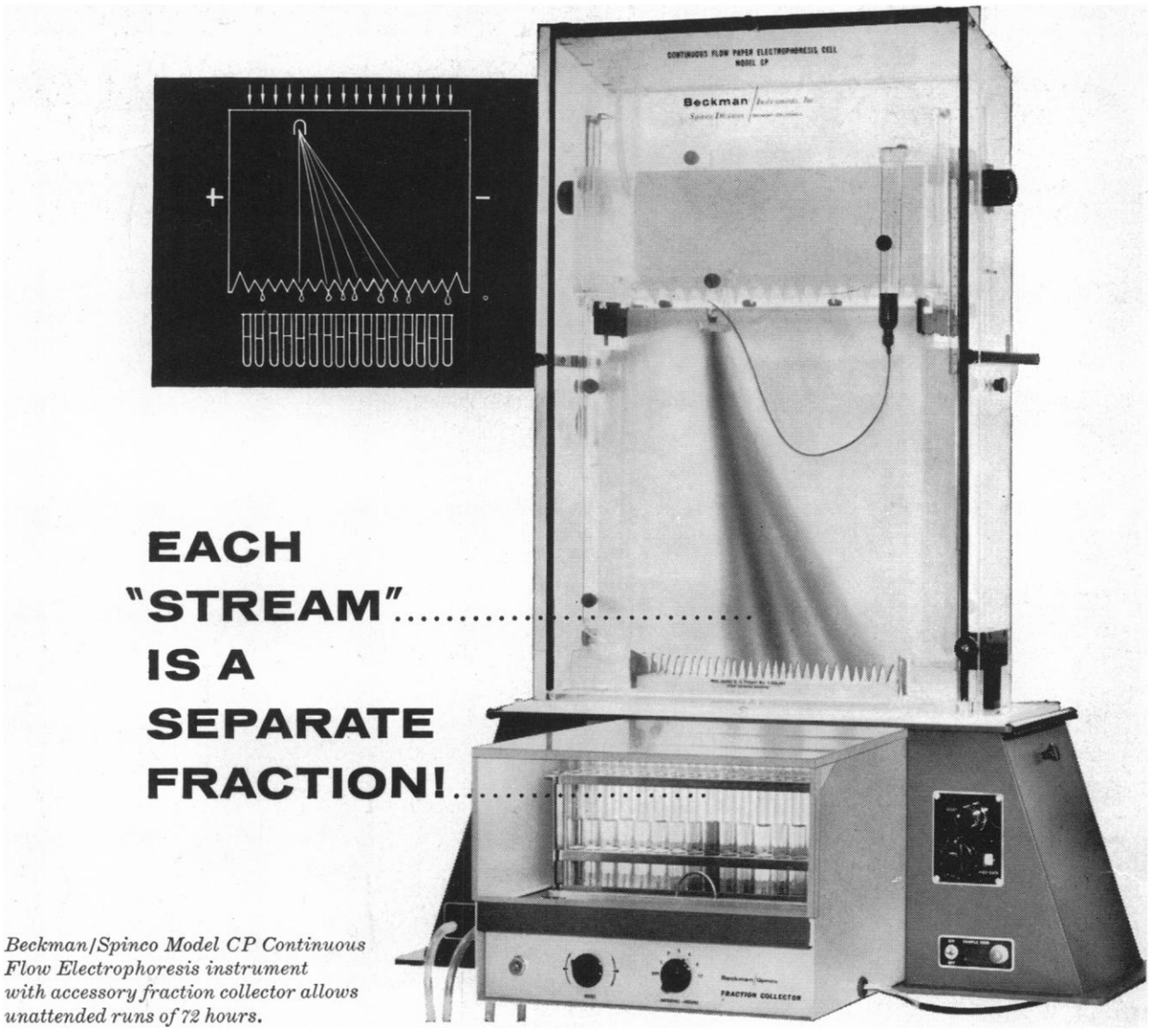
SCIENCE

26 May 1961

Vol. 133, No. 3465

AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE



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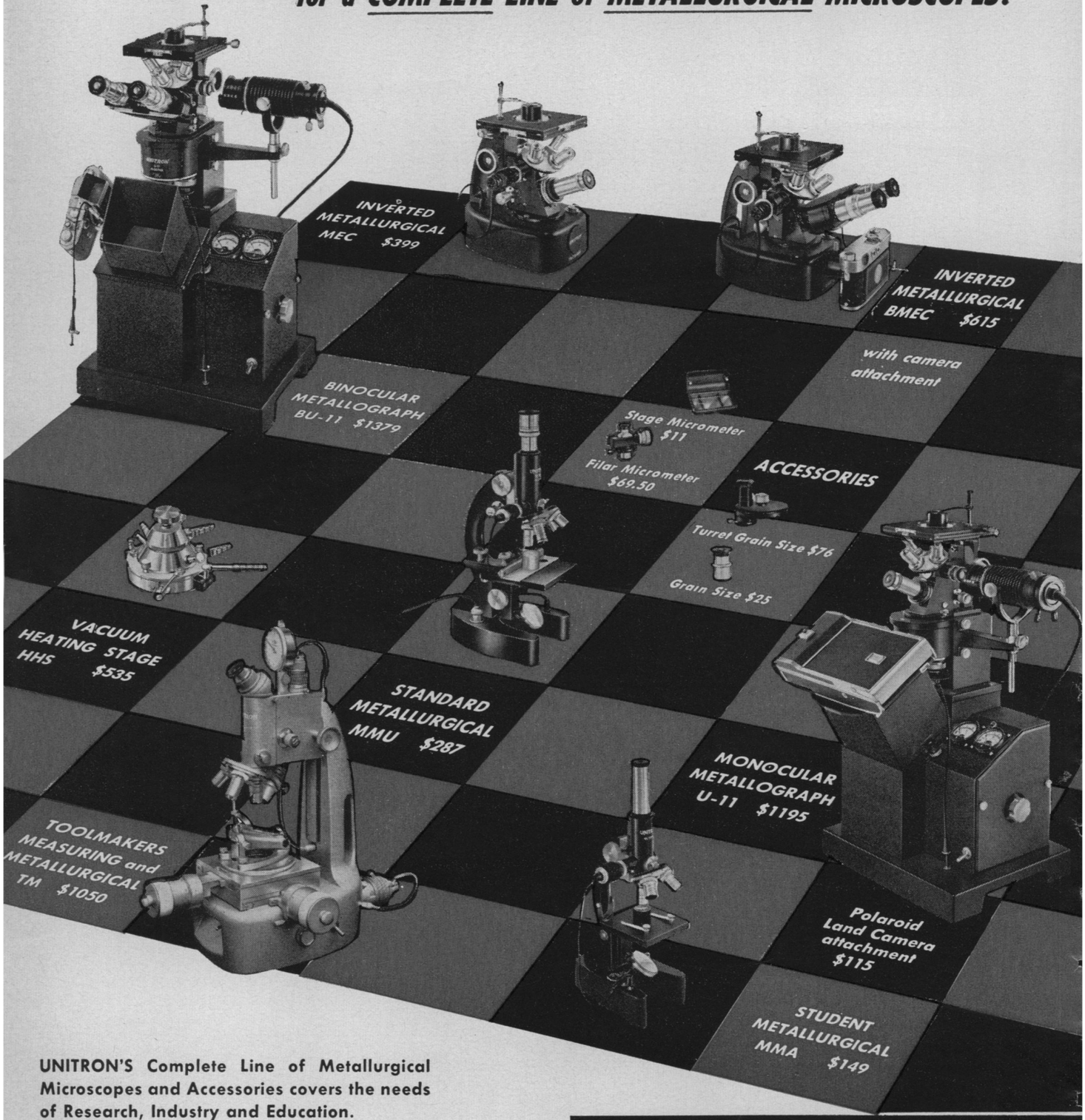

