

# Meetings and Societies

## Programs at AAAS New York Meeting

The programs of many of the AAAS sections and affiliated societies for the forthcoming annual meeting of the association in New York were announced in November issues. The topics for presentation and discussion in psychology, agriculture, industrial science, and science in general are given here.

### Psychology (in Part)

*Section I.* Invited papers: "Experimental approaches to research with children"; arranged by Wendell E. Jeffrey, University of California, who will preside; 26 Dec., afternoon. Research on work and energy variables, C. G. Screven, University of Wisconsin; Research on anxiety and stress, Alfred Castaneda, State University of Iowa; Research on discrimination, W. E. Jeffrey, University of California; Research on problem solving, T. S. Kendler, Barnard College.

Invited papers: "Avoidance conditioning and anxiety"; arranged by Gregory A. Kimble, Duke University, who will preside; 27 Dec., morning. Avoidance learning and the concept of anxiety, H. I. Kalish, Adelphi College; Some relations between avoidance conditioning and conditioned anxiety, Murray Sidman, Walter Reed Army Institute of Research; Semantic generalization of anxiety conditioned without awareness, J. I. Lacey, Antioch College; Conditioned fear, conditioned avoidance, and the problem of neurosis, H. F. Hunt, University of Chicago.

Invited papers: "Motivational and rewarding effects of direct stimulation of the brain"; arranged by Neal E. Miller, Yale University, who will preside; 28 Dec., morning. Learning and performance motivated by direct stimulation of the brain, Neal E. Miller; Effects of hunger, sex, and tranquilizers on localized reward systems in the brain, James Olds, University of California School of Medicine; Interference effects of central stimulation, J. R. Knott, State University of Iowa; Motivational-emotional factors and intracranial self-stimulation, J. V. Brady, Walter Reed Army Institute of Research.

### Agriculture

*Section O.* Contributed papers on forage production; Karl S. Quisenberry, U.S. Department of Agriculture, presiding; 27 Dec., morning.

Contributed papers on economics of forage; J. K. Pasto, Pennsylvania State University, presiding, 27 Dec.; evening.

Contributed papers on forage production; R. B. Alderfer, Rutgers University, presiding; 27 Dec., evening.

Contributed papers on evaluation of forages; O. E. Sell, Georgia Experiment Station, presiding; 28 Dec., morning.

Four-session symposium, cosponsored by 17 societies: "Grasslands in our national life"; arranged by Howard B. Sprague, Pennsylvania State University; 29 and 30 Dec., mornings and afternoons. Part I, "Forage utilization and related animal nutrition problems"; D. W. Colvard, North Carolina State College, presiding. Different methods of utilizing forage in dairy cattle nutrition (grazing versus soiling versus haying versus ensiling), J. W. Bartlett, R. E. Mather, and J. L. Casin, Rutgers University; Mineral problems in forage utilization, G. K. Davis, University of Florida, and K. C. Beeson, U.S. Plant, Soil, and Nutrition Laboratory; Nutritive value of forages with emphasis on the polysaccharide fractions, R. E. Ely and L. A. Moore, U.S. Department of Agriculture; Estrogenic substances in forages, E. W. Cheng and W. Burroughs, Iowa State College. Part II, "Forage production in temperate humid regions"; R. P. Murphy, Cornell University, presiding. The place and contribution of grasslands to the agriculture of the corn belt, M. B. Tesar, Michigan State University; The place and contribution of grasslands to the agriculture of the eastern states, J. B. Washko and H. R. Fortmann, Pennsylvania State University; Establishment and maintenance of grasslands in the temperate humid region, H. A. MacDonald, Cornell University; Disease control of grasslands in the temperate humid region, K. W. Kreitlow, U.S. Agricultural Research Service; Insect control of grasslands in the temperate humid region, W. A. Baker, U.S. Agricultural Research Service; Development and use of improved varieties of forage crops in the temperate

humid region, A. A. Hanson, U.S. Agricultural Research Service. Part III, "Sciences in support of grasslands research"; Howard B. Sprague, presiding. Plant exploration and the search for superior germ plasm for grasslands, J. R. Harlan, U.S. Department of Agriculture and Oklahoma A. & M. College; Integration of programs in genetics, pathology, and entomology for progress in grasslands research, M. G. Weiss, U.S. Department of Agriculture; Interrelations of physiology, ecology, and soils research to serve grasslands, R. B. Alderfer, Rutgers University; Relation of mineral supply in soils to uptake of nutrients by grassland species, and the influence of such uptake on plant growth and forage value, K. C. Beeson; Microclimate as an index of site adaptation and growth potential for grasslands in the temperate humid regions, M. A. Sprague, Rutgers University; *Better seeds for better grasslands* (movie), C. S. Garrison, U.S. Department of Agriculture. Part IV, "Grassland machinery and equipment, structures, and irrigation systems"; E. G. McKibben, U.S. Department of Agriculture, presiding. Equipment for the establishment and maintenance of grassland, W. C. Hulburt, U.S. Agricultural Engineering Research Branch; Irrigation systems for grassland, T. W. Edminster, U.S. Soil and Water Conservation Research Branch; Vertical mulching, a new dimension in grassland farming, J. M. Spain and J. B. Liljedahl, Purdue University; Equipment for harvesting and transporting forage to site of use or storage, E. A. Silver and A. M. Best, Sperry Rand Corporation; Structures for equipment for storing, handling, and feeding of forage, J. D. Long, Stran-Steel Corporation.

