

SCIENCE

30 September 1960

Vol. 132, No. 3431

AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE



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The new terminal—recently introduced on the transatlantic cable—uses the idle time in the conversations of talkers on a group of channels to provide paths for other talkers. This time-sharing technique, called Time Assignment Speech Interpolation, permits the sending of 72 simultaneous phone conversations over this deep-sea system where only 36 could be sent before.

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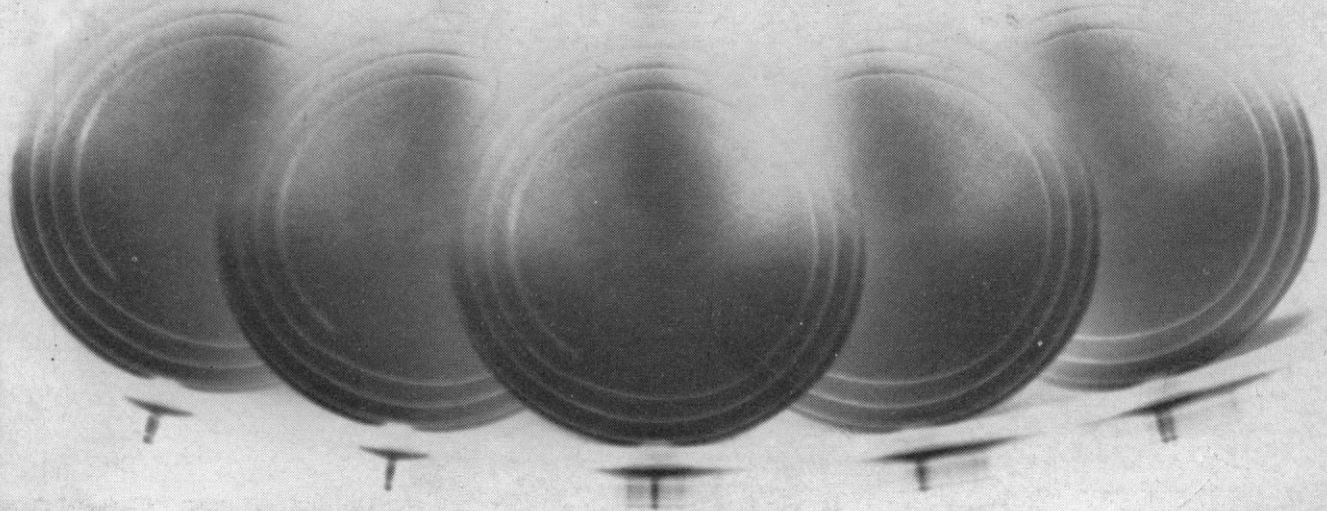
Scanning each circuit thousands of times a second, TASI instantly notices when you aren't talking, then quickly switches in someone who *is*. TASI also notices when you resume talking, immediately finds a channel not in use that moment and switches you to it. Your voice may be switched many times during a single conversation in a time too fast—about 15 milliseconds—for your ear to perceive.