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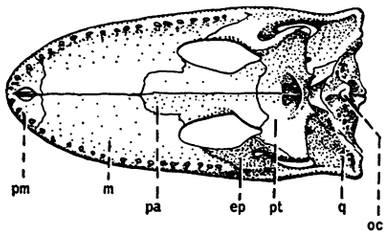
SCIENCE

Cover

Common parasol mushroom, *Lepiota procera*, showing the architectural beauty of its lower surface; crowded knife blade gills of white support the umbrella-shaped pileus and bear spores. Gills mark the fungus as a member of the family Agaricaceae. [A. Nettleship, Antaeus Lineal Medical Research Group, Fayetteville, Ark.]

4 Saunders books for science courses



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This book covers the natural history of North American fishes, amphibians, reptiles, birds and mammals. Rather than stressing the classification of backboned animals by structure and phylogeny, the author has placed emphasis on special characteristics such as structural adaptations of appendages and the integumentary system. Principles and theories of distribution, speciation and behavior are stressed. No one vertebrate species is dealt with in its entirety, but certain phases in activities of selected animals illustrate basic behavioral patterns and the reasons for such patterns. Other topics include systematics, territory and home range, population movements, dormancy, reproduction, growth and development and population dynamics. Many superb line drawings and photographs illustrate beautifully the native vertebrates in their natural habitats.

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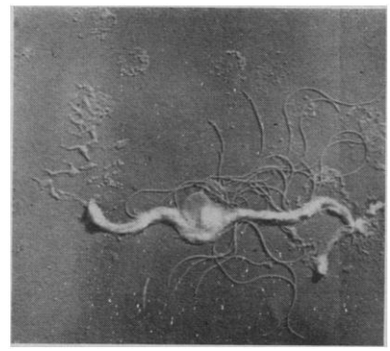

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*American Journal of Clinical Pathology Vol. 33. No. 2. February 1960, pp 144-151 "Application of Refrigerated Microtome in Surgical Pathology" by Bernard Klionsky, M.D. and Othello D. Smith, M.D.

The Journal of Histochemistry and Cytochemistry Vol. 8, No. 5. September, 1960, pp 310 "A Frozen Section Freeze Substitutions Technique and an Improved Cryostat" by Jeffrey P. Chang and Samuel H. Hori.

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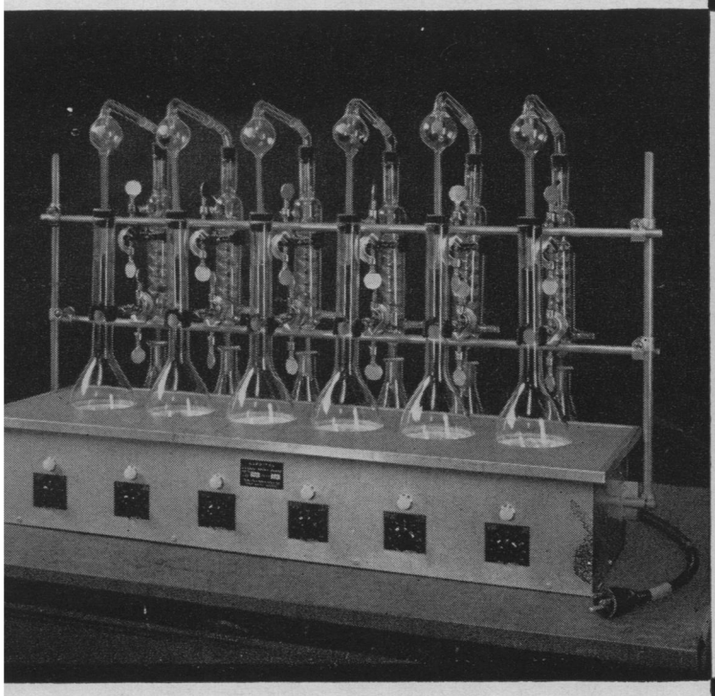