Contributed papers on utilization of grassland by livestock; T. C. Byerly, U.S. Department of Agriculture, presiding; 29 Dec., evening.

Contributed papers on applications of engineering; William C. Wheeler, University of Connecticut, presiding; 29 Dec., evening.

*American Society of Range Management.* Symposium: "Range management"; arranged by F. G. Renner, U.S. Soil Conservation Service; 28 Dec., afternoon. Breeding improved forage plants for western ranges, W. Keller, U.S. Department of Agriculture; Testing new range forage plants, J. L. Schwendiman, Soil Conservation Service, Pullman, Washington; Soil-vegetation surveys in multiple-use management of western ranges, C. E. Poulton, Oregon State College; Changes in native grasslands due to grazing and climate, G. W. Tomanek, Fort Hays Kansas State College; Brush control in the southwest, H. G. Reynolds, U.S. Forest Service; Improving range resources through management,

Arnold Heerwagen, Soil Conservation Service, Denver.

*American Meteorological Society.* Symposium: "Grassland climatology"; arranged by John R. Mather, Drexel Institute, who will preside; 28 Dec., afternoon. Grassland environment, C. P. Barnes, U.S. Department of Agriculture; Moisture balance, J. R. Mather, Drexel Institute; Microclimatology, E. R. Biel, Rutgers University; Agricultural meteorology in the Weather Bureau, J. M. Beall, U.S. Weather Bureau; General survey and conclusions, L. B. Leopold, U.S. Geological Survey.

*Ecological Society of America.* Symposium: "Ecology of grasslands"; arranged by Herbert C. Hanson, Catholic University of America, who will preside; 27 Dec., afternoon. Effects of changes in weather conditions upon grasslands in the northern great plains, R. T. Coupland, University of Saskatchewan; Role of plant succession in grassland improvement, Lincoln Ellison, U.S. Forest Service; Application of ecological principles in range evaluation, E. J. Dyksterhuis, Soil Conservation Service; Nature of the grassland type of community, Calvin McMillan, University of Nebraska.

#### Industrial Science

*Section P.* Symposium: "Resource development and population growth"; arranged by Allen T. Bonnell, Drexel Institute of Technology; 28 Dec., morning. Our productive potential, Harrison Brown, California Institute of Technology; Our reproductive potential, Fairfield Osborn, Conservation Foundation. Discussants: Robert Cooke, Population Reference Bureau; Samuel H. Ordway, Conservation Foundation.

Luncheon and vice-presidential address by Earle L. Rauber, Federal Reserve Bank of Atlanta, "Population and economic growth"; 28 Dec.

#### Science in General

*Academy Conference.* Junior Scientists Assembly; Zachariah Subarsky, Bronx High School of Science, New York, presiding; 27 Dec., afternoon. The fellowship of science, Paul B. Sears, Yale University; Demonstration: Curiosity at work, Don Herbert, General Electric Company; Panel and audience discussion: What makes a scientist? Paul Witty, Northwestern University, moderating; Panel members: R. T. Bernstein, Columbia University; Sam Brownstein (teacher), General Wingate High School; Grace Geist (student), Forest Hills High School; Evelyn Morholt (teacher), New York City Board of Education; Tym Mott-Smith (student), Bronx High School of Science, New York; Edward Weisbard (student), Stuyvesant High School; Norton Zinder,

Rockefeller Institute for Medical Research; Demonstration: Luck, accident, and the prepared mind, H. N. Alyea, Princeton University.

Junior Academy session of the Academy Conference; I. E. Wallen, AAAS Science Teaching Improvement Program, presiding; 28 Dec., afternoon.

Program and panel discussion; Ralph W. Lefler, Purdue University, presiding; 29 Dec., afternoon. Progress report on the AAAS Science Teaching Improvement Program, J. R. Mayor and I. E. Wallen; Panel discussion: What could the federal government do for the academies of science? Panel members: J. A. Campbell, National Science Foundation; L. J. Thomas, University of Illinois; Mrs. B. G. Heatwole, Virginia Junior Academy of Science.

Academy Conference dinner and presidential address; Father Patrick H. Yancey, Spring Hill College; 29 Dec., evening.

*American Association of Scientific Workers.* Symposium: "Community planning"; arranged by Hans Blumenfeld, Metropolitan Toronto Planning Board; J. T. Howard, Massachusetts Institute of Technology, presiding; 29 Dec., afternoon. The development of the scientific approach to planning, Hans Blumenfeld, Metropolitan Toronto Planning Board; Planning and the physical sciences, F. W. Herring, Port of New York Authority; Planning and the social sciences, Burnham Kelly, Massachusetts Institute of Technology; Applications at the community level, Drayton Bryant, Philadelphia Housing Authority.