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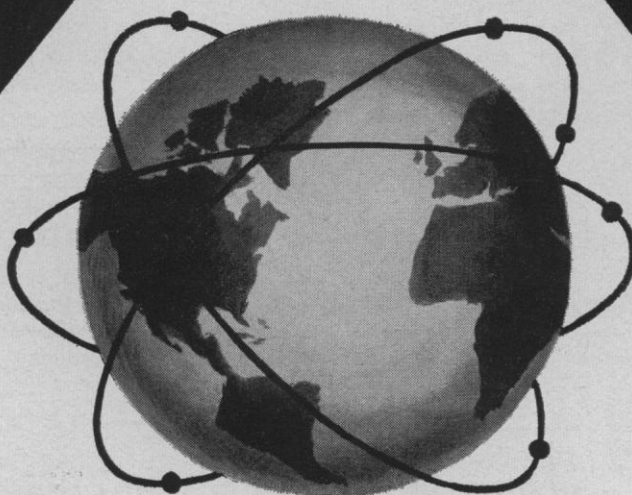
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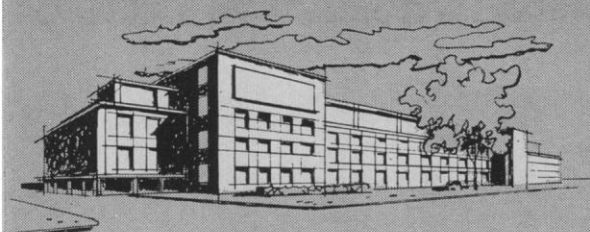
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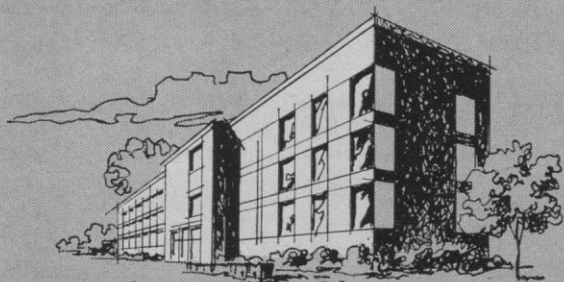
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Cover	Electron micrograph of the wall of a grain of grass pollen (<i>Poa annua</i> L.), made from a thin section of the germinal pore shadowed with platinum. The wall runs from the lower left to the upper right. Of the layers of the wall, the exine is darkest, the mesine is nearly as dark but textured, and the intine is light, similar to the background (left). The cytoplasm is to the right. In the center of the wall is a pore cut medially with an oval plug of exine, overriding a very thin layer of mesine, and the bulging intine (× 25,000). The micrograph was made at the Swiss Federal Institute of Technology, Zurich. [John R. Rowley, University of Massachusetts]	

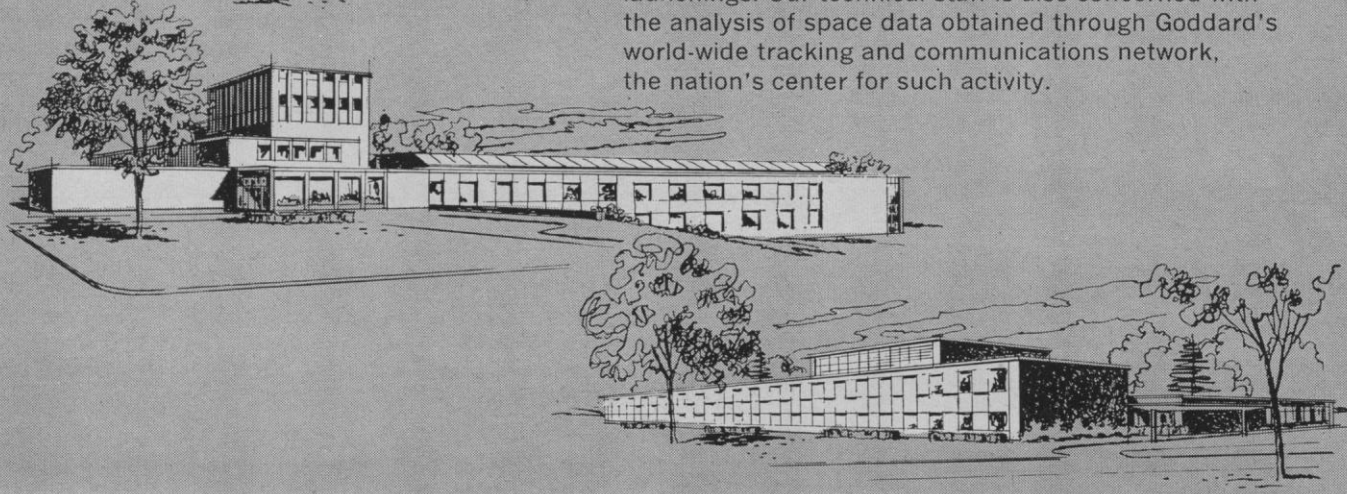


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Who Calls the Tune?

