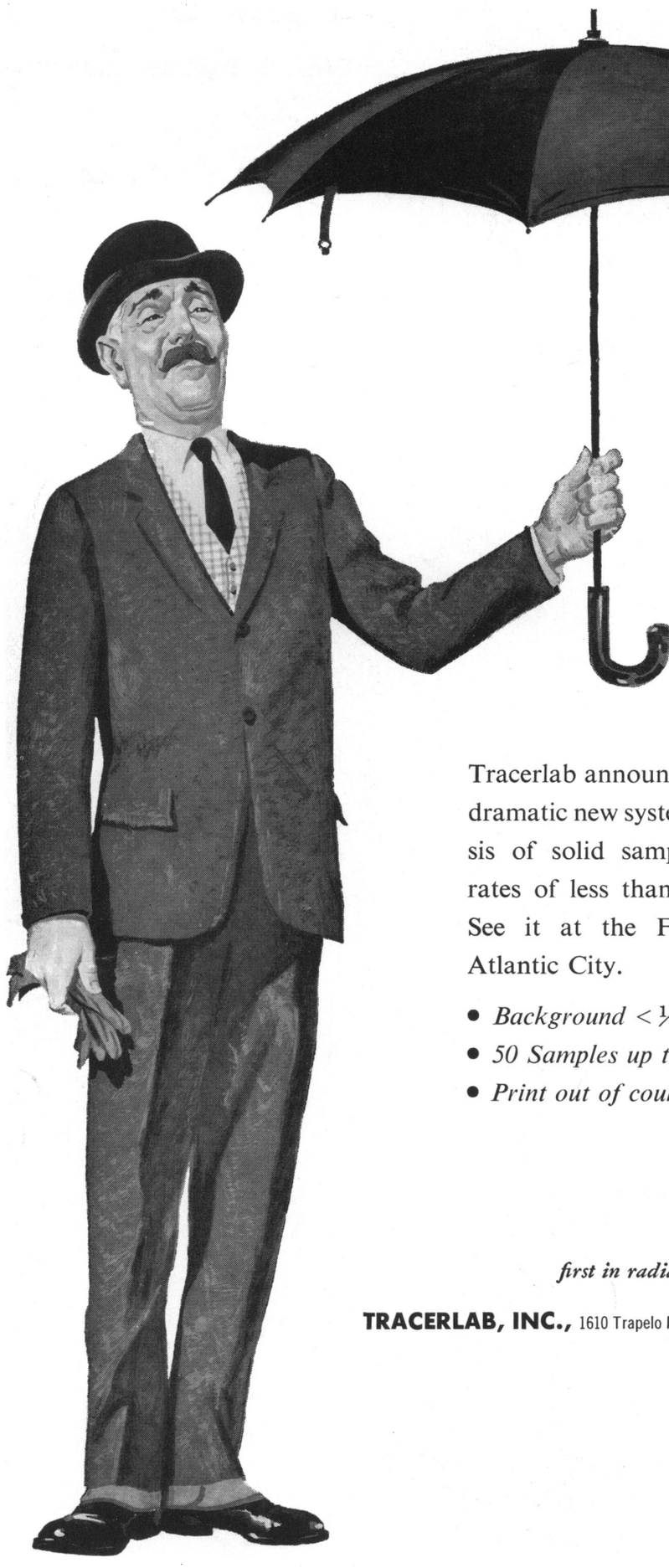
SCIENCE

31 March 1961

Vol. 133, No. 3457

AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE



