18. **Industrial Pharmacy** Section, American Pharmaceutical Assoc., 3rd annual eastern regional meeting, New York, N.Y. (H. Lieberman, Warner-Lambert Pharmaceutical Co., 170 Tabor Rd., Morris Plains, N.J.)

18–22. **Plastics**, 10th natl. exposition, Chicago, Ill. (J. Paluszek, G. M. Basford Co., 60 E. 42 St., New York 17)

18–22. **Radiation Accidents**, seminar on protection of the public, Geneva, Switzerland. (Office of the Director General, Food and Agriculture Organization, Viale delle Terme di Caracalla, Rome, Italy)

18–24. Pan Indian **Ocean Science** Assoc., New Delhi, India. (PIOSA, 39 Garden Rd., Karachi, Pakistan)

18–27. **Deans of Medical Schools**, conf., World Health Organization, Manila, Philippines. (WHO, Regional Committee for the Western Pacific, P.O. Box 2932, Manila)

19–21. **Building Research** Inst., fall conf., Washington, D.C. (BRI, 1725 De Sales St., NW, Washington)

19–21. Contribution of **Food Science** to Military Needs, Natick, Mass. (U.S. Army Natick Laboratories, Natick)

19–21. American **Physical** Soc., Norman, Okla. (K. K. Darrow, 538 W. 120 St., New York 27)

19–21. **Stratosphere-Mesosphere** Structure conf., El Paso, Tex. (W. L. Webb, Schellenger Research Laboratories, Texas Western College, El Paso)

20–21. **Forest Biology**, 2nd conf., Mobile, Ala. (TAPPI, 360 Lexington Ave., New York 17)

21–22. **Pulmonary Diseases**, symp., Chapel Hill, N.C. (Div. of Pulmonary Diseases, Univ. of North Carolina School of Medicine, Chapel Hill)

21–23. **Forensic Physicians**, 10th conf., Prague, Czechoslovakia. (K. S. Lékarství, Tvrdého ul 2a, Brno, Czechoslovakia)

21–23. **Oral Roentgenology**, research conf., Lincoln, Neb. (C. E. Crandell, Univ. of North Carolina School of Dentistry, Chapel Hill)

22–25. **Scientific Unions**, intern. council, Vienna, Austria. (ICSU 2, via Sebenico, Rome, Italy)

23. American **Translators** Assoc., New York, N.Y. (D. S. Cunningham, German Dept., Rutgers Univ., 406 Penn St., Camden 2, N.J.)

24–27. American Acad. for **Cerebral Palsy**, Dallas, Tex. (J. D. Russ, 1520 Louisiana Ave., New Orleans, La.)

25–27. **Geological** Soc. of America, 76th meeting, New York, N.Y. (F. Betz, Jr., 419 W. 117 St., New York 27)

25–27. **Nuclear Electronics**, intern. symp., Paris, France. (French Society of Electronics Technicians, 10 avenue Pierre Larousse, Malakoff, Seine, France)

26–30. **Endocrinology**, 16th meeting, Paris, France. (Secrétariat du Service du Dr. Albeaux-Fernet, Hopital Laënnec, 42, rue de Sévres, Paris 17)

29–30. **Biomagnetics**, intern. symp., Chicago, Ill. (J. F. Barnothy, Biomagnetic Research Foundation, 833 Lincoln St., Evanston, Ill.)

29–30. American **Mathematical** Soc., Cleveland, Ohio. (AMS, 190 Hope St., Providence 6, R.I.)

31–1. American College of **Chest Physicians**, Portland, Ore. (M. Kornfeld, 112 E. Chestnut, Chicago 11, Ill.)

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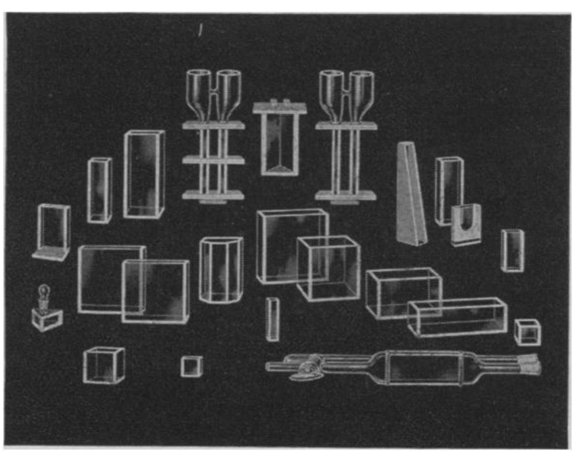

