Meetings and Societies

Laboratory Animals

The world demand for laboratory animals continues to increase enormously, especially for uniform high quality and specialized strains. Unless proper steps are taken, it is certain that vital progress in experimental biology and medicine will be delayed or hindered. In addition to numerous national problems of laboratory animal supply and use, there are many of a universal nature which could best be solved on a coordinated international basis.

Consultants on laboratory animals who were convened by UNESCO on 3–4 Dec. 1956 in Paris recommended formation of an International Committee on Laboratory Animals. This committee was established under the auspices of the International Union of Biological Sciences (IUBS), UNESCO, and the Council for International Organizations of Medical Sciences (CIOMS), which includes the International Union of Physiological Sciences, the International Union of Biochemistry, and the International Union against Cancer.

This committee was formed from a reorganization of an IUBS Committee on Laboratory Animals, established in Rome, Italy, in April 1956, and from a program established by UNESCO that was based on recommendations of the Cell Biology Program of CIOMS, of December 1955.

The International Committee on Laboratory Animals consists of (i) a representative of IUBS: Sven O. Hörstadius, president of IUBS, chairman of the committee; (ii) W. Lane-Petter, director, Laboratory Animals Bureau, Medical Research Council, United Kingdom, honorary executive secretary of the committee; (iii) M. M. Sabourdy, director, Centre de Selection des Animaux de Laboratoire, Centre National de la Recherche Scientifique, France; (iv) Dale W. Jenkins, chairman, Institute of Laboratory Animal Resources, National Academy of Sciences–National Research Council, United States; (v) a representative of CIOMS; and (vi) a representative of UNESCO.

The committee is presently surveying the laboratory animal sources and utilization in the United Kingdom and the Benelux countries and in France, Italy, and Scandinavia, including Finland and Iceland. Additional countries will be surveyed in the near future. The committee is patterning its activities, on an international scale, after the programs of the Institute of Laboratory Animal Resources of the National Academy of Sciences–National Research Council (U.S.) and the Laboratory Animals Bureau of the Medical Research Council (U.K.) It is attempting to stimulate formation of similar organizations in other countries.

The aims of this international committee are to ensure adequate supplies of uniformly high-quality laboratory animals and to investigate and determine what action is required to prevent serious shortages from arising. In order to improve the supply and quality of laboratory animals, an international survey is being made of (i) the sources of supply, the numbers, and the kinds of laboratory animals that are produced or procured, and (ii) the main users, the numbers and kinds of laboratory animals that are utilized, and the purposes for which they are used. A world list of strains of laboratory animals is being compiled, and a documentation center will be established. The common terms used in relation to laboratory animals are being defined precisely and quantitatively—terms used with respect to genetics, disease and parasitism, nutrition, care, and performance records (for example, *strain, inbred, pathogen free*). These defined terms will be standardized on an international basis.

The major problems that arise in connection with laboratory animals, such as problems of supply, genetics, disease, nutrition, care, and transportation, are being studied. The requirements for international or local production centers for breeding and supplying inbred and other needed strains of laboratory animals (for example, cancer-susceptible mice) will be determined. A survey is being made of establishments and facilities that could undertake these functions if the need should arise.

The committee will prepare a report on the customs, quarantine, and other regulations concerning international shipment of laboratory animals and will formulate recommendations for proper conditions of transportation.

The committee will also determine the need for establishing an information exchange, an educational program for animal technicians and caretakers, internationally recognized standards for laboratory animals, and systems for certifying animals and accrediting suppliers. It will later examine the possibility of arranging stimulating symposia.

DALE W. JENKINS
National Research Council, Washington, D.C.

Biophysical Conference and Society

A 3-day National Biophysical Conference was held 4–6 Mar. in Columbus, Ohio, to bring together, for scientific communication, those concerned with the whole range of biophysical interest, from macromolecules to the mind of man.

Physicists and biologists contributed 211 papers, on physical aspects of problems bordering on physical chemistry, macromolecular structure, high-polymer chemistry, electrochemistry, protein chemistry, genetics, virology, cellular structure, physiology at several levels of organization, psychophysics, and extrasensory perception and communication theory. The hypothesis was amply verified that most of the 500 or more biophysicists present, from 200 institutions, would find a large proportion of the papers, over such a range, both intelligible and interesting.