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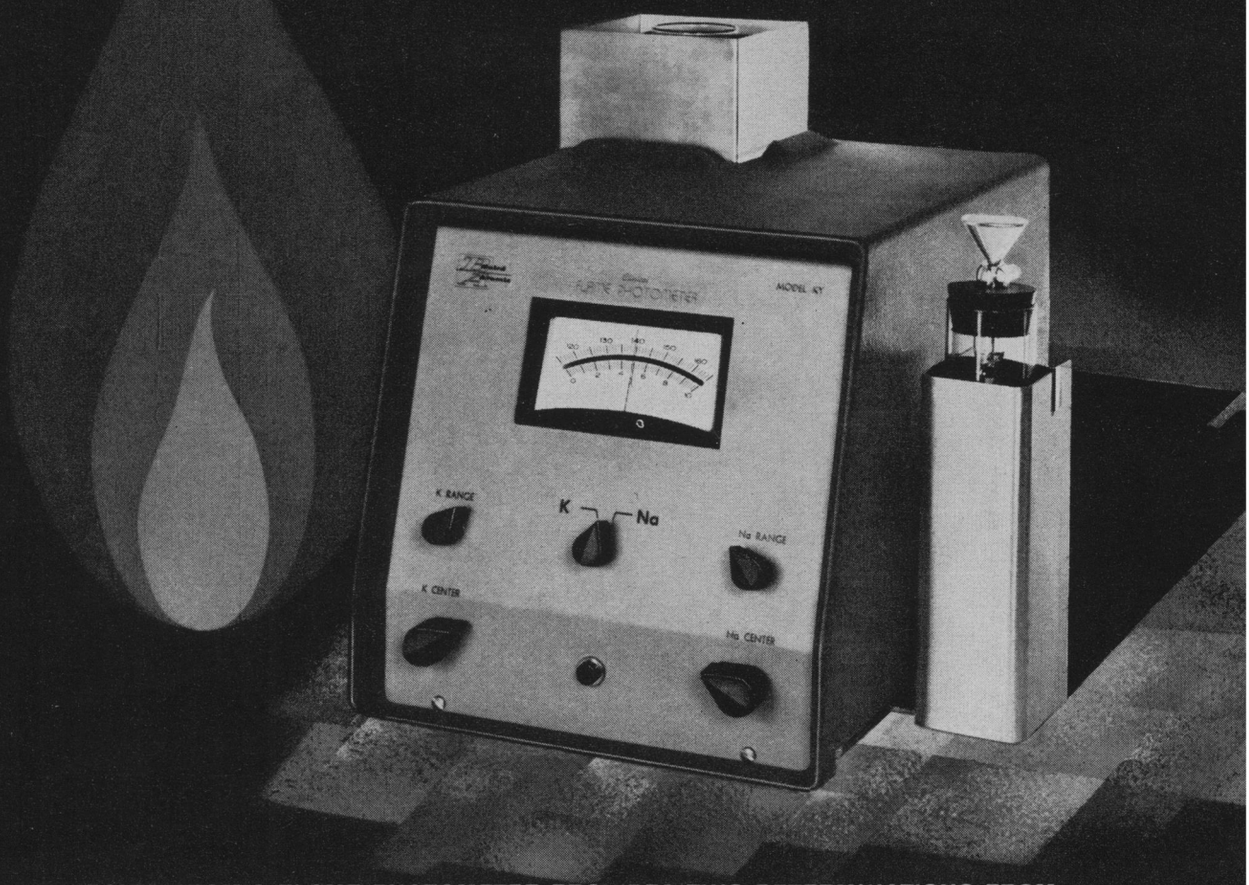

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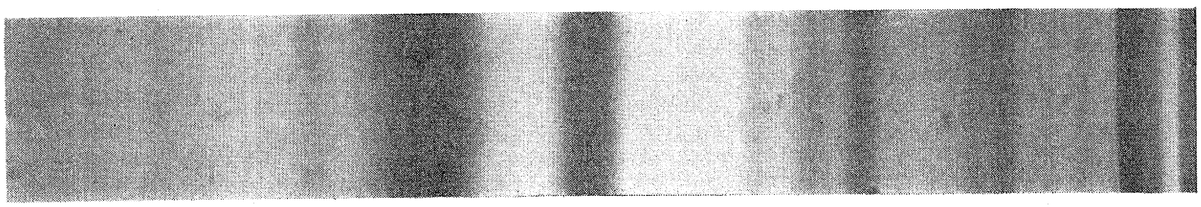

