

17-19. American Acad. of **Occupational Medicine**, annual, Columbus, Ohio. (G. M. Hemmett, AAOM, Eastman Kodak Co., 343 State Street, Rochester 4, N.Y.)

17-19. **Solid State Circuits**, intern. conf., Inst. of Electrical and Electronics Engineers, Philadelphia, Pa. (R. Emberson, IEEE, Box A, Lenox Hill Station, New York, N.Y. 10021)

17-21. American College of **Cardiology**, annual, Boston, Mass. (Executive Director of the College, Empire State Building, New York, N.Y. 10001)

18-19. Mechanical and Transplant **Heart Substitutes**, symp., Heart Assoc. of Southeastern Pennsylvania, Philadelphia. (L. L. Perry, HASP, 318 S. 19 St., Philadelphia 19103)

18-20. **Skin Bacteria** in Infection, symp., San Francisco, Calif. (Administrative Secretary, Div. of Dermatology, Univ. of California, San Francisco Medical Center, San Francisco 94122)

19-20. **Comparative Psychopathology**—Animal and Human, annual symp., American Psychopathological Assoc., New York, N.Y. (F. J. Kallmann, APA, 722 W. 168 St., New York 10032)

20. **Reliability**, 6th annual West Coast symp., American Soc. for Quality Control, Los Angeles, Calif. (A. S. Golant, Rocketdyne, Canoga Park, Calif.)

20-26. Caribbean **Dental** Convention, 4th annual, Port of Spain, Trinidad. (K. Henry, Dental Assoc. of Trinidad and Tobago, 109 Frederick St., Port of Spain)

21-22. Chicago **Dental** Soc./Acad. of Dentistry for the Handicapped, Chicago, Ill. (R. T. Kirk, Acad. of Dentistry for the Handicapped, Box 213, Springfield, Ohio)

21-25. Technical Assoc. of the **Pulp and Paper** Industry, 50th annual, New York, N.Y. (A. E. Dembitz, TAPPI, 360 Lexington Ave., New York 10017)

22-26. American Soc. for **Metals**, western metal and tool exposition and conf., Los Angeles, Calif. (ASM, Metals Park, Ohio 44073)

22-26. Society for **Nondestructive Testing**, spring convention, Los Angeles, Calif. (SNT, 914 Chicago Ave., Evanston, Ill. 60202)

23-24. National **Dairy** Engineering Conf., East Lansing, Mich. (C. W. Hall, Agricultural Engineering Dept., Michigan State Univ., East Lansing)

23-25. **High Polymer** Conf., East German Chemical Soc., Magdeburg. (East German Chemical Soc., Unter den Linden 68/70, Berlin W.8)

24-26. **Biophysical** Soc., 9th annual, San Francisco, Calif. (R. B. Setlow, Biophysical Soc., Oak Ridge National Laboratory, P.O. Box Y, Oak Ridge, Tenn. 37831)

