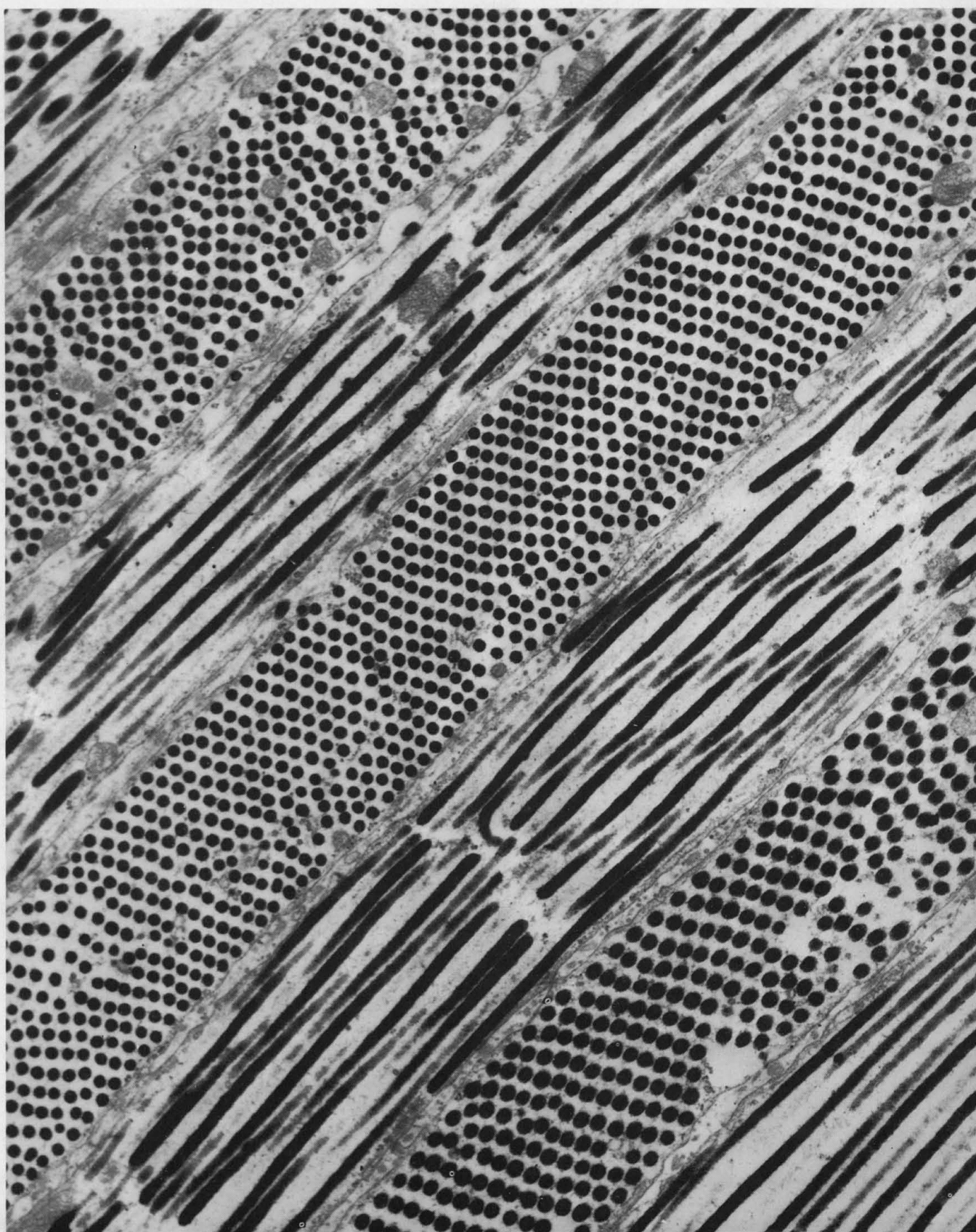


SCIENCE

27 July 1962

Vol. 137, No. 3526

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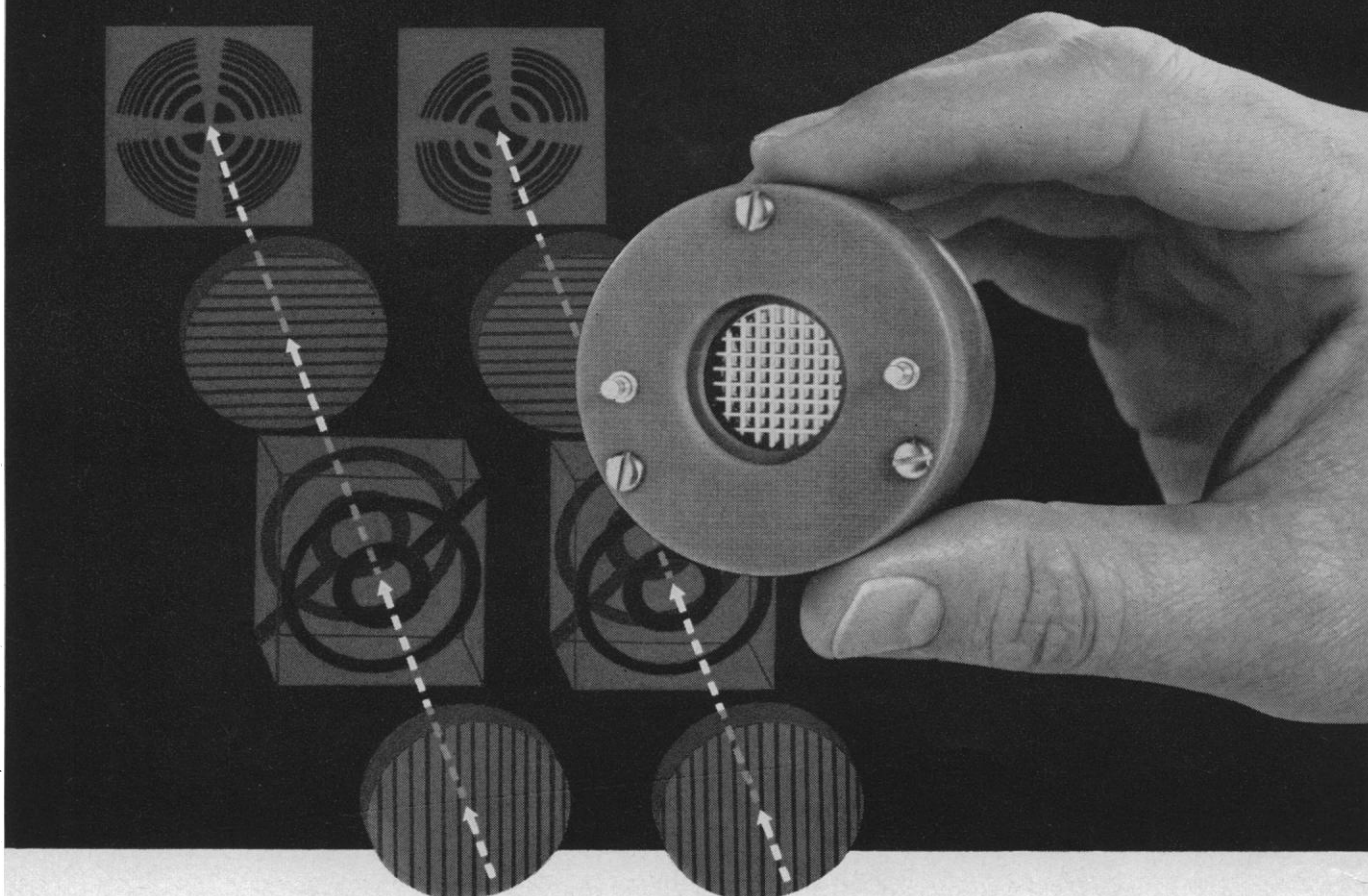
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Cover	Tapetum of the cat’s eye. The tapetum is the reflective membrane immediately behind the retina and accounts for the bright shine of an illuminated cat’s eye at night. Specimen fixed in osmic acid and stained with uranyl acetate (about $\times 20,000$). [Arnold J. Kroll and Toichiro Kuwabara, Howe Laboratory of Ophthalmology, Harvard Medical School]	

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In October of this year, **Science** will publish a Guide to the manufacturers of scientific instruments and equipment. The Guide will provide scientists with the names of