

# Preview of the 116th Meeting, AAAS

New York City, December 26–31, 1949

## General Information

Seventy-nine Association sections, affiliated and associated societies, and several guest organizations will present programs at the Sixth New York Meeting. Although in this respect it will be the largest convention in the Association's 101-year history, it will also be one of the most convenient. Nearly all the sessions are closely grouped in the hotels of New York's "Pennsylvania Zone." Related societies have headquarters in the same hotel, and the integrity of each society's sessions is assured. All of the hotels—the Statler, New Yorker, McAlpin, Governor Clinton, and Martinique—are within two blocks of the Pennsylvania Station and each other.

For those societies that prefer meeting in academic classrooms or laboratories, sessions are scheduled at Columbia University, only 15–20 minutes distant on the IRT Broadway-Seventh Avenue subway. The Biologists' Smoker is at the American Museum of Natural History, a short ride on the Eighth Avenue subway. The administrative officers of the AAAS believe that both the advantages of individual meetings and the many advantages of a large diversified meeting will be realized.

Space arrangements for the meeting were made possible by the cooperation of the New York Convention and Visitors Bureau, the sales managers of the hotels mentioned, and the administrators of Columbia University and the American Museum of Natural History. The Manhattan Center (next door to the New Yorker) was engaged by the American Sociological Society for its daytime sessions, but in no other instance was it necessary to pay for meeting rooms. The Association is further indebted to the New York Convention and Visitors Bureau for the aid of its experienced housing bureau and will use its professionally trained registration personnel at nominal expense. Commitments for a block of 3,500 sleeper rooms with accommodations for nearly twice that number of people were made by the Penn Zone hotels. Confirmations have been made promptly, often within a week. Except for the usual heavy demand for single rooms, there are plenty of hotel rooms available; if necessary, additional hotels near the Penn Zone can be utilized.

At this writing, there has been no exact count of papers to be read, but it exceeds 2,000. The General Program of more than 300 pages has already been mailed to those who registered in advance—between four and five times as many as the advance registrants at the Chicago Meeting of 1947. There is still time to register in advance if communications are received in Washington by 5:00 p.m., December 12; please see the coupon in this issue. After that date, please register upon arrival. There will be registration facilities in *each* hotel, open daily from 8:30 a.m. to 6:00 p.m. The Main Registration-Information Center, on the 18th floor of the Hotel Statler—where

the Visible Directory of Registrants, the AAAS New Member Service, the AAAS Science Theater, and the Annual Science Exposition will also be located—will be open each evening until 9:00 p.m. The Main Registration-Information Center is the only source for supplementary literature, including 1) a free map and directory of points of interest in New York City, 2) special announcements, 3) descriptions of tours, 4) discounted tour tickets to the Empire State Building Observatory, Radio City, etc., 5) free radio broadcast tickets, and the like. Registrants should call for these at their convenience. Each advance registrant should bring his General Program (since another cannot be furnished), his registration receipt, and his convention badge to the Meeting.

This year, the Association no longer is *urging* society officers to have their session chairmen attempt to make registration mandatory, for this is awkward and inconvenient. Yet it is hoped that each person who attends the 116th Meeting, or any session of it, will realize that the AAAS registration fee—\$2.00 for members, \$3.00 for nonmembers—intentionally has been kept low to encourage attendance, especially by science teachers and students, and these fees are absolutely necessary to pay for the general expenses of the Meeting. The great majority of the participating societies have voted for the plan whereby the AAAS assists each society with its projection costs according to a formula based upon the average percentage of registrants at a society's sessions and the average percentage of AAAS membership. (Society A, with 90 percent registrants at its sessions, and 90 percent of its membership also members of the Association, will have 90 percent of its projection costs paid by the AAAS; Society B, with 50 percent registrants at its sessions, and 10 percent of its membership also members of the Association, will still have 30 percent of its projection costs paid for by the AAAS.) Thus, each person who registers helps his own society. Presiding officers at sessions have the responsibility of estimating the percentage of nonregistrants, and so each registrant should wear his badge.

The following events are open only to registrants: The AAAS Reception, the AAAS Science Theater, the Biologists' Smoker (by an overwhelming vote of the biological societies), and free admission to the Museum of Modern Art and the D'Oyly Carte film production of *The Mikado*.

*Reservations for hotel rooms* may be made until almost the last day—please see the hotel reservation coupon in this issue. Telegrams or telephone calls are advisable after December 18. Those who do not make advance reservations, and find accommodations exhausted at a particular hotel, will be given help in finding a room—either by the desk clerk or by the Association's Information Center.

## General Headquarters

The Hotel Statler (formerly the Hotel Pennsylvania), just across Seventh Avenue from Pennsylvania Station, is the official Headquarters of the AAAS; it is where the Council of the Association will meet. The Press Rooms are located on the South Mezzanine: Press Releases and Authors' Abstracts, Conference Room No. 7; Radio and Television arrangements, Local Publicity Committee, Conference Room No. 8. The Main Registration, Information Center, Visible Directory of Registrants, New Member Service, the Annual Science Exposition, International Photography-in-Science Salon, and the Science Theater, with its almost continuous showing of the latest scientific films, are all in the Penn Top of the Hotel Statler. The Penn Top is readily reached by express elevators.

## Headquarters of the Sections of the AAAS and the Participating Societies

*Hotel Statler* (Seventh Avenue between 32nd and 33rd Streets): AAAS Sections B, C, F, M, N, Nm, Np; zoological societies, viz., American Society of Parasitologists, American Society of Protozoologists, American Society of Zoologists, Society of Systematic Zoology; American Microscopical Society, American Society of Naturalists; Newark College of Engineering; American Dietetic Association; Beta Beta Beta; National Association of Science Writers; National Geographic Society; Scientific Research Society of America; Sigma Delta Epsilon; Society of the Sigma Xi.

*Hotel New Yorker* (Eighth Avenue between 34th and 35th Streets): AAAS Sections E, H, I, L, Q; American Geographical Society of New York, Association of American Geographers, Geological Society of America; AAAS Cooperative Committee on Teaching of Science and Mathematics; the science teaching societies, viz., American Nature Study Society, National Association of Biology Teachers, National Council of Teachers of Mathematics, National Science Teachers Association, Federation of Science Teachers Associations of New York City, Society for Research in Child Development; Alpha Kappa Delta, American Farm Economic Association, American Sociological Society, Rural Sociological Society; American Philosophical Association, Philosophy of Science Association.

*Manhattan Center* (34th Street, next to Hotel New Yorker): Meeting rooms for the *morning and afternoon* sessions of the American Sociological Society.

*Hotel McAlpin* (Broadway [Avenue of the Americas] between 33rd and 34th Streets): AAAS Sections G, Nd, O; the plant science societies, viz., American Bryological Society, American Fern Society, American Society of Plant Physiologists, American Society of Plant Taxonomists, Botanical Society of America, Mycological Society of America, Phycological Society of America, Torrey Botanical Club; New York Section, American Institute of Electrical Engineers; American Institute of Biological Sciences.

*Hotel Martinique* (Broadway and 32nd Street): American Phytopathological Society.

*Hotel Governor Clinton* (Seventh Avenue and 31st

Street): AAAS Sections A, D, K; American Mathematical Society, Institute of Mathematical Statistics, Mathematical Association of America; American Society of Human Genetics, American Society of Limnology and Oceanography, Biometric Society, Ecological Society of America, Genetics Society of America, Society for the Study of Evolution; Academy of World Economics; Metric Association; Alpha Epsilon Delta; Phi Kappa Phi; Pi Gamma Mu.

## Registration

*Main Registration and Information.* The Main Registration and Information Center is located in the main corridor of the 18th floor of the Hotel Statler, which is quickly reached by express elevators to the Penn Top (marked 10-18). It is open from 8:30 a.m. to 9:00 p.m. daily from Monday, December 26, till Saturday, December 31, when it closes at noon. Badges and General Programs may also be obtained at all other registration desks, but the Main Registration is the *only* place where supplementary literature, free maps of the city, broadcast tickets, specially discounted tour tickets, etc., are available to registrants. *Advance registrants*, who received their programs and badges prior to the meeting, and those who register in their own headquarters hotels, are urged to visit the Main Registration at any convenient time to receive these items.

*Supplementary Registration Desks.* For the convenience of those attending the 116th Meeting there are supplementary registration desks in all the Penn Zone hotels, open 8:30 a.m. to 6:00 p.m. daily, Monday, December 26, through Friday, December 30, located as follows: Hotel Statler—first mezzanine (opposite front entrance). Hotel New Yorker—mezzanine.

Hotel McAlpin—first mezzanine.

Hotel Martinique—mezzanine.

Hotel Governor Clinton—main lobby.

On the evening of Thursday, December 29, upon the occasion of the Biologists' Smoker, 9:00 p.m. till midnight, there will be special registration facilities at the American Museum of Natural History—since this event is open only to registrants.

*Registration Fee.* The registration fee is \$2.00 for members of the AAAS, for *bona fide* students, and for a wife or husband of a registrant; it is \$3.00 for all others. Each registrant receives a receipt, a Convention Badge, and the General Program—the only publication containing the programs of all the 16 AAAS sections and the 63 participating societies.

*Society Meal Function Tickets.* In general, tickets to the dinners, luncheons, or breakfasts of any society are obtainable only from representatives of that society and during the preceding sessions of the society. Any society, however, has the privilege of the use of an AAAS Supplementary Registration desk to serve as a ticket booth, provided that that portion is manned by a representative of the society. Experience has shown that it is much more satisfactory to all concerned for each organized meal function to be the responsibility of the society that sponsors it.

**Visible Directory of Registrants.** The Visible Directory is located in the Salle Moderne on the 18th floor of the Hotel Statler—quickly reached by express elevators to the Penn Top. It will be open at all times except from late in the evening till 8:30 a.m. During the hours when the Annual Science Exposition is open, the Salle Moderne is entered from the Penn Top because of the need for traffic to move in one direction. The registration cards of all registrants are placed in the Visible Directory as soon as possible after registration. The arrangement is alphabetical. The cards of advance registrants are alphabetized to the second or third letter of the surname, since they were posted in Washington prior to the meeting. All other registration cards are filed only by the initial letter of the surname (thus Thorp may precede Tate, etc.). Registrants will find the Visible Directory invaluable in determining the convention addresses of friends attending the Meeting.

**Mail, Telegrams, and Messages.** Mail and telegrams addressed in care of the AAAS will be held at the AAAS Office on the 18th floor of the Hotel Statler. Every effort will be made to notify addressees listed in the Visible Directory, but the Association assumes no responsibility for the delivery of mail or telegrams.

Telephone and personal messages will be filed alphabetically in the AAAS Office on the 18th floor of the Statler.

#### Points of Special Interest—Tours, etc.

The map and directory of New York—available to all registrants and distributed only from the Main Registration-Information Center, 18th floor, Hotel Statler—displays and lists all principal points of interest on Manhattan Island.

In addition to the map and directory, a limited number of copies of "Let's Go and See," a leaflet giving information about all museums, botanic gardens, etc., in New York City, will be available at the Main Registration-Information Center. While each of these institutions will welcome visitors, those listed below have made special arrangements for AAAS delegates, members of their families, and guests.

**The Metropolitan Museum of Art** (Fifth Avenue at 82nd Street). On Wednesday, December 28, the entire museum will remain open until 6:30 p.m. especially for AAAS guests. No admission charge.

**Museum of Modern Art** (11 West 53rd Street). In addition to permanent collection, works of Paul Klee are on exhibition. Color film: *The Mikado*, produced by the D'Oyly Carte Company. Hours, 12:00 noon–7:00 p.m.; films shown at 3:00 and 5:30 p.m.

**Museum of the City of New York** (Fifth Avenue at 103rd Street). Hours, Tuesday through Saturday, 10:00 a.m.–5:00 p.m. The exhibit, "A Hospital Bed," which traces the growth of hospitals in New York City, will be of particular interest to medical scientists. An electron microscope will be operated at special times for AAAS delegates.