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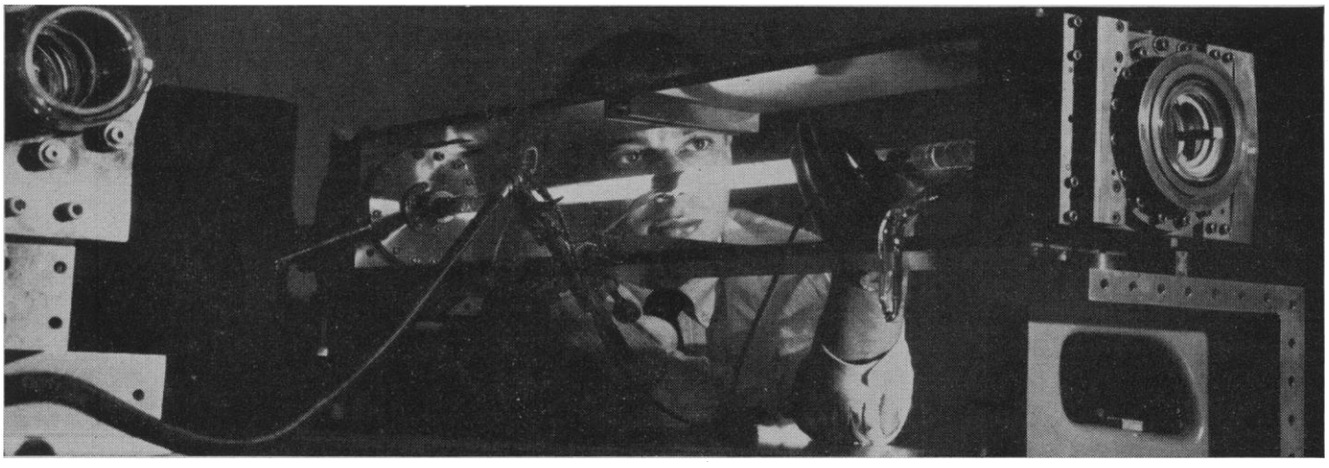
A revolutionary new device, the continuously operating Optical Gas Maser, now under investigation at Bell Telephone Laboratories, foreshadows a whole new medium for communications: light.

Light waves vibrate at frequencies tens of millions of times higher than broadcast radio waves. Because of these high frequencies, a beam of light has exciting potentialities for handling enormous amounts of information.

Now for the first time, Bell Laboratories' new Optical Gas Maser continuously generates light waves that are "coherent." That is, the light waves move in phase as seen looking across the beam.

With further research, it is expected that such beams can be made to carry large amounts of information. The beams can be transmitted through long pipes. They can be projected very precisely through space, and might be used for communications between space vehicles.

Research with coherent light is another example of how Bell Laboratories prepares ahead for communications needs.



The Optical Gas Maser (above) was first demonstrated at Bell Telephone Laboratories. Heart of unit is a 40-inch tube containing helium and neon. Interaction between gas atoms produces a continuous, coherent beam of infrared light that may one day be used in communications.

BELL TELEPHONE LABORATORIES

WORLD CENTER OF COMMUNICATIONS RESEARCH AND DEVELOPMENT

31 March 1961, Volume 133, Number 3457

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Idealism for Export

The Peace Corps, which was established by executive order on 1 March, is based upon the bold premise that Americans are willing to sacrifice personal comfort and financial advantages to be of service to other nations.

The response to the program augurs well for its future. Apparently there will be no shortage of able volunteers in some of the major fields of interest. Some 800 to 1500 letters of inquiry pour in daily at the Peace Corps' improvised headquarters in Washington. A random sample of 300 showed a notably low number from the illiterate and unbalanced, and a remarkably high number from the apparently competent and well qualified. The greatest number of letters came from graduate and undergraduate students, but there were many from nurses and teachers, and a sprinkling from M.D.'s, Ph.D.'s, lawyers, engineers, and construction workers. It seems probable that projects calling for teachers and nurses can be readily staffed, but others—notably those that call for engineers, architects, and construction workers—may offer major difficulties.

The detailed plans are not yet clearly drawn, but the staff is adhering to certain general principles as guidelines. Volunteers will get allowances sufficient to maintain them in good health but not large enough to enable them to live at a conspicuously higher standard than their counterparts abroad. The volunteers will work side by side with the residents—they will be a part of the community. Projects will be initiated only at the wish of the foreign governments and upon approval by our government. Only after a project has been agreed upon will the Peace Corps select volunteers and arrange a training program for that particular mission.