The conference was organized in four parallel sessions, preceded each morning and afternoon by plenary meetings that proved to be the highlights of the occasion. Notable 30-minute papers were presented: A. Rich, "Collagen"; S. Benzer, "Genetic structure"; K. S. Cole, "Electrical structure and function of cells"; R. E. Zirkle, "Irradiation in mitosis"; H. K. Hartline, "Neural interactions of the eye"; H. E. v. Giercke, "Vibratory transmission in humans"; C. W. Sheppard, "Theory of mixing"; O. H. Schmitt, "Physics of EKG"; J. D. Hardy, "Thermal stimuli"; and W. A. Rosenblith, "Sensory communication." A round table on "Training and careers," conducted by E. C. Pollard, F. O. Schmitt, M. A. Lauffer, F. D. Carlson, and R. W. Stacy, was of special value. The response to these diverse sessions further attested to the common interests of those present.

The evenings were spent in discussion

of problems of biophysical organization: the purposes, tasks, and forms of scientific relationships pertaining to this field. Since this conference arose from action taken in January 1956, and since many of the issues had been well discussed in meetings prior to and subsequent to that date, it was soon apparent that we had here a "supersaturated solution," which, on 5 March, by nearly unanimous vote, formed a new society. This was named, provisionally, the Biophysical Society. Those present took the steps needed to set up a legal organization and elected, as officers, R. C. Williams, chairman; O. H. Schmitt, vice chairman; R. W. Stacy, treasurer; and S. A. Talbot, secretary. The other members of the first year's council are E. C. Pollard, W. A. Rosenblith, F. D. Carlson, K. S. Cole, H. K. Hartline, M. A. Lauffer, C. Levinthal, E. Rabinowitch, N. R. Rashevsky, A. Rich, R. B. Roberts, F. O. Schmitt, A. K. Solomon, H. B. Steinbach, C. A. Tobias, and R. E. Zirkle.

The purpose of this society is to encourage biophysical research by increasing communication among all those working in this field, by furthering the training of biophysicists, and by upholding standards in the physical analysis of biological problems. Because the physical aspects of biological problems are studied by scientists who are primarily physicists, biologists, or both, the Biophysical Society expects to benefit from including both in its membership. Mathematical, theoretical, experimental, and instrumental aspects are equally a part of this philosophy. It is planned to hold annual meetings, with due regard to the schedules of existing physical and biological societies. The cooperation and representation of the major scientific groups and interests involved were an outstanding feature of the meeting, and affiliations should be in order. Constitutional details and the question of a journal are under consideration.

Local arrangements for the conference, held in the Deshler-Hilton hotel, were made and carried out by R. W. Stacy and members of the biophysics division of Ohio State University. A publicity committee, headed by H. P. Schwan of Pennsylvania, also prepared the printed abstracts. Representative biophysicists from 40 institutions gave assistance in formulating the program and organizational policies to a planning committee composed of K. S. Cole, E. C. Pollard, O. H. Schmitt, and S. A. Talbot.

The nationally representative character of this scientific meeting and the richness of its program were, in large measure, the result of the strong encouragement and support of the U.S. Air Force Office of Scientific Research, which is concerned with many aspects of this field of science. A volume of selected papers from the conference, to be published by the Yale University Press, will show the scope and character of the National Biophysical Conference of 1957.

S. A. TALBOT

Johns Hopkins University

ACS Divison of Inorganic Chemistry

The new division of inorganic chemistry of the American Chemical Society is seeking more members among the many scientists both in and outside the United States who are interested in inorganic chemistry. The membership dues of $3 per year may be sent to Dr. L. B. Asprey, Los Alamos Scientific Laboratory, Box 1663, Los Alamos, N.M. John C. Bailar, Jr., of the University of Illinois, was appointed chairman of the division and John F. Gall, of the Pennsylvania Salt Manufacturing Company, was appointed chairman-elect by the president of ACS after the society's council unanimously approved the formation of the new division with the usual probationary period of not more than 3 years as fixed by the society's bylaws.