**American Museum of Natural History** (79th Street and Central Park West). A cordial invitation is extended to all attending the AAAS Meeting to visit the American

Museum of Natural History, not only upon the occasion of the Biologists' Smoker, Thursday evening, December 28, 9:00 p.m. till midnight, but throughout the week. Hours: Sundays and Monday, December 26, 1:00 p.m. to 5:00 p.m.; other days, 10:00 a.m. to 5:00 p.m.

**New York Zoological Society.** Open house on December 26, 27, 28, and 29. Guided tours leave the Administration Building at 2:00 p.m.—return at 4:00 p.m. for tea. (See Local Travel Directions for how to get there.)

**The New York Public Library** (Fifth Avenue and 42nd Street). A special exhibit, entitled "Science—Old and New," includes rare early science manuscripts and printed books leading up to recent books and periodicals, is located on the main floor near the Science and Technology Division.

**\* The Brooklyn Botanic Garden.** Open House in the virus and tissue culture laboratories at 2:00 p.m., Tuesday, December 27. Conservatories open 10:00 a.m. to 4:00 p.m. weekdays, 2:00 p.m. to 4:00 p.m. Sundays. (Take Seventh Avenue subway to Eastern Parkway-Brooklyn Museum Station.)

**\* The Boyce Thompson Institute for Plant Research, Inc., Yonkers, New York.** Open House on Friday afternoon, December 30. The Institute will provide bus transportation (at cost) which will leave the Hotel McAlpin at 1:30 p.m.; and return about 5:30 p.m. Registration for this trip may be made at the Main Registration-Information Center, 18th floor, Hotel Statler, until Friday morning.

#### INDUSTRIAL ORGANIZATIONS

**International Business Machines Corporation.** Guided inspection tours of the Selective Sequence Electronic Calculator between 9:15 a.m. and 5:15 p.m. each day of the Convention. At IBM World Headquarters, 590 Madison Avenue.

**\* New York Telephone Company.** Bell Telephone Laboratories at 463 West Street, New York. Tuesday, 10:00 a.m., December 27; Wednesday, 2:30 p.m., December 28. One and one half-hour tours each day showing: developments in dial telephone and switch; automatic message accounting; other items in the field of communications development. **Long Lines Department**, 32 Avenue of the Americas (Sixth Avenue), New York. Inspection tours at 10:00 a.m. and 2:30 p.m. on December 27, 28, 29, and 30. One and one half-hour tours showing: long distance operating room; overseas operating room; overseas control office; teletypewriter exchange; radio and television broadcasting networks room.

**\* Rockwood & Company** (chocolate manufacturers). Guided inspection tour of their plant at 88 Washington Avenue, Brooklyn, for a group of ten persons at each of the following times: 10:30 a.m. and 2:30 p.m. on December 27 and 28.

**\* Consolidated Edison Company of New York.** One-hour tours of the Waterside Station, 708 First Avenue (near the site of the new United Nations Headquarters) at 10:00 a.m. and 2:00 p.m. on December 28 and 29.

\* These require advance registration of at least one day—at the Main Registration-Information Center, 18th floor, Hotel Statler.

## RADIO AND TELEVISION

*National Broadcasting Company, Inc.* Reduced tickets for tour of NBC facilities at RCA Building, Radio City, available at Main Registration-Information Center.

*WOE* (1440 Broadway, New York City). Free tickets for radio and television shows available at the Main Registration-Information Center.

Other radio broadcast tickets will also be available.

## COMMERCIAL TOURS

*Rockefeller Center Guided Tours, Observation Roof* (30 Rockefeller Plaza). Reduced tickets available at Main Registration-Information Center.

*Empire State Building, Observatory* (Fifth Avenue and 34th Street). Reduced tickets available at Main Registration-Information Center.

*Sight-seeing Trips in Motor Coaches.* Consult the Information Center for tours to various parts of the city.

TOURS ARRANGED BY THE FEDERATION OF SCIENCE  
TEACHERS ASSOCIATIONS OF NEW YORK CITY

A series of tours and visits has been arranged. For details consult the Federation's booth in the Hotel New Yorker.

## FIELD TRIP

On Friday, December 30, starting at 8:30 a.m., there will be an all-day Field Trip, perhaps to Jones Beach, to study ecology and wintering birds. This trip, sponsored by the American Nature Study Society, will be conducted by Edwin Way Teale, Roger Tory Peterson, Allan D. Cruickshank, Richard H. Pough, E. L. Palmer, and Richard L. Weaver.

Those interested should register, *preferably well in advance*, at Parlor B, Hotel New Yorker, the headquarters room of the Society and point of departure.

## Press Service of the Association

All persons who will deliver addresses or present papers at the New York Meeting are requested to provide the Press Service with 100 copies of abstracts of their papers. One hundred copies of *complete* manuscripts are required of papers presented by 1) officers of the Association; 2) officers and invited speakers that appear on the programs of the participating societies; and 3) any author whose paper has a particular news value. In general, most authors already have recognized the necessity for this and will have sent this material to the Association's Press Director, Sidney S. Negus, Medical College of Virginia, Richmond, Virginia, before December 15. If this has not been done, however, please send your abstract and/or complete manuscript to Dr. Negus. Starting December 20, and throughout the meeting period, abstracts and copies of papers should be delivered to Dr. Negus at the *AAAS Press Office, Conference Room No. 7, First Mezzanine, Hotel Statler*. This press room is equipped with typewriters, duplicating machines, bulletin boards, extra telephones, standard references, and special files. Dr. Negus invites all who are interested to call. (But please do not request information or material that is available

at the Information Center and Main Registration in the Penn Top!)

In *The Scientific Monthly* for September, 1949, pp. 156-160, F. Barrows Colton, president of the National Association of Science Writers and a member of the editorial staff of the *National Geographic Magazine*, has an entertaining article "Some of my Best Friends are Scientists." The points of view of the experienced science writer and the researcher, who may be unaware of the public's legitimate interest in his scientific contributions, are contrasted. He says:

It is probably safe to say that science writers understand scientists better than scientists understand science writers. But science writers are so important to science that scientists need to have some knowledge of their working methods and problems.

In the process of writing about science, modern science writers not only are covering the news but are rendering a real service to science as well. . . . They perform an essential and specialized role. . . . [Their] audience, incidentally, includes many scientists who cannot possibly keep up with all developments outside their own fields.

The necessity for the general public to be kept informed of the results of the scientific research which it supports, directly or indirectly, is quite evident. Organized science and the individual scientist must have the understanding and maintenance of all. It is, of course, equally important that the advances of science be publicized with clarity and without sensationalism. The progress in this direction has been gratifying. It is in the interest of accuracy and completeness that science writers frequently wish to discuss points with authors. If biographical information or photographs are requested, each author should recognize in this an obligation to science. Between 120 and 150 science writers are covering this Meeting and all wire services will carry the stories they file—to the entire civilized world. At no other scientific meeting are the facilities for the dissemination of the most recent findings in science so complete as they are at the great, diversified meetings of the AAAS.

This year, not only is the Association fortunate in the continued service of Prof. Negus, immediate past president of the Virginia Academy of Science, but also in its Local Publicity Committee, headed by Robert Harron, director of public information at Columbia, and Hayden Weller, director of press relations, New York University, and composed principally of the experienced directors of publicity of New York's institutions of higher learning. This committee has worked all fall to publicize the 116th Meeting on their own campuses, in magazines, and throughout the city. It has been in sole charge of news reels, radio, and television. The *Radio Press Room in Conference Room No. 8*, on the first mezzanine of the Hotel Statler, will be in operation after December 12.

## AAAS Prize Awards

The 22nd award of the AAAS \$1,000 Prize will be made at this New York Meeting to the author of a noteworthy paper presented on a regular program of the meeting and representing an outstanding contribution to science. The generous donor of this award, which is administered

by the Association, has expressed the wish that this prize be awarded to one of the younger scientists and that it shall not be divided among two or more scientists working independently or in collaboration. The prize is awarded upon the recommendation of a special Prize Committee whose judgment shall be final. No award was made in 1948; the winner in 1947 was Harrison S. Brown.

The Prize Committee for the New York meeting consists of George S. Avery, Jr., director, Brooklyn Botanic Garden, *chairman*; Hans T. Clarke, Columbia University, New York City; Lincoln V. Domm, The University of Chicago, Chicago, Illinois; Kirtley F. Mather, Harvard University, Cambridge, Massachusetts; and George B. Pegram, Columbia University, New York City.

It is virtually impossible to determine the relative merits of scientific contributions in wholly different fields, and, of course, not an easy task to single out contributions in any one field of science. The members of each year's Prize Committee must set their own standards for the evaluation of scientific work presented at an annual meeting of the Association. The secretaries of the sections of the AAAS and also of the societies participating are invited to assist the Prize Committee by their preliminary suggestions of one or more papers from the fields they represent for consideration by the Prize Committee.

It is not necessary that the prize winner be a member of the Association. All papers listed in the General Program, except presidential and vice presidential addresses and invited papers, are eligible for the AAAS Prize.

**AAAS-George Westinghouse Science Writing Awards.** For the past 30 years, a relatively small but increasing group of professional journalists have devoted most or all of their time to the interpretation of developments in science for the lay public. In 1941, the Association recognized the importance of sound reporting of scientific news by accepting as an affiliate the National Association of Science Writers, organized in 1934 in Washington, D. C. In 1945, in the belief that special recognition and encouragement should be given to those writers who have the grave responsibility of making science near and real to the layman, the Westinghouse Educational Foundation and the American Association for the Advancement of Science began the joint sponsorship of the AAAS-George Westinghouse Science Writing Awards. In that year a certificate was given. In 1946 the plan provided for an annual \$1,000 prize for newspaper writing, and, in 1947, it was decided to include a similar award for science reporting in magazines of general circulation. The Foundation provides the funds for the administration of the program, and the AAAS administers the awards through a Managing Committee, appointed by the Association's Executive Committee. The Managing Committee for 1949 consists of Howard A. Meyerhoff, *chairman*; Roger Adams, President Elect of the Association; James A. Baubie, public relations director, Westinghouse Electric Corporation; Frank Carey, science writer, Associated Press; Watson Davis, director, Science Service; Charles N. Fry, publicity department, Westinghouse Electric Corporation; Morris

Meister, principal, Bronx High School of Science; and Sidney S. Negus, AAAS Press Director, Medical College of Virginia.

The awards will be made on the recommendations of the 1949 Judging Committee, the members of which are: Henry R. Aldrich, secretary, Geological Society of America; Detlev Bronk, president, The Johns Hopkins University; Kent Cooper, executive director, Associated Press; John R. Dunning, Department of Physics, Columbia University; Clifton Fadiman, Book-of-the-Month Club; Rudolf Flesch, writer; and Edward Weeks, editor, *The Atlantic Monthly*. Dr. Meister is chairman of this committee.

Prize winners in 1948 were Frank Carey, for newspapers, and Florence Moog, for magazines.

Presentation of the 1949 awards will be made at a luncheon in the Keystone Room of the Hotel Statler, at 1:00 p.m., on Wednesday, December 28. Dr. Elvin C. Stakman, President of the AAAS, will be the guest speaker. Admission is by invitation only.

**Annual International Photography-in-Science Salon—on exhibition in the Salle Moderne, 18th floor of the Hotel Statler.** Prize winners in the Third International Photography-in-Science Salon, an annual competition for scientists and photographers, sponsored by *The Scientific Monthly* and the Smithsonian Institution, were announced on September 25, 1949.

Judges were Merle A. Tuve, Carnegie Institution, for the physical sciences; Walter F. Jeffers, Department of Botany, University of Maryland, for the biological sciences; A. A. Teeter, Charles Pfizer & Company, New York City, for chemistry; Emanuel Krimsky, Polyclinic Hospital, New York City, for the medical sciences; and Alexander J. Wedderburn, Graphic Arts Division, Smithsonian Institution, for photography.