manufacturers of products used for research in analytical chemistry, medical electronics, physics, nuclear and radiation sciences, biology, oceanography, and geology.

Approximately 80,000 copies of this

Guide will be sent to research scientists working in the fields mentioned above, to purchasing departments, and to libraries. It is the intention of the editors to make this directory of instrument manufacturers as complete as possible.

There is no charge for listings. If your company manufactures products which are used in the fields mentioned above, and you have not as yet received an official listing form, you can obtain one by writing to:

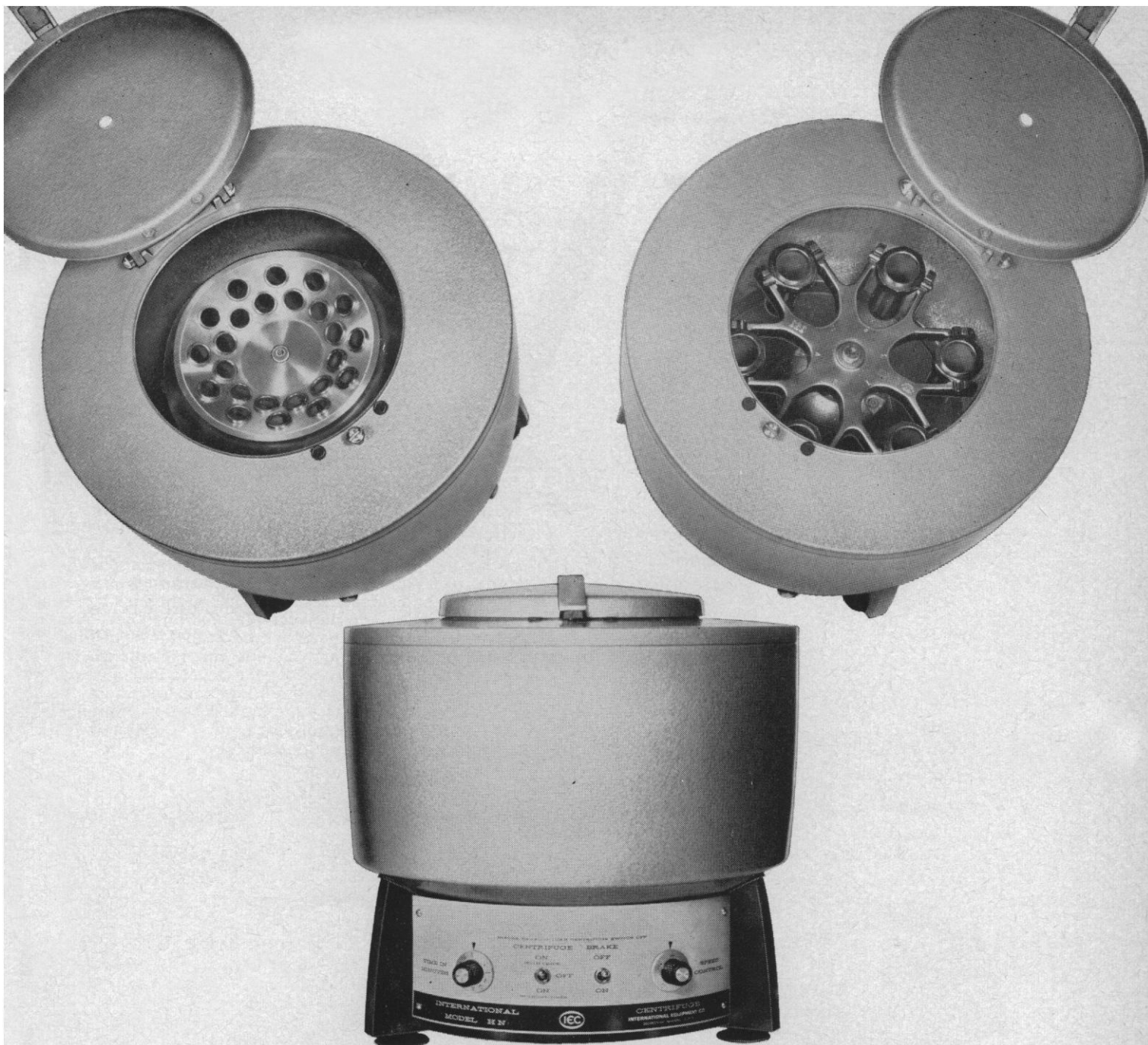
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The rules for determining which manufacturers will be listed are given below.