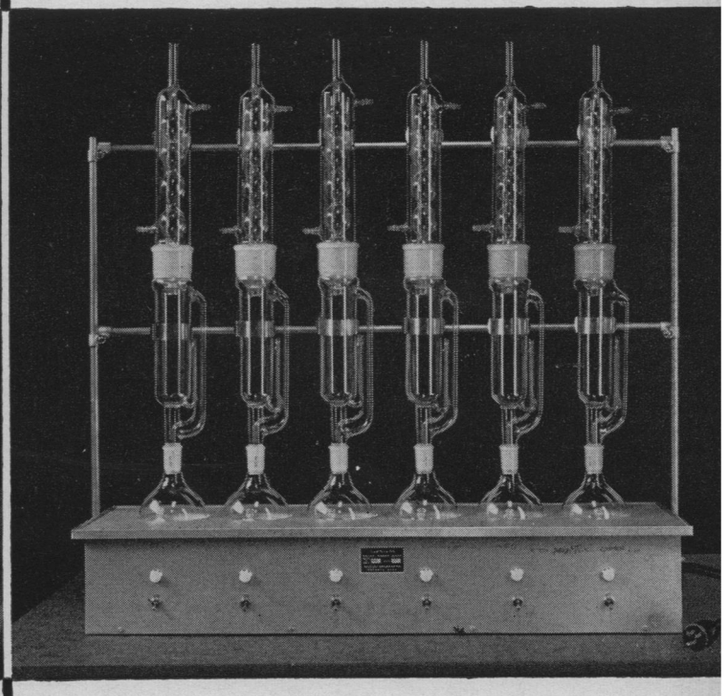

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Letters

Electrostatic Field and Freezing

In a recent report, Salt [*Science* **133**, 458 (1961)] presented experimental data which, in his opinion, show that supercooled water can freeze at a higher temperature in the presence of an electric field than it does in the absence of the field. Because this, if true, could have far-reaching effects in many areas, I feel his findings should be examined critically.

In the first place, Salt makes no mention of the ice-forming nuclei [Mason, *The Physics of Clouds* (Oxford Univ. Press, 1957)] that are present in the atmosphere. While most of these nuclei are usually relatively sparsely distributed and not active at temperatures above −10°C, high concentrations, of laboratory origin and active at near-zero temperatures, may have existed in Salt's laboratory at the time his experiments were performed. These nuclei, under the influence of the electric field, might have entered the supercooled drops and initiated freezing. Second, and more important, a pointed wire probe at a potential of 15,000 volts and held only about ½ inch from the electrically grounded supercooled water undoubtedly produces a corona current. This corona current is not easily detected and begins at a potential far lower than that required for the spark discharge. The possibility that ice-forming nuclei are created by the corona current, perhaps from material from the surface of the wire probe, should not be overlooked.

I suggest that the experiments be repeated in air from which the ice-forming nuclei have been filtered. Further, the electric field should be created by smooth, parallel, plane-to-plane electrodes. Only in this way will the possibility of a corona current be minimized. Until these suggestions are incorporated into the experiment, I do not feel that one can, with any certainty, conclude that an electric field can play a primary role in the initiation of freezing in supercooled water.

DUNCAN C. BLANCHARD
Woods Hole Oceanographic Institution, Woods Hole, Massachusetts

Blanchard's criticism of my paper is, essentially, that I did not consider the possible action of airborne ice-forming nuclei. He proposes that these may be created, attracted, or concentrated by the electric field or corona and may thus supercontaminate the sample.

This is a reasonable possibility in the case of my exposed water droplets, but how could it be applicable to the insect larvae and rubber-encased water samples, which possess coatings resistant to nucleation from without? Nothing that is known about the nucleation of water would lead one to doubt that my insect larvae and encased water samples were nucleated internally.

Blanchard suggests that the experiments be repeated in clean air with parallel-plate electrodes to minimize the corona current. As stated in my report, I used parallel plates in some tests and found them quite as effective as the probe and plate electrodes.

R. W. SALT
Canada Agriculture Research Station, Lethbridge, Alberta

Advancement of Scientists

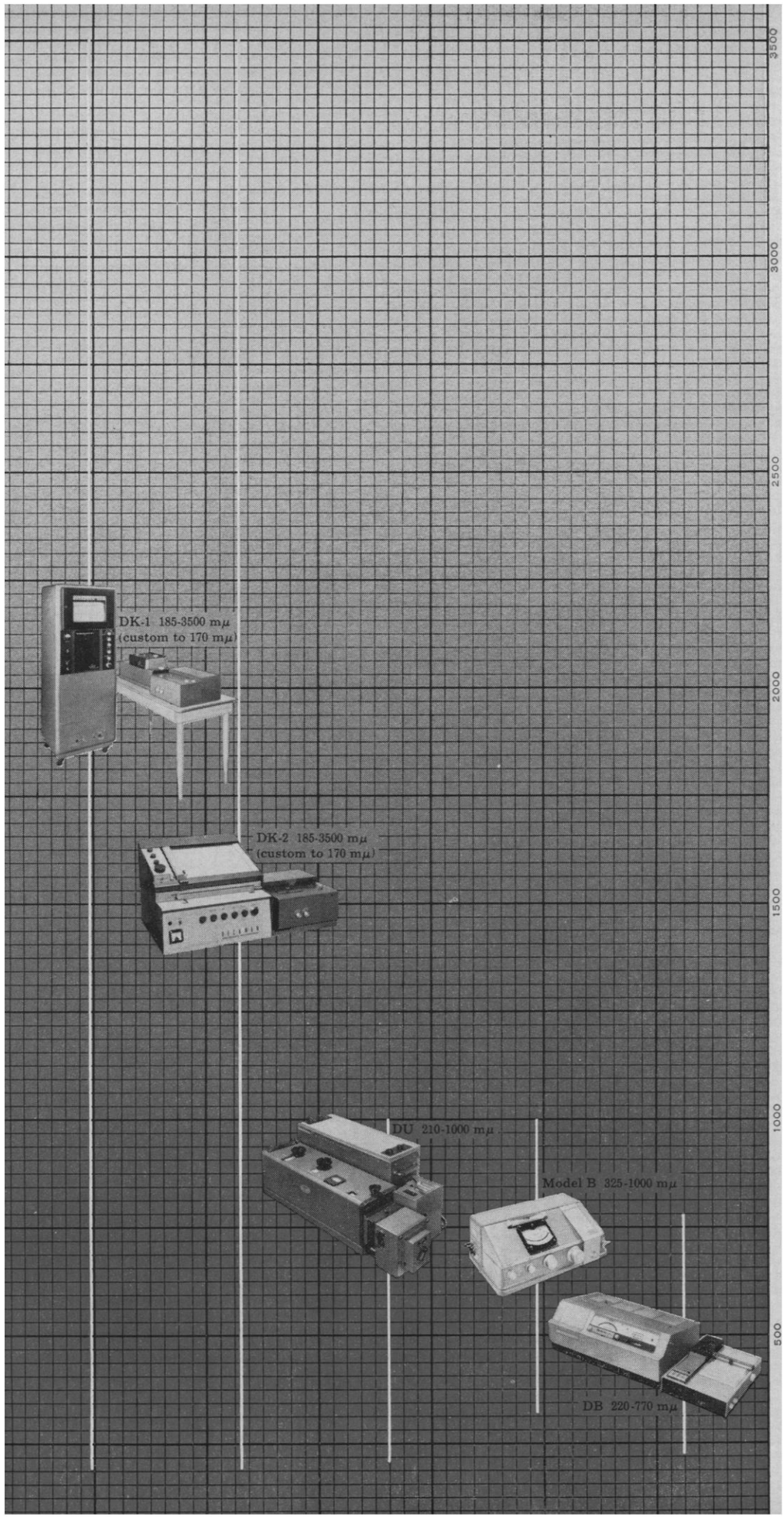
T. C. Kahn [*Science* **133**, 656 (1961)] does not, I believe, give sufficient credit to the AAAS for its newly effective policy of publicly relating science to human welfare and culture. I submit that, if the public is kept sufficiently aware of this relation, the advancement of scientists will be adequate. The "Ph.D. scientist," forced into a pecking order with "real doctors," may admire the American Medical Association from afar. Some of us, however, would not like to emulate the AMA, which threatens to replace the physician's concern for human health with "medical economics." I rejoice that the AAAS has not found it necessary to caution scientists not to carry professional insignia on their Cadillacs, as has been reported of a county medical society in California.