The 175 prints, which were on exhibition at the U. S. National Museum, October 3–31, will be on view at the 1949 AAAS Annual Meeting. Afterwards the show will go on a tour of important museums and scientific institutions in this country and abroad.

Prize winners in the Black-and-White Division:

*First:* L. L. Marton, chief, Electron Physics Section, National Bureau of Standards, Washington, D. C.: "Electron-optical shadow method."

*Second:* Bernard Henry Mollberg, University of Houston, Houston, Texas: "Ventrosinistral view of dried chick embryo, plated with aluminum."

*Third:* S. B. Newman, Emil Borysko, and Max Swerdlow, National Bureau of Standards, Washington, D. C.: "Electron micrograph of thin section of cells in onion root tip."

*Honorable Mention:* José Oiticica, Jr., Rio de Janeiro, Brazil (Guggenheim Fellow at the U. S. National Museum, Washington, D. C.): "Male genitalia, ventral view, of *Citheronia mogya* Schaus 1920 (Lepidoptera, Citheroniinae)."

Clyde T. Holliday, Applied Physics Laboratory, The Johns Hopkins University, Silver Spring, Maryland: "Cloud formations." (Photograph made from a V-2 rocket at White Sands Proving Ground.)

T. G. Rochow, American Cyanamid Company, Stamford, Connecticut: "Commerical sample, tri-sodium orthophosphate ('TSP')."

Charles J. Salat, Armour Research Foundation, Chicago, Illinois: "Calibration of a ball bearing by means of optical flats."

Clee O. Worden, Laboratory of C. A. Zapffe, Baltimore, Maryland: "Fractograph of piezoelectric single crystal."

In the Color Division, the following won awards:

*First:* Charles D. Oughton, and Eugene C. Ricker, Battelle Memorial Institute, Columbus, Ohio: "Xerographic developing process."

*Second:* Chester F. Reather, Carnegie Institution, Baltimore, Maryland: "Implantation of twelve-day human ovum."

*Third:* Thomas C. Poulter (third-time prize winner) and Walter Lawton, Stanford Research Institute, Stanford, California: "High-speed movies of colored meteorological balloons used with Poulter Seismic Method show interaction of shock waves in the third dimension."

*Honorable Mention:* D. H. Rowland, Carnegie-Illinois Steel Corporation Research Laboratory, Pittsburgh, Pennsylvania: "Polished and etched cross section of experimental galvanized coating on low carbon steel."

Rowland B. Stradling, U. S. Cast Iron Pipe and Foundry Company, East Burlington, New Jersey: "Photomicrograph at 200 diameters of titanium nitride in cast iron."

Albert C. Walker, Bell Telephone Laboratories, Murray Hill, New Jersey: "Quartz crystal grown at Bell Telephone Laboratories."

Established to encourage and extend the use of photography as a basic research tool, the contest will be continued in 1950. All entrants shall be actively engaged in scientific research, and all photographs must be taken for scientific purposes. Entries should be sent to the Editor, *The Scientific Monthly*, 1515 Massachusetts Avenue, N. W., Washington 5, D. C., November 1-27, 1950. Prize winners and other accepted entries will be shown at the Annual Meeting of the AAAS in Cleveland, Ohio, December 26-31, 1950, and at the U. S. National Museum, Washington, D. C., January 3-31, 1951.

Dates for showing the 1949 pictures may be arranged by writing to the Editor of *The Scientific Monthly*.

**Theobald Smith Award in Medical Sciences.** After a lapse of five years, owing to the war, the Theobald Smith Award in Medical Sciences, established in 1936 by Eli Lilly and Company, will again be given at the Annual Meeting of the AAAS.

The Award Committee this year, appointed by Gordon K. Moe, Secretary of Section N, consists of Malcolm H. Soule, University of Michigan, *chairman*, Maurice B. Visscher, University of Minnesota; Louis S. Goodman, University of Utah Medical School; and William B. Castle, City Hospital, Boston.

The award consists of \$1,000 and a bronze medal, given for "demonstrated research in the field of the medical sciences, taking into consideration independence of thought and originality." An additional amount of

\$150 is available toward traveling expenses. The recipient must be less than 35 years of age on January 1 of the year in which the award is to be made, and a citizen of the United States.

Past recipients are: Robley D. Evans, Charles F. Code, Albert B. Sabin, Herald R. Cox, and Sidney C. Madden.

## AAAS Business Sessions

The *Executive Committee* of the Association will meet for luncheon and a business session in the Administrative Secretary's suite at the Hotel Statler at noon on Tuesday, December 27. Dates and hours of subsequent sessions of the Executive Committee during the New York Meeting will be decided at this first meeting.

Two sessions of the *Council* of the Association are scheduled at the New York Meeting. The first will be held at 4:00 p.m. Tuesday, December 27, in Parlor 2, Hotel Statler; the second will take place in the same room at 4:30 p.m. Thursday, December 29.

The Council is the governing body of the Association. Although the actual transaction of AAAS business is entrusted to the Executive Committee of the Council, the Constitution stipulates that "Control of all affairs of the Association is vested in the Council, which shall have power to review and to amend or rescind its own actions and all actions taken by the Executive Committee or by other agents to whom powers are delegated by this Constitution or shall have been delegated by the Council. The Council shall enact such bylaws as it may deem desirable, each of which shall remain in force until amended or rescinded by action of the Council."

Because of the large number of affiliated societies participating in the New York Meeting, a record attendance is expected at both sessions of the Council. For this reason several important items of business have been placed on the agenda, among them:

1. Election of the President Elect for 1950.
2. Election of three members of the Executive Committee of the Council, two to succeed C. F. Kettering and Fernandus Payne, whose four-year terms end this year, and one to complete the unexpired term of Roger Adams, whose election to the Presidency of the Association has made him an *ex officio* member of the Executive Committee.
3. Method of nomination and election of the President Elect and Executive Committee members.
4. Revision of Bylaws of the Association (report of Committee, K. F. Mather, *chairman*).
5. Report on Council vote on
  - a. Retention of membership grades of Member and Fellow.
  - b. Starring of scientists in *American men of science*.
  - c. Type of Association meetings.
6. Reports on Association affairs:
  - a. Report from the Treasurer, W. E. Wrather,
  - b. Reports from Committees: Cooperative Committee on science teaching (K. Lark-Horovitz, *chairman*); Committee on Affiliation and Association (M. H. Soule, *chairman*); Publica-

tions Committee (E. C. Stakman, *chairman*); Editorial Board (H. A. Meyerhoff, *chairman*).

7. New business. Members of the Council are requested to communicate new items of business that should be placed on the agenda to Howard Meyerhoff, Administrative Secretary, not later than December 19.

The *Academy Conference* will hold a session Friday morning, December 30, at 10:00 a.m. in Parlor A, Hotel New Yorker, and a second session Friday afternoon, at 2:30 p.m., in the same room. At the afternoon session there will be exhibits by high school students, including the prize winners of scholarships awarded by the International Business Machines Corporation. In the evening, the Academy Conference Dinner is scheduled at 6:00 p.m., the place to be announced. The speaker will be William G. Pollard, and his subject: "The Oak Ridge Institute for Nuclear Studies and the Atomic Energy Program in the Associated Universities."

The *Inter-Society for a National Science Foundation* will hold an open meeting on Tuesday morning, December 27, in the Keystone Room, Hotel Statler, at 10:30 a.m.

### Local Committees

A complete list of AAAS Local Committees was printed in *Science* on November 4, p. 486 it will not be repeated here. The Honorary Reception Committee, headed by Governor Thomas E. Dewey and Mayor William O'Dwyer, includes some 80 heads of New York's institutions of higher learning, medical and technical schools, academies, institutes and foundations scientific in character, museums and local technical and scientific societies.

### The Program

Full details of the individual programs of the 79 sections and participating organizations are in the General Program, now available to advance registrants. The Special Sessions and AAAS-sponsored Symposia appeared in *Science* on November 18, pp. 536 ff.; the program of the AAAS Science Theatre in *Science* for November 25, pp. 571 ff.

A synopsis of the program sessions, by days, follows:

#### Monday Afternoon, December 26

##### AAAS as a Whole

The AAAS Science Theatre, 18th floor, Statler, has its first showing at 2:00 p.m. (open only to registrants).

Annual Science Exposition, Penn Top and adjoining Salle Moderne, Statler, opens at 2:00 p.m.; closes at 6:00 p.m.

##### Anthropology

H<sup>1</sup> *Section on Anthropology*—2:30 p.m.; Session, Social Anthropology; Parlors F-G, New Yorker.

#### Monday Evening, December 26

##### AAAS as a Whole

*Illustrated Public Lecture on Recent Advances in Nu-*

<sup>1</sup> The key symbols in boldface preceding each event refer to the AAAS Sections and participating societies, as listed in the INDEX OF PROGRAMS near the front of the General Program, and as repeated in the detailed SECTION AND SOCIETY PROGRAMS—the main portion of this book. These programs should be consulted for speakers and titles of papers.

*clear Physics*—8:00 p.m.; auspices of Scientific Research Society of America; Grand Ballroom, Statler.

##### Botanical Sciences

G4 *American Society of Plant Physiologists*—7:00 p.m.; Executive Committee Meeting; Parlor E, McAlpin.

G6 *Botanical Society of America*—8:00 p.m.; Council Meeting of Society; Room F, McAlpin.

##### Science in General

X5 *Scientific Research Society of America*—4:00 p.m.; Meeting of Governing Board; Parlor A, Statler. 5:00 p.m.; General Convention of Society; Parlor A, Statler. 8:00 p.m.; Illustrated Public Lecture on Recent Advances in Nuclear Physics; Grand Ballroom, Statler.

#### Tuesday Morning, December 27

##### AAAS as a Whole

Q, H, I, K, and N—9:00 a.m.; Symposium on Meeting the Needs of School Children; North Ballroom, New Yorker.

AAAS Cooperative Committee—10:00 a.m.; Symposium on Trends in Modern Science; Grand Ballroom, New Yorker.

*Inter-Society Committee for a National Science Foundation*—10:30 a.m.; Open Meeting; Keystone Room, Statler.

##### Mathematics

A1 *American Mathematical Society*—10:00 a.m.; Concurrent Session 1; Room 301, Pupin Laboratories. 10:00 a.m.; Concurrent Session 2; Room 329, Pupin Laboratories.

A2 *Institute of Mathematical Statistics*—9:00 a.m.; Session I-1, joint Session with the American Statistical Association; Governor Room, Governor Clinton.

##### Zoological Sciences

F1 *American Society of Parasitologists*—9:00 a.m.; Session; Georgian Room, Statler.

##### Zoological and Botanical Sciences

FG 10 *National Association of Biology Teachers*—8:00 a.m.; Executive Board Meeting; Parlor D, New Yorker.

FG 11 *Society for the Study of Evolution*—11:00 a.m.; Council Meeting; John Jay Dining Hall, Columbia.

##### Botanical Sciences

G1 *American Bryological Society*—8:00 a.m.; Breakfast Meeting; Marine Grill, McAlpin. 9:00 a.m.; Business Meeting; El Patio, McAlpin. 10:00 a.m.; Session; El Patio, McAlpin.

G3 *American Phytopathological Society*—9:30 a.m.; Council Meeting; West Room, Martinique.

G4 *American Society of Plant Physiologists*—9:00 a.m.; Concurrent Session 1, joint session with Physiological Section of Botanical Society of America (Session 5); Winter Garden, McAlpin. 9:00 a.m.; Concurrent Session 2, joint session with Physiological Section of Botanical Society of America (Session 6); Ballroom, McAlpin.

**G5 American Society of Plant Taxonomists**—9:30 a.m.; Symposium on Phytogeography of South America Part I, joint session with Systematic Section of Botanical Society of America (Session 7); Crystal Room, McAlpin.