RULES GOVERNING LISTINGS

1. Any manufacturer of a product used in research in the fields mentioned above is eligible for a listing.
2. Only products currently in production will be listed.
3. All requests for listings must be accompanied by descriptive literature.
4. All requests for listings must be made on the official listing form. (See instructions above if you have not received an official form.)
5. Special categories will be added when justification exists.
6. Dealers and distributors will be listed only under products which they themselves manufacture.
7. CLOSING DATE FOR ALL LISTINGS IS 14 AUGUST. All forms must be in our hands by that date.
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9. Advertising will be accepted at regular rates. Closing date for advertising is 1 September.



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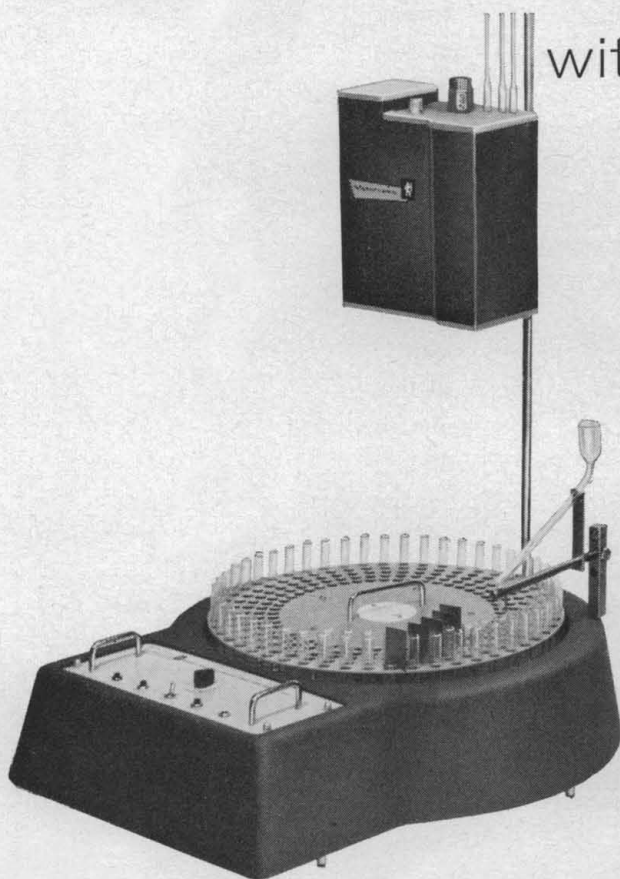
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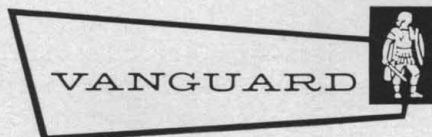
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The Editorial Chair

An article elsewhere in this issue gives an account of some of the qualities and achievements of Philip H. Abelson, my distinguished successor as editor of *Science*. Dr. Abelson will find, as I have found, that *Science* has a great reservoir of good will not only in the scientific world but also among nonscientists and science writers for newspapers and magazines, both at home and abroad. This good will manifests itself in the readiness of scientists to take time from their regular duties to write for us and to give us their advice freely and promptly, and in the cooperative and mutually helpful relations we have with science writers and editors.

Dr. Abelson will also find that the executive officer of the Association, the editorial board, the board of directors, and the loyal and effective staff are at all times ready to cooperate in giving the support needed to continue the improvement of the magazine. What should be equally gratifying to him will be his discovery that neither the advertising staff nor any advertiser will attempt in any way to control editorial policy. Thanks to these favorable relations he will be able to publish articles about important scientific issues, even though they may be controversial, without any of the restrictions that shackle some editors.