One large group of scientists—the teachers—is inadequately recognized and compensated, but I doubt that we would be wise to single out teachers of science for preferential treatment among teachers in general.

JOHN W. DUFFIELD
Industrial Forestry Association, Nisqually, Washington

Enzyme Nomenclature

F. Bernheim's delightful letter [*Science* **133**, 654 (3 Mar. 1961)] is somewhat inaccurate. He says, "In 1957, Wallach and Grisolia [*J. Biol. Chem.* **226**, 277 (1957)] further purified the enzyme, which they said we called hydantoin peptidase—a name we had not thought of." Actually Bernheim, in his article "Enzymes in detoxication" [in *The Enzymes*, J. B. Sumner and K. Myrbäck, Eds. (Academic Press, New York, 1952), vol. 2, pt. 2, p. 862], wrote a subsection entitled, "Hydantoin peptidase," referring to his previously named (1946–1949) hydantoinase.



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I should not like to enter into a controversy over the proper name for the enzyme (actually I do not like very much the ones thus far used) and certainly not with Bernheim. If I had not regarded him with affection I should probably not have recalled the possible relation between our studies (in pyridine metabolism) and his discovery of hydantoinase (hydantoin peptidase). His comment relating political and metabolic status and enzyme nomenclature reminds me of an anecdote I heard when a child. A political appointee, when asked who had won the election, said: "It is a funny thing, we thought we Republicans were going to win, but instead we Democrats won!" (of course, since I was in Spain at the time, I have used some latitude in identifying the political parties).

SANTIAGO GRISOLIA
University of Kansas
Medical Center, Kansas City

The Issue of Fluoridation

Local referenda in the first week of March 1961 administered serious defeats to those who have been in favor of the fluoridation of water supplies in Massachusetts. The proposal was voted down two to one in Wellesley and by a smaller margin in Brookline, and discontinuation was voted in Andover.

It is extremely difficult to understand the trend of voting on this issue in towns of the highest socioeconomic and educational levels at a time when the prestige of science, at least with respect to its capacity for achieving its objectives, is higher than ever before. It seems to me that this issue exemplifies the contemporary confrontation of science and antiscience, because of the overwhelming weight of scientific authority on the pro side—such as that of the official associations of the dental profession and the public health authorities at all governmental levels. If this evaluation of the issue is valid, one must draw the conclusion that communication between the scientific community and the public is still in a highly unsatisfactory state and that it should be a matter of continuing concern to the AAAS. This aspect of the situation may transcend in importance the lost potential for improvement in dental health.

Discontinuance of the fluoridation program in Andover after 5 years may provide the basis for another field study for interested investigators. But of even greater interest would be results of a competent sociological study to uncover the basic reasons for the astounding successes of the small, fanatical groups that have been organized to oppose the scientific experts. This issue may, in a sense, serve as a measure of the effectiveness of the AAAS with respect to one of its prime objectives—communication with the public at large.

LEO LEVINE
Jamaica Plain, Massachusetts

Government and Education

A recent editorial [*Science* **133**, 1043 (7 Apr. 1961)] confirms the need for truly liberal members of the AAAS to make themselves heard. I resigned from the AAAS in protest over the brave new social stand promulgated by the Association under the guise of "Science in the News." Now in this editorial, the Association has come out forthrightly for federal interference in local education.

The worth-whileness of integration should not blind anyone to the danger of encouraging Congress to contribute money *conditionally* to education. The conditions will multiply with time, to conform to every demagogic prejudice of any group wielding sufficient votes. I hope the editors of *Science* are prepared to convince Congress that somewhere between Negroes, Jews, Catholics, Nordics, Birchists, Irish, Baptists, Communists, Fundamentalists, Pragmatists, Conscientious Objectors, Beatniks, and Snuff-takers there is a fine line that makes federal interference right or wrong. If Congress is not convinced, the new loyalty oaths will be a multiple-choice form several pages in length.

IVOR CORNMAN
5702 Sherrier Place, NW,
Washington, D.C.

We wish to point out that what appears in Science, *either in editorials, in the news section, among the articles, or elsewhere, cannot in all fairness be called a "social stand promulgated by the Association."*—ED.

Reprints of Snow Address

C. P. Snow's significant address before the AAAS in December, "The moral un-neutrality of science" [*Science* **133**, 245 (27 Jan. 1961)] has been reprinted in pamphlet form by the Peace Education Program of the American Friends Service Committee.

We would like to let your readers know that the pamphlet is available at 10 cents a copy from Peace Literature Service, American Friends Service Committee, 160 North 15 St., Philadelphia 2, Pa.

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The Reluctant Dragon

Censorship is a many-headed dragon: once beheaded, it returns with scarcely diminished vigor to the fray. On 17 March President Kennedy ordered immediate termination of the long-standing policy of intercepting all but first-class mail from Iron-Curtain countries. But 4 days later Representative Francis E. Walter introduced a bill that would restore the policy and give it a legislative basis that it had not had in the past. His bill would create a "Comptroller of Foreign Propaganda" in the Customs Office of the Treasury Department and would require the registration of any foreigner who used our mails for distribution of "foreign propaganda" to register "as an agent of a foreign principal who is acting within the United States."