**G6 Botanical Society of America**—9:00 a.m.; Session 1, Business Meeting of Society; Colonial Room, McAlpin. 9:30 a.m.; Concurrent Session 2, General Section; Colonial Room, McAlpin. 9:30 a.m.; Concurrent Session 3, parallel meeting of Microbiological Section and Mycological Society of America; Green Room, McAlpin. 9:30 a.m.; Concurrent Session 4, Paleobotanical Section; East Room, McAlpin. 9:00 a.m.; Concurrent Session 5, joint meeting of Physiological Section and American Society of Plant Physiologists (Session 1); Winter Garden, McAlpin. 9:00 a.m.; Concurrent Session 6, joint meeting of Physiological Section and American Society of Plant Physiologists (Session 2); Ballroom, McAlpin. 9:30 a.m.; Concurrent Session 7, Symposium on Phytogeography of South America, Part I, joint meeting of Systematic Section and American Society of Plant Taxonomists; Crystal Room, McAlpin.

**G7 Mycological Society of America**—9:00 a.m.; Business Meeting and Session; Blue Room, McAlpin. 9:30 a.m.; Session, parallel meeting of Microbiological Section of Botanical Society of America (Session 3); Green Room, McAlpin.

**G8 Phycological Society of America**—9:00 a.m.; Session; Room F, McAlpin.

#### Anthropology

**H Section on Anthropology**—9:00 a.m.; Symposium on Meeting the Needs of School Children, joint session of Sections H, I, K, N, and Q; North Ballroom, New Yorker. 9:30 a.m.; Symposium on Mind, Culture and Individuality, Part I; Parlors F-G, New Yorker.

#### Psychology

**I Section on Psychology**—9:00 a.m.; Symposium on Meeting the Needs of School Children, joint session of Sections I, H, K, N, and Q; North Ballroom, New Yorker. 9:00 a.m.; Session; East Room, New Yorker.

#### Social and Economic Sciences

**K Section on Social and Economic Sciences**—9:00 a.m.; Symposium on Meeting the Needs of School Children, joint session of Sections K, H, I, N, and Q; North Ballroom, New Yorker.

**K4 American Sociological Society**—Executive Committee Meeting; Parlors E-H, New Yorker. (Time not announced.)

**K5 American Statistical Association**—9:00 a.m.; Joint session with the Institute of Mathematical Statistics; Governor Room, Governor Clinton.

#### Engineering

**M Section on Engineering**—9:00 a.m.; Annual Business Meeting of Section; Parlor 1, Statler.

#### Medical Sciences

**N Section on Medical Sciences**—9:00 a.m.; Symposium on Meeting the Needs of School Children, joint sessions of Sections N, H, I, K, and Q; North Ballroom, New Yorker.

#### Education

**Q Section on Education**—9:00 a.m.; Symposium on Meeting the Needs of School Children, joint session of Sections Q, H, I, K, and N; North Ballroom, New Yorker.

**Q1 AAAS Cooperative Committee on Teaching of Science and Mathematics**—10:00 a.m.; Symposium on Trends in Modern Science, joint session of all science teaching societies affiliated with the AAAS; Grand Ballroom, New Yorker.

**Q2 National Science Teachers Association**—8:00 a.m.; Executive Committee Meeting; Parlor C, New Yorker.

#### Science in General

**X1 American Nature Study Society**—8:00 a.m.; Meeting of Board of Directors, Officers and Delegates; Parlor B, New Yorker.

**X7 The Society of the Sigma Xi**—9:00 a.m.; Executive Committee Meeting; Suite of the Society, Statler.

#### Tuesday Noon and Afternoon, December 27

#### AAAS as a Whole

**Executive Committee**—12:00 noon; Luncheon and Meeting; Suite of Administrative Secretary, Statler.

**Council Meeting**—4:00 p.m.; Parlor 2, Statler.

**National Geographic Society**—3:00 p.m.; Annual Lecture, Illustrated, sound film in color on Arnheim Land; Grand Ballroom, Statler.

#### Mathematics

**A Section on Mathematics**—2:00 p.m.; Address of Retiring Vice President, joint session with American Mathematical Society; Room 301, Pupin Laboratories.

**A1 American Mathematical Society**—2:00 p.m.; Joint session with Section A; Room 301, Pupin Laboratories. 4:00 p.m.; Tea given by Columbia University; Faculty House.

**A4 National Council of Teachers of Mathematics**—2:00 p.m.; Session and Demonstration—Working with Glass, joint meeting with National Science Teachers Association; Grand Ballroom, New Yorker.

#### Geology and Geography

**E4 National Geographic Society**—3:00 p.m.; Lecture and color-illustrated sound film on Arnheim Land; Grand Ballroom, Statler.

#### Zoological Sciences

**F1 American Society of Parasitologists**—2:00 p.m.; Session; Georgian Room, Statler.

**F3 American Society of Zoologists**—12:00 noon; Executive Committee Meeting; Parlor A, Statler.

#### Zoological and Botanical Sciences

**FG1 American Microscopical Society**—1:00 p.m.; Executive Committee Luncheon and Business Meeting; Parlor B, Statler.

**FG5 Beta Beta Beta**—12:15 p.m.; Luncheon and Convention Address; Oak Room, Martinique. 1:30 p.m.; Business session; Oak Room, Martinique.

**FG8 Ecological Society of America**—2:00 p.m.; Session on Plant Ecology, joint session with Botanical Society of America; Gold Room, Martinique.



**FG10** *National Association of Biology Teachers*—2:00 p.m.; Teaching Aids from within the Classroom and Laboratory; North Ballroom, New Yorker.

**FG11** *Society for the Study of Evolution*—2:00 p.m.; Session; Room 902, Schermerhorn Hall, Columbia.

#### Botanical Sciences

**G1** *American Bryological Society*—2:00 p.m.; Symposium on *The Bryologist* and Bryology; El Patio, McAlpin.

**G4** *American Society of Plant Physiologists*—1:30 p.m.; Concurrent Session 1, joint session with Physiological Section of Botanical Society of America (Session 4); Winter Garden, McAlpin. 1:30 p.m.; Concurrent Session 2, joint session with Physiological Section of Botanical Society of America (Session 5); Ballroom, McAlpin.

**G5** *American Society of Plant Taxonomists*—2:00 p.m.; Symposium on the Phytogeography of South America, Part II, joint session with the Systematic Section of Botanical Society of America (Session 6); Crystal Room, McAlpin.

**G6** *Botanical Society of America*—2:00 p.m.; Concurrent Session 1, General Section; Colonial Room, McAlpin. 2:00 p.m.; Concurrent Session 2, joint meeting of Microbiological Section and Mycological Society of America; Green Room, McAlpin. 2:00 p.m.; Concurrent Session 3, Paleobotanical Section; East Room, McAlpin. 1:30 p.m.; Concurrent Session 4, joint meeting of Physiological Section and American Society of Plant Physiologists (Session 1); Winter Garden, McAlpin. 1:30 p.m.; Concurrent Session 5, joint meeting of Physiological Section and American Society of Plant Physiologists (Session 2); Ballroom, McAlpin. 2:00 p.m.; Concurrent Session 6, Symposium on Phytogeography of South America, Part II; Joint meeting of Systematic Section and American Society of Plant Taxonomists; Crystal Room, McAlpin. 2:00 p.m.; Concurrent Session 7, Plant Ecology, joint meeting with the Ecological Society of America; Gold Room, Martinique.

**G7** *Mycological Society of America*—2:00 p.m.; Session on Medical Mycology; Joint meeting with Microbiological Section of Botanical Society of America (Session 2); Green Room, McAlpin.

**G8** *Phycological Society of America*—2:00 p.m.; Session; Room F, McAlpin.

#### Anthropology

**H** *Section on Anthropology*—2:00 p.m.; Symposium on Mind, Culture, and Individuality, Part II; Parlors F-G, New Yorker.

#### Psychology

**I** *Section on Psychology*—2:00 p.m.; Session; East Room, New Yorker.

#### Social and Economic Sciences

**K4** *American Sociological Society*—2:00 p.m.; Executive Committee Meeting; Parlors E-H, New Yorker.

#### Medical Sciences

**N3** *Alpha Epsilon Delta*—12:15 p.m.; Luncheon for

all members and others interested in premedical education; Greeley Room, Governor Clinton.

#### Education

**Q** *Section on Education*—2:00 p.m.; Session; Parlor A, New Yorker.

**Q2** *National Science Teachers Association*—2:00 p.m.; Session and Demonstration—Working with Glass, joint meeting with National Council of Teachers of Mathematics; Grand Ballroom, New Yorker.

#### Science in General

**X1** *American Nature Study Society*—2:00 p.m.; Session, Nature Writing and Nature Books; Panel Room, New Yorker.

**X6** *Sigma Delta Epsilon*—4:30 p.m.; Alumnae member's tea; Parlor C, Statler.

**X7** *The Society of the Sigma Xi*—1:00 p.m.; Executive Committee Meeting; Suite of the Society, Statler. 4:00 p.m.; Annual Convention; Keystone Room, Statler.

#### Tuesday Evening, December 27

#### AAAS as a Whole

**M and M1** *Section on Engineering*; and *Newark College of Engineering*—7:30 p.m.; Symposium on Nuclear Engineering, joint program; Parlor 1, Statler.

*Annual Address of the Society of the Sigma Xi*—8:00 p.m.; Illustrated Lecture: Evolution in the Tropics; Grand Ballroom, Statler.

#### Mathematics

**A1** *American Mathematical Society*—8:00 p.m.; Meeting of Organizing Committee of the International Mathematical Congress; Room 4, John Jay Hall.

#### Zoological Sciences

**F1** *American Society of Parasitologists*—7:00 p.m.; Dinner and Business Meeting of officers and members of Council; Parlor A, Statler.

#### Zoological and Botanical Sciences

**FG 10** *National Association of Biology Teachers*—7:30 p.m.; Meeting of Board of Directors; Parlor D, New Yorker.

**FG 12** *American Institute of Biological Sciences*—9:30 p.m.; Conference on Uniformity of Literature Citations; Colonial Room, McAlpin.

#### Botanical Sciences

**G4** *American Society of Plant Physiologists*—7:00 p.m.; Plant Physiologists' Dinner, Presidential Address of Society, Stephen Hales Lecture; Gold Room, Martinique.

**G5** *American Society of Plant Taxonomists*—7:00 p.m.; Annual Meeting and Dinner of Society, Presidential Address; Hunter College.

**G6** *Botanical Society of America*—8:00 p.m.; Council Meeting of Society; Room F, McAlpin.

#### Psychology

**I** *Section on Psychology*—8:00 p.m.; Vice Presidential Addresses of Sections I and Q, joint session; North

Ballroom, New Yorker.

#### Engineering

**M and M1** *Section on Engineering; Newark College of Engineering*—7:30 p.m.; Symposium on Nuclear Engineering, joint program; Parlor 1, Statler.

#### Medical Sciences

**N4** *American Dietetic Association*—8:00 p.m.; Session; Governor Room, Governor Clinton.

#### Education

**Q** *Section on Education*—8:00 p.m.; Vice Presidential Addresses of Sections Q and I, joint session; North Ballroom, New Yorker.

**Q2** *National Science Teachers Association*—7:30 p.m.; Board of Directors Meeting; Parlors F-G, New Yorker.

#### Science in General

**X1** *American Nature Study Society*—8:00 p.m.; Annual Business Meeting, Informal Showing of Kodachromes; Panel Room, New Yorker.

**X7** *The Society of the Sigma Xi*—8:00 p.m.; Illustrated Lecture: Evolution in the Tropics; Grand Ballroom, Statler.

### Wednesday Morning, December 28

#### AAAS as a Whole

*AAAS Cooperative Committee on the Teaching of Science and Mathematics*—10:00 a.m.; General Session, joint meeting with all science teaching societies; Grand Ballroom, New Yorker.

*AAAS Subsection Nm*—9:30 a.m.; Symposium on Adrenal Cortex, Part I; Keystone Room, Statler.

#### Mathematics

**A1** *American Mathematical Society*—9:30 a.m.; General Session; Room 301, Pupin Laboratories. 10:45 a.m.; Concurrent Session 1; Room 301, Pupin Laboratories. 10:45 a.m.; Concurrent Session 2; Room 329, Pupil Laboratories.