But this is not all. *Science* is perhaps unique among journals published by societies or associations in its freedom from editorial pressures by the members and officers: they have no readier access to its pages than anyone else. The first editor appointed after the Association acquired ownership of the magazine, Willard L. Valentine, stated [*Science* 103, 2 (4 Jan. 1946)] a farsighted policy that is still in effect: "Wisely, the Executive Committee [of the Association] refused to bind the Editor's hands, so that *Science* is not required to publish all official addresses."

I congratulate Dr. Abelson upon his appointment and upon the freedom he will have to continue a strong tradition of editorial independence and integrity. As I move from the editor's swivel chair to a reader's easy chair, I am sure that I am expressing the thoughts of the other 80,000 subscribers when I wish Dr. Abelson a long and distinguished career as editor. His vigor and imagination give every promise that this wish will be fulfilled.—G. DuS.



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The 14th Alaskan Science Conference will be held in Anchorage, Alaska, in late August, 1963. For further information write Dr. Allen Mick, President-Elect, Alaska Division, AAAS, Box E, Palmer, Alaska.

For Proceedings purchase and general information concerning the Alaska Division, AAAS, contact Dr. George Dahlgren, Executive Secretary, Alaska Division, AAAS, Box 271, College, Alaska.

Forthcoming Events

September

4-7. Association for Computing Machinery, natl. conf. and exhibit, Syracuse, N.Y. (R. S. Jones, Sylvania Electric Products, Inc., Camillus, N.Y.)

4-7. Problems of Exercise Metabolism, intern. seminar, Milan, Italy. (R. Margaria, Inst. of Physiology, Univ. of Milan, Milan)

4-8. Syphilis and Other Treponematoses, intern. forum, Washington, D.C. (W. Griggs, Communicable Diseases Center, U.S. Public Health Service, Atlanta, Ga.)

5-6. Blood Transfusion, intern. seminar, Mexico, D. F., Mexico (Comité Intern. de la Croix-Rouge, Geneva, Switzerland)

5-7. High-Polymer Science, annual forum, Windsor, Ont., Canada. (L. Breiman, Research and Development Div., Polymer Corp. Ltd., Sarnia, Ont.)

5-7. Measurement of Thermal Radiation Properties of Solids, symp., Dayton, Ohio. (C. R. Andrews, Univ. of Dayton, Dayton 9)

5-7. Temperature Acclimation, intern. symp., Leiden, Netherlands. (A. Nixon, Organizing Committee, 9650 Wisconsin Ave., Washington 14)

5-8. American Political Science Assoc., Washington, D.C. (E. M. Kirkpatrick, APSA, 1726 Massachusetts Ave., NW, Washington 6)

5-8. Internal Medicine, intern. congr., Munich, Germany. (H. Ludwig, Buergerhospital, Basel, Switzerland)

5-9. International Soc. of Audiology, congr., Leiden, Netherlands. (A. Spoor, Ear-Nose-Throat Dept., Academisch Ziekenhuis, Leiden)

5-11. International Council for Building Research Studies and Documentation, Cambridge, England. (General Secretariat, c/o Bouwcentrum, 700 Weena, P.O. 299, Rotterdam, Netherlands)

6-7. Honor Soc. of Phi Kappa Phi, Madison, Wis. (L. R. Guild, 3839 Wilshire Blvd., Los Angeles 5, Calif.)

6-7. Problems in Chemistry and Physics of Non-Metallic Solids, symp., Quebec City, P.Q., Canada. (P. A. Giguere, Dept. of Chemistry, Laval Univ., Quebec City, P.Q., Canada)

6-8. Acclimation to Cold and Heat, symp., Leiden, Holland. (Executive Officer, Federation of American Societies for Experimental Biology, 9650 Wisconsin Ave., Washington, D.C.)

6-8. Pacific Slope Biochemical Conf., annual, Seattle, Wash. (P. E. Wilcox, Biochemistry Dept., Univ. of Washington, Seattle 5)

6-8. Parapsychological Assoc., annual, Durham, N.C. (G. R. Schmeidler, 17 Kent Ave., Hastings-on-Hudson, N.Y.)

6-11. International Soc. of Blood Transfusion, biennial congr., Mexico, D.F., Mexico. (R. Medina, Avenue Chapultepec 522, Mexico 20)

6-16. International Institution for Production Engineering Research, The Hague, Netherlands. (IIPER, 233 Boulevard Raspail, Paris 14^e, France)

7-8. Anthropology, annual conf., Carson City, Nev. (R. Shutler, Jr., Dept. of Archaeology, Nevada State Museum, Carson City)

7-9. International Geographical Union, commission on national atlases, Budapest, Hungary. (K. A. Salishchev, Univ. of Moscow, Moscow, Leninskije Gory, U.S.S.R.)

7-10. American Statistical Assoc., Minneapolis, Minn. (D. C. Riley, ASA, 1757 K St., NW, Washington 6)

7-10. Institute of Mathematical Statistics, Minneapolis, Minn. (G. E. Nicholson, Jr., Dept. of Statistics, Univ. of North Carolina, Chapel Hill)

7-12. Crystal Lattice Defects, intern. conf., Kyoto, Japan. (R. R. Hasiguti, Univ. of Tokyo, Bunkyo-ku, Tokyo, Japan)

8-11. Institute of Management Sciences, Ann Arbor, Mich. (T. Fabian, c/o Mathematica, 76 Nassau St., Princeton, N.J.)