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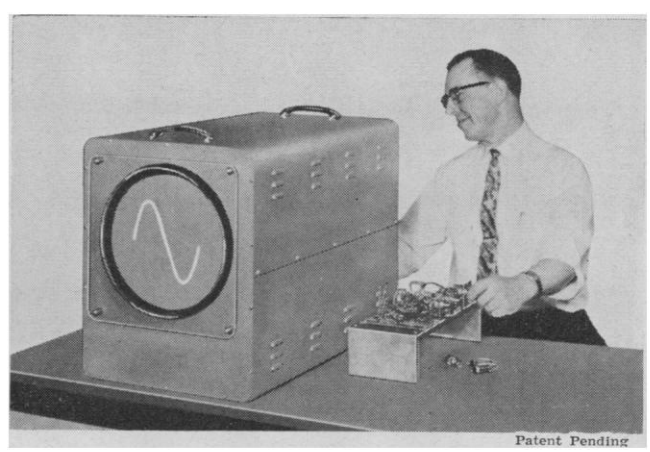

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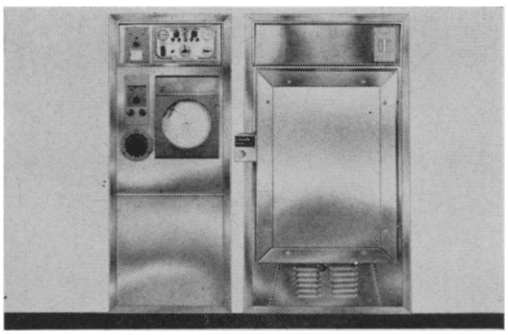