Liquid Scintillation Counting

Northwestern University will hold a conference on liquid scintillation counting at the Technological Institute, Evanston, Ill., 20–22 Aug. A wide range of topics on the theory and application of liquid scintillators will be covered by invited papers: coincidence counters, single channel counters, chemistry of liquid scintillators, and applications in biology and medicine, industry, archeology, physics, chemistry, and engineering. Abstracts of nonsolicited papers should be sent to the program chairman, Dr. F. Newton Hayes, Los Alamos, New Mexico, *by 1 June.*

Psychiatric Association

The American Psychiatric Association will hold its 113th annual meeting at the Hotel Morrison, Chicago, Ill., 13–17 May. About 4000 psychiatrists and guests are expected. Francis J. Braceland, APA's president and psychiatrist-in-chief, Institute of Living, Hartford, Conn., will call the meeting to order and deliver the presidential address on the morning of the first day.

Beginning that afternoon, more than 130 scientific papers will be presented. Many scientific exhibits, films, symposia, and other special features are scheduled.

Industrial Nuclear Technology

The second Industrial Nuclear Technology Conference, cosponsored by Armour Research Foundation of Illinois Institute of Technology, and *Nucleonics Magazine,* will be held in the Chicago Museum of Science and Industry, Chicago, Ill., 14–16 May. The purpose of the conference is to provide a platform for scientific interchange on the nonpower aspects of nuclear technology.

A session designed specifically for industrial executives will be held on 14 May. The session will serve to acquaint industrialists with what radiation is and how to use it in industry, where to get nuclear material and what staff is required to handle it, when the Government requires licensing and how the legal matters are handled, and how many dollars will be involved and what sort of equipment is necessary.

The technical sessions will be devoted to an exchange of ideas by scientists on new radiation effects in the solid state and the liquid state for both organic and inorganic materials, nuclear machines and instrumentation, and industrial applications of nuclear radiation and nuclear techniques ranging from measurements on plastic laminates and metal plating efficiency to empirical formula analysis of organic compounds.

A review of nuclear industry in foreign countries will be presented in a panel discussion by foreign physicists during a luncheon on 15 May. Further information may be obttained by writing to the conference cochairman, Leonard Reiffel, Armour Research Foundation of Illinois Institute of Technology, Chicago 16, Ill.

Editorial Conference Formed

Some 50 people interested in the problems of editing biological publications met in New Orleans, La., from 1 to 4 April under the auspices of the American Institute of Biological Sciences and with the financial support of the National Science Foundation. The group decided that the exchange of information and the discussion of common editorial problems should be continued. To further this end, the participants organized a Conference of Biological Editors and adopted a tentative constitution that calls for annual meetings and states that the object of the organization "is to provide an efficient means for cooperation among editors and for furthering effective publication of continuing publications in the fields of biological sciences —serials, reviews, and adjunct media (e.g., microforms)." Membership in the conference is "open to persons who hold

or have held a principal official responsibility for the editorial management" of publications of the kind heretofore mentioned.

The following were elected as the first officers of the conference (terms in parentheses): chairman, Bentley Glass *Quarterly Review of Biology* (2 years); vice chairman, Donald P. Costello, *Biological Bulletin* (2 years); executive secretary, Fred R. Cagle, *Copeia* (3 years). Members-at-large of the Executive Committee are Harold Cummins, *American Journal of Anatomy*; William C. Steere, *American Journal of Botany*; and P. W. Wilson, *Bacteriological Reviews* (terms of from 1 to 3 years to provide for staggering of appointments; individual terms not yet decided).

International Switching Symposium

The International Symposium on the Theory of Switching, sponsored by the Computation Laboratory of Harvard University, took place 2–5 Apr. Switching is central to all binary devices, such as those used in data processing, automatic control, and telephone exchanges. It concerns the mathematical theory of two-state circuits—low-high, off-on, positive-negative, and so forth.

