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Natural Resources Conf., Denver, Colo. (Wildlife Management Inst., 709 Wire Bldg., Washington 5)

12-16. Society of Automotive Engineers Detroit, Mich. (R. W. Crory, SAE, 485 Lexington Ave., New York 17)

12-23. International Radio Consultative Committee, Study Group on Space Systems, Washington, D.C. (Palais Wilson, Geneva, Switzerland)

13-14. Packaging of Chemical Products, symp., annual, St. Louis, Mo. (Manufacturing Chemists' Assoc., 1825 Connecticut Ave., NW, Washington 9)

13-15. Application of Statistics and Computers to Fuels and Lubricants Research Programs, symp., San Antonio, Tex. (R. Quillian, Southwest Research Inst., 8500 Culebra Rd., San Antonio 6)

13-15. Electronic Industries Assoc., Washington, D.C. (Chief of Information, Dept. of the Army, Washington 25)

14-16. National Missiles and Space Conf., Washington, D.C. (Chief of Information, Dept. of the Army, Washington 25)

15-16. Textile Research Inst., annual, New York, N.Y. (P. C. Alford, TRI, Princeton, N.J.)

15-16. Western Industrial Writing Inst., 7th Los Angeles, Calif. (R. M. Winters, American Industrial Writing Inst., P.O. Box 5453, Pasadena, Calif.)

15-17. Optical Soc. of America, Washington, D.C. (M. E. Warga, OSA, 1166 16 St., NW, Washington 6)

15-18. International Assoc. for Dental Research, St. Louis, Mo. (J. C. Muhler, Indiana Univ. Medical Center, 1120 W. Michigan St., Indianapolis 7)

15-23. American Soc. of Tool Engineers, annual, Detroit, Mich. (H. E. Conrad, ASTE, 10700 Puritan Ave., Detroit 38)

18-21. American Assoc. of Dental Schools, St. Louis, Mo. (R. Sullens, AADS, 840 N. Lake Shore Dr., Chicago 11, Ill.)

18-22. Bilharziasis, symp., Cairo, Egypt. (A. H. Mousa, Ciba Foundation, 41 Portland Pl., London, W.1, England)

18-22. International Anesthesia Research Soc., Bal Harbour, Fla. (Scientific Liaison Office, Natl. Research Council, Sussex Dr., Ottawa, Ont., Canada)

19-23. International Conf. on Equatorial Geophysics, Lima, Peru. (J. A. Broggi, Instituto Geofisico de Huancayo, Apdo. 46, Huancayo, Peru)

19-23. National Assoc. of Corrosion Engineers, Kansas City, Mo. (T. J. Hull, NACE, 1061 M&M Bldg., Houston, Tex.)

20-21. Hypervelocity Techniques, symp., Denver, Colo. (A. M. Krill, Mechanics Div., Univ. of Denver Research Inst., Denver 10)

20-23. American Assoc. of Anatomists, annual, Minneapolis, Minn. (C. B. Hegstad, Dept. of Anatomy, Univ. of Minnesota, Minneapolis 14)

20-23. High-Temperature Solution Chemistry, symp., Washington, D.C. (J. W. Cobble, Purdue Univ., Lafayette, Ind.)

20-23. Institute of Metals, London, England. (R. E. Moore, 17 Belgrave Sq., London, S.W.1)

20-29. American Chemical Soc., natl., Washington, D.C. (A. T. Winstead, ACS, 1155 16 St., NW, Washington 6)

(See 19 January issue for comprehensive list)

New Products

The information reported here is obtained from manufacturers and from other sources considered to be reliable. Neither Science nor the writer assumes responsibility for the accuracy of the information. All inquiries concerning items listed should be addressed to the manufacturer. Include the department number in your inquiry.

Integrator (model No. J101B) is an analog accumulator that can be used with instruments that supply full-scale output signals of 1 ma at voltages between 10 and 100 v. The integrator is provided with an input adjustment that accommodates to the input signal source voltage. The results of integration are indicated by a six-digit counter and a 2½-in. meter to interpolate between successive values of the least significant figure of the counter. Accuracy is said to be ±1 percent, and drift less than 0.01 percent per hour. A mechanically preset counter terminates integration and controls auxiliary equipment when the preset value is reached. Integration at full-scale rate may continue for as long as 280 hours for one complete counter cycle, or indefinitely if the counter cycling is recorded. (Elcor Inc., Dept. Sci566, 1225 W. Broad St., Falls Church, Va.)