*American Documentation Institute.* Opening session: "Language, logic, and logistics of documentation"; James W. Perry, Western Reserve University, presiding; 28 Dec., morning. Logical structure in language, Noam Chomsky, Massachusetts Institute of Technology; A logician's reaction to recent theorizing in information searching systems, Yehosua Bar-Hillel, Hebrew University, Israel; Scanning encoded abstracts, J. W. Perry and Allen Kent, Western Reserve University.

Annual dinner; Joseph Hilsenrath, National Bureau of Standards, presiding; 28 Dec., evening. Address: The diffusion of knowledge, M. L. Ernst, Greenbaum, Wolff, and Ernst.

Two sessions for contributed papers; 29 Dec., morning.

Panel discussion: Changing patterns of information organization: the interaction of conventional and machine classification theory and practice; Scott Adams, National Institutes of Health, moderating; 29 Dec., afternoon. Panel members: S. N. Alexander, National Bureau of Standards; R. S. Angell, Library of Congress; C. L. Bernier, *Chemical Abstracts*; H. P. Luhn, International Business Machines Engineering Laboratories; J. W.

Mauchly, Remington Rand UNIVAC Division, Sperry Rand Corporation; M. F. Tauber, Columbia University.

*American Nature Study Society.* Mixer and dance for the science teaching societies; 26 Dec., evening.

Session on natural history of the New York City region; arranged by Richard L. Weaver, University of Michigan; 28 Dec., morning. Some reptiles and amphibians of the New York City region, R. B. Fischer, Cornell University; Natural history of Greenbrook Sanctuary, Stephen Collins, Rutgers University; Birding in the New York City area, R. T. Peterson, Old Lyme, Conn.; Fifty years in a swamp, John Kieran, American Museum of Natural History.

Session on making nature study and science fun; arranged by Richard L. Weaver, University of Michigan, who will preside; 28 Dec., afternoon. Nature sounds as a hobby, Stanley Mulaik, University of Utah; Designing nature-inspired fabrics, Virignia Eckelberry, Babylon, Long Island; Why bird painting is not all fun, Don Eckelberry, Babylon, Long Island; Bringing nature into the elementary-school curriculum, Herman Schneider, City College of New York; Nature exploring in Africa, Glidden Baldwin, Danville, Ill.

Annual showing of kodachromes; 28 Dec., evening. Poetry in color, E. L. Will, State Teachers College, Oneonta, N.Y.; Discussion of ANSS program plans; Showing of Kodachromes, members and friends.

Session on nature in camping; arranged by John Wanamaker, Principia College, who will preside; 29 Dec., morning. Our expanding school camping programs and their needs, Helen Ross, State Teachers College, Fitchburg, Mass.; Training the camp nature and woodcraft counselor, L. B. Sharp, Outdoor Education Association; Developing the camp nature program, Dorothy Treat, National Audubon Society; Where does nature study fit into the camp program? Howard Weaver, University of Illinois; A conservation program for older Scouts, Ted Pettit, Boy Scouts of America.

*Conference on Scientific Editorial Problems.* Opening session: "Science is useless unless recorded and communicated"; G. L. Seielstad, Johns Hopkins University, presiding; 26 Dec., morning. On communicating science, Gerard Piel, *Scientific American*; Science reporting helps scientists, Nate Haseltine, *Washington Post and Times Herald*; The informative function of the scientific report, S. H. McAloney, Ford Instrument Company.

Session on "Type of coverage for the report and manual reader"; L. E. Neville, American-Bosch Arma Corporation, presiding; 26 Dec., afternoon. Designing the scientific report to accommodate its function, H. F. Arader, University of Penn-

sylvania; Content, form, and style in technical reports, Harold Simpson, Westinghouse Electric Corporation; The technical report as a means of communication, by Mrs. B. G. Heatwole, Staunton, Va.

Session on "Techniques and materials used in scientific and technical writing"; E. A. Stearn, Ramo-Wooldridge Corporation, presiding; 27 Dec., morning. Effective literature search methods, J. W. Perry, Western Reserve University; Common sense in technical writing, R. R. Sholl, New York Air Procurement District; Utilizing the editor-illustrator team, C. M. Johnson, U. S. Naval Electronics Laboratory; Digging for information, Mitchell Marcus, Los Angeles State College.

Session on "Scientific and technical translations"; J. G. Adashko, Ford Instrument Company, presiding; 27 Dec., afternoon. Organizing scientific translation services, A. F. Thompson, National Science Foundation; Role of the scientist in a translation journal, R. T. Beyer, Brown University; Translation in international conferences, Daniel Van Acker, Association of Technical Writers and Editors; Activities of the Pergamon Institute of Russian Science, Technology, and Medicine, I. R. Maxwell, Pergamon Press, Ltd.

Technical Writers Clinic; 27 Dec., evening.

Session on "Who does the scientific and technical writing?" R. T. Hamlett, Sperry Gyroscope Company, presiding; 28 Dec., morning. Who does, indeed? Ralph O'Dette, National Science Foundation; The editor—middleman of scientific communication, E. E. Grazda, *Electronic Design*; Getting engineers to write, P. R. Heinmiller, *General Electric Review*; What makes a technical writer? L. E. Tooker, Ford Instrument Company.