9-12. Society of Mining Engineers, fall meeting, Gatlinburg, Tenn. (SME, 345 E. 47 St., New York 17)

9-14. American Chemical Soc., natl. meeting, Atlantic City, N.J. (A. T. Windstead, Natl. Meetings Dept., ACS, 1155 Sixteenth St., NW, Washington 6)

9-14. American Congr. on Surveying and Mapping—American Soc. of Photogrammetry, St. Louis, Mo. (Convention Headquarters, ACSM, Box 2731, Souldard Station, St. Louis 4)

9-14. Homeopathic Medicine, intern. congr., Bad Godesberg, Germany. (W. Schwarzhaupt, Sachsenring 73, Cologne, Germany)

9-14. Illuminating Engineering Soc., Dallas, Tex. (C. L. Amick, Day Brite Lighting, Inc., P.O. Box 141, St. Louis 66, Mo.)

9-14. International College of Surgeons, biennial, New York, N.Y. (H. E. Turner, 1516 Lake Shore Dr., Chicago 11, Ill.)

9-15. Dermatology, intern. congr., Washington, D.C. (E. D. Osborne, 71 North St., Buffalo, N.Y.)

9-15. International Soc. of Hematology; congr., Mexico, D.F., Mexico (L. Sánchez-Yllades, c/o Instituto de Estudios Médicos y Biológicos, Apartado postal 25228, México 20, D.F.)

9-15. Paediatrics, intern. congr., Lisbon, Portugal. (M. Cordeiro, Clinica Pediatrica Universitaria, Hospital Santa Maria, Avenue 28 de Maio, Lisbon 4, Portugal)

9-23. Technical Science in the Service of Progress and Peace, intern. trade fair, Brno, Czechoslovakia. (Embassy of the Czechoslovak Socialist Republic, 2349 Massachusetts Ave., NW, Washington 8)

10-12. Geochemical Soc., organic geochemistry group, Milan, Italy. (U. Colombo, G. Donegani Research Inst., Montecatini Co., Via del Lavoro 4, Novara, Italy)

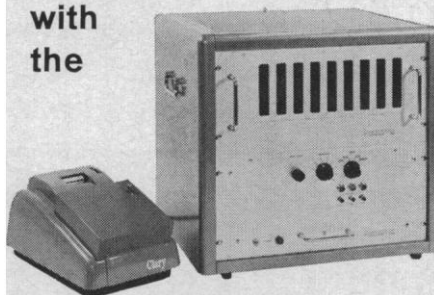
10-12. Technical Assoc. for Waste Water, annual, Wiesbaden, Germany. (Abwassertechnische Vereinigung, Berthavon-Suttner-Platz 8, Bonn, Germany)

10-14. Applied Meteorology, natl. conf., Hampton, Va. (D. A. Lea, Navy Weather Research Facility, Naval Air Station, Norfolk 11, Va.)

10-14. Inelastic Scattering of Neutrons in Solids and Liquids, symp., Chalk River, Canada. (Intern. Atomic Energy Agency, 11 Kärntner Ring, Vienna 1, Austria)

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FEATURES AND SPECIFICATIONS

1. CRS-1 automatically resolves "side" or partial peaks into separate areas.
2. High speed integration response — will process peaks spaced as closely as 1.5 seconds.
3. High resolution — 10,000 counts per second give maximum area accuracy.
4. Automatic area totalizing.
5. Works equally well with either ionization or thermal conductivity detectors.
6. Optional input selector switch allows you to switch CRS-1 to five different chromatographs.
7. Output data compatible with computer.

Input: Full scale ranges—50 mv standard or 1 mv with preamplifier.

Output: linear to 100% overload on input.

Integrator: Six digits standard.

Accuracy: 0.1% of full scale maximum error in integration conversion. No errors in counting per se.

Transistorized control circuit: Maximum threshold sensitivity to rate of change of detector signal is better than 15 microvolts/second, or 1 microvolt/second with preamplifier.

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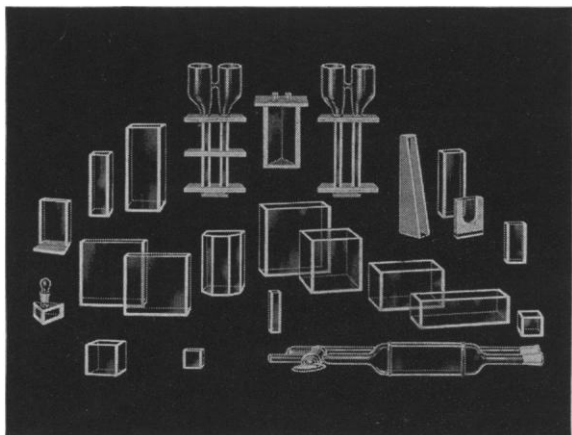
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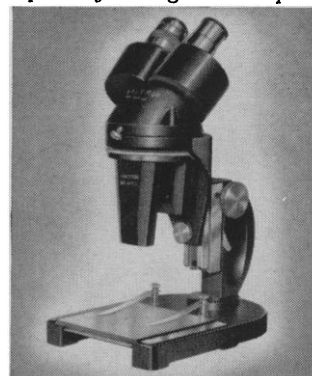
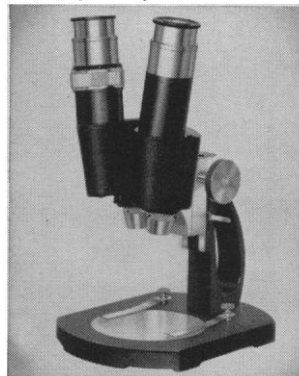
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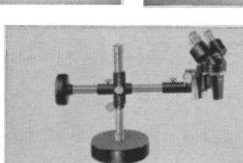
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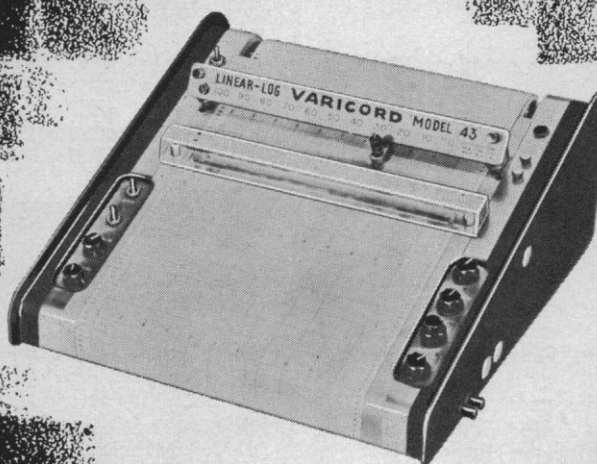
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PHOTOVOLT