If this bill or its companion bill in the Senate were to become law, any book or magazine from any country, friendly or hostile, could be impounded unless its mailing clerks or other distributors were registered as agents of a foreign principal acting in the United States. For any printed matter may be regarded as propaganda: under the previous policy an issue of the London *Economist* and hosts of books from abroad were arbitrarily impounded. And what would prevent the "Comptroller" from deciding that scholarly and scientific articles and reprints are foreign propaganda?

The bill is wrong in principle: it would impose a censorship that is inconsistent with the practice of that liberal democracy upon which we base our society. It is symbolic of fear and manifests a lack of faith in freedom and in the good sense and good judgment of American citizens. Contrast the words of Jefferson's first inaugural address, "Error of Opinion may be tolerated where reason is left free to combat it," with Mr. Walter's fearful comment about what will happen if the President's action is allowed to stand, "Poison will be poured into the veins of our society without restriction and without notice or warning of its nature."

The bill is not only wrong in principle. It will also have deleterious effects on the scholarly and scientific appraisal of what goes on abroad. Our self-interest alone dictates that we encourage rather than impede the flow of information of all kinds about what goes on elsewhere in the world and especially about what is happening behind the Iron Curtain. Congress recognized the desirability of this when it decreed in the National Defense Education Act of 1958 that the National Science Foundation step up its efforts to make scientific information available to American scientists. The Walter bill is no empty threat to this activity that the NSF now carries on through its Science Information Service: under the previous policy, *Mathematical Reviews* received no Soviet journals for one 2-year period.

What are the chances for the bill? As of now the bill has been carried over "without prejudice" to the Consent Calendar of the House. If no objections are made to it on the next "consent" day, 5 June, it will pass the House without debate, without hearings, and without a vote. This is what happened to a similar bill introduced by Mr. Walter last year, but that bill died in the Senate. The current bill is not likely to have such easy sledding in the House, for it faces opposition from the Administration: administration supporters will not readily let it slide through unopposed.—G.DuS.

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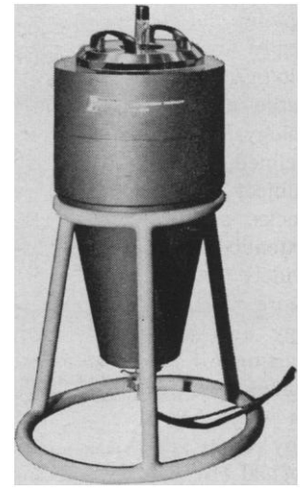

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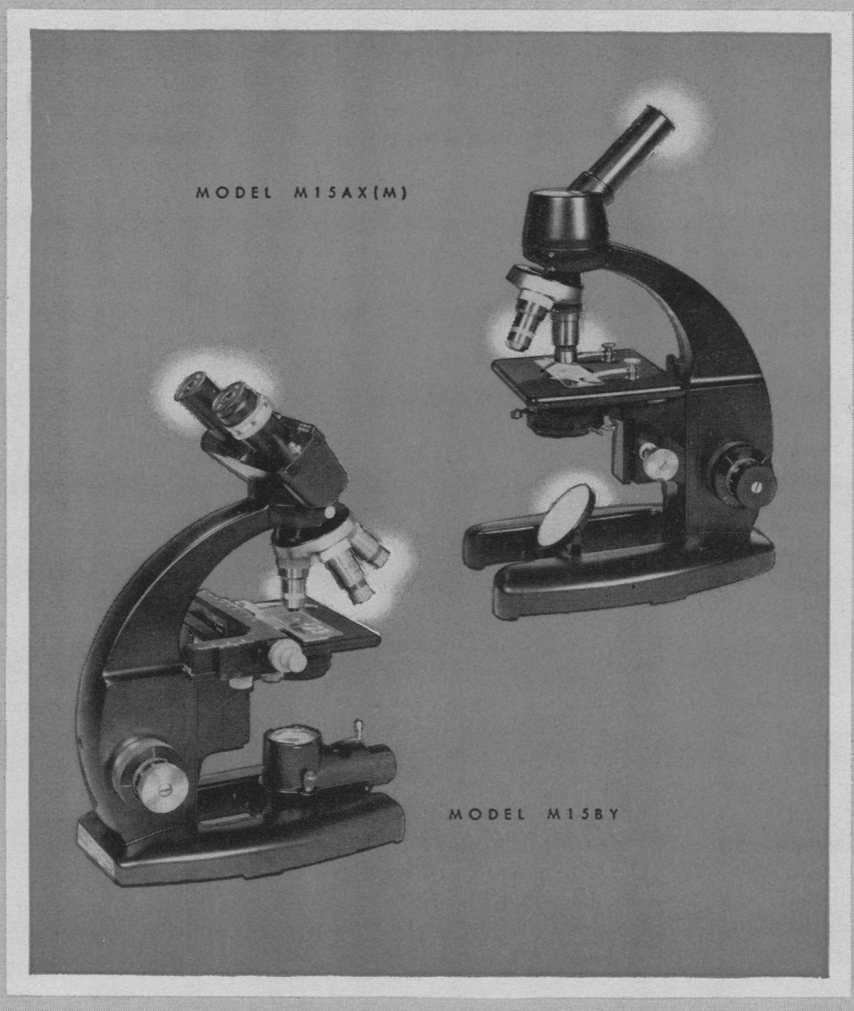

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Industrial Science (P)

Section P (Allen T. Bonnell, Drexel Institute) is planning a symposium on communications and will cosponsor the joint symposium on water and climate. It will also cosponsor the symposium on management science of the Institute of Management Sciences. J. A. Hutcheson (Westinghouse Electric Corp.) will give the address of the retiring vice president at the annual luncheon. The Section will also give the sixth Industrial Citation Dinner.

The *Institute of Management Sciences* (Merrill M. Flood, Mental Health Research Institute, Ann Arbor, Mich.) will have a symposium on management science, cosponsored by Section P (29 Dec.). This session, to be held jointly with Section A–Mathematics, will be devoted to recent mathematical, statistical, and economic developments useful in management science.

Education (Q)

The program of Section Q (Herbert A. Smith, Kansas) includes two joint sessions with the *Council for Exceptional Children* (26 Dec.); two joint sessions with the *American Educational Research Association* (30 Dec.), one of which may be a symposium on teaching machines; some five sessions for contributed papers (27, 29, and 30 Dec.); a business meeting; and the vice-presidential address of William H. Bristow (New York City Board of Education).