*Conference on Scientific Manpower.* Session; Paul B. Sears, Yale University, presiding; 26 Dec., afternoon. The program of the National Committee for the Development of Scientists and Engineers, H. L. Bevis, National Committee for the Development of Scientists and Engineers; Discussion: Implications for physical sciences, J. C. Warner, Carnegie Institute of Technology; Implications for engineering, E. P. Stevenson, Arthur D. Little, Inc.; Implications for life sciences, M. O. Lee, Federation of American Societies for Experimental Biology.

## AAAS Conference on Mathematics Instruction

The national concern about the shortage of scientific and technical personnel has resulted in a great many activities planned to interest more young people in the study of science and to develop

better programs for their training. Special interest on the part of scientists has been directed toward curriculum studies at the secondary-school level. Nearly all the major scientific societies have groups that are now studying this problem. One of the goals of these studies is to make certain that secondary-school and undergraduate college courses in science and mathematics are brought more in line with modern scientific developments.

Perhaps the greatest amount of criticism has been in the area of mathematics. Many believe that the lack of interest in the study of science and mathematics in high school may be due, in considerable part, to what they believe to be the low quality of the teaching of arithmetic in the elementary grades. Recognizing the concern about mathematics instruction and the interest of scientists, as well as mathematicians, in the teaching of mathematics, the AAAS called a Conference on Mathematics Instruction in Washington, D.C., early in October. The conference was made possible by a grant from the Carnegie Corporation of New York. The 26 participants included representatives of the three professional societies in mathematics, the American Institute of Biological Sciences, the American Institute of Physics, the American Chemical Society, and leaders in research in applied mathematics, statistics, and psychology. Also invited to participate were teachers of arithmetic and junior and senior high-school mathematics.

Reports were presented on activities and plans of the Commission on Mathematics, sponsored by the College Entrance Examination Board; the National Council of Teachers of Mathematics curriculum committees at the elementary- and secondary-school levels; the curriculum activities of the Mathematical Association of America; the University of Illinois experiment in secondary-school mathematics; and the Study on Admission to College With Advanced Standing.

In addition to the reports on activities directed toward the improvement of instruction in mathematics, there were discussions of a number of related topics, such as what needs to be done at the elementary-school level, point of view of scientists on mathematics curriculum, problems in teacher education, and possibilities for and the desirability of better coordination of elementary-school, secondary-school, and college programs. In the course of the 2-day discussions, considerable attention was given to the need for emergency action as well as long-term study. The need for research in the learning of mathematics, especially in problems of the motivation of students, including questions of readiness at various age levels for the study of science and mathematics, was emphasized.

In recognition of the fact that professional groups in physics, chemistry, and biology, as well as in mathematics, are now engaged in or making plans for curriculum studies, it was suggested that there should be at least one central agency that would be informed of such plans and studies and that would be in a position to make reports on progress to other interested persons. Problems related to better coordination of instruction in mathematics at the various levels and better coordination of professional activities directed toward the improvement of this instruction were considered. The conference pointed out that the National Council of Teachers of Mathematics is the appropriate agency to provide this coordination.

The conference asked that support be sought for curricular understanding with secondary schools on minimum mathematics programs. It was concluded that such a program should permit a high-school graduate to undertake, as his first course in college, a course in analytic geometry and calculus such as that described by the School and College Study on Admission With Advanced Standing. It was further recommended that the offering of a course in analytic geometry and calculus in high schools was desirable. The need for higher mathematical literacy on the part of all high-school students was also recognized.

The work of professional groups presently engaged in the study of mathematics instruction was endorsed by the conference, and these groups were urged to continue their important activities. The conference revealed that there were in progress a substantial number of studies of real promise, that much remains to be done, and that it is important for the recommendations of these groups to be made known widely and at an early date.

JOHN R. MAYOR

*AAAS Science Teaching  
Improvement Program*

## Meeting Notes

■ The American Society for Testing Materials has announced the formation of a subcommittee to study the effects of nuclear and high-energy radiation on the properties of plastics and electric insulation. Chairman of the new subcommittee is D. S. Ballantine of Brookhaven National Laboratory.

At the first meeting of the group in St. Louis, on 16 Oct., the chairman emphasized the great need for standardization in the field of radiation effects. The data already existing in the field of radiation effects on materials are in many cases confusing, and instances of outright contradictions are not uncommon. This con-

dition prevails in part because (i) different sources of radiation are employed, (ii) different methods are used to determine and express the radiation doses that have been received, (iii) the irradiations are conducted under differing conditions of atmosphere, temperature, and time, and (iv) different test methods are used to evaluate the results.

It is the prime objective of this new subcommittee to establish, where possible, standard methods of irradiation and standard methods for determining the effects of radiation on the physical and chemical properties of plastics and electric insulation. The subcommittee on radiation effects sponsored jointly by ASTM Committee D-20 on Plastics, F. W. Reinhart, chairman, and Committee D-9 on Electrical Insulating Materials, H. K. Graves, chairman, has established sections to work in the following areas: nomenclature and definitions, dosimetry, correlation of various sources of radiation, total dosage and dose-rate effects, and postirradiation effects. Anyone interested in assisting the work of this committee is invited to write to the chairman, D. S. Ballantine, at Brookhaven National Laboratory, Upton, N.Y.