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10-15. Analog Computation Applied to Aeronautics, seminar, London, England. (S. C. Redshaw, Civil Engineering Dept., Univ. of Birmingham, Edgbaston 15, Birmingham, England)

10-15. International Assoc. of Game, Fish, and Conservation Commissioners, Moran, Wyo. (IAGFCC, 16413 Canterbury Dr., Hopkins, Minn.)

10-15. International Gravimetric Bureau, general assembly, Paris, France. (J. J. Levallois, Intern. Assoc. of Geodesy, 19 rue Auber, Paris 8^e)

10-15. Molecular Structure and Spectroscopy, intern. symp., Tokyo, Japan. (Secretary, Organizing Committee, Science Council of Japan, Ueno Park, Tokyo)

10-15. Research in Mammary Tumours, World Health Organization scientific group, London, England. (WHO, Palais des Nations, Geneva, Switzerland)

10-16. Protection Against Corrosion, symp., Bratislava, Czechoslovakia. (Mr. Jelinek, Dóm Technický, Kocel'ova 17, Bratislava)

10-16. Relationship between Soil Fauna and Soil Microflora, symp., Oosterbeek, Netherlands. (J. van der Drift, Inst. for Biological Field Research, Kemperbergerweg 11, Arnhem, Netherlands)

10-18. Variations of Existing Glaciers, symp., Obergurgl, Austria. (L. J. Tison, Intern. Assoc. of Scientific Hydrology, 61 rue des Ronces, Gentbrugge, Belgium)

10-21. Experimental Stress Analysis, inst., Detroit, Mich. (J. Der Hovanesian, Engineering Mechanics Dept., Wayne State Univ., Detroit 2)

11-17. Ornithology, all-union conf., L'vov, U.S.S.R. (Ministry of Higher and Secondary Special Education, Moscow, U.S.S.R.)

11-17. Physiology, intern. congr., Leiden, Netherlands. (W. O. Fenn, Dept. of Physiology, Medical Center, Univ. of Rochester, Rochester 20, N.Y.)

12-14. Condensation and Evaporation of Solids, intern. symp., Dayton, Ohio. (Office of Aerospace Research, U.S. Air Force, Washington 25)

12-14. Plutonium as a Power-Reactor Fuel, natl. meeting, Richland, Wash. (American Nuclear Soc., 86 E. Randolph St., Chicago 1, Ill.)

12-18. International Inst. de Sociologie, Córdoba, Argentina. (C. C. Zimmerman, 200 Emerson Hall, Harvard Univ., Cambridge 38, Mass.)

13-14. Advanced Gas-Cooled Reactors, symp., London, England. (Secretary, British Nuclear Energy Conf., 1-7 Great George St., London, S.W.1)

13-14. Engineering Management, annual conf., New Orleans, La. (Inst. of Radio Engineers, 1 E. 79 St., New York 21)

13-14. Engineering Writing and Speech, natl. symp., Washington, D.C. (Inst. of Radio Engineers, 1 E. 79th St., New York 21)

13-15. Polymer Research, annual symp., Łódź, Poland. (A. Boryniec, Technical Univ. of Łódź, Zwirki 36, Łódź)

14-16. Society of Exploration Geophysicists, annual intern. meeting, Calgary, Alberta, Canada. (N. J. Christie, 209A Sixth Ave., SW, Calgary)

15-17. Psychology and Pedagogy, intern. symp., Turin, Italy. (Servizio di As-

27 JULY 1962

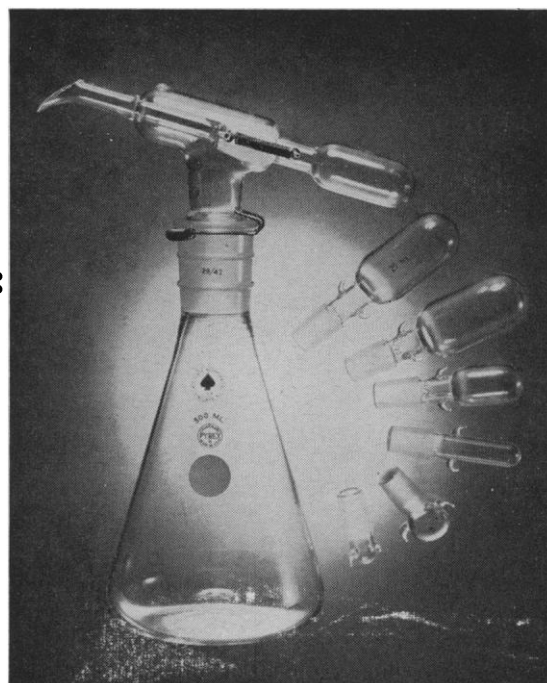
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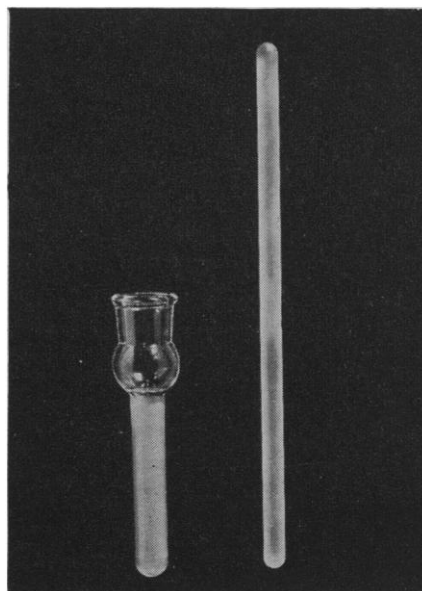
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sistenza Psico-Medico Sociale della Provincia di Torino, Via Giovannida Verazano 4, Turin)