Success will hinge upon how well these principles can be put into practice, and especially upon the skill and imagination that are brought into play in the selection and training of the volunteers. It is encouraging to note that people experienced in education and the social sciences are being drawn into these phases of the program; Arthur S. Adams, formerly president of the American Council on Education, is in charge of training, and Nicholas Hobbs, a psychologist who was formerly chairman of the Division of Human Development and Guidance at Peabody College, is in charge of selection. Fortunately, these men and their staffs can draw upon the experience gained by the International Cooperation Administration (of which the Peace Corps is a part) and by several voluntary medical and missionary organizations in preparing people for service abroad.

The Peace Corps is off to a good and enthusiastic start. The hazards are great, but if the program is successful the results will justify the risks. Success will bring genuine help to the developing nations, the austerity of the program will help dispel the distorted view that the American people are grossly materialistic and self-regarding, and the interchange between the volunteers and their foreign co-workers, as they work together on specific problems, will effect great gains in mutual understanding and respect.—G.DuS.

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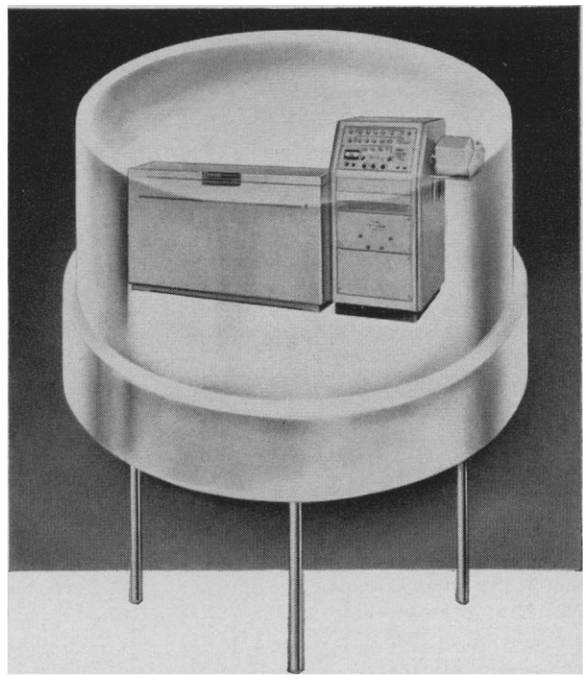

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Meetings

Entomology and Human Welfare

Frank S. Arant, head of the department of zoology and entomology, Alabama Polytechnic Institute, has been chosen by the governing board of the Entomological Society of America as the society's president for 1961. Acceptance of a foreign assignment by H. M. Harris, of Iowa, president-elect in 1960, led to his resignation and the selection of a president by board action rather than by ballot of the membership. Robert Glen, director, General Research Branch, Canada Department of Agriculture, Ottawa, is president-elect for 1961.

The 1960 Atlantic City meeting of the Society, held 28 November through 1 December, drew a larger attendance (859) than any previous meeting of the society other than joint meetings with Canadian societies. The theme of the meeting was, "Entomological Contributions to Human Welfare."

M. P. Jones, entomologist with the extension service of the U.S. Department of Agriculture, the society's president for 1960, delivered the presidential address, "Selling insect control information." The John Henry Comstock memorial lecture, "The challenge of insecticide resistance," was delivered by A. W. A. Brown of the University of Western Ontario. J. George Harrar, vice president of the Rockefeller Foundation, addressed a plenary session on food additives and public health.

Dionyz Blaskovic, director of the Institute of Virology, Blatislava, Czechoslovakia, and K. C. Willett, director of the West African Institute for Trypanosomiasis Research, Kaduna, Northern Nigeria, were participants in a symposium on biological transmission of disease agents. The Rockefeller Foundation made possible the attendance of these two speakers.

Lester G. MacNamara, chief of the New Jersey Bureau of Wildlife Management, also addressed an evening plenary session, on the role of chemicals in wildlife conservation.

There were 186 submitted papers, 14 symposia and panel discussions, and 19 invited speakers; the program was arranged by Ralph W. Sherman, U.S. Department of Agriculture, program chairman. L. G. Merrill, Jr., of Rutgers University, was chairman of the local arrangements committee.

RALPH W. SHERMAN
U.S. Department of Agriculture, Washington, D.C.