The four science teaching societies (ANSS, NABT, NARST, and NSTA), meeting with the AAAS (coordinator, Sam S. Blanc, Denver City Schools), will have a joint session (27 Dec.) and a series of concurrent sessions similar to the coordinated programs of recent years. A joint coffee hour and mixer will be held 27 December at 5 P.M.

The national annual meeting of the *American Nature Study Society* (S. Glidden Baldwin, Danville, Ill.) will begin with a board meeting (26 Dec.). After the joint session of all science teaching societies (27 Dec.) there will be a session on "Nature study around the world," Richard L. Weaver presiding. On 28 December there will be a session on "Outdoor nature interpretation" and a joint program with NABT on "Resource conservation around the world." On 29 December, there will be a joint field trip with NABT; the business meeting; and the annual banquet,

with a motion-picture film, *Nature Adventure around the World*. There will be sessions (30 Dec.) on "Ecology and natural history of the Rocky Mountains," Ruth Hopson, presiding, and a special meeting at the Denver Natural History Museum, Alfred M. Bailey, presiding.

The *Colorado Science Teachers Association* (Joseph E. Pierce, Durango, Colo.) will sponsor a luncheon on 30 December.

The annual national meeting of the *National Association of Biology Teachers* was discussed earlier, under Biological Sciences.

The *National Association for Research in Science Teaching* (George G. Mallinson, Western Michigan) will probably have a research symposium.

After the joint meeting of the science teaching societies, a regional meeting of the *National Science Teachers Association* (Marjorie Gardner, NSTA, Washington, D.C.) will be held. This will consist of four sessions, one the afternoon of 27 December, and three morning sessions 28–30 December. On 30 December, the Colorado Science Teachers Association, a chapter of the National Science Teachers Association, will hold a luncheon session.

Science Service (Leslie V. Watkins, Science Service) will sponsor a session on "Extracurricular motivation for science" (29 Dec.).

Science in General (X)

A number of organizations, too general in their interests to be placed in any sectional series or under any specific discipline, will constitute the "X series" in the printed *General Program*. In this preliminary synopsis of the third Denver meeting, the programs of many of these—the Academy Conference, the Conference on Scientific Communication, and the Conference on Scientific Manpower—have already been mentioned under Other General Events, and thus will not be repeated here.

The *American Geophysical Union* (Waldo Smith, AGU, Washington, D.C.) will cosponsor the interdisciplinary symposia on geochemical evolution and on physics of the upper atmosphere, mentioned under Special Sessions.

The regular annual meeting of the *National Association of Science Writers* (Herbert B. Nichols, U.S. Geological Survey) with the AAAS will include a business session and dinner. A feature of the latter will be the third presentation of the new series of the AAAS-George Westinghouse Science Writing

Awards for excellence in science writing in newspapers and magazines (27 Dec.).

The national convention of the *Scientific Research Society of America* (Donald B. Prentice, Yale) is scheduled for 29 December. The award of the William Procter prize and the annual RESA address will follow the luncheon held jointly with the Society of the Sigma Xi.

A regional meeting of *Sigma Delta Epsilon*, graduate women's scientific fraternity (Ernestine B. Thurman, National Institutes of Health), will include a tea for all women in science. A headquarters room will be maintained throughout the meeting period.

The 62nd annual convention of the *Society of the Sigma Xi* (Thomas T. Holme, Society of the Sigma Xi, New Haven) will be held on 29 December, after the joint luncheon with RESA. In the evening the Society of the Sigma Xi will join with the *United Chapters of Phi Beta Kappa* (Carl Billman, Phi Beta Kappa, Washington, D.C.) in sponsoring the address by Harrison Brown. Since the inauguration of the series in 1922, these distinguished lectures, of interest to all participants, have been a special feature of the Association meeting.

Call for Papers by AAAS Sections

Eight sections of the Association will arrange sessions for contributed papers at the Denver meeting. The secretaries or program chairmen to whom titles and abstracts should be sent, *not later than 30 September*, are as follows:

C–CHEMISTRY. Essie White Cohn, Department of Chemistry, University of Denver, Denver 10, Colo. (by 1 August if possible).

E–GEOLOGY AND GEOGRAPHY. Richard H. Mahard, Department of Geology and Geography, Denison University, Granville, Ohio.

G–BOTANICAL SCIENCES. Harriet B. Creighton, Department of Botany and Bacteriology, Wellesley College, Wellesley 81, Mass.

H–ANTHROPOLOGY. David M. Pendergast, University of Utah, Salt Lake City 12.

I–PSYCHOLOGY (in certain fields only, *by 1 July*; see details under section report). Frank W. Finger, Department of Psychology, University of Virginia, Charlottesville.

K–SOCIAL AND ECONOMIC SCIENCES. Donald P. Ray, National Institute of Social and Behavioral Science, George Washington University, Washington 6, D.C.

NP–PHARMACY. John E. Christian, School of Pharmacy, Purdue University, Lafayette, Ind.

Q–EDUCATION. Herbert A. Smith, Bailey Hall, University of Kansas, Lawrence.

Although the general deadline is 30 September, most sections, and subsequently the AAAS office, would be happy to receive titles in advance of that date.

RAYMOND L. TAYLOR
Associate Administrative Secretary

Forthcoming Events

June

18–23. American Meteorological Soc., 193rd natl., and Pacific Div., AAAS, 42nd annual, Davis, Calif. (AMS, 45 Beacon St., Boston 8, Mass.)

18–23. American Soc. of Medical Technologists, Seattle, Wash. (Miss R. Matthaei, Suite 25, Hermann Professional Bldg., Houston 25, Tex.)

19–21. American Soc. of Pharmacognosy, annual summer meeting, Houston,

Tex. (R. S. Westby, Eli Lilly and Co., 740 S. Alabama St., Indianapolis 6, Ind.)

19–21. Space Flight and Re-entry Trajectories, symp. by Intern. Acad. of Astronautics, Paris, France. (Secretariat, IAA, 12 rue de Gramont, Paris 2)

19–23. Conference on Carbon, 5th biennial, University Park, Pa. (Fifth Carbon Conf., Pennsylvania State Univ., Conference Center, University Park)

19–23. Current Aspects of Internal Medicine, postgraduate course, American College of Physicians, Iowa City, Iowa. (E. C. Rosenow, Jr., Executive Director, ACP, 4200 Pine St., Philadelphia 4, Pa.)