Nearly 1000 scientists and engineers from 14 nations attended. The symposium was made possible by the support of Bell Telephone Laboratories, Inc., International Business Machines Corporation, Radio Corporation of America, and Sperry Rand Corporation. The program was planned and organized by Howard H. Aiken, director of the Computation Laboratory. Spread of interest in large-scale computing machines and similar devices from the United States to all parts of the world was underlined by the many nations represented in the gathering.

Society Elections

■ Animal Care Panel: pres., Jules Cass, University of Cincinnati; 1st v. pres., Bennett J. Cohen, University of California; 2nd v. pres., Victor Schwentker, the West Foundation; sec.-treas., Robert J. Flynn, Argonne National Laboratories.

■ Wildlife Society: pres., A. Starker Leopold, University of California; v. pres., Richard B. Miller, University of Alberta; past-pres., D. L. Allen, Purdue University; exec.-sec., Daniel L. Leedy, U.S. Fish and Wildlife Service.

■ Kappa Delta Pi: pres., Katherine Vickery, Alabama College; 1st v. pres., John J. Harton, Fresno State College; 2nd v. pres., Gerald Read, Kent State University; sec.-treas., E. I. F. Williams, 238 East Perry St., Tiffin, Ohio. Representative to the AAAS Council is Katherine Vickery.

Forthcoming Events

May

13–15. Radiation Research Soc., annual, Rochester, N.Y. (A. Adelmann, Nuclear Science and Engineering Corp., P.O. Box 10901, Pittsburgh 36, Pa.)

13–15. Recent Developments in Research Methods and Instrumentation, symp., Bethesda, Md. (J. A. Shannon, National Institutes of Health, Bethesda.)

13–15. Structure of Electrolytic Solutions, NSF symp., Washington, D.C. (H. B. Linford, Electrochemical Soc., 216 W. 102 St., New York 25.)

13–16. American Orthodontic Assoc., New Orleans, La. (S. D. Goal, 1037 Maison Blanche Bldg., New Orleans.)

13–16. Semiconductor Symposium, 5th annual, Washington, D.C. (H. M. Pollack, Semiconductor Div., RCA, 415 S. 5 St., Harrison, N.J.)

13–17. American Psychiatric Assoc. annual, Chicago, Ill. (D. Blain, APA, 1785 Massachusetts Ave., NW, Washington 6.)

13–17. Inter-American Symposium on the Peaceful Uses of Nuclear Energy, Brookhaven, L.I., N.Y. (S. Tucker, Brookhaven National Lab., Brookhaven, L.I.)

14–16. Industrial Nuclear Technology Conf., Chicago, Ill. (L. Reiffel, Armour Research Foundation, Illinois Inst. of Technology, 10 West 35 St., Chicago 16.)

14–16. International Soc. of Audiology, cong., St. Louis, Mo. (S. R. Silverman, 818 S. Kingshighway, St. Louis 10.)

14–18. Biochemistry of Cancer, symp. of International Union against Cancer, London, England. (E. Boyland, Chester Beatty Research Inst., Royal Cancer Hospital, Fulham Rd., London, S.W.3.)

15–16. Space Age Symposium, Southern Research Inst., Birmingham, Ala. (R. D. Osgood, Jr., Southern Research Inst., 917 S. 20 St., Birmingham 5.)

15–18. American College of Cardiology, Washington, D.C. (S. Fiske, 150 E. 71 St., New York 21.)

15–18. Work and the Heart Medical Conf., Milwaukee, Wis. (E. L. Belknap, Dept. of Occupational and Environmental Medicine, Marquette School of Medicine, Milwaukee.)

16–17. Space Age Symp., Southern Research Inst., Birmingham, Ala. (R. D. Osgood, Jr., Southern Research Inst., 2000 Ninth Ave. South, Birmingham 5.)

16–18. Engineering Industries Exposition, New York, N.Y. (H. Becher, New York State Soc. of Professional Engineers, 1941 Grand Central Terminal Bldg., New York 17.)

16–18. Society of Naval Architects and Marine Engineers, spring, Long Beach, Calif. (W. N. Landers, SNAME, 74 Trinity Pl., New York 6.)