Forthcoming Events

April

23–27. Society of American Bacteriologists, Chicago, Ill. (E. M. Foster, 311 Bacteriology, Univ. of Wisconsin, Madison)

23–28. American Soc. of Hospital Pharmacists, Chicago, Ill. (J. A. Oddis, 2215 Constitution Ave., NW, Washington 7, D.C.)

24–26. Aerospace Medical Assoc., 32nd annual, Chicago, Ill. (W. J. Kennard, Secretary-Treasurer, c/o Washington National Airport, Washington, D.C.)

24–26. American Psychoanalytic Assoc., annual, Philadelphia, Pa. (J. N. McVeigh, 36 W. 44 St., New York 36)

24–26. International Acad. of Pathology, 50th annual, Chicago, Ill. (Miss M. Davis, Intersociety Committee on Pathology Information, 1785 Massachusetts Ave., NW, Washington 6, D.C.)

24–27. American Assoc. of Petroleum Geologists, Denver, Colo. (G. V. Cohee, U.S. Geological Survey, Washington 25, D.C.)

24–27. American Physical Soc., Washington, D.C. (K. K. Darrow, 538 W. 120 St., New York 27)

25–28. Society of Economic Paleontologists and Mineralogists, Denver, Colo. (J. Imbrie, Dept. of Geology, Columbia Univ., New York, N.Y.)

26–28. American Assoc. of Pathologists and Bacteriologists, 58th annual, Chicago, Ill. (Miss M. Davis, Intersociety Committee on Pathology Information, 1785 Massachusetts Ave., NW, Washington 6, D.C.)

27–28. Diseases in Nature Transmissible

to Man, 11th annual southwestern conf., College Station, Tex. (F. P. Jaggi, Jr., Agricultural and Mechanical College of Texas, College Station)

27–28. Health Education Conf., New York Acad. of Medicine, New York, N.Y. (I. Goldston, 2 E. 103 St., New York 29)

27–29. American Acad. of Neurology (members and guests), Detroit, Mich. (Mrs. J. C. McKinley, 4307 E. 50 St., Minneapolis 17, Minn.)

27–29. Wildflower Pilgrimage, 11th annual, Great Smoky Mountains Natl. Park, Tenn. (A. J. Sharp, Dept. of Botany, Univ. of Tennessee, Knoxville)

27–30. Congress of Laboratory Medicine, Berlin. (W. Massmann, Rubensstr. 125, Berlin-Friedenau, Germany)

27–5. American Psychiatric Assoc., annual, Philadelphia, Pa. (D. Blain, 1700 18 St., NW, Washington 6)

28–30. American Psychosomatic Soc., 18th annual, Atlantic City, N.J. (M. F. Reiser, 265 Nassau Road, Roosevelt, N.Y.)

30–4. Aero/Space Instrumentation Symp., 7th annual, Dallas, Tex. (W. J. Gabriel, Route 3, Box 36, Fort Worth, Tex.)

30–4. Electrochemical Soc., Indianapolis, Ind. (R. K. Shannon, 1860 Broadway, New York 23)

30–6. Conference on Internal Medicine, Nassau, Bahamas. (Bahamas Conferences, P.O. Box 1454, Nassau)

May

1–3. American Oil Chemists' Soc., St. Louis, Mo. (K. F. Mattil, Swift and Co., U.S. Yards, Chicago 9, Ill.)

2–3. American Pediatric Soc., Atlantic City, N.J. (C. M. Riley, Denver General Hospital, Denver 4, Colo.)

2–3. Association of American Physicians, Atlantic City, N.J. (P. B. Beeson, Yale Univ. School of Medicine, New Haven 11, Conn.)

2–5. Criticality Control in Chemical and Metallurgical Plant, intern. symp., OEEC, Karlsruhe, Germany. (European Nuclear Energy Agency, 38, Boulevard Suchet, Paris 16, France)

2–6. American Assoc. on Mental Deficiency, Cincinnati, Ohio. (N. A. Dayton, Mansfield Training School, Mansfield Depot, Conn.)

3–5. Nuclear Applications in Space Conf., Gatlinburg, Tenn. (J. J. Harford, American Rocket Soc., 500 Fifth Ave., New York, N.Y.)

3–6. American Goiter Assoc., Philadelphia, Pa. (J. C. McClintock, 702 Madison Ave., Albany 8, N.Y.)