19–24. Feed Microscopy, annual meeting and special short course, Denver, Colo. (C. Jones, Colorado Department of Agriculture, 3130 Zuni St., Denver 11)

19–30. Astrophysics Seminar, Cloudcroft, N.M. (J. R. Foote, P.O. Box 1053, Holloman Air Force Base, N.M.)

21–1. International Plastics Exhibition and Convention, London, England. (British Plastics, Dorset House, Stanford St., London, S.E.1)

22–23. American Rheumatism Assoc., New York, N.Y. (F. E. Demartini, 622 W. 168 St., New York 32)

22–23. Computers and Data Processing, 8th annual symp., Estes Park, Colo. (W. H. Eichelberger, Denver Research Inst., Univ. of Denver, Denver, Colo.)

22–24. Endocrine Soc., New York, N.Y. (H. H. Turner, 1200 N. Walker, Oklahoma City 3, Okla.)

22–26. American College of Chest Physicians, New York, N.Y. (M. Kornfeld, 112 E. Chestnut St., Chicago 11, Ill.)

23–25. American College of Angiology, 7th annual, New York, N.Y. (A. Halpern, Secretary, 11 Hampton Court, Great Neck, N.Y.)

25–28. American Soc. of Agricultural Engineers, annual, Ames, Iowa. (J. L. Butt, 420 Main St., St. Joseph, Mich.)

25–29. Morphological Precursors of Cancer, intern. symp. (by invitation only), Perugia, Italy. (L. Severi, Div. of Cancer Research, Univ. of Perugia, P.O. Box 167, Perugia)

25–30. American Medical Assoc., 110th annual, New York, N.Y. (AMA, 535 N. Dearborn St., Chicago 10, Ill.)

25–30. American Soc. for Testing Materials, Atlantic City, N.J. (R. J. Painter, 1916 Race St., Philadelphia, Pa.)

25–30. International Union of Leather Chemists Societies, 8th congr., Washington, D.C. (F. O'Flaherty, Dept. of Leather Research, Univ. of Cincinnati, Cincinnati 21, Ohio)

25–30. National Education Assoc. of the U.S., Atlantic City, N.J. (W. G. Carr, 1201 16 St., NW, Washington 6)

26–27. Conference on Vacuum Metallurgy, 5th annual conf., New York, N.Y. (R. F. Bunshah, Dept. of Metallurgical Engineering, New York Univ., New York 53)

26–28. American Soc. of Heating, Refrigerating and Air-Conditioning Engineers, 68th annual, Denver, Colo. (J. H. Cansdale, ASHRAE, 234 Fifth Ave., New York 1)

26–28. Control of Noise, symp., Teddington, England. (Director, Natl. Physical Laboratory, Teddington, Middlesex)

26–28. European Symp. on Space Technology, London, England. (Secretary, British Interplanetary Soc., 12 Bessborough Gardens, London, S.W.1)

26–28. Military Electronics, 5th natl. convention, Washington, D.C. (H. Davis, SAFRD, Pentagon, Washington 25)

26–30. American Soc. for Engineering Education, annual, Lexington, Ky. (M. Baker, Univ. of Kentucky, Lexington)

26–30. Concepts and Design in Aerospace Electricity, Philadelphia, Pa. (D. H. Scott, General Electric Co., No. 3, Penn Center Plaza, Philadelphia 2)

26–30. Reading Conf., 3rd annual, Syracuse, N.Y. (R. A. Kress, Syracuse Univ., Syracuse 10)

26–9. Large Dams, 7th intern. congr., Rome, Italy. (U.S. Committee on Large Dams, c/o Engineering Joint Council, 29 W. 39 St., New York 18)

27. Colloid Symp., by Faraday Soc., Glasgow, Scotland. (A. S. Hyde, Chemistry Dept., Royal College of Science and Technology, Glasgow, C.1)

27–29 Analytical Astrodynamics, intern. symp., Santa Barbara, Calif. (Capt. J. L. Gilbert, Air Force Office of Scientific Research, Washington 25)

27–29. Society for Investigative Dermatology, Inc., New York, N.Y. (H. Beerman, 255 S. 17 St., Philadelphia 3, Pa.)

27–30. American Home Economics Assoc., Cleveland, Ohio. (Miss M. War-

ren, School of Home Economics, Univ. of Oklahoma, Norman)

27–30. Hurricanes, 2nd technical conf., American Meteorological Soc., Miami Beach, Fla. (AMS, 45 Beacon St., Boston 8, Mass.)

28–30. International Gas Conf., 8th Stockholm, Sweden. (R. H. Touwaide, Union Internationale de l'Industrie du Gaz, 4, avenue Palmerston, Brussels 4)

28–30. Joint Automatic Control Conf., Boulder, Colo. (R. Kramer, Massachusetts Inst. of Technology, Cambridge 39)

28–1. Institute of Navigation, annual, Williamsburg, Va. (C. T. French, General Precision, Inc., 777 14 St., NW, Suite 611, Washington, D.C.)

29–1. American Assoc. of Physics Teachers, Stanford, Calif. (R. P. Winch, Williams College, Williamstown, Mass.)

July

1–3. Astronomical League, Detroit, Mich. (W. A. Cherup, 4 Klopfer St., Millvale, Pittsburgh 9, Pa.)