■ Amino-acid malnutrition in animals and man will be the subject of the 13th annual Conference on Protein Metabolism to be held at Rutgers University, 25-26 Jan. The speakers will be J. S. Garrow, Tropical Metabolism Research Unit, Jamaica, B.W.I.; W. H. Sebrell, Jr., Williams-Waterman Fund; N. S. Scrimshaw, Institute of Nutrition of Central America and Panama, Guatemala; E. E. Howe, Merck and Company; D. B. Tower, National Institutes of Health; and J. B. Allison, Rutgers University.

Among the subjects to be discussed are sulfur-35 methionine uptake in protein-depleted Jamaican children, amino-acid malnutrition as a world problem, amino-acid supplementation in Central American children, amino-acid mixtures for human use, amino-acid metabolism of the epileptogenic cerebral cortex, and repletion of protein-depleted animals. There will be ample time for questions and discussion from the floor. For further information write to William H. Cole, Rutgers University, New Brunswick, N.J.

■ A Symposium on Personnel, Training, and Human Engineering Research was held at the National Academy of Sciences in Washington, D.C., 15-16 Nov. Jointly sponsored by the Air Research and Development Command (ARDC) and the National Research Council of the National Academy of Sciences, the symposium included 28 technical papers in the personnel, training, and human-engineering research field. The follow-

ing psychologists were chairmen of the sessions: William A. Hunt, Northwestern University; Roger W. Russell, executive secretary, American Psychological Association; Arthur J. Riopelle, Emory University; and Lyle H. Lanier, University of Illinois.

As the second symposium of its kind, this meeting was designed to give Air Force scientists an opportunity to demonstrate how work on Air Force problems contributes to the total body of scientific knowledge. Presentation of each paper was followed by open discussion. Plans call for the publication of the papers in a bound volume that will be available from the National Research Council.

■ The 52nd annual meeting of the American Trudeau Society, medical section of the National Tuberculosis Association, will be held in Kansas City, Mo., 6-9 May, in conjunction with the annual meeting of the National Tuberculosis Association. In addition to scientific sessions at which papers will be presented on current research, plans are being made for seven special lectures and four panel discussions. Topics for the latter will be tuberculin testing, fungous diseases, tuberculosis case finding, and the surgical approach to the bad chronic case of tuberculosis. The lectures will be on cor pulmonale, chest injuries, hazards of radiation, tuberculosis in animals, histologic studies in smoking, mucoviscidosis, and diseases of the diaphragm.

Papers for the scientific sessions will be selected from abstracts submitted to the Medical Sessions Program Committee *prior to 8 Jan.* Six copies of the abstracts should be sent to Dr. Edward J. Welch, chairman, 1101 Beacon St., Brookline 46, Mass.

■ A commemorative dinner to mark the silver anniversary of the founding of the Gordon Research Conferences will be held at the Hotel Commodore, New York, on 27 Dec. This date was selected to coincide with the AAAS annual meeting. The principal speaker at the dinner will be Nobel prize winner Glenn T. Seaborg, who will discuss "The future through science." Reservations (\$10 a person, \$100 per 10-guest table) may be made through Dr. W. George Parks, University of Rhode Island, Kingston, R.I., or W. Alec Jordan, 270 Park Ave., New York 17.

## Society Elections

■ Mineralogical Society of America: pres., D. Jerome Fisher, University of Chicago; v. pres., George E. Goodspeed, University of Washington; sec., C. S. Hurlbut, Jr., Harvard University; treas., Earl Ingerson, U.S. Geological Survey.

■ Nature Conservancy: pres., Richard H. Goodwin, Connecticut College; v. pres., F. Raymond Posberg; sec., Elting Arnold; treas., G. Flippo Gravatt, U.S. Plant Industry Station.

■ American Pharmaceutical Association: (to take office 27 Apr.): pres.-elect, Joseph B. Burt, Lincoln, Neb.; 1st v. pres.-elect, J. Warren Lansdowne, Indianapolis, Ind.; 2nd v. pres.-elect Leroy A. Weidle, Sr., St. Louis, Mo.

■ Society for Industrial and Applied Mathematics: pres., Thomas H. Southard, University of California, Los Angeles; sec., Donald B. Houghton, P.O. Box 7541, Philadelphia; asst. sec., Samuel S. McNeary, Drexel Institute of Technology; treas., Robert J. Bickel, Drexel Institute of Technology. The vice presidents are Brockway McMillan, Bell Telephone Laboratories, Inc., and Donald L. Thomsen, International Business Machines.

## Forthcoming Events

### December

26-31. American Assoc. for the Advancement of Science, annual, New York, N.Y. (R. L. Taylor, AAAS, 1515 Massachusetts Ave., NW, Washington 5.)

The following 56 meetings are being held in conjunction with the AAAS annual meeting.

AAAS Academy Conference (L. Taylor, West Virginia Univ., Morgantown). 29-30 Dec.

AAAS Cooperative Committee on the Teaching of Science and Mathematics (M. Meister, Bronx High School of Science, New York 68). 27 Dec.