One of the most effective ways for scientists to exchange information and keep abreast of new developments is by way of scientific meetings. International scientific meetings are of especial importance and pose peculiar difficulties because of national policies that interfere with the free movement of scientists from one country to another. Foreign scientists sometimes have trouble getting visas to come to this country, and sometimes they find it impossible. This is one problem, but it is not the only one. Some of our scientists—government scientists—find themselves subject to a special ruling that limits their freedom to attend meetings abroad. This special limitation applies to international meetings that will be attended by scientists from countries not recognized diplomatically by the United States. Before a government scientist can attend such a meeting as a participant or at government expense, the State Department must be satisfied that no scientist from any nonrecognized country will be present. If any scientist from a nonrecognized country plans to attend the meeting, then our government scientists may not go unless they pay their own way. Even if they do pay their own way they may not deliver a paper at the meeting.

The State Department justification for the policy is this: if scientists employed by the government should attend meetings along with scientists from, for example, East Germany or Communist China, our policy of nonrecognition would be weakened. The supporting argument is that nonrecognized countries would make the propaganda claim that our scientists are government officials and that consequently their attendance at meetings with representatives from these countries constitutes *de facto* recognition.

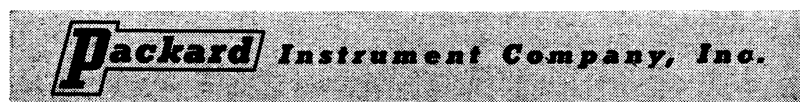
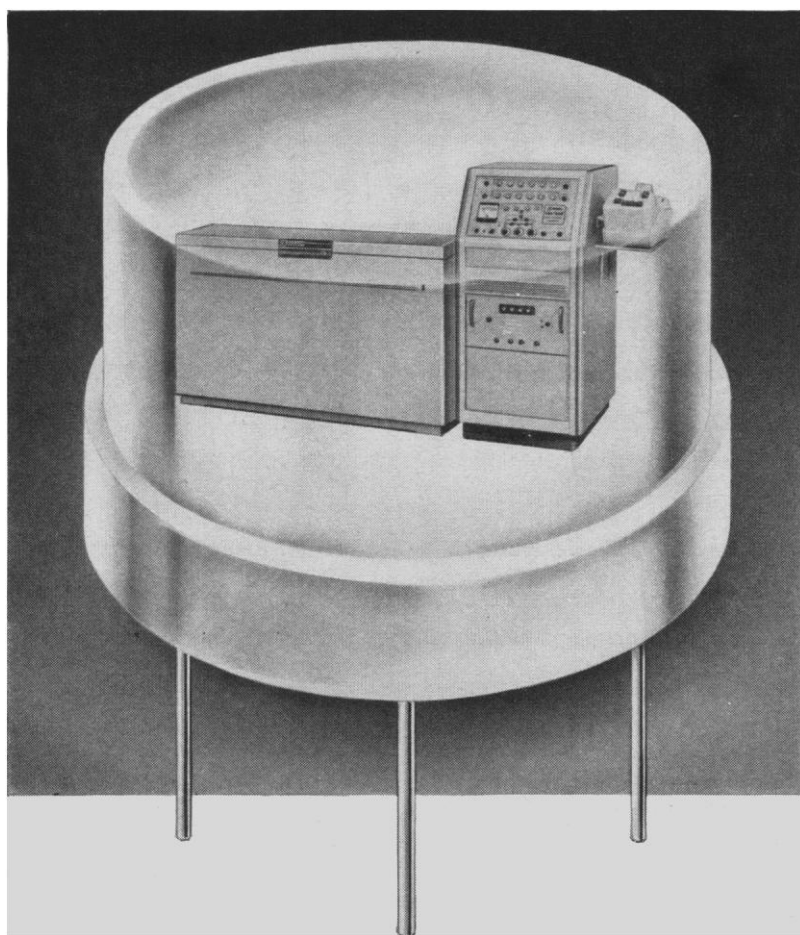
Whatever the merit of the diplomatic issue, it ought to be weighed against the losses that the ruling entails. It is not the individual government scientist alone who loses; the agency that assigns him to attend the meeting is acting in the national interest, and that also suffers. Do we stand to lose more than we gain by our policy? In one way we clearly do. By the simple expedient of sending a representative to a meeting, a nonrecognized country can block the attendance of our government scientists. We thus allow our participation to be governed by these countries rather than by our own national interest.