#### Zoological Sciences

**F1** *American Society of Parasitologists*—9:00 a.m.; Symposium on the Physiology of Parasites; Gold Room, Martinique.

**F2** *American Society of Protozoologists*—9:00 a.m.; Business Meeting; Parlor 1, Statler.

**F3** *American Society of Zoologists*—9:15 a.m.; Symposium on Experimental Cell Research, joint session with Genetics Society of America; Grand Ballroom, Statler.

#### Zoological and Botanical Sciences

**FG2** *American Society of Human Genetics*—10:00 a.m.; Session; Gramercy Room, Governor Clinton. Demonstrations, all day, Wednesday (and Thursday); Parlors F and J, Governor Clinton.

**FG3** *American Society of Limnology and Oceanography*—9:30 a.m.; Special Session on Apparatus and Methods; Room 902, Schermerhorn Hall, Columbia.

**FG8** *Ecological Society of America*—9:30 a.m.; Concurrent Session 1, Animal Ecology; Room 502, Kent Hall,

Columbia. 9:30 a.m.; Concurrent Session 2, Plant Ecology; Room 515, Kent Hall.

**FG9** *Genetics Society of America*—9:00 a.m.; Concurrent Session 1; Governor Room, Governor Clinton. 9:00 a.m.; Concurrent Session 2; Florentine Room, Governor Clinton. 9:15 a.m.; Concurrent Session 3, Symposium on Experimental Cell Research, joint session with American Society of Zoologists; Grand Ballroom, Statler.

**FG10** *National Association of Biology Teachers*—10:00 a.m.; General Session, joint meeting with AAAS Cooperative Committee and all science teaching organizations affiliated with AAAS; Grand Ballroom, New Yorker.

**FG11** *Society for the Study of Evolution*—9:00 a.m.; Symposium on the Role of the South Atlantic Basin in Biogeography and Evolution, Part I; Main lecture room, Brander Matthews Hall, Columbia.

#### Botanical Sciences

**G1** *American Bryological Society*—9:30 a.m.; Joint Sessions all day with Systematic Section of Botanical Society of America and American Society of Plant Taxonomists; at New York Botanical Garden.

**G3** *American Phytopathological Society*—9:00 a.m.; Business Meeting; Oak Room, Martinique. 10:30 a.m.; Business Meeting, Northeastern Division of Society; Oak Room, Martinique.

**G4** *American Society of Plant Physiologists*—9:00 a.m.; Concurrent Session 1, joint session with Physiological Section of Botanical Society of America (Session 5); Winter Garden, McAlpin. 9:00 a.m.; Concurrent Session 2, joint session with Physiological Section of Botanical Society of America (Session 6); Ballroom, McAlpin.

**G5** *American Society of Plant Taxonomists*—9:30 a.m.; Session, Business Meeting, Luncheon; Joint Meeting with Systematic Section of Botanical Society of America (Session 8); at New York Botanical Garden.

**G6** *Botanical Society of America*—9:00 a.m.; Session 1, Business Meeting of Society; Colonial Room, McAlpin. 9:30 a.m.; Concurrent Session 2, General Session; Colonial Room, McAlpin. 9:30 a.m.; Concurrent Session 3, joint meeting of Microbiological Section with Mycological Society of America; Green Room, McAlpin. 9:00 a.m.; Concurrent Session 4, joint meeting of the Paleobotanical Section with the Society for the Study of Evolution; Symposium on the Role of the South Atlantic Basin in Biogeography and Evolution, Part I; main lecture room, Brander Matthews Hall, Columbia. 9:00 a.m.; Concurrent Session 5, joint meeting of Physiological Section and American Society of Plant Physiologists (Session 1); Winter Garden, McAlpin. 9:00 a.m.; Concurrent Session 6, joint meeting of Physiological Section and American Society of Plant Physiologists (Session 2); Ballroom, McAlpin. 9:30 a.m.; Concurrent Session 7, Botanical Teaching Section; Symposium on Basic Training for Specialization in Research; Blue Room, McAlpin. 9:30 a.m.; Concurrent Session 8; Business Meeting, Luncheon; Joint Meeting of Systematic Section, American Society of Plant Taxonomists, and

American Bryological Society; at New York Botanical Garden.

**G7** *Mycological Society of America*—9:30 a.m.; Session, joint meeting with Microbiological Section of Botanical Society of America (Session 3); Green Room, McAlpin.

**G8** *Phycological Society of America*—9:00 a.m.; Symposium on the Culturing of Algae; Room F, McAlpin.

#### Psychology

**I1** *Society for Research in Child Development*—9:30 a.m.; Symposium on Permissiveness versus Rigidity in Relation to Child Rearing, Personality, and Culture; North Ballroom, New Yorker.

#### Social and Economic Sciences

**K and K1** *Section on Social and Economic Sciences*; and *Academy of World Economics*—10:00 a.m.; Joint Session; Chelsea Room, Governor Clinton.

**K4** *American Sociological Society*—10:00 a.m.; Concurrent Session 1, Progress in Research in Racial and Cultural Relations; Gold Room, Manhattan Center. 10:00 a.m.; Concurrent Session 2, Industrial Sociology; Masonic Room, Manhattan Center. 10:00 a.m.; Concurrent Session 3, Frontiers of Demographic Research; Lounge, Manhattan Center.

**K9** *Rural Sociological Society*—10:00 a.m.; Session, Rural Sociological Research in the Changing South; Parlors E-H, New Yorker.

#### Engineering

**M and M2** *Section on Engineering; and New York Section of American Institute of Electrical Engineers*—9:00 a.m.; morning, afternoon, and evening; Visual Displays Illustrating the Principles of Television, joint exhibit; East Room, McAlpin.

#### Medical Sciences

**N1** *Subsection on Medicine, Nm*—9:30 a.m.; Symposium on Adrenal Cortex, Part I; Keystone Room, Statler.

#### Education

**Q1** *AAAS Cooperative Committee on Teaching of Science and Mathematics*—10:00 a.m.; General Session, joint meeting of all science teaching societies affiliated with the AAAS; Grand Ballroom, New Yorker.

#### Science in General

**X6** *Sigma Delta Epsilon*—9:00 a.m.; National Council Meeting; Parlor C, Statler.

#### Wednesday Noon and Afternoon, December 28

##### AAAS as a Whole

*AAAS George Westinghouse Science Awards, Luncheon*—12:30 p.m.; Keystone Room, Statler.

*British Association for the Advancement of Science*—4:30 p.m.; Exchange Public Lecture on The Growing Importance of Infrared Studies in Physics, Chemistry and Biology, by a representative of the BAAS; Grand Ballroom, Statler.

#### Mathematics

**A1** *American Mathematical Society*—2:00 p.m.; Gen-

eral Session; Room 301, Pupin Laboratories. 3:15 p.m.; Concurrent Session 1; Room 301, Pupin Laboratories. 3:15 p.m.; Concurrent Session 2; Room 329, Pupin Laboratories. 4:30 p.m.; Josiah Willard Gibbs Lecture, McMillan Theatre, Columbia.

#### Astronomy

**D** *Section on Astronomy*—1:30 p.m.; Session, Ballroom, McAlpin.

#### Zoological Sciences

**F** *Section on Zoological Sciences*—12:00 noon; Annual Business Meeting of Section; Grand Ballroom, Statler.

**F1** *American Society of Parasitologists*—1:30 p.m.; Annual Luncheon and Business Meeting; Grand Ballroom, Statler. 2:30 p.m. until 5:00 p.m.; Demonstration Session; Room 903, Schermerhorn Hall, Columbia.

**F3** *American Society of Zoologists*—12:00 noon; Annual Business Meeting of the Society (immediately following Business Meeting of Section F); Grand Ballroom, Statler. 2:00 p.m.; Concurrent Session 1, General Physiology; Parlor 1, Statler. 2:00 p.m.; Concurrent Session 2, Embryology; Parlor 2, Statler. 2:00 p.m.; Concurrent Session 3, Cytology; Parlor A, Statler. 2:00 p.m.; Concurrent Session 4, Protozoology and Parasitology; Parlor B, Statler.

#### Zoological and Botanical Sciences

**FG2** *American Society of Human Genetics*—2:00 p.m.; Session; Gramercy Room, Governor Clinton. 4:30 p.m.; Annual Business Meeting; Chelsea Room, Governor Clinton.

**FG3** *American Society of Limnology and Oceanography*—2:00 p.m.; Joint Session with the Ecological Society of America; Room 411, Kent Hall, Columbia.

**FG6 and FG7** *Biometric Society (Eastern North American Region)*; and *Biometric Section, American Statistical Association*—4:00 p.m.; Symposium on The Use of Rationally Developed Equations in Biology; Joint session; Hotel Biltmore.

**FG8** *Ecological Society of America*—2:00 p.m.; Concurrent Session 1, General Ecology; Room 502, Kent Hall, Columbia. 2:00 p.m.; Concurrent Session 2, Plant Ecology and Plant Geography; Room 515, Kent Hall. 2:00 p.m.; Concurrent Session 3, Limnology and Oceanography; Joint Session with American Society of Limnology and Oceanography; Room 411, Kent Hall.

**FG9** *Genetics Society of America*—2:00 p.m.; Concurrent Session 1; Governor Room, Governor Clinton. 2:00 p.m.; Concurrent Session 2; Florentine Room, Governor Clinton.

**FG10** *National Association of Biology Teachers*—2:00 p.m.; Teaching Aids from Outside the Classroom and Laboratory; Parlors F-G, New Yorker.

**FG11** *Society for the Study of Evolution*—2:00 p.m.; Symposium on the Role of the South Atlantic Basin in Biogeography and Evolution, Part II; Main lecture room, Brander Matthews Hall, Columbia.

#### Botanical Sciences

**G1** *American Bryological Society*—Joint Sessions, all day, with Systematic Section of Botanical Society of

America and American Society of Plant Taxonomists; at New York Botanical Garden.

**G3** *American Phytopathological Society*—1:30 p.m.; Concurrent Session 1, Stone Fruit and Citrus Virus Diseases; Oak Room, Martinique. 3:00 p.m.; Session 2, Stone Fruit Versus Disease Conference; Oak Room, Martinique. 1:30 p.m.; Concurrent Session 3, Vegetable and Small Fruit Crop Diseases; Gold Room, Martinique. 1:30 p.m.; Concurrent Session 4, Conference of Extension Plant Pathologists; El Patio, McAlpin.

**G4** *American Society of Plant Physiologists*—1:30 p.m.; Symposium on Some Growth Phenomena Clarified by Tissue and Organ Culture, joint session with Physiological Section of Botanical Society of America (Session 3); Winter Garden, McAlpin. 4:00 p.m.; Business Meeting; Winter Garden, McAlpin.

**G5** *American Society of Plant Taxonomists*—2:00 p.m.; Film; Inspection of Herbarium and Library; Joint Session with Systematic Section, Botanical Society of America (Session 5); at New York Botanical Garden.

**G6** *Botanical Society of America*—2:00 p.m.; Concurrent Session 1, General Section; Colonial Room, McAlpin. 2:00 p.m.; Concurrent Session 2, Symposium on Mechanism of Cellulose Degradation by Chemical and Biological Agents; Joint Meeting of Microbiological and Paleobotanical Sections; Crystal Room, McAlpin. 1:30 p.m.; Concurrent Session 3, Symposium on Some Growth Phenomena Clarified by Tissue and Organ Culture; Joint Meeting of Physiological Section and American Society of Plant Physiologists; Winter Garden, McAlpin. 2:00 p.m.; Concurrent Session 4, Botanical Teaching Section; Symposium on Botany as a Recreational Subject; Blue Room, McAlpin. 2:00 p.m.; Concurrent Session 5, Film; Inspection of Herbarium and Library; Joint Meeting of the Systematic Section and the American Society of Plant Taxonomists; at New York Botanical Garden.