AAAS-Gordon Research Conferences (W. G. Parks, Univ. of Rhode Island, Kingston). 27 Dec.

Alpha Chi Sigma (H. G. Seavey, 30 Church St., Room 340, New York 7). 28 Dec.

Alpha Epsilon Delta (M. L. Moore, 7 Brookside Circle, Bronxville, N.Y.). 29 Dec.

American Assoc. of Clinical Chemists (A. E. Sobel, Jewish Hospital of Brooklyn, Brooklyn 16, N.Y.).

American Assoc. of Hospital Consultants (E. D. Barnett, School of Public Health, Columbia Univ., New York 32.)

American Assoc. of Scientific Workers (R. J. Rutman, 6331 Ross St., Philadelphia 44, Pa.). 29 Dec.

American Astronomical Soc. (J. A. Hynek, Harvard College Observatory, Cambridge 38, Mass.). 26-29 Dec.

American Documentation Inst. (J. Hilsenrath, National Bureau of Standards, Washington 25). 27-29 Dec.

American Educational Research Assoc. (A. G. Wesman, Psychological Corp., 522 Fifth Ave., New York 36). 29 Dec.

American Meteorological Soc. (R. J. Roth, Crop-Hail Insurance Actuarial As-

soc., 209 W. Jackson Blvd., Chicago, Ill.). 28 Dec.

American Museum of Natural History (G. Reekie, AMNH, Central Park West at 79 St., New York, N.Y.). 26 Dec.

American Nature Study Soc. (R. L. Weaver, Univ. of Michigan, Ann Arbor). 26-30 Dec.

American Philosophical Assoc., Eastern Div. (J. Wild, Harvard Univ., Cambridge 38, Mass.). 27 Dec.

American Psychiatric Assoc. (B. Pasamanick, Ohio State Univ., Columbus 10). 28-29 Dec.

American Soc. of Hospital Pharmacists (G. E. Archambault, U.S. Public Health Service, Washington 25). 29 Dec.

American Soc. of Range Management (F. G. Renner, Soil Conservation Service, U.S. Dept. of Agriculture, Washington 25). 28 Dec.

American Statistical Assoc. (R. E. Johnson, Western Electric Co., New York 7).

Association for Computing Machinery (J. P. Nash, Univ. of Illinois, Urbana).

Association of American Geographers (P. M. Stern, Conservation Foundation, 30 E. 40 St., New York, N.Y.).

Astronomical League (H. B. Davidson, 812 Park Ave., New York 21).

Conference on Scientific Editorial Problems (J. G. Adashko, Ford Instrument Co., Long Island City, N.Y.). 26-28 Dec.

Conference on Scientific Manpower (T. J. Mills, National Science Foundation, Washington 25). 26 Dec.

Ecological Soc. of America (M. F. Buell, Rutgers Univ., New Brunswick, N.J.). 26-30 Dec.

Entomological Soc. of America (P. W. Oman, Plant Industry Sta., Beltsville, Md.). 27-30 Dec.

Genetics Soc. of America (A. W. Pollister, Columbia Univ., New York 27). 28 Dec.

History of Science Soc. (Miss P. Kibre, Hunter College, New York, N.Y.). 27-29 Dec.

Honor Soc. of Phi Kappa Phi (L. R. Guild, 634 So. Western Ave., Los Angeles 5, Calif.). 28-29 Dec.

Institute of Mathematical Statistics (Miss E. Scott, Univ. of California, Berkeley 4).

International Council for Exceptional Children (M. H. Fouracre, Columbia Univ., New York 27). 26 Dec.

International Union for the Study of Social Insects, North American Section (T. C. Schneirla, American Museum of Natural History, Central Park West at 79 St., New York, N.Y.). 26-27 Dec.

Mountain Lake Biological Sta. (B. D. Reynolds, Univ. of Virginia, Charlottesville).

Mycological Soc. of America (L. S. Olive, Columbia Univ., New York 27). 26 Dec.

National Acad. of Economics and Political Science (D. P. Ray, George Washington Univ., Washington, D.C.). 27 Dec.

National Assoc. for Gifted Children (Miss A. F. Isaacs, 409 Clinton Springs Ave., Cincinnati, Ohio).

National Assoc. for Research in Science Teaching (N. Washton, Queens College, Flushing 67, L.I., N.Y.). 27 Dec.

National Assoc. of Biology Teachers (J. Breukelman, State Teachers College, Emporia, Kan.). 26-30 Dec.

National Assoc. of Science Writers (J. E. Pfeiffer, New Hope, Pa.).

National Geographic Soc. (W. R. Gray, NGS, 16 and M Sts., NW, Washington 6). 29 Dec.

National Speleological Soc. (Brother G. Nicholas, LaSalle High School, Cumberland, Md.). 29 Dec.

New York Acad. of Sciences (R. F. Nigrelli, New York Zoological Soc. and M. Kopac, New York Univ., Washington Sq., New York, N.Y.). 29 Dec.

Philosophy of Science Assoc. (C. W. Churchman, Case Inst. of Technology, Cleveland, Ohio). 29-30 Dec.