Another objection to the argument in support of the policy is that even though the scientists in question do work for our government, they do not represent us diplomatically. Thus the presence of government scientists at a meeting of the kind being discussed cannot reasonably be construed—despite the State Department's apprehensions—as a step toward recognition. The International Council of Scientific Unions in 1958 passed a resolution affirming the right of scientists to participate in international scientific activity “without regard to race, religion, or political philosophy” and added that such participation “has no implications with respect to recognition of the government of the country or territory concerned.” In April 1960 the Governing Board of the National Academy of Sciences—National Research Council endorsed that resolution.

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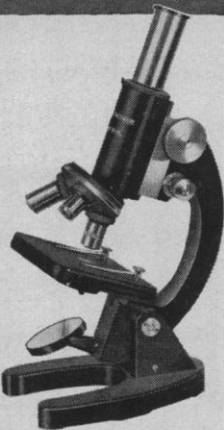
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member, Mathematics Policy Committee, 1952-53; member, mathematics division, National Research Council, 1953-56, executive committee, 1954-56; member, general sciences advisory panel, Department of Defense, 1957-; member, advisory commission for mathematics, National Bureau of Standards, 1954-60, chairman, 1954-57; member, advisory panel for mathematical sciences, National Science Foundation, 1955-58; member, Council, New York Academy of Sciences, 1956-59; member, Conference Board of the Mathematical Sciences, 1960-.

AAAS activities: vice president and chairman, Section A, 1954; member, Board of Directors, 1958-60.

William C. Steere

William C. Steere, 53 (botany), instructor in biology, Temple University, 1929-31; instructor in botany, University of Michigan, 1931-36, assistant professor, 1936-42, associate professor, 1942-46, professor, 1946-50, chairman of the department, 1947-50; professor of biology, Stanford University, 1950-58, dean of the graduate division, 1955-58; director, New York Botanical Garden, 1958-; professor of botany, Columbia University, 1958-; exchange professor, University of Puerto Rico, 1939-40; senior botanist, U.S. Board of Economic Warfare Cinchona Missions, Colombia, 1942-43, Ecuador, 1943-44; senior botanist, Alaska Terrain and Permafrost Section, U.S. Geological Survey, 1949-54; program director, systematic biology, National Science Foundation, 1954-55; president, American Bryological Society, 1936-37; president, American Society of Naturalists, 1957-58; president, Botanical Society of America, 1959; president, American Society of Plant Taxonomists, 1959; editor-in-chief, *The Bryologist*, 1938-54; editor, *American Journal of Botany*, 1953-57.

AAAS activities: vice president and chairman, Section G, 1948; member, Committee on AAAS Meetings, 1959-; committeeman-at-large, Section G, 1959-.

Alan T. Waterman

Alan T. Waterman, 68 (physics), instructor in physics, University of Cincinnati, 1916-17; Yale University, 1919-23, assistant professor, 1923-30, associate professor, 1931-48; vice chairman, division D, National Defense Research Committee, 1942-43; deputy chief, office field service, Office of Scientific Research and Development, 1943-45, chief, 1945-46; chief scientist, planning division, Office of Research and Inventions, 1946; deputy chief and chief scientist, Office of Naval Research, 1947-51; director, National Science Foundation, 1951-; member, Editorial Board, *American*

Journal of Science; awarded Presidential Medal for Merit, 1948; first annual Captain Robert Dexter Conrad Award by the Office of Naval Research, 1957; Public Welfare Medal of the National Academy of Sciences, 1960.