**G7** *Mycological Society of America*—2:00 p.m.; Session; Green Room; McAlpin.

**G8** *Phycological Society of America*—2:00 p.m.; Business Meeting; Room F, McAlpin.

#### Psychology

**I1** *Society for Research in Child Development*—2:30 p.m.; Symposium on the Concept of Maturity from the Anatomical, Physiological, and Psychological Points of View; North Ballroom, New Yorker.

#### Social and Economic Sciences

**K4** *American Sociological Society*—1:15 p.m.; Concurrent Session 1, The American Soldier; Gold Room, Manhattan Center. 1:15 p.m.; Concurrent Session 2, Recent Contributions to Family Theory in Different Fields; Masonic Room, Manhattan Center. 1:15 p.m.; Concurrent Session 3, Current Research; Lounge, Manhattan Center. 3:30 p.m.; Concurrent Session 4, Significant Fields of Rural Research; Gold Room, Manhattan Center. 3:30 p.m.; Concurrent Session 5, Mobility in the American Stratification System; Masonic Room, Manhattan Center. 3:30 p.m.; Concurrent Session 6, Social Research in the Federal Government; Lounge, Manhattan Center.

**K8** *Pi Gamma Mu*—12:00 noon; Luncheon for invited guests; Greeley Room, Governor Clinton.

**K9** *Rural Sociological Society*—12:00 noon; Rural Sociological Research in the Corn and Wheat Belts; Parlors E-H, New Yorker.

#### Education

**Q2** *National Science Teachers Association*—2:00 p.m.; Third National Conference of Industry-Science Teaching Relations; Grand Ballroom, New Yorker.

#### Science in General

**X1** *American Nature Study Society*—2:30 p.m.; Session, Nature Photography; Panel Room, New Yorker.

**X3** *Phi Kappa Phi*—1:30 p.m.; Business Meeting, Chelsea Room, Governor Clinton.

**X6** *Sigma Delta Epsilon*—12:30 p.m.; Luncheon, Address, Announcement of Award; Georgian Room, Statler.

#### Wednesday Evening, December 28

#### AAAS as a Whole

*AAAS Presidential Address*—8:00 p.m.; Ten Million Scientists; Grand Ballroom, Statler.

*AAAS Reception*—9:30 p.m.; Grand Ballroom and adjacent rooms, Statler. (Reception open only to registrants.)

*AAAS Section M; New York Section of American Institute of Electrical Engineers*—8:00 p.m.; Round Table Discussion on Technology of Television; Crystal Room, McAlpin.

#### Mathematics

**A1** *American Mathematical Society*—6:30 p.m.; Meeting of Council of Society; Room 4, John Jay Hall, Columbia.

#### Zoological Sciences

**F3** *American Society of Zoologists*—6:00 p.m.; Zoologists' Dinner; Gold and Oak Rooms, Martinique.

#### Zoological and Botanical Sciences

**FG12** *American Institute of Biological Sciences*—9:30 p.m.; Conference of Secretaries of Biological Societies; Room F, McAlpin.

#### Botanical Sciences

**G3** *American Phytopathological Society*—8:00 p.m.; Concurrent Session 1, The Teaching of Plant Pathology; Winter Garden, McAlpin. 8:00 p.m.; Concurrent Session 2, Fungicide Colloquium; Ballroom, McAlpin. 8:00 p.m.; Concurrent Session 3, Plant Disease Forecasting; East Room, Martinique.

#### Social and Economic Sciences

**K4** *American Sociological Society*—7:00 p.m.; Joint Dinner with the Conference on Family Welfare; Grand Ballroom, New Yorker.

**K9 and K3** *Rural Sociological Society*; and *American Farm Economic Association*—8:00 p.m.; Joint Session. The Future of Rural Life in the United States; North Ballroom, New Yorker.

#### Engineering

**M and M2** *Section on Engineering*; New York Sec-

tion of American Institute of Electrical Engineers—8:00 p.m.; Joint Program, Round Table Discussion on Technology of Television; Crystal Room, McAlpin.

#### Science in General

**X4** *National Association of Science Writers*—7:30 p.m.; Business Meeting; Parlor A, Statler.

#### Thursday Morning, December 29

##### AAAS as a Whole

*AAAS Section Secretaries' Conference*—11:30 a.m.; Conference and Lunch for all section secretaries; Parlor 2, Statler.

*AAAS Cooperative Committee*—8:00 a.m.; Meeting of the officers of all science teaching organizations affiliated with the AAAS to plan the 1950 Coordinated Program; Parlor A, New Yorker. 10:00 a.m.; General Session, meeting with all science teaching organizations; Grand Ballroom, New Yorker.

*Forum on Research and National Security*, Detlev Bronk, Chairman—10:00 a.m.; Grand Ballroom, Statler.

*AAAS Subsection Nm*—9:30 a.m.; Symposium on Adrenal Cortex, Part II; Keystone Room, Statler.

#### Mathematics

**A1** *American Mathematical Society*—10:00 a.m.; General Session, Annual Business Meeting; Cole Prize Address; Room 301, Pupin Laboratories.

**A4** *National Council of Teachers of Mathematics*—10:15 a.m.; Concurrent Session 1; Room 211, Teachers College, Columbia. 10:15 a.m.; Concurrent Session 2, Room 200, Teachers College. 10:15 a.m.; Concurrent Session 3; Room 300, Teachers College.

#### Astronomy

**D** *Section on Astronomy*—9:30 a.m.; Contributed Papers; Greeley Room, Governor Clinton.

#### Geology and Geography

**E** and **E3** *Section on Geology and Geography; Geological Society of America*—9:00 a.m.; Joint Program; North Ballroom, New Yorker.

#### Zoological Sciences

**F1** *American Society of Parasitologists*—9:00 a.m.; Session; Room 501, Schermerhorn Hall, Columbia.

**F3** *American Society of Zoologists*—9:00 a.m.; Concurrent Session 1, Animal Behavior and Sociobiology; Joint Meeting with Ecological Society of America; Georgian Room, Statler. 9:00 a.m.; Concurrent Session 2, General Physiology; Parlor 1, Statler. 9:00 a.m.; Concurrent Session 3, Endocrinology; Parlor A, Statler. 9:00 a.m.; Concurrent Session 4, Cell Physiology; Parlor B, Statler.

**F4** *Society of Systematic Zoology*—9:00 a.m.; Annual Breakfast and Business Meeting; Parlor 2, Statler.

#### Zoological and Botanical Sciences

**FG2** *American Society of Human Genetics*—Demonstrations, all day; Parlors F and J, Governor Clinton.

**FG3** *American Society of Limnology and Oceanography*—9:30 a.m.; Session; Florentine Room, Governor Clinton.

**FG8** *Ecological Society of America*—9:00 a.m.; Session, Animal Behavior and Sociobiology; Joint Meeting with American Society of Zoologists; Georgian Room, Statler.

**FG9** *Genetics Society of America*—9:00 a.m.; Invitation Program; 309 Havemeyer Hall, Columbia.

**FG10** *National Association of Biology Teachers*—8:00 a.m.; Committee Meeting of the officers of all AAAS-affiliated science teaching organizations, to plan the Coordinated Program for 1950; Parlor A, New Yorker.

**FG11** *Society for the Study of Evolution*—9:00 a.m.; Session; Room 902, Schermerhorn Hall, Columbia.

#### Botanical Sciences

**G3** *American Phytopathological Society*—9:00 a.m.; Concurrent Session 1, Tobacco and Potato Diseases; Oak Room, Martinique. 9:00 a.m.; Concurrent Session 2, Wheat, Oat, and Corn Diseases; Gold Room, Martinique. 9:00 a.m.; Concurrent Session 3, Symposium on Performance of New Fungicidal Sprays and Dusts in 1949; El Patio, McAlpin. 9:00 a.m.; Concurrent Session 4, Council Meeting; West Room, Martinique. 10:30 a.m.; Session 5; West Room, Martinique.

**G4** *American Society of Plant Physiologists*—9:00 a.m.; Concurrent Session 1, joint session with Physiological Section of Botanical Society of America (Session 5); Winter Garden, McAlpin. 9:00 a.m.; Concurrent Session 2, joint session with Physiological Section of Botanical Society (Session 6); Ballroom, McAlpin.

**G5** *American Society of Plant Taxonomists*—9:30 a.m.; Session, joint meeting with Systematic Section of Botanical Society of America (Session 7); Crystal Room, McAlpin.

**G6** *Botanical Society of America*—9:00 a.m.; Concurrent Session 1, Business Meeting of Society; Colonial Room, McAlpin. 9:30 a.m.; Concurrent Session 2, General Section; Colonial Room, McAlpin. 9:30 a.m.; Concurrent Session 3, joint meeting of Microbiological Section with Mycological Society of America; Green Room, McAlpin. 9:30 a.m.; Concurrent Session 4, Paleobotanical Section; Blue Room, McAlpin. 9:00 a.m.; Concurrent Session 5, joint meeting of Physiological Section and American Society of Plant Physiologists (Session 1); Winter Garden, McAlpin. 9:00 a.m.; Concurrent Session 6, joint meeting of Physiological Section and American Society of Plant Physiologists (Session 2); Ballroom, McAlpin. 9:30 a.m.; Concurrent Session 7, joint meeting of Systematic Section with American Society of Plant Taxonomists; Crystal Room, McAlpin.

**G7** *Mycological Society of America*—9:30 a.m.; Session, joint meeting with Microbiological Section of Botanical Society (Session 3); Green Room, McAlpin.

#### Psychology

**I1** *Society for Research in Child Development*—9:30 a.m.; Presidential Address and Business Meeting; Panel Room, New Yorker.

#### Social and Economic Sciences

**K2** *Alpha Kappa Delta*—8:00 a.m.; Annual Meeting and Breakfast; Parlors E-H, New Yorker.

**K4** *American Sociological Society*—9:00 a.m.; Concurrent Session 1, Japan's Population Prospects; Gold Room, Manhattan Center. 9:00 a.m.; Concurrent Session 2, Industrial Sociology; Masonic Room, Manhattan Center. 9:00 a.m.; Concurrent Session 3, Family Statistics in the United States; Lounge, Manhattan Center.

**K9** *Rural Sociological Society*—8:00 a.m.; Session, Rural Sociological Research on Cultural Changes in the Appalachian Ozark Region; East Room, New Yorker. 10:00 a.m.; Session, Rural Sociological Research in the Urbanized Northeast; Parlors F-G, New Yorker.

**K10** *Society for the Psychological Study of Social Issues*—10:00 a.m.; Symposium on Racial and Religious Prejudice; East Room, Martinique.

#### Engineering

**M and M2** *Section on Engineering; New York Section of American Institute of Electrical Engineers*—9:00 a.m.; Morning, afternoon, and evening; Visual Displays Illustrating the Principles of Television, joint exhibit; East Room, McAlpin.

#### Medical Sciences

**N** *Subsection on Medicine Nm*—9:30 a.m.; Symposium on Adrenal Cortex, Part II; Keystone Room, Statler.

#### Education

**Q1 and Q2** *AAAS Cooperative Committee on the Teaching of Science and Mathematics; and National Science Teachers Association*—8:00 a.m.; Committee Meeting of the officers of all science teaching organizations affiliated with the AAAS, to plan the Coordinated Program for 1950; Parlor A, New Yorker. 10:00 a.m.; General Session; Grand Ballroom, New Yorker.

**Q3** *The Federation of Science Teachers Associations of New York City*—10:00 a.m.; Fourth Annual Junior Scientists Assembly; Grand Ballroom, New Yorker.

#### Science in General

**X1** *American Nature Study Society*—8:00 a.m.; Committee Meeting of the officers of all science teaching organizations affiliated with the AAAS, to plan the Coordinated Program for 1950; Parlor A, New Yorker.

**X3** *Phi Kappa Phi*—8:00 a.m.; Breakfast and Business Meeting; Chelsea Room, Governor Clinton.

**X6** *Sigma Delta Epsilon*—7:30 a.m.; Convention Breakfast; Parlors F-G, New Yorker.

#### Thursday Noon and Afternoon, December 29

##### AAAS as a Whole

*AAAS Council Meeting*—4:30 p.m.; Parlor 2, Statler.