Pi Gamma Mu (B. H. Williams, Industrial College of the Armed Forces, Washington 25). 26 Dec.

Scientific Research Soc. of America (D. B. Prentice, Yale Univ., New Haven, Conn.). 26-27 Dec.

Sigma Delta Epsilon (C. Chandler, Boyce Thompson Inst. for Plant Research, 1086 N. Broadway, Yonkers 3, N.Y.).

Sigma Pi Sigma (M. W. White, Pennsylvania State Univ., University Park).

Society for the Advancement of Criminology (D. E. J. MacNamara, New York Inst. of Criminology, 2109 Broadway, New York, N.Y.). 29 Dec.

Society for the Advancement of General Systems Theory (L. von Bertalanffy, Mt. Sinai Hospital, Los Angeles 48, Calif.). 29-30 Dec.

Society for the Study of Evolution (H. Lewis, Univ. of California, Los Angeles 24). 27-29 Dec.

Society of General Physiologists (A. Shanes, National Institutes of Health, Bethesda, Md.).

Society of Systematic Zoology (R. E. Blackwelder, Box 500, Victor, N.Y.). 27-30 Dec.

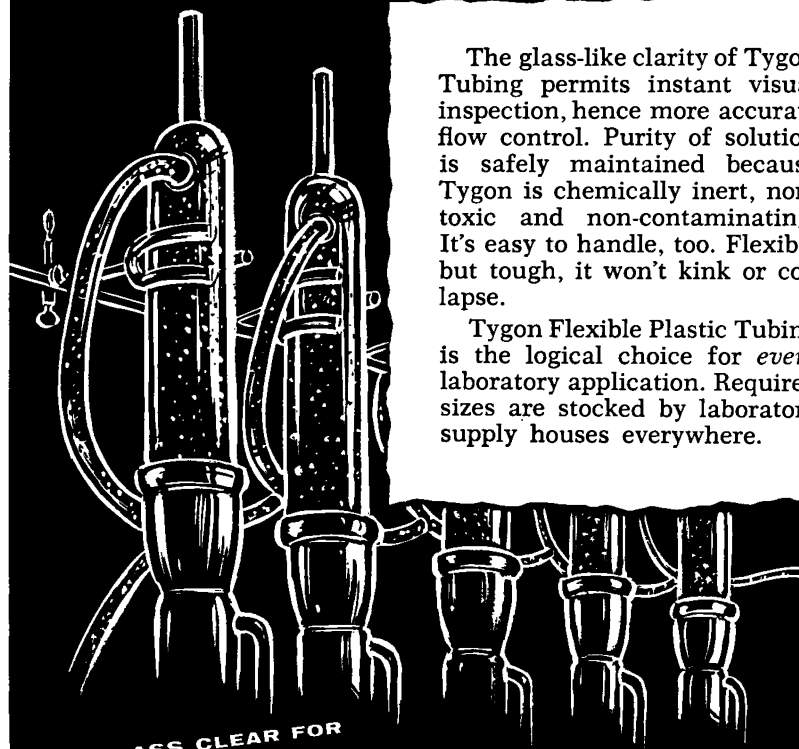
Society of the Sigma Xi (T. T. Holme, Yale Univ., New Haven, Conn.). 27 Dec.

Society of Vertebrate Paleontology, annual (J. T. Gregory, Peabody Museum of Natural History, Yale Univ., New Haven, Conn.). 28-30 Dec.

Torrey Botanical Club (David Keck, New York Botanical Garden, Bronx Park, New York 58). 26-27 Dec.

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209E

United Chapters of Phi Beta Kappa (C. Billman, PBK, 1811 Q St., NW, Washington 6). 27 Dec.

27-28. Fluid Mechanics in Chemical Engineering, American Chemical Soc., Lafayette, Ind. (W. E. Ranz, Dept. of Engineering Research, Pennsylvania State Univ., University Park.)

27-28. Northwest Scientific Assoc., 30th annual, Seattle, Wash. (R. B. Walker, Botany Dept., Univ. of Washington, Seattle 5.)

27-29. American Mathematical Soc., 63rd annual, Rochester, N.Y. (J. H. Curtiss, AMS, 80 Waterman St., Providence 6, R.I.)

27-29. American Physical Soc., Monterey, Calif. (W. A. Nierenberg, Univ. of California, Berkeley 4.)

27-29. Western Soc. of Naturalists, annual, Goleta, Calif. (D. Davenport, Santa Barbara College, Goleta.)

27-30. American Economic Assoc., annual, Cleveland, Ohio. (J. W. Bell, 629 Noyes St., Evanston, Ill.)

27-30. American Finance Assoc., annual, Cleveland, Ohio. (G. E. Hassett, Jr., New York Univ., 90 Trinity Place, New York 6.)

28. Society for the Advancement of Criminology, annual western, Fresno, Calif. (W. Dienststein, Fresno State College, Fresno.)

28-29. American Folk-Lore Soc., annual, Santa Monica, Calif. (MacE. Leach,

Bennett Hall, Univ. of Pennsylvania, Philadelphia 4.)

28-30. American Anthropological Assoc., annual, Santa Monica, Calif. (W. S. Godfrey, Jr., Logan Museum, Beloit College, Beloit, Wis.)