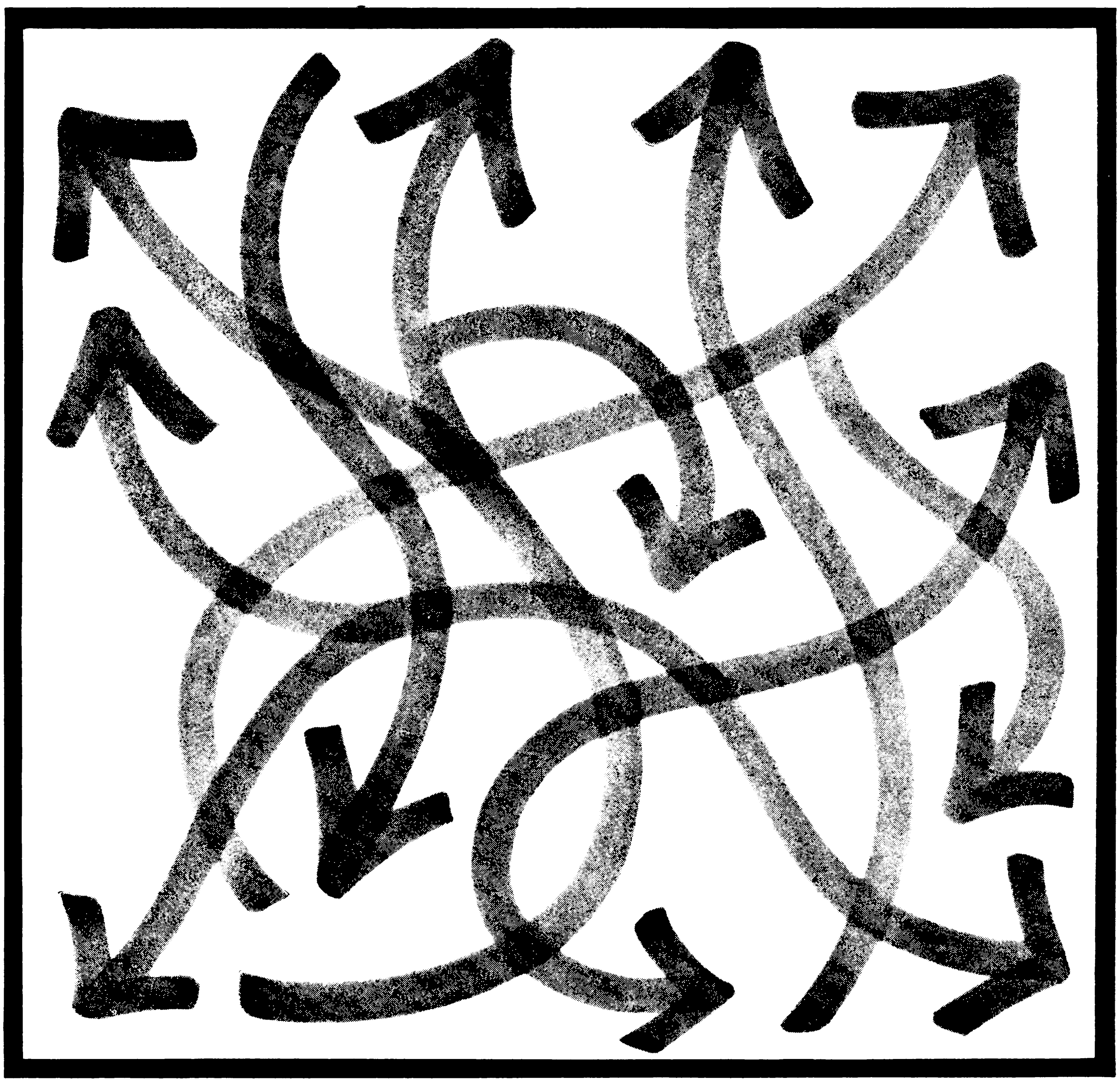

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New Products

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Diffractometer control and recording system (model XDC-11) consists of three basic modules, each functionally complete, that permit the user to obtain full automatic operation in steps. A remote-positioning module controls the remote selection and positioning of four axes. A lamp bank on the front of the unit supplies continuous indication of the position of the controlled axis. Addition of a record module allows axis and scaler data to be entered directly on the final recorded output without intervening steps. Data can be recorded in printed form and on punched paper tape. Provision is made for recording two digits of preselected h, k, and c, data together with six digits of parameter data. A third module can be added to provide completely automatic positioning, recording, function selection, and so forth. The instrument is said to be compatible with any single-crystal goniometer and accuracy is said to be ±0.01 deg on all axes.—J.S. (Datex Corp., Dept. S20, 1307 S. Myrtle Ave., Monrovia, Calif.)

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The series-5010 serializer is a solid-state, high-speed, **parallel-to-serial converter** designed to accept parallel inputs from digital voltmeters and convert these signals into serial data form for driving paper-tape units, electric typewriters, card punches, and similar print-out equipment. The serializer provides a standard word format that includes up to 12 characters, the first four being 6-bit alphanumeric for address and the remaining eight being used for binary-coded-decimal data. Replaceable plug-in code translator cards provide flexibility and word format can be varied by means of a removable patch block. The instrument is designed for both

Accelerometer calibration system (model CS-101) is said to offer absolute accuracy of calibration of better than ± 2.5 percent. According to the manufacturer, the system itself introduces a probable error of 0.7 percent over the frequency range from 20 to 355 cy/sec. When used with a reference accelerometer calibrated to ± 1 precent by the National Bureau of Standards, the total system possible error is said to be less than 2.4 percent and the probable error of the calibration is specified as 1.2 percent. Design of the system was based on the needs expressed by engineers at seminars on techniques of calibration of vibration pickups.—J.S. (International Telephone and Telegraph Corp., Dept. S14, 320 Park Ave., New York 22)

An integrated system for **charging, stabilizing and measuring permanent magnets** consists of a capacitor discharge impulse-type magnetizer, a pulsed-output stabilizer, and a Hall-effect gaussmeter. In operation, the piece to be magnetized is placed in a fixture on the working area of the magnetizer. An interlocked transparent hood provides operator protection. The charger is adjusted for the appropriate voltage, and a front-panel button is depressed to accomplish discharge of the magnetizing current. Field strength of the newly charged magnet is indicated instantly on the scale of the gaussmeter whose Hall-effect probe projects into the charging fixture. The magnet is stabilized by the third element of the system whose pulsed output is adjusted until the desired degree of demagnetization is reached as indicated by the gaussmeter. The entire process can be accomplished in less than 1 min according to the manufacturer.—J.S. (Radio Frequency Laboratories, Inc., Dept. S43, Powerville Rd., Boonton, N.J.)