*AAAS Cooperative Committee on the Teaching of Science and Mathematics*—1:30 p.m.; Symposium on Science in General Education; Grand Ballroom, Statler. 3:30 p.m.; Panel Discussion on Improvement of Science Instruction on the College Level; Grand Ballroom, Statler.

*AAAS Section B*—2:00 p.m.; Symposium on Present State of Physics, Part I—Elementary Particles; Georgian Room, Statler.

*AAAS Section G*—2:00 p.m.; Panel Discussion on Botany in the Service of Man; Winter Garden, McAlpin.

*AAAS Subsection Nm*—2:00 p.m.; Symposium on Adrenal Cortex, Part III; Keystone Room, Statler.

#### Mathematics

**A1** *American Mathematical Society*—2:00 p.m.; Concurrent Session I; Room 301, Pupin Laboratories. 2:00 p.m.; Concurrent Session 2; Room 329, Pupin Laboratories.

**A2** *Institute of Mathematical Statistics*—2:00 p.m.; Session I-13, joint session with American Statistical Association; Green Room, McAlpin. 4:00 p.m.; Session I-12, Review of Stochastic Processes; Joint session with American Statistical Association; Green Room, McAlpin.

**A4** *National Council of Teachers of Mathematics*—12:30 p.m.; Luncheon; John Jay Dining Hall, Columbia. 2:30 p.m.; Concurrent Session 1; Room 211, Teachers College, Columbia. 2:30 p.m.; Concurrent Session 2; Room 200, Teachers College. 2:30 p.m.; Concurrent Session 3; Room 300, Teachers College. 4:30 p.m.; Reception; Men's Faculty Club, Columbia.

#### Physics

**B** *Section on Physics*—2:00 p.m.; Symposium on Present State of Physics, Part I—Elementary Particles; Georgian Room, Statler.

#### Astronomy

**D** *Section on Astronomy*—2:00 p.m.; Session; Chelsea Room, Governor Clinton.

#### Geology and Geography

**E and E3** *Section on Geology and Geography; Geological Society of America*—2:00 p.m.; Joint Program; North Ballroom, New Yorker.

#### Zoological Sciences

**F1** *American Society of Parasitologists*—2:00 p.m.; Session; Room 501, Schermerhorn Hall, Columbia.

**F3** *American Society of Zoologists*—12:30 p.m.; Luncheon and Business Meeting, Committee for the Study of Animal Societies Under Natural Conditions; Dining room, Statler. 3:30 p.m.; Open House and Tea; Department of Animal Behavior, American Museum of Natural History. 4:30 p.m.; Informal Symposium; Department of Animal Behavior, American Museum of Natural History. 2:00 p.m.; Concurrent Session 1, General Morphology, Ecology, Evolution, and Genetics; Room 902, Schermerhorn Hall, Columbia. 2:00 p.m.; Concurrent Session 2, *Demonstrations*; Rooms 652 and 654, Schermerhorn Hall. 2:00 p.m.; Concurrent Session 3, *Demonstrations by Motion Picture Films*; Room 201, Fayerweather Hall, Columbia.

#### Zoological and Botanical Sciences

**FG3** *American Society of Limnology and Oceanography*—2:00 p.m.; Session; Florentine Room, Governor Clinton.

**FG6 and FG7** *Biometric Society; and Biometric Section, American Statistical Association*—2:00 p.m.; Session, Long-time Follow-up in Morbidity Studies; Hotel Biltmore.

**FG9** *Genetics Society of America*—2:00 p.m.; Concurrent Session 1, *Demonstration Papers*; Room 903-913, Schermerhorn Hall, Columbia. 2:00 p.m.; Concurrent Session 2; Room 309, Havemeyer Hall, Columbia.

**FG13** Proposed *Society of Industrial Microbiologists*—4:00 p.m.; Organization Meeting; Ballroom, McAlpin.

#### Botanical Sciences

**G** *Section on Botanical Sciences*—2:00 p.m.; Panel Discussion on Botany in the Service of Man; Joint Session of societies of Sections G and FG; Winter Garden, McAlpin.

**G3** *American Phytopathological Society*—1:30 p.m.; Concurrent Session 1, Fruit Crop Diseases; Oak Room, Martinique. 1:30 p.m.; Concurrent Session 2, Forage and Miscellaneous Field Crop Diseases; Gold Room, Martinique. 1:30 p.m.; Concurrent Session 3, Diseases of Ornamentals; El Patio, McAlpin. 1:30 p.m.; Concurrent Session 4, Demonstration of Foreign Plant Quarantine Inspection Methods; West Room, Martinique. 2:30 p.m.; Session 5, Council Meeting; West Room, Martinique.

**G9** *Torrey Botanical Club*—12:30 p.m.; Luncheon and Address; Colonial Room, McAlpin.

#### Social and Economic Sciences

**K and K4** *Section on Social and Economic Sciences; and American Sociological Society*—2:00 p.m.; Panel Discussion on The Status and Prospects of the Social Sciences, joint session; Gold Room, Manhattan Center.

**K4** *American Sociological Society*—2:00 p.m.; Session 1, see preceding joint session with Section K; Gold Room, Manhattan Center. 1:15 p.m.; Concurrent Session 2, Sociological Theory; Masonic Room, Manhattan Center. 1:15 p.m.; Concurrent Session 3, The Understanding of a Foreign Culture, joint session with the American Political Science Association; Lounge, Manhattan Center. 3:30 p.m.; Concurrent Session 4, Sociology and Psychiatry; Masonic Room, Manhattan Center. 3:30 p.m.; Concurrent Session 5, Current Research; Lounge, Manhattan Center.

**K5** *American Statistical Association*—4:00 p.m.; Review of Stochastic Processes, joint session with Institute of Mathematical Statistics; Green Room, McAlpin.

**K9** *Rural Sociological Society*—1:00 p.m.; Session, A Critique of Basic Research; Parlors F-G, New Yorker. 3:00 p.m.; Session, Rural Sociological Research in the Pacific Coast States; Parlors F-G, New Yorker.

#### Medical Sciences

**N1** *Subsection on Medicine, Nm*—2:00 p.m.; Symposium on Adrenal Cortex, Part III; Keystone Room, Statler.

#### Education

**Q1** *AAAS Cooperative Committee on the Teaching of Science and Mathematics*—1:30 p.m.; Symposium on Science in General Education; Grand Ballroom, Statler. 3:30 p.m.; Panel Discussion on Improvement of Science Instruction on the College Level; Grand Ballroom, Statler.

Thursday Evening, December 29

#### AAAS as a Whole

*Biologists' Smoker*, sponsored by American Society of Naturalists—9:00 p.m. until 12:00 midnight; Roosevelt

Hall, American Museum of Natural History. (All welcome, but open only to registrants, or those who pay a registration fee upon arrival.)

*AAAS Section M; New York Section of American Institute of Electrical Engineers*—8:00 p.m.; Joint Program, Round Table Discussion on the Impact of Television on Society and Future Developments; Crystal Room, McAlpin.

*AAAS Subsection Nm*—7:30 p.m.; Symposium on Adrenal Cortex, Part IV; Keystone Room, Statler.

*AAAS Cooperative Committee on Teaching of Science and Mathematics*—6:30 p.m.; Joint Banquet of all science teaching societies affiliated with AAAS; Grand Ballroom, New Yorker.

#### Mathematics

**A1 and A3** *American Mathematical Society; and Mathematical Association of America*—6:30 p.m.; Dinner for the mathematical organizations; John Jay Hall Dining Room, Columbia.

**A4** *National Council of Teachers of Mathematics*—6:30 p.m.; Dinner; Men's Faculty Club, Columbia.

#### Zoological and Botanical Sciences

**FG2** *American Society of Human Genetics*—8:00 p.m.; Address of the Retiring President of Society; Governor Room, Governor Clinton.

**FG4** *American Society of Naturalists*—9:00 p.m. till 12:00 midnight; Biologists' Smoker; Roosevelt Hall, American Museum of Natural History. All biologists welcome, but open only to registrants or those who pay a registration fee upon arrival.

#### Botanical Sciences

**G3** *American Phytopathological Society*—6:30 p.m.; Annual Dinner of Society; Ballroom, McAlpin.

**G6** *Botanical Society of America*—6:30 p.m.; Dinner for all botanists, Cranbrook Award, Presidential Address; Winter Garden, McAlpin.

#### Social and Economic Sciences

**K4** *American Sociological Society*—8:00 p.m.; General Session of the Society; Grand Ballroom, Statler.

#### History and Philosophy of Science

**L, L1, and L2** *Section on History and Philosophy of Science; American Philosophical Association; Philosophy of Science Association*—8:00 p.m.; Joint Session; Panel Room, New Yorker.

#### Engineering

**M and M2** *Section on Engineering; New York Section of American Institute of Electrical Engineers*—8:00 p.m.; Joint Program, Round Table Discussion on the Impact of Television on Society and Future Developments; Crystal Room, McAlpin.

#### Medical Sciences

**N1** *Subsection on Medicine*—7:30 p.m.; Symposium on Adrenal Cortex, Part IV; Keystone Room, Statler.

#### Education

**Q1** *AAAS Cooperative Committee on Teaching of*

*Science and Mathematics*—6:30 p.m.; Joint Banquet of all science teaching societies affiliated with AAAS; Grand Ballroom, New Yorker.

#### Science in General

**X2** *Federation of American Scientists*—8:00 p.m.; General Meeting; Georgian Room, Statler.

#### Friday Morning, December 30

##### AAAS as a Whole

*Academy Conference*—10:00 a.m.; Session; Parlor A, New Yorker.

*AAAS Section B*—9:30 a.m.; Symposium on the Present State of Physics, Part II—Physics of the Solid State; Georgian Room, Statler.

##### Mathematics

**A2** *Institute of Mathematical Statistics*—9:00 a.m.; Session I-15, Symposium on Statistical Methods in Astronomy; Joint Program with American Statistical Association and AAAS Section D; Governor Room, Governor Clinton.

**A3** *Mathematical Association of America*—9:30 a.m.; Session and Business Meeting; Room 301, Pupin Laboratories, Columbia.

##### Physics

**B** *Section on Physics*—9:30 a.m.; Symposium on the Present State of Physics, Part II—Physics of the Solid State; Georgian Room, Statler.

##### Chemistry

**C** *Section on Chemistry*—8:45 a.m.; Session; Keystone Room, Statler.

##### Astronomy

**D** *Section on Astronomy*—9:00 a.m.; Symposium on Statistical Methods in Astronomy, joint session with Institute of Mathematical Statistics and American Statistical Association; Governor Room, Governor Clinton.

##### Geology and Geography

**E and E3** *Section on Geology and Geography; Geological Society of America*—9:00 a.m.; Joint program; North Ballroom, New Yorker.

##### Zoological Sciences

**F3** *American Society of Zoologists*—9:00 a.m.; Concurrent Session 1, General Physiology; Parlor 1, Statler. 9:00 a.m.; Concurrent Session 2, Endocrinology; Parlor 2, Statler. 9:00 a.m.; Concurrent Session 3, Embryology; Parlor A, Statler. 9:00 a.m.; Concurrent Session 4, Cellular and General Physiology; Parlor B, Statler.

##### Zoological and Botanical Sciences

**FG3** *American Society of Limnology and Oceanography*—9:30 a.m.; Session; Florentine Room, Governor Clinton.

**FG4, FG8, FG9, F3, G4, and G6** *American Society of Naturalists; Ecological Society of America; Genetics Society of America; American Society of Zoologists; American Society of Plant Physiologists; and Botanical*

*Society of America*—9:00 a.m.; Symposium on Reproduction in Plants; Joint Meeting; Grand Ballroom, Statler.

**FG6 and FG7** *Biometric Society; Biometric Section, American Statistical Association*—10:00 a.m.; Session, joint meeting; Hotel Biltmore.