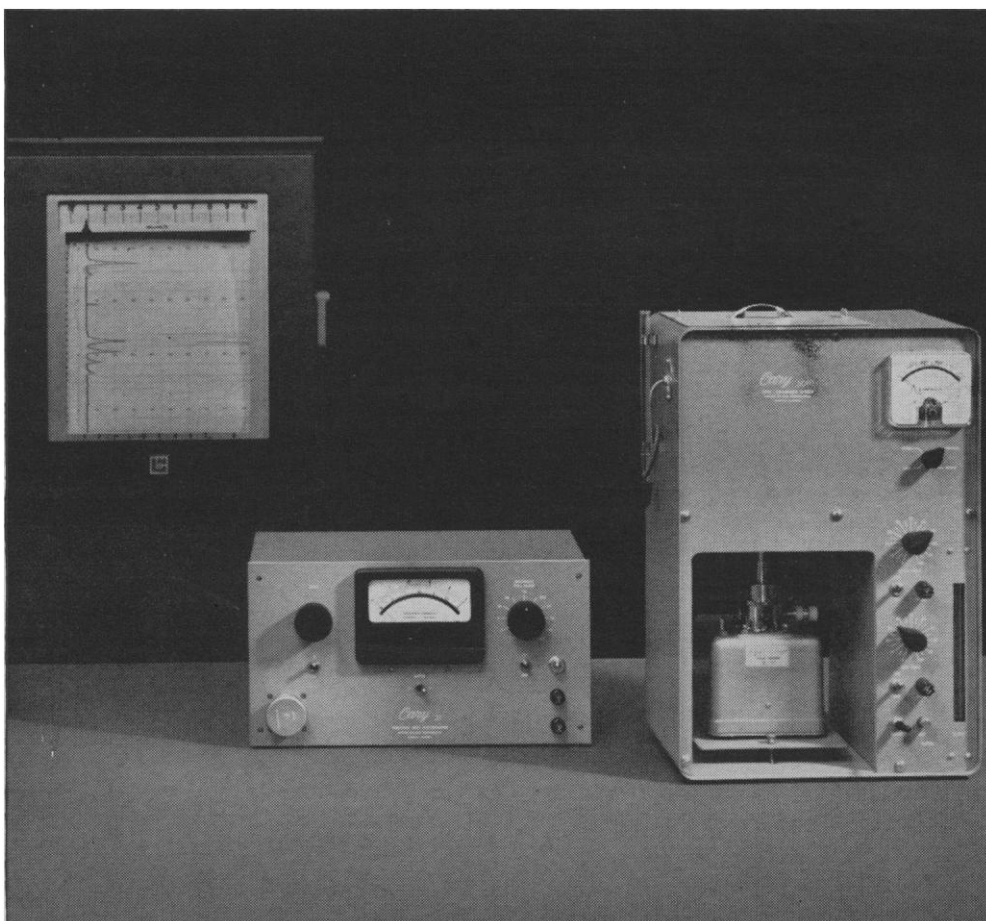
24-26. American **Crystallographic** Assoc., Suffern, N.Y. (W. L. Kehl, ACA, Gulf Research and Development Corp., P.O. Box 2038, Pittsburgh, Pa. 15230)

24-28. Canadian Assoc. of **Radiologists**, annual, Toronto, Ontario. (Miss A. I. Ekstrand, CAR, 1555 Summerhill Ave., Montreal, Canada)

25-26. Society for **Information Display**, 5th natl. convention and symp., Santa Monica, Calif. (R. E. Bernberg, 591 Tiger-tail Road, Los Angeles, Calif. 90049)

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Modular cuvette permits individual or serial measurements of $p\text{O}_2$, $p\text{CO}_2$, and $p\text{H}$ under controlled temperatures. It houses a thermostatically controlled water bath, a heated wash-solution reservoir, and waste and wash containers. It accepts interchangeable measurement modules which can be stacked on each other to meet almost all measurement needs. Each module has a cavity for a specific electrode, a sample chamber at the end of this cavity, and sample lines leading to and from the chamber. When the modules are arranged for serial measurements, the sample is injected into the base unit; it flows upward under pressure, through the modules above, past the measurement sites, out through the lid module, and into the waste bottle. A slight turn of any module cuts it off from the serial-measurement stream, making it available for individual sampling. With a module so aligned, the sample to be measured is injected into the inlet port of the mod-

The material in this section is prepared by the following contributing writers:

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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ule directly below and flows upward past the measurement site, through the sample outlet port of the module above, and over to the waste bottle. A set of pO_2 , pCO_2 , and pH modules may be stacked for serial blood gas analysis; several pO_2 modules may be aligned individually for measuring oxygen tension of a group of blood samples; or serially and individually aligned modules may be combined for comparison of venous and arterial readings. Modules rest on a base reservoir which holds preheated wash solution for flushing sample lines. Heating element, thermostat, and impeller are permanently mounted. Warm water ($37^\circ \pm 0.1^\circ C$) circulates through the hollow centers of the modules, encompassing sample line and measurement sites. The minimum sample is 0.3 ml for serial sampling; slightly larger for individual sampling. Standard Luer fittings are used throughout. This cuvette is the basis of a Beckman Blood Gas Analysis system employing their model 160 Physiological Gas Analyzer, which translates electrode signals to direct meter readings, and the Potentiometric Strip-Chart Recorder for continuous, permanent records; individual modules are designed to accept a specific Beckman electrode which connects to the Analyzer. Dimensions: 12 by 8 by 27 inches high (30.5 by 20.3 by 68.5 cm).—D.J.P. (Beckman Instruments, Dept. S388, Spinco Div., Stanford Industrial Park, Palo Alto, Calif.)