17. Maryland Acad. of Sciences, annual, Baltimore, Md. (T. King, Maryland Acad. of Sciences, Enoch Pratt Free Library Bldg., Baltimore 1.)

17–19. American Inst. of Industrial Engineers, 8th annual, New York, N.Y. (J. L. Southern, AIIE, 145 N. High St., Room 303, Columbus 15, Ohio.)

19–21. Heat Transfer and Fluid Mechanics Inst., Pasadena, Calif. (P. P. Wegener, Jet Propulsion Lab., California Inst. of Technology, 4800 Oak Grove Dr., Pasadena 3.)

19–23. American Assoc. of Cereal Chemists, annual, San Francisco, Calif. (C. L. Brooke, Merck & Co., Inc., Rahway, N.J.)

19–24. National Conf. on Social Welfare, annual, Philadelphia, Pa. (F. Schmidt, NCSW, 22 W. Gay St., Columbus 15, Ohio.)

20–21. Society of American Military Engineers, annual, Washington, D.C. (National Headquarters, SAME, 808 Mills Bldg., Washington 6.)

20–22. Design Engineering Conf., ASME, New York, N.Y. (ASME, 29 W. 39 St., New York 18.)

20–22. International Voice Conf., Chicago, Ill. (H. Von Leden, 30 N. Michigan Ave., Chicago 2.)

20–24. Correctional Psychiatry and Group Counseling, joint institute, Poughkeepsie, N.Y. (P. H. Hoch, Commissioner of Mental Hygiene, State Office Bldg., Albany, N.Y.)

20–24. Mass Spectrometry, New York, N.Y. (R. A. Friedel, U.S. Bureau of Mines, 4800 Forbes St., Pittsburgh 13, Pa.)

20–25. International Conf. of Epizootics, annual, Paris, France. (12, rue de Prony, Paris 17e.)

20–31. International Federation of Agricultural Producers, 9th general assembly, Lafayette, Ind. (IFAP, 712 Jackson Pl., NW, Washington, D.C.)

21–25. American Assoc. on Mental Deficiency, Hartford, Conn. (T. L. McCulloch, Letchworth Village, Thiells, N.Y.)

22–24. American Inst. of Chemists, annual, Akron, Ohio. (L. Van Doren, AIC, 60 E. 42 St., New York 17.)

22–24. American Soc. for Quality Control, annual, Detroit, Mich. (L. S. Eichelberger, A. O. Smith Corp., Milwaukee 1, Wisc.)

22–25. International Scientific Radio Union, national spring mtg., Washington, D.C. (J. P. Hagen, U.S.A. National Committee URSI, National Acad. of Sciences, 2101 Constitution Ave., NW, Washington 25.)

23–25. Acoustical Soc. of America, New York, N.Y. (W. Waterfall, ASA, 57 E. 55 St., New York 22.)

25–26. International Cong. for the Study of the Bronchi, Lisbon, Portugal. (F. Lopo de Carvalho, 138 rua de Junqueira, Lisbon.)

25–28. International Cong. of Acupuncture, 9th, Vienna, Austria. (Austrian Assoc. for Acupuncture, 57 Schwenderstrasse, Vienna.)

26–30. Special Libraries Assoc., annual, Boston, Mass. (Miss M. E. Lucius, SLA, 31 E. 10 St., New York 3.)

29–2. American College of Chest Physicians, annual, New York, N.Y. (M. Kornfeld, ACCP, 112 E. Chestnut St., Chicago 11, Ill.)

30–31. Rheology of Elastomers, conf., Welwyn Garden City, Herts., England. (N. Wookey, British Soc. of Rheology, 52, Tavistock Rd., Edgware, Middlesex, England.)

30–1. American Acad. of Dental Medicine, 11th annual, Boston, Mass. (R. Diamond, 100 Boylston St., Boston.)

30–1. American Malacological Union, Pacific meeting, Santa Barbara, Calif. (Miss M. C. Teskey, P.O. Box 238, Marinette, Wis.)

30–1. Endocrine Soc., 39th annual, New York, N.Y. (H. H. Turner, 1200 N. Walker St., Oklahoma City 3, Okla.)