Digitally controlled plotter provides display of digital information on a 5-by-12-ft horizontal or vertical surface. Digital computer modules are employed for all control features. The drive system includes hardened steel ways, anti-backlash gearing, and preloaded ball screws, coupled with optical shaft encoders. A feature of the plotter is the

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Robert L. Bowman (R.L.B.), with the assistance of Denis J. Prager (D.J.P.), Laboratory of Technical Development, National Heart Institute, Bethesda 14, Md. (medical electronics and biomedical laboratory equipment).
Joshua Stern (J.S.), Basic Instrumentation Section, National Bureau of Standards, Washington 25, D.C. (physics, computing, electronics, and nuclear equipment).
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ability to control acceleration and deceleration of the print head to provide optimum traversing speed between data points without the need for feed rate input data. The only input data required are the coordinates of the end-points of the line or incremental distance to be traveled and the pen or symbol commands. The print head assembly includes provision for line drawing, point plotting, symbol printing, and scribing. As many as 24 symbols may be installed in the print head together with up to four pens that register on the center line of the symbol. In operation, input data are supplied by paper tape or manually from the control panel. Standard models provide line drawing speeds up to 300 in./min. Accuracy is said to be better than ±0.015-inch divergence from a true straight line. Points may be plotted up to 90 per minute at ¼-inch splacing, with accuracy said to be better than ±0.010 inch of true position.—J.S. (Gerber Scientific Instrument Co., Dept. S22, PO Box 305, Hartford, Conn.)

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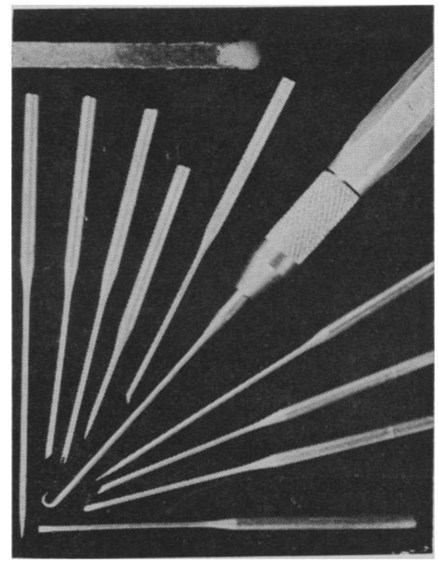

when working with ultra-fine parts. The tools were originally designed for microelectronics and transistor productions.—J.S. (Micronic Corporation of America, Dept. S44, 8116 Old York Rd., Elkins Park, Pa.)

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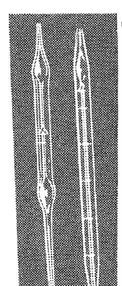

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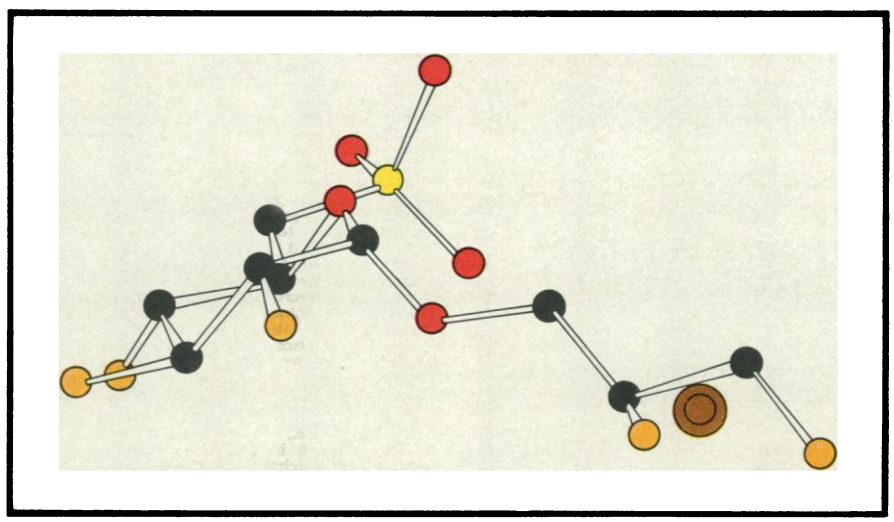

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