3–6. Midwestern Psychological Assoc., Chicago, Ill. (I. E. Farber, Dept. of Psychology, State Univ. of Iowa, Iowa City)

3–7. Student American Medical Assoc., Chicago, Ill. (R. F. Staudacher, 430 N. Michigan Ave., Chicago 11)

4–5. Human Factors in Electronics, 2nd natl. symp., Arlington, Va. (H. P. Birmingham, Human Engineering Development Section, U.S. Naval Research Laboratory, Washington 25)

4–5. Society for Pediatric Research, Atlantic City, N.J. (C. D. West, Children's Hospital, Cincinnati 29, Ohio)

4–6. American Ethnological Soc., Co-

lumbus, Ohio. (Miss N. F. S. Woodbury, Arizona State Museum, Univ. of Arizona, Tucson)

4–6. American Philosophical Assoc., western division, St. Louis, Mo. (L. E. Hahn, Washington Univ., St. Louis 30, Mo.)

4–6. American Soc. of Human Genetics, Atlantic City, N.J. (W. J. Schull, 1133 E. Catherine St., Ann Arbor, Mich.)

4–6. New York State Psychological Assoc., annual, Rochester. (H. P. Iker, Strong Memorial Hospital, Room R-201, 260 Crittenden Blvd., Rochester 20)

4–6. Pediatric Surgery, symp., New York, N.Y. (Office of the Associate Dean, New York Univ. Post-Graduate Medical School, 550 First Ave., New York 16)

4–6. Society for American Archaeology, Columbus, Ohio. (J. B. Wheat, Univ. of Colorado Museum, Boulder)

4–7. Hypertension Symp. (by Hahnemann Medical College), Philadelphia, Pa. (Hahnemann Medical College and Hospital, 235 N. 15 St., Philadelphia 2)

5–6. Population Assoc. of America, New York, N.Y. (K. B. Mayer, Dept. of Sociology and Anthropology, Brown Univ., Providence 12, R.I.)

5–7. American Soc. of Internal Medicine, Miami Beach, Fla. (G. T. Bates, 350 Post St., San Francisco 8, Calif.)

5–8. American Psychoanalytic Assoc., Chicago, Ill. (Mrs. H. Fischer, 1 E. 57 St., New York 22)

6–7. Academy of Psychoanalysis, annual, Chicago, Ill. (J. H. Merin, 49 E. 78 St., New York 21)

6–9. Circuit Theory, 5th midwestern symp., Urbana, Ill. (M. E. Van Valkenburg, Dept. of Electrical Engineering, Univ. of Illinois, Urbana)

7–10. American Inst. of Chemical Engineers, Cleveland, Ohio. (J. F. Van Antwerpen, AIChE, 25 W. 45 St., New York 36)

7–11. Institute of Food Technologists, New York, N.Y. (C. S. Lawrence, 176 W. Adams St., Chicago 3, Ill.)

7–12. Medical Library Assoc., Inc., Seattle, Wash. (Miss R. J. Mann, Mayo Clinic Library, Rochester, Minn.)

7–12. Society of American Bacteriologists, 62nd annual, Kansas City, Mo. (E. M. Foster, 311 Bacteriology, Univ. of Wisconsin, Madison 6)

7–12. Society of Motion Picture and Television Engineers, Toronto, Canada. (SMPTE, 55 W. 42 St., New York 36)

8–9. Titrimetric Methods of Analysis, symp., Cornwall, Ontario, Canada. [J. R. McCallum, Courtaulds (Canada) Ltd., Cornwall]

8–10. Aerospace Electronics Conf., 13th annual natl., Dayton, Ohio. (R. G. Stimmel, Institute of Radio Engineers, 1 E. 79 St., New York 21)

8–10. Instrument Soc. of America, Power Instrumentation Symp., 4th natl., Chicago, Ill. (H. A. Van Wassen, Duquesne Light Co., Pittsburgh 19, Pa.)

8–10. Mathematical Theories of Biological Phenomena, symp., New York, N.Y. (N. Rashevsky, Committee on Mathematical Biology, 5741 Drexel Ave., Chicago 37, Ill.)

8–12. American College of Physicians, 42nd annual, Miami Beach, Fla. (ACP, 4200 Pine St., Philadelphia 4, Pa.)

(See issue of 17 February for comprehensive list)