Surface temperature transducer is a platinum-resistance type measuring 1-9/16 by 9/16 by 0.014 in. thick. A high-temperature cement provided for installation is said to maintain its bond strength beyond 2000°F, the upper limit of the range specified for the transducer. Installation by welding is also possible. Resistance is 100 ohms ±1 percent at 77°F. A response time of milliseconds is said to be achievable. (Winsco Instruments & Controls Co., Dept. Sci547, 11789 W. Pico Blvd., Los Angeles 64, Calif.)

Electrostatic generators provide essentially pure d-c outputs continuously variable to 600 kv at currents up to 4 ma. Model AK600-4 can be switched to provide either medium or high-stability output. Ripple is 0.01 percent; full-load voltage drop never exceeds 500 v; regulation is better than 0.1 percent for 5 percent change in line voltage; output capacitance is 1500 pf. Model AKS600-4 holds ripple to ±1 percent; full-load voltage drop is less than 10 kv; regulation is less than 0.5 percent for 5 percent line change; and output capacitance is 500 pf. Electrical requirement for both models is 220/380 volts, 60 cy/sec, three phase. (Sames, Dept. Sci565, 30 Broad St., New York 4)

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Colonies are accurately recorded in a *single* probing action that leaves an identifying puncture in the agar. The Electronic Probe picks up radio impulses on contact with *any* agar medium and actuates the counting mechanism. Electrical splat-tering is completely eliminated by the low voltage input. Where puncturing is undesirable, the Plug-in Grease Pencil or Marking Pen is used to mark the back of the plate as it counts.

Plates are flooded with brilliant white light that is cool, soft and easy on the eyes. Specimens are illuminated in bold relief against a contrasting agar background, revealing colony morphology. Even pinpoint colonies are easily discerned.

The instrument has an automatic numerical re-set to zero, a sterilizing Probe Well and a magnifying lens.



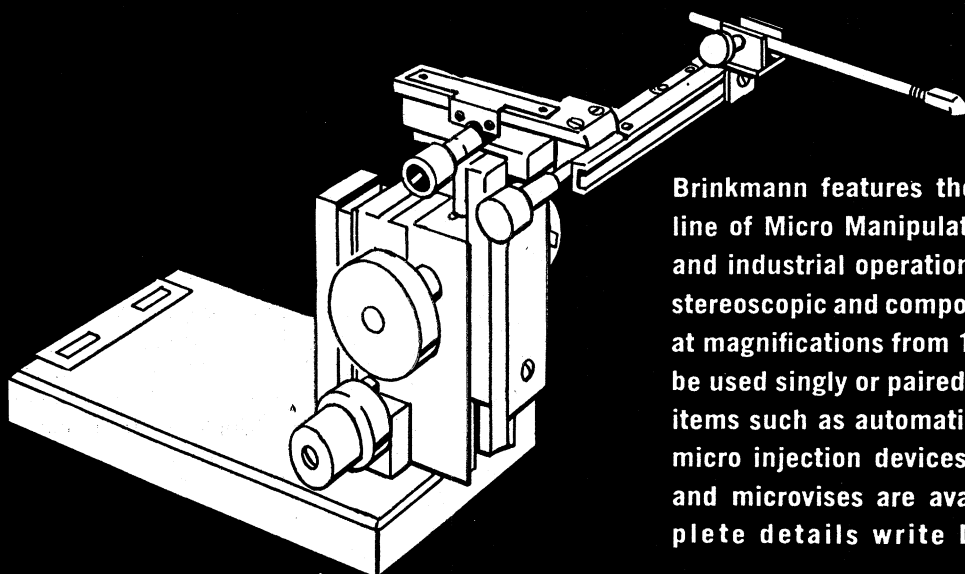
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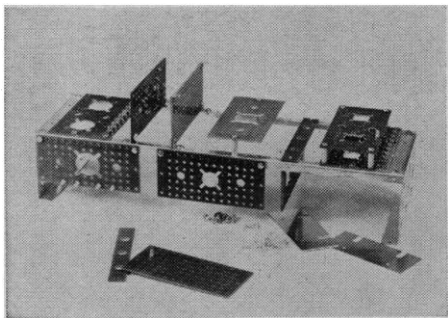
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Breadboarding kit (above) consists of an assortment of prepunched laminated phenolic panels, terminal strips, volume-control strips, snap-in turret terminals, punched chassis frames, end plates, rack-mounting plates, and hardware. Holes are provided for miniature and octal sockets. The chassis frames will fit standard 19-in. racks. (Precision Metal Products Co., Dept. Sci545, 41 Elm St., Stoneham, Mass.)