2–7. American Physical Therapy Assoc., Chicago, Ill. (Miss L. Blair, Executive Director, APTA, 1790 Broadway, New York 19)

2–9. Rural Medicine, 1st intern. congr., Tours, France. (Prof. Vacher, Secretaire General, c/o Institut National de Medecine, Agricole, Ecole de Medecine, Tours)

3–6. Clay Minerals, colloquium on genesis and synthesis of, intern., Paris, France. (Prof. Hocart, Faculté des Sciences, Université de Paris à la Sorbonne, 47 rue des Ecoles, Paris 5)

3–8. Treatment of High Level Radioactive Wastes, symp., Intern. Atomic Energy Agency, Vienna, Austria. (IAEA, 11 Kärtner Ring, Vienna 1)

3–16. Durability of Concrete, symp., Intern. Union of Testing and Research Laboratories for Materials and Structures, Prague, Czechoslovakia. (B. Hacar, Director, Inst. of Theoretical and Applied Mechanics, Czechoslovak Acad. of Sciences, Solínova 7, Prague 6-Dijvice)

4–8. Latin-American Assoc. of Physiological Sciences, 4th meeting, Ribeirão Preto, Brazil. (C. R. Diniz, Caixa Postal 301, Ribeirão Preto, Estado de São Paulo)

5–8. European Organization for Research on Fluorine and Dental Caries Prevention, 8th meeting, London, England. (J. R. Forrest, Senior Dental Officer, Ministry of Health, Savile Rd., London)

5–8. Optical Materials, colloquium, Intern. Commission for Optics, Paris, France. (Institut d'Optique, 3, Boulevard Pasteur, Paris 15)

5–9. International Convention on Radio Techniques and Space Research, Oxford, England. (British Institution of Radio Engineers, 9 Bedford Sq., London, WC.1)

5–12. International Ophthalmic Optical Congr., London, England. (G. H. Giles, Intern. Optical League, 65 Brook St., London, W.1)

6–7. Free Radicals, intern. symp., 5th, Uppsala, Sweden. (Symposium Secretariat, c/o Inst. of Physical Chemistry, Uppsala)

6–12. Agricultural Medicine, 1st intern. congr., Tours, France. (J. Vacher, Institut National de Medecine Agricole, Ecole de Medecine, Tours)

6–12. Ribonucleic Acids and Polyphosphates: Structure, Synthesis and Function, intern. colloquium, Strasbourg, France. (Prof. Ebel, Faculté de Pharmacie, Université de Strasbourg, Strasbourg)

9–14. Bio-Medical Electronics, 4th intern. conf., New York, N.Y. (H. Schwan, Moore School of Electrical Engineering, Univ. of Pennsylvania, Philadelphia 4)

9–15. American Library Assoc., annual conf., Cleveland, Ohio. (D. H. Clift, 50 E. Huron St., Chicago, Ill.)

9–15. International Dental Federation, 49th annual session, Helsinki, Finland. (Office of Secretary General, IDF, 35 Devonshire Place, London, W.1, England)

10. Bibliographical Soc. of America, Cleveland, Ohio. (E. Wolf II, Library Co. of Philadelphia, Broad and Christian Sts., Philadelphia 47, Pa.)

10–14. Institute in Technical and Industrial Communications, 4th annual, Fort Collins, Colo. (Director, Inst. in Technical and Industrial Communications, Colorado State Univ., Fort Collins)

10–14. International Congr. of Dietetics, 3rd, London, England. (Miss D. F. Hollingsworth, British Dietetic Assoc. 251 Brampton Rd., London, SW.3)

10–14. International Diabetes Federation, 4th congr., Geneva, Switzerland. (B. Rilliet, Secretary General, 4 Boulevard des Tranchees, Geneva)

10–14. Optical Instruments and Techniques, conf., London, England. (K. J. Habell, Natl. Physical Laboratory, Teddington, Middlesex, England)

10–20. Plant Exploration and Introduction, technical meeting on, Food and Agriculture Organization of the U.N., Rome, Italy. (Intern. Agency Liaison Branch, Office of the Director General, Viale della Terme di Caracalla, Rome)

10–24. Medical Electronics, 4th intern. conf., New York, N.Y. (L. E. Flory, David Sarnoff Research Center, Princeton, N.J.)

11–25. World Meteorological Organization, 3rd South American session, Rio de Janeiro, Brazil. (WMO, 1 Avenue de la Paix, Geneva, Switzerland)

12–18. Radioactivity in Food and Agriculture, Expert Committee on the Organization of Surveys for FAO, Rome, Italy. (Intern. Agency Liaison Branch, Office of the Director General, Viale della Terme di Caracalla, Rome)

13–14. Data Acquisition and Processing in Biology and Medicine, conf., Rochester, N.Y. (Office of Public Information, Univ. of Rochester, River Campus Station, Rochester 20)

15–18. Life Insurance Medicine, 7th intern. congr., Lisbon, Portugal. (L. de Carvalho Cancella, Secretary, Parede, Portugal)

16–18. British Congr. of Obstetrics and Gynaecology, 16th, Bristol, England. (Secretary, British Congr. of Obstetrics and Gynaecology, University Dept. of Obstetrics, Southmead Hospital, Bristol)

16–22. International Soc. for Clinical and Experimental Hypnosis, Rio de Janeiro, Brazil. (ISCEH, 33 E. 65 St., New York 21)

17–22. Soil Mechanics and Foundation Engineering, 5th intern. conf., Paris, France. (E. Caminade, Secretaire General, 23 rue de Cronstadt, Paris 15)

18–20. Pulmonary Structure and Function, Ciba Foundation Symp. (by invitation only), London, England. (Ciba Foundation, 41 Portland Pl., London, W.1)

18–21. Inorganic Polymers, intern. symp., Nottingham, England. (General Secretary, Chemical Soc., Burlington House, London, W.1, England)

21–22. World Power Conf. (members only), Moscow, U.S.S.R. (Central Office, 201-2 Grand Buildings, Trafalgar Sq., London, W.C.2, England)

23–28. Otolaryngology, 7th intern. congr., Paris, France. (H. Guillon, Secretary General, 6 Avenue Mac-Mahon, Paris 17)

24–28. Nematology Symp., 6th intern., Ghent, Belgium. (J. van den Brande, Soc. of European Nematologists, Rijkslandboushogeschool, Coupure links 235, Ghent)

24–29. Medical Electro-Radiological Societies, Latin Federation of, 5th congr., Paris, France. (C. Proux, Secretary, 9 rue Daru, Paris 8)

24–30. Urology, 12th intern. congr., Rio de Janeiro, Brazil. (J. Silva de Assis, Secretary, P.O. Box 1275, Belo-Horizonte, Brazil)

26. International Commission for the Prevention of Alcoholism, 7th annual meeting, Washington, D.C. (International Headquarters, 6840 Eastern Ave., NW, Washington 12)

26–28. Detection and Assay of Hormones by Immuno-Clinical Means, Ciba Foundation Colloquium (by invitation only), London, England. (Ciba Foundation, 41 Portland Pl., London, W.1)

27–1. Macromolecular Chemistry, intern. symp., Montreal, Canada. (Organizing Committee, P.O. Box 816, Sarnia, Ontario, Canada)

(See issue of 19 May for comprehensive list)