##### Botanical Sciences

**G3** *American Phytopathological Society*—9:00 a.m.; Business Meeting; Oak Room, Martinique. 10:30 a.m.; Concurrent Session 2, Diseases of Forest and Shade Trees; Oak Room, Martinique. 11:00 a.m.; Concurrent Session 3, Flax, Safflower, Rice, and Sugar Cane Diseases; Gold Room, Martinique.

**G6** *Botanical Society of America*—9:30 a.m.; Concurrent Session 1, General Section; Colonial Room, McAlpin. 9:30 a.m.; Concurrent Session 2, joint meeting of Microbiological Section with Mycological Society of America; Green Room, McAlpin. 9:30 a.m.; Concurrent Session 3, Botanical Teaching Section; Blue Room, McAlpin.

**G7** *Mycological Society of America*—9:30 a.m.; Session, joint meeting with Microbiological Section of Botanical Society of America (Session 2); Green Room, McAlpin.

##### Social and Economic Sciences

**K4** *American Sociological Society*—9:00 a.m.; Concurrent Session 1, Methods of Empirical Research in Sociology; Gold Room, Manhattan Center. 9:00 a.m.; Concurrent Session 2, Social Mobility and Social Stratification in European Societies; Masonic Room, Manhattan Center. 9:00 a.m.; Concurrent Session 3, Social Structure of the Public Schools; Joint Meeting with American Political Science Association; Lounge, Manhattan Center.

**K5** *American Statistical Association*—9:00 a.m.; Symposium on Statistical Methods in Astronomy; Joint Program with Institute of Mathematical Statistics and AAAS Section D; Governor Room, Governor Clinton.

**K9** *Rural Sociological Society*—8:00 a.m.; Session, Rural Sociological Research in the Semi-Arid West; Parlor F and G, New Yorker.

##### History and Philosophy of Science

**L, L1, and L2** *Section on History and Philosophy of Science; American Philosophical Association; and Philosophy of Science Association*—9:30 a.m.; Joint Session; Panel Room, New Yorker.

##### Engineering

**M and M2** *Section on Engineering; New York Section of American Institute of Electrical Engineers*—9:00 a.m.; morning, afternoon, and evening; Visual Displays Illustrating the Principles of Television, joint exhibit; East Room, McAlpin.

##### Medical Sciences

**N2** *Subsection on Dentistry*—9:30 a.m.; Session; El Patio, McAlpin.

##### Education

**Q3** *The Federation of Science Teachers Associations of New York City*—Field Trips (arranged in advance).



**Science in General**

**X1** *American Nature Study Society*—8:30 a.m.; All Day Field Trip; Starting from Parlor B, New Yorker.

**X8** *The Academy Conference*—10:00 a.m.; Session; Parlor A, New Yorker.

**Friday Noon and Afternoon, December 30****AAAS as a Whole**

*Academy Conference*—2:30 p.m.; Session; Parlor A, New Yorker.

*AAAS Section B*—1:30 p.m.; Symposium on the Present State of Physics, Part III—Chemical Physics; Georgian Room, Statler. 3:30 p.m.; Symposium on the Present State of Physics, Part IV—Biophysics; Georgian Room, Statler.

*AAAS Section F*—2:00 p.m.; Symposium on Steroid Hormones and Sex Differentiation in Vertebrates; Grand Ballroom, Statler.

**Mathematics**

**A3** *Mathematical Association of America*—2:30 p.m.; Session; Room 301, Pupin Laboratories, Columbia.

**Physics**

**B** *Section on Physics*—1:30 p.m.; Symposium on the Present State of Physics, Part III—Chemical Physics; Georgian Room, Statler. 3:30 p.m.; Symposium on the Present State of Physics, Part IV—Biophysics; Georgian Room, Statler.

**Chemistry**

**C** *Section on Chemistry*—2:00 p.m.; Session; Keystone Room, Statler.

**Geology and Geography**

**E, E1, and E2** *Section on Geology and Geography; American Geographical Society of New York; and Association of American Geographers*—2:00 p.m.; Joint session; North Ballroom, New Yorker.

**Zoological Sciences**

**F** *Section on Zoological Sciences*—2:00 p.m.; Symposium on Steroid Hormones and Sex Differentiation in Vertebrates; Grand Ballroom, Statler.

**Zoological and Botanical Sciences**

**FG1** *American Microscopical Society*—4:00 p.m.; Annual Business Meeting; Parlor 2, Statler.

**FG11** *Society for the Study of Evolution*—1:00 p.m.; Business Meeting of Society; Room 902, Schermerhorn Hall, Columbia. 2:00 p.m.; Session; Room 902, Schermerhorn Hall.

**Botanical Sciences**

Trip to Boyce Thompson Institute for Plant Research—1:30 p.m.; Buses leave Hotel McAlpin; return 5:30 p.m.

**G2** *American Fern Society*—2:00 p.m.; Session; Blue Room, McAlpin.

**G3** *American Phytopathological Society*—1:30 p.m.; Concurrent Session 1, joint meeting with Mycological Society of America; Crystal Room, McAlpin. 1:30 p.m.;

Concurrent Session 2, Fungicides and Methods of Application; Oak Room, Martinique. 1:30 p.m.; Concurrent Session 3, Virology; Gold Room, Martinique. 1:30 p.m.; Session 4, Council Meeting; West Room, Martinique.

**G6** *Botanical Society of America*—2:00 p.m.; Concurrent Session 1, General Section; Colonial Room, McAlpin. 2:00 p.m.; Concurrent Session 2, joint meeting of Microbiological Section with Mycological Society of America; Green Room, McAlpin.

**G7** *Mycological Society of America*—1:30 p.m.; Concurrent Session 1, joint meeting with the American Phytopathological Society; Crystal Room, McAlpin. 2:00 p.m.; Concurrent Session 2, joint meeting with Microbiological Section of Botanical Society of America (Session 2); Green Room, McAlpin.

**Social and Economic Sciences**

**K** *Section on Social and Economic Sciences*—2:30 p.m.; Joint Session with Econometric Society; Topic: Economics and Technology; Production Functions; Governor Room, Governor Clinton.

**K4** *American Sociological Society*—1:15 p.m.; Concurrent Session 1, Opportunities for Social Research in the 1950 Censuses; Gold Room, Manhattan Center. 1:15 p.m.; Concurrent Session 2, Experimental Study of Small Groups; Masonic Room, Manhattan Center. 1:15 p.m.; Concurrent Session 3, Human Ecology; Lounge, Manhattan Center.

**K6** *Econometric Society*—2:30 p.m.; Joint Session with Section K; Topic: Economics and Technology: Production Functions; Governor Room, Governor Clinton.

**K7** *Metric Association*—2:30 p.m.; Annual Meeting; Society's Suite, Governor Clinton.

**History and Philosophy of Science**

**L, L1, and L2** *Section on History and Philosophy of Science; American Philosophical Association; and Philosophy of Science Association*—2:00 p.m.; Joint Program; Panel Room, New Yorker.

**Medical Sciences**

**N2** *Subsection on Dentistry*—2:00 p.m.; Session; El Patio, McAlpin.

**Agriculture**

**O** *Section on Agriculture*—2:00 p.m.; Symposium on Whither Soil Conservation?; Ballroom, McAlpin.

**Education**

**Q3** *The Federation of Science Teachers Associations of New York City*—Series of Field Trips; for details, see Booth of Federation, New Yorker.

**Science in General**

**X8** *The Academy Conference*—2:30 p.m.; Session; Parlor A, New Yorker.

**Friday Evening, December 30****AAAS as a Whole**

*Academy Conference*—6:00 p.m.; Academy Conference Dinner; Place to be announced.

*AAAS Section F*—8:00 p.m.; Symposium on The

Kinsey Report and Its Contributions to Related Fields; Grand Ballroom, Statler.

#### Chemistry

**C** *Section on Chemistry*—7:15 p.m.; Session; Keystone Room, Statler.

#### Zoological Sciences

**F** *Section on Zoology*—8:00 p.m.; Symposium on The Kinsey Report and Its Contributions to Related Fields; Grand Ballroom, Statler.

#### Zoological and Botanical Sciences

**FG4** *American Society of Naturalists*—8:00 p.m.; Annual Meeting, Presidential Address; Parlor 1, Statler.

#### Social and Economic Sciences

**K7** *Metric Association*—6:30 p.m.; Board Meeting and Dinner; Society's Suite, Governor Clinton.

#### History and Philosophy of Science

**L, L1, and L2** *Section on History and Philosophy of*

*Science; American Philosophical Association; and Philosophy of Science Association*—8:00 p.m.; Joint Program; Panel Room, New Yorker.

#### Medical Sciences

**N2** *Subsection on Dentistry*—7:30 p.m.; Dinner and Informal Round Table Discussion; Blue Room, McAlpin.

#### Science in General

**X8** *The Academy Conference*—6:00 p.m.; Academy Conference Dinner; Place to be announced.

#### Saturday Morning, December 31

##### Chemistry

**C** *Section on Chemistry*—8:30 a.m.; Session; Keystone Room, Statler.

#### Saturday Noon and Afternoon, December 31

##### Chemistry

**C** *Section on Chemistry*—1:30 p.m.; Session; Keystone Room, Statler.

## Annual Science Exposition

The AAAS Annual Science Exposition is located in the Penn Top and adjacent Salle Moderne, large rooms on the 18th floor of the Hotel Statler. From the hotel lobby, the Exposition is readily reached by express elevators which are marked 10-18.

Admission to the Annual Science Exposition is open to all adults attending the Meeting. During periods of congestion, if necessary, admission will be restricted to registrants and invited guests with admission coupons. Limitations of space make impossible the admission of children. The evening of Wednesday, December 28, has been set aside, primarily, for New York high school seniors who are serious science majors and have tickets.

#### Hours of the Annual Science Exposition

Monday, December 26 .....	2:00 p.m. to 6:00 p.m.
Tuesday, December 27 .....	9:00 a.m. to 9:00 p.m.
Wednesday, December 28 .....	9:00 a.m. to 9:00 p.m.
Thursday, December 29 .....	9:00 a.m. to 6:00 p.m.
Friday, December 30 .....	9:00 a.m. to 6:00 p.m.
Saturday, December 31 .....	9:00 a.m. to 12 noon

#### Special Exhibits

Technically not a part of the Annual Science Exposition, but associated with it, are:

1. THE ANNUAL INTERNATIONAL PHOTOGRAPHY-IN-SCIENCE SALON, sponsored by *The Scientific Monthly* and the Smithsonian Institution. This is located on the walls of the part of the Salle Moderne that houses the Visible Directory of Registrants. This outstanding exhibition of 175 color and black-and-white prints is described under AAAS Prize Awards.

2. THE FIFTH OPEN EXHIBIT OF TECHNICAL PHOTOGRAPHY, sponsored by the Photographic Society of America. This is located on one wall of the short corridor connecting the Penn Top and the Salle Moderne. Some 25 accepted prints, which represent only the Technical Division of this large 1949 P.S.A. Exhibition of Photography, are on display. Previously, these were shown at the City Art Museum, St. Louis, October 17-November 1.

3. THE EXHIBIT OF THE U. S. NATIONAL BUREAU OF STANDARDS. This occupies the other wall of the corridor connecting the Penn Top and the Salle Moderne, and consists of three parts, entitled:

*Unification of Screw Threads*—An accord was reached between the United States, Great Britain, and Canada to promote commerce between these nations by the standardization of threaded parts for greater interchangeability of products; *Electron-Optical Shadow Method*—A technique developed at the N.B.S. provides a valuable new tool for the quantitative study of electrostatic and magnetic fields of extremely small dimensions; *An Atomic Standard of Frequency and Time*—A new, primary standard of frequency and time developed at the National Bureau of Standards is based on the constant natural frequency associated with the vibration of the atoms in the ammonia molecule.

#### Exhibits in the Annual Science Exposition

An exhibition of the latest and best in scientific books, instruments, and materials, by firms that produce or distribute such essential aids to science, has been a feature of the meetings of the Association for many years. Perhaps the first *organized* exhibition of the AAAS should be established as the one held in conjunction with the 79th