High-speed stereo motion-picture camera (Stereoflex model A) photographs up to 15,000 three-dimensional pictures per second. A system of mirrors adjusted along a track in front of the camera is tilted to bring the desired image coverage to lenses mounted at

right angles to the viewing axis of the camera. Two 16-mm images are recorded side by side on a single strip of 35-mm film. (Benson-Lehner Corp., Dept. Sci567, 1860 Franklin St., Santa Monica, Calif.)

Air dynamometer is designed to test and inspect high-speed motors and turbines. Advantages claimed for the air-brake design include high power relative to size, wider and more variable stepless load range (30:1), higher speeds, and simplicity of operation. The three sizes available have capacities of 12, 35, and 85 hp and maximum speeds of 80,000, 50,000, and 32,000 rev/min. (Hydro-Mill Co., Dept. Sci568, 1707 Cloverfield Blvd., Santa Monica, Calif.)

Piezoelectric accelerometer (model No. AK105) features natural frequency of approximately 50 kcy/sec. The accelerometer is encased in stainless steel, and it operates over a temperature range of -65° to $+250^{\circ}$ F. Sensitivity is nominally 17 peak mv per peak grav at room temperature. Weight is approximately 8 oz. (Statham Instruments Inc., Dept. Sci569, 12401 W. Olympic Blvd., Los Angeles 64, Calif.)

Torque indicator is a null-balance instrument calibrated especially for use with the manufacturer's standard torque pickups. Scale of the instrument reads 0 to 100 percent of capacity of any torque pickup with which it is used. Accuracy is said to be ± 0.5 percent. The one control knob is a zero set for adjusting the pointer before each run. The instrument indicates average torque even with pulsations up to ± 10 percent of full scale. (Baldwin-Lima-Hamilton Corp., Dept. Sci564, 42 Fourth Ave., Waltham 54, Mass.)

Push button-switch pulse generator produces a single square-wave pulse with each operation. Pulse width is factory adjustable from 30 to 500 msec, and amplitude from 6 to 55 volts. Both width and amplitude are independent of the speed of switch operation. Stand-by power requirement is 6 to 20 ma; ambient temperature range is 0° to 55° C; contact arrangement is single pole, double throw. (Micro Switch Division, Minneapolis-Honeywell Regulator Co., Dept. Sci575, Freeport, Ill.)

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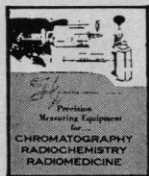
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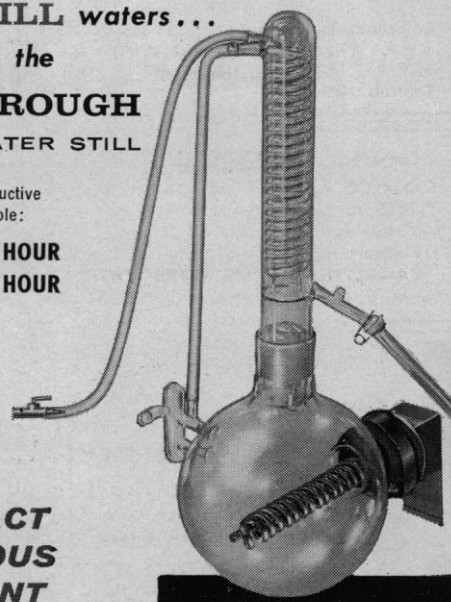
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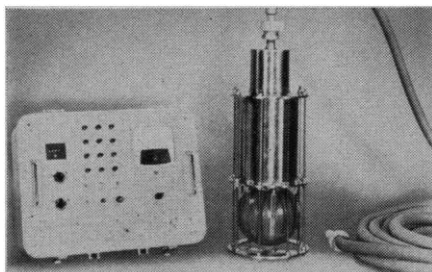
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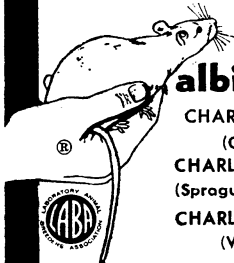
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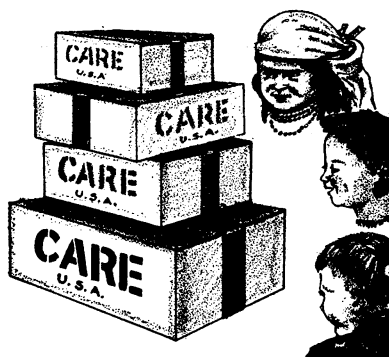
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Applications, three copies, stating age, details of qualifications and experience, publications, and research work in progress and completed, together with the names of two referees, should be received not later than 3 March 1962, by the Registrar, from whom further particulars may be obtained. (Candidates overseas who find it more convenient to do so may send one copy only by air-mail.) Quote reference number CV/596/S.