16-19. American Inst. of Chemical Engineers, natl. meeting, Denver, Colo. (Secretary, AICE, 25 W. 45 St., New York 36)

16-22. Latin American Chemistry Congr., annual, Buenos Aires, Argentina. (Secretary, Congreso Latinoamericano de Quimica, Casilla de Correo 2153, Buenos Aires)

16-22. Low-Temperature Physics, intern. conf., London, England. (LT8, Queen Mary College, University of London, Mile End Rd., London, E.1)

16-24. Military Medicine and Pharmacy, intern. congr., Caracas, Venezuela. (E. P. Vivas, c/o Ministerio de la Defensa, Caracas)

17-18. Hydrofoils and Air Cushion Vehicles, natl. meeting, Washington, D.C. (W. H. Arata, Jr., Manager-Market Planning, Fairchild Stratots, Hagerstown, Md.)

17-18. Water Protection, symp., Schaffhausen, Switzerland. (Ligue Suisse pour la Protection des Eaux, Kurburgstrasse 19, Zurich 49, Switzerland)

17-19. Pharmaceutical Products, intern. symp., Florence, Italy. (A. Soldi, Società Italiana di Scienze Farmaceutiche, Via Giorgio Jan 18, Milan, Italy)

17-21. Hormones and the Kidney, colloquium, London, England. (P. C. Williams, c/o Imperial Cancer Research Fund, Burtonhole Lane, London, N.W.7)

17-21. Malacological Congr., London, England. (H. E. J. Biggs, 19 Siward Rd., Bromley, Kent, England)

17-21. Vector Control, symp., Geneva, Switzerland. (World Health Organization, Palais des Nations, Geneva)

17-22. High-Speed Photography, intern. congr., The Hague, Netherlands. (Congress Secretariat, 14 Burgemeester de Monchyplein, The Hague)

17-22. International Brain Research Organization, central committee meeting, Paris, France. (H. H. Jasper, U.N. Educational, Scientific and Cultural Organization, Place de Fontenoy, Paris 7°)

17-22. International Union Against Tuberculosis, annual, Paris, France. (IUAT, 15 rue Pomereau, Paris 16°)

17-24. History of Medicine, intern. congr., Warsaw and Krakow, Poland. (Organizing Committee, Chocimska 22, Warsaw)

17-29. Chromatographic Methods for Lipid Research, intern. congr., Milan, Italy. (R. Paoletti, Congrès International, V. del Sarto 21, Milan)

18-21. Food Science and Technology, intern. congr., London, England. (F. J. Griffin, 14 Belgrave Sq., London, S.W.1)

18-22. Agricultural Aviation, intern. conf., Grignon, France. (P. Journet, Service de la protection des végétaux, Ministère de l'Agriculture, 78 rue de Varenne, Paris 7°, France)

18-23. International Assoc. of Geodesy, Munich, Germany. (J. J. Levallois, IAG, 19 rue Auber, Paris 8°)

18-24. Effects of Use and Disuse of Neuromuscular Functions, Prague-Liblice, Czechoslovakia (by invitation). (Czechoslovak Acad. of Sciences, Narodny Tr. 5, Prague I)

18-26. Equatorial Aeronomy, intern.

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Laboratory and Field Manual, also by E. Lendell Cockrum. This manual provides field and laboratory experience in the identification of mammals and familiarity with techniques for their study. Forms to be filled in by the students for local kinds of mammals are a feature. 2nd Ed., 1962. 116 pp., 38 work sheets. \$4.00

THE MAMMALS OF NORTH AMERICA

E. RAYMOND HALL, University of Kansas; and
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A comprehensive manual on the 3,800 named kinds of North American mammals. Orders and sub-groups are arranged in evolutionary sequence, with a series of 500 maps detailing the geographic distributions. Subspecies are cross-referenced to the original description and to the first usage of the current name-combination. There are diagnoses for all taxonomic categories above sub-species, keys to species identification, and concise statements on habits. 1959. 1,241 pp., illus. 2 vols., \$35.00

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This outstanding reference work synthesizes information from more than 5,000 sources, with emphasis on the natural history, ecology, and taxonomy of the free-living, fresh-water invertebrates. Provides keys for all taxonomic groups. Both keys and text are profusely illustrated. 1953. 769 pp. \$15.00

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symp., Huaychulo, Peru. (A. A. Giesecke, Scientific Program Committee, Apartado 3747, Lima, Peru)

18-28. International Atomic Energy Agency, general conf., Vienna, Austria. (IAEA, 11 Kärntner Ring, Vienna I)