31–2. American Soc. for the Study of Sterility, New York, N.Y. (H. Thomas, 920 S. 19 St., Birmingham 5, Ala.)

31–2. Social Medicine, internatl. cong., Vienna, Austria. (T. Antoine, Spitalgasse 23, Vienna 9.)

31–2. Society for Applied Anthropology, annual, East Lansing, Mich. (W. F. Whyte, New York State School of Industrial and Labor Relations, Cornell Univ., Ithaca, N.Y.)

June

1–2. American Diabetes Assoc., 17th annual, New York, N.Y. (ADA, 1 E. 45 St., New York 17.)

1–2. Soc. for Investigative Dermatology, annual, New York, N.Y. (H. Beerman, 255 S. 17 St., Philadelphia 3, Pa.)

2–6. Air Pollution Control Assoc., golden anniversary, St. Louis, Mo. Jointly with American Meteorological Soc., American Soc. of Heating and Air Conditioning Engineers, American Inst. of Chemical Engineers, and American Soc. of Mechanical Engineers. (H. C. Ballman, APCA, 4400 Fifth Ave., Pittsburgh 13.)

2–7. Society of Automotive Engineers, summer, Atlantic City, N.J. (Meetings Division, SAE, 29 West 39 St., New York 18.)

2–8. International Cong. of Photobiology, 2nd, Turin, Italy. (G. Matli, Istituto di Fisica dell'Universita di Torino, Via Pietro Giuria 1, Corso Massimo d'Azeglio 46, Turin.)

3–5. American Soc. of Refrigerating Engineers, Miami Beach, Fla. (R. C. Cross, ASRE, 234 Fifth Ave., New York 1.)

3–5. Chemical Inst. of Canada, 40th annual, Vancouver, B.C. (CIC, 18 Rideau St., Ottawa 2, Ont.)

3–7. American Medical Assoc., annual, New York, N.Y. (G. F. Lull, AMA, 535 N. Dearborn St., Chicago 10, Ill.)

3–7. American Soc. of Civil Engineers, Buffalo, N.Y. (W. H. Wisely, ASCE, 33 W. 39 St., New York 18.)

3–7. Hospital Cong., 10th international, Lisbon, Portugal. (J. E. Stone, 10 Old Jewry, London, E.C.2, England.)

3–8. Microbiological Inst., 10th annual, Lafayette, Ind. (C. L. Porter, Dept. of Biological Sciences, Purdue Univ., Lafayette.)

3–12. Quantitative Biology, 22nd Cold Spring Harbor Symp., Cold Spring Harbor, N.Y. (B. Wallace, Biological Laboratory, Cold Spring Harbor.)

4–9. Blood Circulation, international symp., London, England. (D. G. James, c/o 11 Chandos St., London, W.1.)

5–7. Therapeutics, 5th international cong., Utrecht, Netherlands. (F. A. Nelemens, Bureau Provisoire, Vondellaan 6, Utrecht.)

6–7. Production Techniques, 1st natl. symp., IRE, Washington, D.C. (A. A. Lawson, Melpar, Inc., 3000 Arlington Blvd., Falls Church, Va.)

6–8. National Soc. of Professional Engineers, Dallas, Tex. (P. H. Robbins, NSPE, 2029 K St., NW, Washington 6.)

8–11. American Planning and Civic Assoc., annual, Little Rock, Ark. (Miss H. James, APCA, 901 Union Trust Bldg., Washington 5.)

9–12. American Inst. of Chemical Engineers, Seattle, Wash. (F. J. Van Antwerpen, AIChE, 25 W. 45 St., New York 36.)

9–13. American Rocket Soc., semiannual, San Francisco, Calif. (J. J. Harford, ARS, 500 Fifth Ave., New York 36.)

9–13. American Soc. of Mechanical Engineers, semiannual, San Francisco, Calif. (C. E. Davies, ASME, 29 W. 39 St., New York 18.)

10–12. American Nuclear Soc., 3rd annual, Pittsburgh, Pa. (W. W. Grigorieff, ANS, P.O. Box 963, Oak Ridge, Tenn.)