28-30. American Historical Assoc., annual, St. Louis, Mo. (AHA, Study Room 274, Library of Congress, Washington 25.)

28-30. Archaeological Inst. of America, annual, Philadelphia, Pa. (C. Boulter, Library, Univ. of Cincinnati, Cincinnati 21, Ohio.)

28-30. Industrial Relations Research Assoc., Cleveland, Ohio. (E. Young, Sterling Hall, Univ. of Wisconsin, Madison 6.)

29. Mathematical Assoc. of America, 40th annual, Rochester, N.Y. (H. M. Gehman, Univ. of Buffalo, Buffalo 14, N.Y.)

29-30. American Chemical Soc., Div. of Industrial and Engineering Chemistry, Princeton, N.J. (A. H. Emery, ACS, 1155 16 St., NW, Washington 6, D.C.)

#### January

7-11. International Social Science Council, 3rd gen'l. assembly, Paris, France. (Secretary Gen'l., ISSC, 19, avenue Kleber, Paris 16.)

10. Technical and Clinical Applications of Radioisotopes, Assoc. of Vitamin Chemists, Chicago, Ill. (M. Freed, Dawe's Laboratories, Inc., 4800 S. Richmond St., Chicago 32.)

10-12. American Group Psychotherapy Assoc., 14th annual, New York, N.Y. (C. Beukenkamp, Jr., AGPA, Room 300, 345 E. 46 St., New York 17.)

14-16. Cottonseed Processing as Related to the Nutritive Value of the Meal, 4th conf., New Orleans, La. (Southern Regional Research Lab., USDA, 1100 Robert E. Lee Blvd., New Orleans 19.)

14-16. Reliability and Quality Control in Electronics, 3rd natl. symp., Washington, D.C. (C. M. Ryerson, Radio Corp. of America, Bldg. 10-6, Camden 2, N.J.)

14-18. Society of Automotive Engineers, annual, Detroit, Mich. (Meetings Div., SAE, 29 W. 39 St., New York 18.)

14-20. Indian Science Cong. Assoc., 44th meeting, Calcutta, India. (General Secretary, ISCA, 1 Park St., Calcutta 16.)

15. Society for Applied Spectroscopy, Philadelphia, Pa. (F. M. Biffen, Johns-Manville Research Center, Manville, N.J.)

16-23. Australian and New Zealand Assoc. for the Advancement of Science, 32nd meeting, Dunedin, N.Z. (J. R. A. McMillan, ANZAAS, Science House, 157 Gloucester St., Sydney, N.S.W., Australia.)

17. Constructive Medicine in Aging: Cardiovascular Disorders in the Aged, symp., Cincinnati, Ohio. (J. B. Chewing, Wm. S. Merrell Co., Cincinnati 15.)

17-18. Engineers Joint Council, New York, N.Y. (EJC, 29 W. 39 St., New York 18.)

18-19. Symposium on Blood, 6th annual, Detroit, Mich. (W. H. Seegers, Wayne State Univ. Coll. of Medicine, Detroit 7.)

21-22. Solar Furnace Design and Operation, Phoenix, Ariz. (J. I. Yellott, Assoc. for Applied Solar Energy, 3424 N. Central Ave., Phoenix.)

21-25. American Inst. of Electrical Engineers, winter general, New York, N.Y. (N. S. Hibshman, AIEE, 39 W. 39 St., New York 18.)

23-25. Very Low Frequency Electromagnetic Waves, symp., Boulder, Colo. (J. R. Wait, National Bureau of Standards, Boulder.)

24-25. Western Spectroscopy Assoc., 4th annual, Los Angeles, Calif. (S. S. Ballard, Scripps Inst. of Oceanography, San Diego 52, Calif.)

25. Bibliographical Soc. of America, New York, N.Y. (H. W. Liebert, Yale Univ. Library, New Haven, Conn.)

25-26. Protein Metabolism, 13th annual conf., New Brunswick, N.J. (W. H. Cole, Rutgers Univ., New Brunswick, N.J.)

28-29. Many Body Problem, symp., Hoboken, N.J. (G. J. Yevick, Dept. of Physics, Stevens Inst. of Technology, Hoboken.)

28-31. American Meteorological Soc., New York, N.Y. (K. C. Spengler, AMS, 3 Joy St., Boston 8, Mass.)

28-31. Modern Methods of Analytical Chemistry, 10th annual symp., Baton Rouge, La. (P. W. West, Louisiana State University, Baton Rouge.)

30-1. American Assoc. of Physics Teachers, New York, N.Y. (F. Verbrugge, Carleton College, Northfield, Minn.)

(See issue of 16 November for comprehensive list)

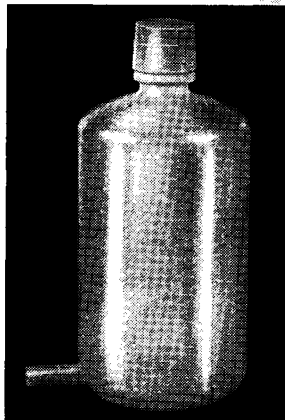
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