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Applications close with Registrar of the University on 30 June 1962. The appointment would be taken up on a date of mutual convenience. X

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Box 6, SCIENCE

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Application forms and further information may be obtained from the Dean of Graduate Studies, Dalhousie University, Halifax, Nova Scotia. 2/9

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A 12-month training course in steroid biochemistry will be conducted at the Department of Biological Chemistry, College of Medicine, University of Utah, Salt Lake City, from 1 October 1962 to 30 September 1963. This course is sponsored by the U.S. Public Health Service and open for candidates with a Ph.D. and/or M.D. degree regardless of U.S. citizenship. The course starts with a 5-month series of lectures in steroid biochemistry and endocrinology associated with demonstration and practice of current techniques used for the qualitative and quantitative estimation of steroid hormones. Special emphasis is placed on radioisotope techniques, paper and gas-liquid chromatography, and in vivo and in vitro preparations useful for endocrine investigations. During the last 7 months of training the trainee is doing research work under the guidance of an established investigator of the Department of Biochemistry. Eight postdoctoral fellowships of \$5500 each are available for 1962-1963. Three fellowships of \$6000 each are also available for a second year.

Deadline for application is 1 April 1962. Individuals with an M.D. who wish to complete a Ph.D. in biological chemistry will be favorably considered. Please address further inquiries to Dr. Kristen B. Eik-Nes, Training Program Director, Department of Biological Chemistry, **University of Utah**, Salt Lake City 12, Utah. 2/9

Phenylketonuria results from the abnormal metabolism of the essential amino acid, phenylalanine and appears in new-born infants between the second and sixth week. If undetected and untreated before the age of 4 months, normal development of the brain may be permanently impaired resulting in phenylpyruvic oligophrenia, a condition characterized by various degrees of mental deficiency, usually severe. A symptom of the condition is the presence of ketone bodies (principally phenylpyruvic acid) in the urine. To develop a quick, simple and accurate tool for diagnosing phenylketonuria, Miles-Ames scientists based their approach on the reaction of ferric ions with phenylpyruvic acid to form a characteristic green or gray to blue color. Using this knowledge and carefully controlled manufacturing methods, the scientists developed PHENISTIX®. These are stiff cellulose strips impregnated with the necessary chemical ingredients. When pressed against a wet diaper they will undergo various color changes which are matched to a color scale to show the amount of phenylpyruvic acid in the urine. An indication of the benefits derived from this creative research by Miles-Ames scientists can be gained from the fact that a baby can be screened in 30 seconds, and where urines contain 15 or more mg. of phenylpyruvic acid per 100 ml. PHENISTIX have proven to be 99.5% accurate.

Creative Research and Phenylke- tonuria

If you seek an affiliation where you can utilize the full measure of your professional skills and will have continuing freedom to pursue fundamental ideas, you are invited to consider these openings:

RESEARCH BIOCHEMIST—Will organize and conduct a research program in protein chemistry, enzyme chemistry, metabolic biochemistry, analytical biochemistry or physical biochemistry. Must possess Ph.D. in biochemistry, microbiology, or biology. Hospital or pharmaceutical laboratory experience is desirable.

RESEARCH BIOCHEMIST—Major activity will be to carry our research directed toward reducing current or new clinical chemical diagnostic procedures to product forms, e.g.: sticks, tablets, solutions or powders. Should hold Ph.D. in biochemistry with organic chemistry background. Industrial or post-doctoral experience in biochemical or organic research desirable but not essential.

RESEARCH CHEMIST—Responsibilities will center on synthetic organic chemistry studies to provide new compounds of potential therapeutic interest. Position requires Ph.D. in organic chemistry. Industrial synthetic organic chemistry experience will prove advantageous.

