may be read visually on a calibrated dial, one revolution of which indicates 10 sec of arc, or an electrical signal, proportional to dial rotation, may be obtained from a potentiometer on the dial shaft. When it is operated at 125 v, the potentiometer furnishes output of 800 mv/sec of arc. (Davidson Manufacturing Co., Dept. S744)

■ **OSCILLOGRAPH** provides 36 channels of immediately visible photographic recording. Frequency range is from d-c to 3000 cy/sec. Chart paper is 12 in. wide; 8-in. peak-to-peak deflection is permitted in each channel. Traces are identified to permit overlap. Recording speeds range from 0.1 to 160 in./sec. Writing speed is up to 20,000 in./sec. Grid lines and timing lines are recorded optically, simultaneously with galvanometer traces. The daylight-loading paper carrier accommodates 200 ft of chart. (Minneapolis Honeywell, Dept. S745)

■ **COORDINATE CONVERTER** converts polar-coordinate input to Cartesian-coordinate output. Conversion is achieved by a sine-cosine potentiometer linked to a null-seeking servo. The potentiometer resolves the input into quadrature components according to angular position. Speed of potentiometer positioning is 360 deg/sec. Sensitivity is 0.5 mv/deg. (Mandrel Industries Inc., Dept. S748)

■ **OXIMETER** requires blood samples of less than 1 ml. The instrument reading is displayed on a panel meter or may be used to drive a standard recorder directly. Ranges are 0 to 50, 50 to 100, and 0 to 100 percent oxygen saturation. (American Electronic Laboratories, Inc., Dept. S750)

■ **STATIC ELECTRICITY MEASURING INSTRUMENT** determines static potential on the basis of the ionization of air in the vicinity of the charge, by which a sample of the charge is conducted to the instrument. Range is 0 to 500 kv. Attachments make it possible to measure in inaccessible areas. The instrument is hand-held. (United States Radium Corporation, Dept. S751)

■ **AUTOClave** uses a single dial to control the sterilizing cycle, including filling, standby service, sterilizing, and venting. Internal pressure is variable from 7 to 27 lb/in.², corresponding to steam temperatures of 230 to 270°F. Safety features include pressure-safe door which cannot be opened until pressure is relieved, low-water cut-off, and relief valve. Dimensions are approximately 24 by 14 by 19 in. Capacity is 1017 in.³ (Wilmot Castle Co., Dept. S752)


■ **SAMPLE COOLER** is designed for pressures up to 5000 lb/in.² (gage) and temperatures to 1200°F. The heat exchanger is of the shell-and-tubular-coil type. Material is stainless steel, heliarc-welded. The outer shell is 3½ in. in diameter by 11¼ in. long. (Technical Engineered Products Inc., Dept. S754)

■ **COLORIMETER** balances automatically to measure color of transparent materials from 400 to 800 mμ. Reproducibility of reading is 0.25 percent. Sensitivity is one per million or less. Interference filters are used to select wavelength of illumination. Cylindrical cells 22 mm

in diameter or larger, and up to 15 cm long, can be accommodated. Output for a separate millivolt recorder is available. (Mission Instrument Co., Dept. S755)

■ **BEAKERS** of fluorocarbon resin are chemically inert at temperatures to 500°F, except to molten alkali metals, fluorine, and certain fluorine compounds. They are not affected by aqua regia, hydrofluoric acid, hot caustics, or organic solvents. Capacities are 250, 500, and 1000 ml. (Resistoflex Corporation, Dept. S757)

JOSHUA STERN
National Bureau of Standards



"Chill-Chaser"

AUTOMATIC ELECTRIC IMMERSION HEATERS

Raise and Maintain Temperature within 1° F. ±


Chill-Chaser is a completely self-contained heating unit with a built-in thermostatic control. It requires no special wiring, or outside controls.

Chill-Chaser is designed for quick, easy, efficient and safe operation. It gives uninterrupted service over a long period of time and is insulated against electric shock. The 20" and 40" models have built-in ground wire.

Thermostats are factory calibrated so that you can dial your required temperature range. It is important that you specify the operating range you require when ordering from the table below.


Heating element is sturdily made of acid-resisting steel alloy. A steel hook is provided for hanging unit on the edge of a vessel. Plastic finger-grip handle always stays cool. For use on 115 volts 60 cycles, A.C. Supplied with 6' of rubber-covered electric cord and unbreakable plug.

Note: At a nominal charge of \$5.00, a pilot light can be furnished on the Chill-Chaser to indicate when heat is off or on.



ORDER TODAY!

MODEL NUMBER	PHOTO AND X-RAY		MODEL NUMBER	LABORATORY		IMMERSION LENGTH	OVER-ALL LENGTH	WIDTH	PRICE
	WATT-AGE	OPERATING RANGE		WATT-AGE	OPERATING RANGE				
\$64901	500	62°-122°F	G	500	105°-212°F	5"	9"	1 5/8"	\$19.00
A	250	62°-132°F	H	850	75°-212°F	8"	12"	1 5/8"	22.00
B	250	62°-132°F	I	850	100°-212°F	10"	14"	1 5/8"	23.00
C	250	62°-126°F	J	850	115°-212°F	12"	16"	1 5/8"	25.00
D	250	62°-115°F	K	850	125°-212°F	15"	19"	1 5/8"	26.00
E	250	62°-98°F	L	850	140°-212°F	20"	24"	1 5/8"	29.00
F	950	62°-92°F	M	950	150°-212°F	40"	44"	1 5/8"	39.00



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Box (give number)
Science
1515 Massachusetts Ave., NW
Washington 5, D.C.