10–12. Canadian Soc. of Microbiologists, annual, London, Ont., Canada. (J. A. Carpenter, Dept. of Bacteriology, Ontario Agricultural College, Guelph.)

10–14. Molecular Structure and Spectroscopy Symp., Columbus, Ohio. H. H. Nielsen, Dept. of Physics and Astronomy, Ohio State Univ., Columbus 10.)

10–14. Technical Writers' Institute, 5th annual, Troy, N. Y. (J. R. Gould, TWI, Rensselaer Polytechnic Inst., Troy.)

11–13. American Meteorological Soc., Monterey, Calif. (K. C. Spengler, AMS, 3 Joy St., Boston 8, Mass.)

11–15. Ionization Phenomena in Gases, 3rd internatl. conf., Venice, Italy. (U. Facchini, Laboratori CISE, Via Procaccini 1, Milan, Italy.)

12–15. Colloquium of College Physicists, 19th annual, Iowa City, Iowa. (J. A. Van Allen, Dept. of Physics, State Univ. of Iowa, Iowa City.)

16–20. American Soc. of Mammalogists, annual, Lawrence, Kansas. (B. P. Glass, Dept. of Zoology, Oklahoma A.&M. College, Stillwater.)

16–21. American Soc. for Testing Materials, Atlantic City, N.J. (R. J. Painter, ASTM, 1916 Race St., Philadelphia 3, Pa.)

17–19. American Neurological Assoc., Atlantic City, N.J. (C. Rupp 133 S. 36 St., Philadelphia 4, Pa.)

17–19. Astronomical Soc. of the Pacific, annual, Flagstaff, Ariz. (S. Einarsson, Univ. of California, Berkeley 4.)

17–19. Health Physics Soc., 3rd annual, Pittsburgh, Pa. (H. W. Patterson, Radiation Lab., Univ. of California, Berkeley.)

17–19. Military Electronics, national convention, Washington, D.C. (G. Rappaport, Emerson Radio & Phonograph Corp., 701 Lamont St., NW, Washington 10.)

17–20. Carbon Conf., 3rd, Buffalo, N.Y. (Carbon Conf., Univ. of Buffalo, Buffalo.)

17–20. Institute of Aeronautical Sciences, natl. summer, Los Angeles, Calif. (S. P. Johnston, IAS, 2 E. 64 St., New York 21.)

17–21. American Soc. for Engineering Education, annual, Ithaca, N.Y. (W. L. Collins, Univ. of Illinois, Urbana.)

17–21. Association of Official Seed Analysts, annual, Baton Rouge, La. (L. C. Shenberger, Seed Lab., Dept. of Agricultural Chemistry, Purdue Univ., Lafayette, Ind.)

17–21. Canadian Medical Assoc., 90th annual, Edmonton, Alberta, Canada. (CMA, 244 George St., Toronto, Ont., Canada.)

17–22. Coordination of Galactic Research, internatl. symp., Stockholm, Sweden. (P. T. Oosterhoff, University Observatory, Leiden, Netherlands.)

17–22. Internal Combustion Engine Cong., 4th internatl., Zurich, Switzerland. (C. C. M. Logan, British National Committee, 6 Grafton St., London, W.1.)

17–28. Wear Theory in Metal Cutting and Bearing Design, special summer program, Cambridge, Mass. (Massachusetts Inst. of Technology, Cambridge 39.)

19–21. Association for Computing Machinery, annual, Houston, Tex. (J. Moshman, ACM, 2 E. 63 St., New York 21.)

19–21. Max Planck Soc. for the Advancement of Science, annual general assembly, Lübeck, Germany. (Max Planck Soc. for the Advancement of Science, Kaiserwertherstrasse 164, Dusseldorf, Germany.)