AAAS activities: vice president and chairman, Section B, 1955; member, Board of Directors, 1957-60.

Forthcoming Events

October

19-20. American Geophysical Union, Moscow, Idaho. (W. E. Smith, 1515 Massachusetts Ave., NW, Washington 5, D.C.)

19-21. Design of Experiments, 6th conf. (by invitation only), Aberdeen Proving Ground, Md. (F. G. Dressel, Office of Ordnance Research, Box CM, Duke Station, Durham, N.C.)

19-21. Space Navigation, symp., Columbus, Ohio. (Institute of Radio Engineers, 1 E. 79 St., New York 21)

20-21. Hypervelocity, symp., Denver, Colo. (R. R. Dexter, IAS, 2 E. 64 St., New York 21)

20-22. Acoustical Soc. of America, San Francisco, Calif. (V. Salmon, Stanford Research Institute, Menlo Park, Calif.)

20-22. Institute of Management Sciences, 7th intern., New York, N.Y. (J. Townsend, IMS, 30 E. 42 St., New York 17)

21-22. Association of Midwestern College Biology Teachers, 4th annual, Mankato, Minn. (L. Zell, Mankato State College, Mankato, Minn.)

21-22. Research Approaches to Psychiatric Problems, symp., Galesburg, Ill. (T. T. Tourlentes, Galesburg State Research Hospital, Galesburg)

21-23. American College of Cardiology, St. Louis, Mo. (G. F. Greco, 114-08 Linden Blvd., Ozone Park 16, N.Y.)

21-25. American Heart Assoc., annual, St. Louis, Mo. (AHA, 44 E. 23 St., New York 10)

22. Midwest Solid State Conf., 8th annual, Lincoln, Neb. (J. W. Weymouth, Physics Dept., Univ. of Nebraska, Lincoln)

23-26. American College of Gastroenterology, Philadelphia, Pa. (D. Weiss, 33 W. 60 St., New York 23)

24-26. Medical and Biological Aspects of the Energies of Space, symp. (School of Aviation Medicine, USAF Aerospace Medical Center), San Antonio, Tex. (J. Harmon, Symposium Coordinator, Southwest Research Inst., P.O. Box 2296, San Antonio 6)

24-27. Hot Atom Effects, symp., Prague, Czechoslovakia. (International Atomic Energy Agency, 11 Kärntner Ring, Vienna 1, Austria)

25-27. American Standards Assoc., natl. conf., New York, N.Y. (G. F. Hussey, Jr., AST, 70 E. 45 St., New York 17)

26-28. Animal Care Panel, 11th annual, St. Louis, Mo. (ACP, P.O. Box 299, Lemont, Ill.)

26-28. Society for Industrial Microbiology, Conf. on Antimicrobial Agents, Washington, D.C. (SIM, 2000 P St., NW, Washington 6)