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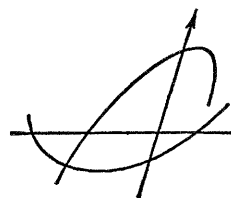
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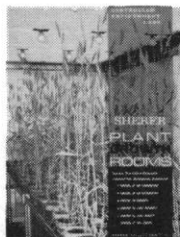
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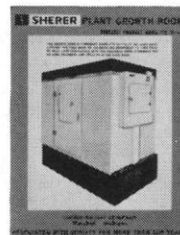


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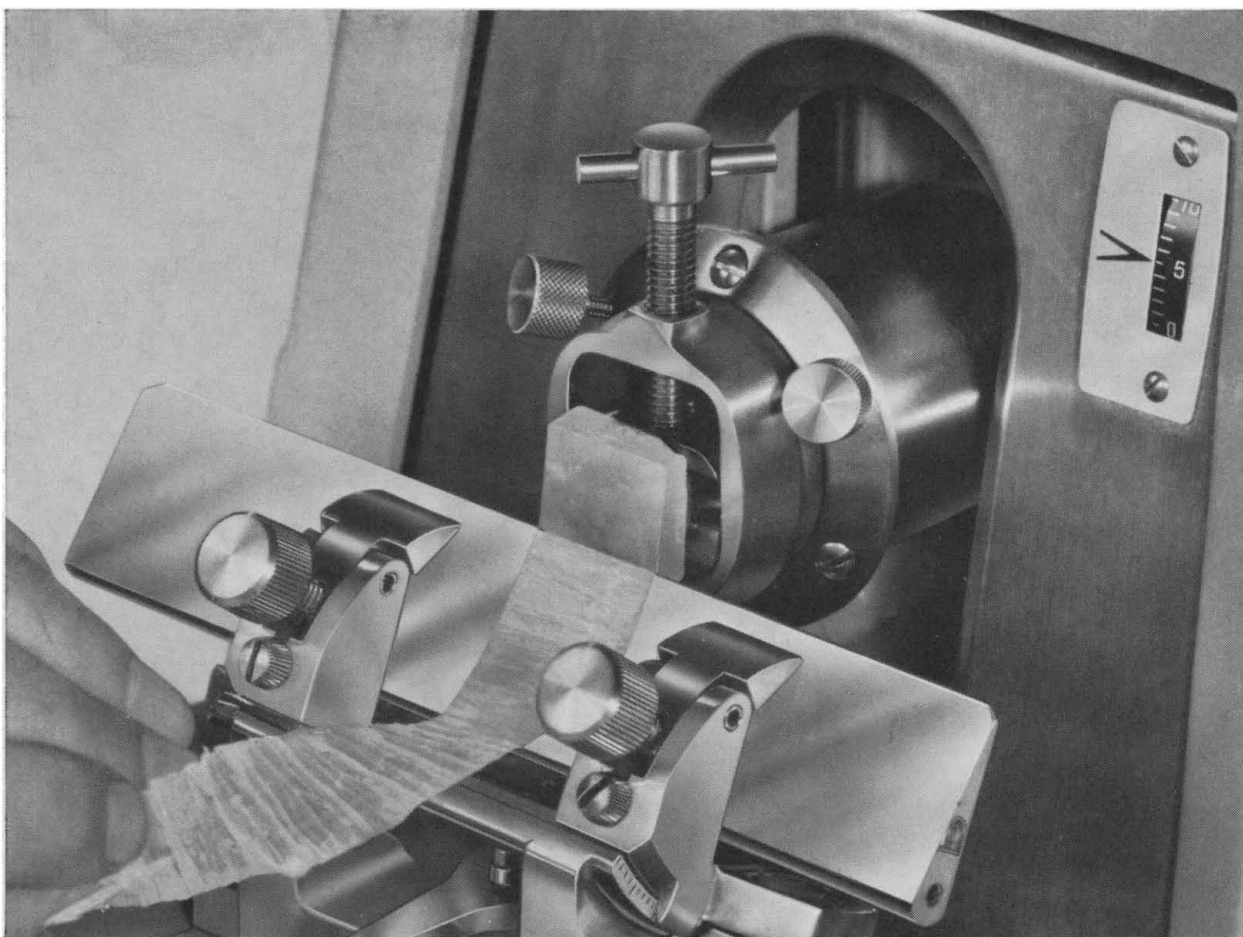
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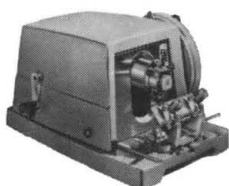
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