EQUIPMENT NEWS

The information reported here is obtained from manufacturers and from other sources considered to be reliable. Science *does not assume responsibility for the accuracy of the information. All inquiries concerning items listed should be addressed to* Science, *Room 740, 11 W. 42 St., New York 36, N.Y. Include the name(s) of the manufacturer(s) and the department number(s).*

■ ULTRAVIOLET ANALYZER is designed for continuous monitoring and control of petroleum and allied processes. The instrument is of the nondispersive type; filters sensitize it to the component of interest. Radiation wavelengths from 200 to 280 mμ are used. A hydrogen-discharge lamp is the source of illumination. The chopper- and sample-modulated beam is detected by a multiplier phototube. An automatic zero-drift standardization system compensates periodically for long-time drift caused by such factors as fogged windows and lenses, variations in ambient temperature, and aging of the light source. The sample must be clean, dry gas with a flow rate of approximately 1000 cm^3/min. (Consolidated Electrodynamics Corp., Dept. S232)

■ X-RAY ANALYZER combines an electron microscope with a crystal spectrometer to analyze areas of steel specimens as small as a few microns in diameter. The microscope provides a focused electron beam to excite x-radiation. The x-ray beam is then analyzed by reflection from a lithium fluoride crystal and measured by a Geiger or proportional counter. The characteristic wavelength of the radiation identifies the chemical element, and the intensity of the radiation furnishes information on concentration. The instrument can detect elements of atomic number 22 or higher. (United States Steel Corp., Dept. S261)

■ CURRENT INTEGRATOR for measuring beam current and accumulated charge in particle accelerators permits current measurement from 1 mμa to 1 ma and charge measurement from 15 mμcoul to 29 coul. Accuracy is said to be 1 percent. A preset-charge feature permits automatic stopping of the beam current when a predetermined charge has been reached. The instrument is rack mounted and contains its own power supply. (El Dorado Electronics Co., Dept. S267)

■ IMMERSION HEATER with fused silica shell features economy of replaceable elements. Four sizes of elements are interchangeable in the same shell. Special sizes can be manufactured to specifications. (Pyrosil Inc., Dept. S285)

■ TEFLON TUBING—thin- and standard-wall flexible tubing, rod, and heavy-wall tubing—is available cut in lengths to met individual needs. Cuts are said to be clean and square without feathering or flattening. (Pennsylvania Fluorocarbon Co., Inc., Dept. S259)

■ CRYSTAL-LATTICE MODELS, based on x-ray and electron-diffraction data, are scaled to 1 A = 25 mm. Wooden spheres representing atoms are colored to identify the atom and are joined by metal rods. Available models include basic lattices, elements, inorganic compounds, organic compounds, and alloys. (Arthur S. LaPine and Co., Dept. S278)

■ TRANSISTOR TESTER model KT-1 is designed for measurement of beta, h_{11} and I_{co}. Instrument is self-contained and has its own 1 kcy/sec oscillator and battery power supply. Battery life is 1000 hr. Direct-reading calibration can be adjusted to compensate for temperature variations. (Baird-Atomic Instrument Co., Dept. S276)

■ THERMOPILES for application to infrared spectrophotometry, infrared measurements in astronomy, emission pyrometry, and temperature control, are described in a 12-page catalog. Vacuum-sealed and air types are available with a choice of glass, quartz, fluorite, or potassium-bromide windows. (Jarrell-Ash Co., Dept. S277)

■ PLASTIC SHIELDING is composed of 95 percent lead and 5 percent polyethylene by weight. Specific gravity is approximately 7 g/cm^3. The compound melts at 220°F and can be cast in forms. Resistance to oxidation and inertness to acids and alkalies are features of the material. (Telectro Industries Corp., Dept. S281)

■ DILATOMETER is available in two types. One, which records mechanically, is designed for the range 0° to 1500°C. The other, a photographic dilatometer, is constructed to process specimens that are sealed in a controlled atmosphere or in a vacuum. This model is equipped with several "heads" providing magnifications from 1 to 1100. Its operating range is from 0° to 1150°C. (R. Y. Ferner Co., Inc., Dept. S274)

■ AIR CLEANER operates by electrostatic precipitation to clean 150 ft^3 of air per minute. More than 99 percent of all dust, pollen, bacteria, and other airborne particles are said to be removed. Particles are charged by a strong electric field and collected by charged collector plates. The unit is portable. (Raytheon Manufacturing Co., Dept. S282)

JOSHUA STERN
National Bureau of Standards