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Program Content

1. The two-session AAAS General Symposium, "Moving Frontiers of Science V"—Speakers: Edward Anders, H. W. Magoun, George Wald, and H. H. Goldstine; Thomas Park, presiding.
2. The "Challenge to Science" evening with Sir Charles P. Snow, Theodore M. Hesburgh, and W. O. Baker; Warren Weaver, presiding.
3. On "AAAS Day," the three broad, interdisciplinary symposia—Plasma: Fourth State of Matter; Life under Extreme Conditions; and Urban Renewal and Development, arranged by AAAS Sections jointly.
4. The Special Sessions: AAAS Presidential Address and Reception; Joint Address of Sigma Xi and Phi Beta Kappa by Polykarp Kusch; the Tau Beta Pi Address; National Geographic Society Illustrated Lecture; and the first George Sarton Memorial Address by René Dubos.
5. The programs of all 18 AAAS Sections (specialized symposia and contributed papers).
6. The programs of the national meetings of the American Astronomical Society, American Nature Study Society, American Society of Zoologists, History of Science Society, National Association of Biology Teachers, Scientific Research Society of America, Sigma Delta Epsilon, Society for General Systems Research, Society for the Study of Evolution, Society for the History of Technology, Society of Systematic Zoology, and the Society of the Sigma Xi.
7. The multi-sessioned special programs of the American Association of Clinical Chemists, American Astronautical Society, American Geophysical Union, American Physiological Society, American Psychiatric Association, American Society of Criminology, Association of American Geographers, Ecological Society of America, Mycological Society of America, National Science Teachers Association, New York Academy of Sciences—and still others, a total of some 90 participating organizations.
8. The four-session program of the Conference on Scientific Communication: The Sciences in Communist China, cosponsored by the AAAS, NSF, and ten societies.
9. The sessions of the Academy Conference, the Conference on Scientific Manpower, and the conference of the American Council on Women in Science.
10. The sessions of the AAAS Cooperative Committee on the Teaching of Science and Mathematics, and of the AAAS Committee on Science in the Promotion of Human Welfare.
11. Titles of the latest foreign and domestic scientific films to be shown in the AAAS Science Theatre.
12. Exhibitors in the 1960 Annual Exposition of Science and Industry—103 booths—and descriptions of their exhibits.

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27-28. Cellulose Conf., 3rd, Syracuse, N.Y. (Cellulose Research Inst., State Univ. College of Forestry, Syracuse Univ., Syracuse 10)

27-28. Electron Devices, 6th annual, Washington, D.C. (J. Hornbeck, Bell Telephone Labs., Murray Hill, N.J.)

27-29. American Soc. for Aesthetics, Brooklyn, N.Y. (J. R. Johnson, Cleveland Museum of Art, Cleveland 6, Ohio)

27-29. International Assoc. of Milk and Food Sanitarians, Chicago, Ill. (V. T. Foley, Kansas City, Missouri, Health Dept., 21st Floor, City Hall, Kansas City, Mo.)

28-29. Society for the Scientific Study of Religion, 20th, New York, N.Y. (W. H. Clark, Hartford School of Religious Education, Hartford 5, Conn.)

29-3. Photoelasticity, intern. symp., Chicago, Ill. (P. D. Flynn, ISP, Illinois Inst. of Technology, Chicago 16)

31-2. Association of Military Surgeons of the U.S., Washington, D.C. (R. E. Bitner, Suite 718, New Medical Bldg., 1726 Eye St., NW, Washington)

31-2. Electrical Techniques in Medicine and Biology, 13th annual conf., Washington, D.C. (G. N. Webb, Room 547, CSB, Johns Hopkins Hospital, Baltimore 5, Md.)

31-2. Geochemical Soc., Denver, Colo. (K. B. Krauskopf, Geology Dept., Stanford Univ., Stanford, Calif.)

31-2. Geological Soc. of America, Denver, Colo. (F. Betz, Jr., 419 W. 117 St., New York 27)

31-2. Society of Economic Geologists, Denver, Colo. (H. M. Bannerman, U.S.

Geological Survey, Washington 25, D.C.)

31-2. Society of Rheology, annual, Pittsburgh, Pa. (J. H. Dillon, Textile Research Inst., Princeton, N.J.)

31-4. American Public Health Assoc., San Francisco, Calif. (B. F. Mattison, APHA, 1790 Broadway, New York 19)

November

1-3. International Cong. on Experimental Mechanics, New York, N.Y. (R. Guernsey, Jr., Soc. of Experimental Stress Analysis, General Engineering Lab., General Electric Co., Schenectady 5, N.Y.)

1-16. International Electrochemical Commission, New Delhi, India. (American Standards Assoc., 70 E. 45 St., New York 17)

2-4. Plasma Physics, 2nd annual, Gatlinburg, Tenn. (A. H. Snell, Oak Ridge Natl. Lab., Oak Ridge, Tenn.)