19-20. Industrial Electronics, annual symp., Chicago, Ill. (E. A. Roberts, Comp-tometer Corp., 5600 Jarvis Ave., Chicago 48)

19-21. Rocky Mountain Minerals Conf., Butte, Mont. (Metallurgical Soc. of AIME, 345 E. 47 St., New York 17)

19-22. Information Retrieval, seminar, Minneapolis, Minn. (Director, Center for Continuation Study, Univ. of Minnesota, Minneapolis 14)

19-23. Air Force Assoc., convention and aerospace panorama-weapons meet, intern., Las Vegas, Nev. (AFA, 1901 Pennsylvania Ave., NW, Washington 6)

20. Surgery of the Hand, intern. conf., Paris, France. (L. Gosse, c/o Hôpital de Nanterre, 3 Av. de la République, Nanterre (Seine), France)

20-22. Sulphur Therapy, intern. symp., Innsbruck, Austria. (K. Weithaler, c/o Medizinische Universitäts Klinik, Innsbruck)

20-23. International Soc. for Practical Applied Medicine, intern. congr., Salzburg, Austria. (Sekretariat, Internationale Gesellschaft für Praktisch Angewandte Medizin, Lange Str. 21a, Oelde, Westfalen, Germany)

20-23. Rockets and Space Flight, symp., Coblenz, Germany. (Deutsche Raketen-Gesellschaft, Fritz-Beindorf-Allee 9, Han-over, Germany)

20-28. Intergovernmental Oceanographic Commission, Paris, France. (U.N. Educational, Scientific and Cultural Organization, Place de Fontenoy, Paris 7°)

20-30. Handling and Lifting Equipment and Industrial Electricity, intern. study sessions, Charleroi, Belgium. (Société Co-opérative de Gestion, Palais des Expositions, Avenue de l'Europe, Charleroi)

22. Pharmacy Assembly, annual, New York, N.Y. (J. Yellin, Hebrew Home for the Aged, Bronx, N.Y.)

22-29. International Scientific Film Assoc., congr., Warsaw, Poland. (F. Gazan, ISFA, 38 Avenue des Ternes, Paris 17°, France)

22-4. Cinematographic Techniques, intern. congr., Turin, Italy. (Salone Internazionale della Tecnica, Corso Galileo Ferraris 60, Turin)

23-26. Latin American Congr. of Angiology, Buenos Aires, Argentina. (E. Sales, Santa Fé 1171, Buenos Aires)

23-26. Petroleum Mechanical Engineering, conf., Dallas, Tex. (American Soc. of Mechanical Engineers, Meetings Manager, 29 W. 39 St., New York 18)

23-27. Electrochemical Soc., Boston, Mass. (ES, 1860 Broadway, New York 23)

23-27. Metal, intern. congr., Vienna, Austria. (Metall-u. Farben A.G., Kärntnerstrasse 7, Vienna I)

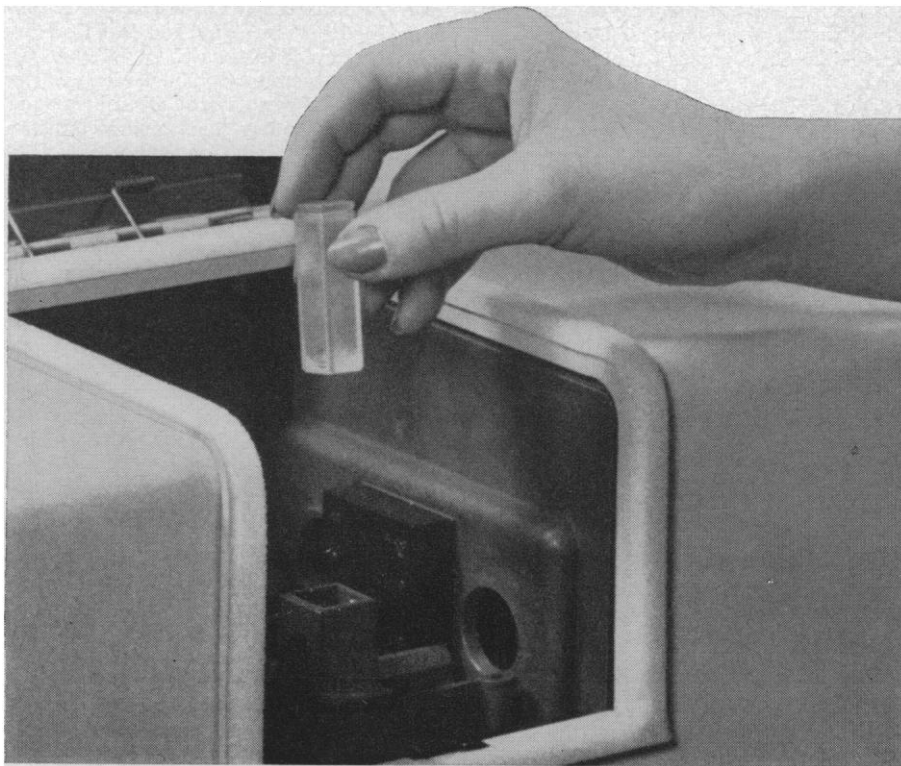
23-27. Microcirculation, symp., Pavia, Italy. (G. Pellegrini, Inst. of Medical Pathology, Univ. of Pavia, Pavia)

24-26. European Assoc. Against Poliomyelitis, symp., Prague, Czechoslovakia. (P. Recht, EAAP, 56 rue Charles Legrelle, Brussels 4, Belgium)

24-26. National Power Conf., Balti-

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