POSITIONS WANTED

Biochemist, Ph.D., age 35, experienced in tissue culture. Research or research and teaching position desired. Box 294, SCIENCE. 11/22

Medical Editor, Writer; training, experience in nutritional biochemistry; seeks association with clinical, research program. Box 298, SCIENCE. X

Microbiologist, Ph.D., virology, cellular metabolism, genetics; biochemical, biophysical techniques; medical teaching and research experience; seeking more active position; can do. Box 295, SCIENCE. 11/29

Physiologist-Zoologist; Ph.D., 1953; 5 years of teaching experience (university and medical) in general and mammalian physiology; research, publications. Desires change in academic position. Box 296, SCIENCE.

Young Microbiologist is available for half-time opportunity in administration or teaching and half-time research; 5 years as assistant professor of biology, university medical school. Medical Bureau, Burneice Larson, Director, 900 North Michigan Avenue, Chicago. X

POSITIONS OPEN

PINEAPPLE AGRONOMIST

Applications are invited for a Pineapple Agronomist at a recently established experiment station on deep peat soil in Johore, Federation of Malaya. The agronomist will be required to take charge of the station and to plan, execute, and report experimentation in the cultivation of pineapples on deep peat soils recently cleared of forest. Candidates should have a degree in agriculture or the agricultural sciences and post-graduate training in crop agronomy and experimental methods. Experience in tropical crop experimentation will be an advantage. Salary at present exchange rates £3360 per annum; passage paid for appointee, wife, and children on first appointment and on final retirement. Leave with pay 45 days per year accumulatable up to 4 years. Provident Fund deductible at 5 percent per year—employer contributing for 1 to 10 years' service, 10 percent; 11 to 20 years' service, 15 percent; and 21 years plus service, 20 percent. House provided on station in Johore (approximately 50 miles from center of Singapore) at monthly rent of £8 15s; medical and hospitalization fund. Salary liable to income tax at present rates of approximately £360 per annum for married man with one child. For further details write: Chief Executive Officer, Malayan Pineapple Industry Board, Government Offices Building, Johore Bahru, Johore, Federation of Malaya. X

Cacao Research Scientists, especially geneticists, entomologists, or pathologists, required by Inter-American Institute of Agricultural Sciences, Turrialba, Costa Rica, to work in Costa Rica or other Latin American countries. Research experience in the tropics, especially with tree crops, an advantage. The Institute is an international specialized agency of the Organisation of American States conducting research, training, and consultation services for Latin America. Salary according to qualifications and experience. Further details and application forms on request. Contact Gordon Havord, Head, Cacao Center, at above address. X

POSITIONS OPEN

(a) Chemists; B.S., M.S. experienced micro-methods, clinical chemistry for pediatric microbiology laboratory; teaching hospital for important western university medical school; duties include research, patient service. (b) Bacteriologist; M.S. or Ph.D. to direct department, very large general hospital; \$7500-\$8400; Midwest. (c) Chemist; college graduate, experienced clinical chemistry; also supervise general laboratory, 150-bed general hospital; to \$7000; rural New England. (d) Pharmacology-Physiology Instructor; young Ph.D. interested affiliating outstanding eastern medical school; to \$5500. (e) Microbiologist; Ph.D. specialized virology and/or experimental immunology; university medical school faculty; to \$6500; Southeast. Woodward Medical Bureau, Ann Woodward, Director, 185 N. Wabash, Chicago. X

Electron Microscopist. An electron microscopist is needed at the biological laboratories of Harvard University, Cambridge 38, Mass., to collaborate in research with members of the department. Salary to depend upon experience and other qualifications. Inquiries should be addressed to the Chairman, Electron Microscope Committee, at the above address.

11/29; 12/6, 13

Free-Lance Writer. Experienced. Strong background in medical or ancillary sciences. Will need facilities of medical library. Must be able to write upon assignment and meet deadlines. Medical Arts Publishing Foundation, 1603 Oakdale Street, Houston 4, Texas. 11/22, 29; 12/6

(a) Head, Department of Biological Sciences; duties involve supervision and scientific leadership of established group of professional and supporting personnel; should be specialist in one of biological sciences, Ph.D. or M.D.; considerable industrial experience required; one of leading research companies; outstanding opportunity. (b) Biochemist, B.S. degree, with training or experience in protein and enzymes; duties consist of supervising biochemical manufacturing and research; East; \$8000. (c) Clinical Psychologist; important guidance clinic; \$7000-\$9300; South. (d) Clinical Physiologist trained in immunology or chemistry; head department, medical school and teaching hospital; West. S11-4 Medical Bureau, Burneice Larson, Director, 900 North Michigan Avenue, Chicago. X

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Box 297, SCIENCE

Physiologist. To work in Surgical Research Department. Rank, salary, and possible dual appointment depend on qualifications. Primary responsibilities: gastrointestinal problems and intravenous fat emulsions. Opportunity for own development. Isotope experience desired. Address Department of Surgery, Louisiana State University School of Medicine, New Orleans, La. 11/15, 22, 29

Research Assistantships in Biochemistry for M.S. and Ph.D. candidates. Tuition exemption plus liberal stipend depending upon qualifications. Write Chairman, Biochemistry Department, Albany Medical College, Albany, New York. 11/22

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