2-4. Society for Experimental Stress Analysis, Berkeley, Calif. (W. W. Murray, Massachusetts Inst. of Technology, Cambridge)

2-5. American Soc. of Parasitologists, Los Angeles, Calif. (F. J. Kruidenier, Zoology Dept., Univ. of Illinois, Urbana)

2-5. American Soc. of Tropical Medicine and Hygiene, Los Angeles, Calif. (R. B. Hill, 3573 St. Gaudens Rd., Miami 33, Fla.)

2-5. American Speech and Hearing Assoc., Los Angeles, Calif. (K. O. Johnson, 1001 Connecticut Ave., NW, Washington 6)

3-4. Electrostatic Propulsion, conf., Monterey, Calif. (J. M. Sellen, Thompson

Ramo-Wooldridge, Inc., 8433 Fallbrook Ave., Canoga Park, Calif.)

3-4. Muscle as a Tissue, conf., Philadelphia, Pa. (Division of Research, Lankenau Hospital, Philadelphia 31)

4-5. West-Central States Biochemical Conf., Lincoln, Neb. (J. H. Pazur, Dept. of Biochemistry and Nutrition, Univ. of Nebraska, Lincoln)

4-6. Assoc. of Clinical Scientists, Washington, D.C. (R. P. MacFate, 54 W. Hubbard St., Chicago 10, Ill.)

5. Society for Industrial and Applied Mathematics, Philadelphia, Pa. (G. Kaskey, Remington Rand Univac, 1900 W. Allegheny Ave., Philadelphia)

7-10. Society of Exploration Geophysicists, 30th annual intern., Galveston, Tex. (C. C. Campbell, Box 1536, Tulsa, Okla.)

8-10. Forensic Sciences, 2nd symp., Washington, D.C. (Director, Armed Forces Inst. of Pathology, Washington 25)

9-10. Use of Secondary Surfaces for Heat Transfer with Clean Gases, symp., London, England. (Secretary, Institution of Mechanical Engineers, 1 Birdcage Walk, London, S.W.1)

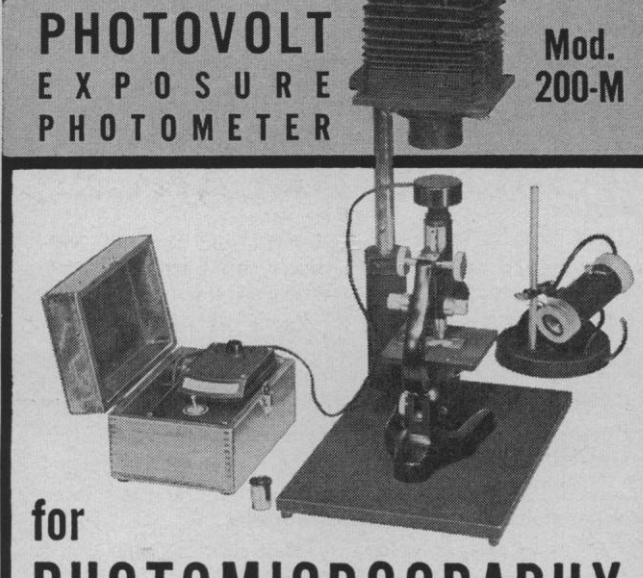
9-11. Clinical Chemistry Methods, symp., Cleveland, Ohio. (A. Hainline, Cleveland Clinic, 2020 E. 93 St., Cleveland 6)

10-12. Geological Soc. of America, 73rd conv., Denver, Colo. (H. R. Aldrich, GSA, 419 W. 117 St., New York 27)

10-12. National Assoc. of Geology Teachers, Denver, Colo. (F. Foote, Dept. of Geology, Williams College, Williamstown, Mass.)

(See issue of 16 September for comprehensive list.)

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