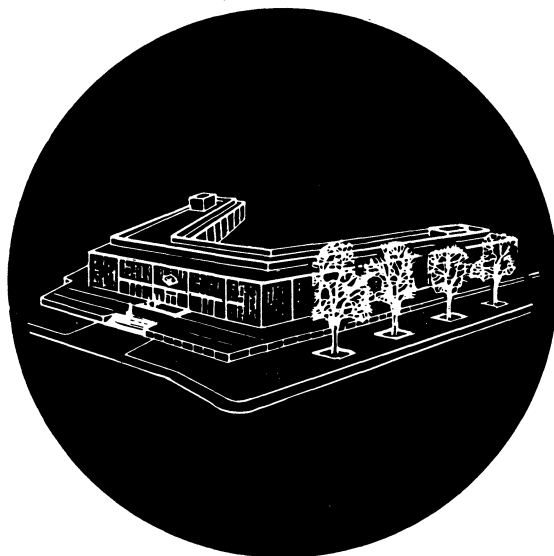
ASSISTANT RESEARCH PHARMACIST—Major activities will be in the field of pharmaceutical product development and will include the preparation of pharmaceutical dosage forms based on basic concepts from the Product Development Committee. Must have a recent B.S. in pharmacy and some product development or manufacturing experience.

ASSISTANT RESEARCH PHARMACOLOGIST—To conduct studies in screening new drugs and assist in complete pharmacological evaluation. Must have B.S. in pre med with some graduate work in physiology or pharmacology. Experience in screening drugs will be helpful.

ASSISTANT RESEARCH CHEMIST—Principal responsibilities will involve analyzing active constituents of new pharmaceutical products during development stages and assist in working out assay procedures to facilitate studying new formulations under accelerated aging conditions. Must possess B.S. in chemistry or pharmacy. Industrial experience in a control laboratory of pharmaceutical or chemical firm is desirable.

ASSISTANT RESEARCH BIOCHEMIST—To carry out clinical chemical investigations in connection with laboratory evaluation of new drugs. B.S. in chemistry or biology plus training as a medical technologist is prerequisite. Previous hospital or industry chemical experience is highly desirable.

ASSISTANT CONTROL CHEMIST—Will have responsibility for analyzing chemical raw materials and finished chemical products. Must hold B.S. degree in chemistry.



Miles Laboratories recently-completed research center, headquarters for Miles-Ames research activities.

This is another example of how creative research at Miles-Ames is making important advances in forward pharmaceutical areas. Now occupying a new Research Center, the Miles-Ames Professional Staff is expanding its research activities in Biology, Biochemistry, Chemistry, Enzymology, Microbiology, Immunology, Pharmacology and Physiology. The continuing goal of these studies is the development of new and more effective pharmaceutical products.

Inquiries may be directed in complete confidence to:
DR. R. A. McCracken, Coordinator of Management Recruitment

(Personal discussions can be arranged at your convenience, including Saturdays, in Elkhart, Indiana.)

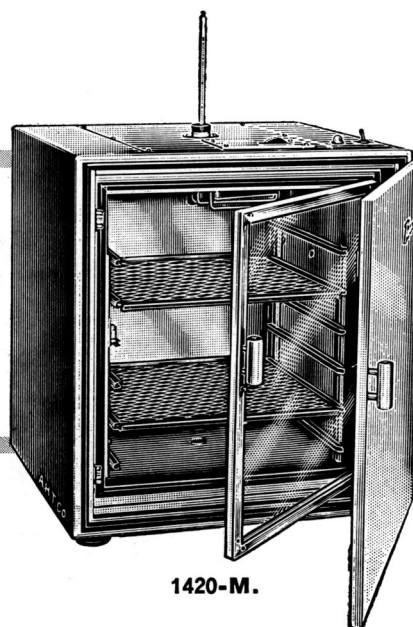
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Doors have magnetic latches and rubber gaskets, and open easily under interior overpressure. Floor of chamber has two drain tubulatures, and low dam across jamb for control of spillage. Spacing of sliding, expanded metal shelves, is adjustable on wall runners. With thermometer, 25 to 70°C in 0.5° divisions, neon pilot lamp, power switch, 3-wire cord, 3-prong plug and adapter; for 115 volts, a.c. or d.c.

Catalog Number.....	1420-A	1420-M	1420-X
Chamber width, inches.....	14	15	20
Chamber depth, inches.....	12	15	20
Chamber height, inches.....	12	17	26
Overall dimensions, inches.....	20 × 18 × 26	21 × 21 × 30	26 × 26 × 41
Number of Shelves.....	2	5	5
Shelf area, inches.....	12 × 11	14 × 14	18¾ × 19
Shelf spacing, inches.....	2	2	2½
Wattage.....	125	125	150
Each.....	185.50	218.50	364.50

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