

# SCIENCE

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## PRELIMINARY ANNOUNCEMENT OF THE KANSAS CITY MEETING OF THE AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE

### INTRODUCTORY NOTE

THIS special issue of SCIENCE, which contains the preliminary announcements of the Kansas City meeting of the American Association for the Advancement of Science, is sent to all subscribers for *The Scientific Monthly* as well as to subscribers for SCIENCE, thus reaching all members of the Association. The announcements contain as much information about the approaching meeting as could be brought together at the time of going to press. The complete program of the meeting will be distributed at the registration office in the Aladdin Hotel at Kansas City. The office will open at 9 on Monday, December 28, and will remain open throughout the following days of the meeting. Members who do not attend the meeting may receive the general program if they will write to the permanent secretary asking for it. Such requests should be in the Washington office by December 22nd.

The importance of scientific thinking and of the results of scientific research in the lives of all the people are being rapidly more thoroughly appreciated in recent years. There has never been a period in which the leadership and the great responsibility

Those expecting to attend the Kansas City meeting should look up transportation and arrange for rooms at once. A list of Kansas City hotels has been published in SCIENCE for November 13th. Those who are to present papers or addresses at the meeting should send in their manuscripts for the publicity service as soon as possible.

When purchasing transportation to Kansas City be sure to secure a certificate for the meeting of the American Association for the Advancement of Science and Associated Societies, unless a round-trip ticket is purchased. On arrival at the meeting register the certificate or round-trip ticket promptly on a registration card. The validated certificate will entitle the holder to a half-fare rate for the return trip.

of science workers was as generally acknowledged as at present. With the advance and spread of education and intelligence, in large part through the agencies of books and magazines, newspapers, the radio art and that of motion pictures, as well as through educational institutions, thoughtful persons of all classes are now generally greatly concerned with the rational foundations of knowledge and progress that constitute the realm of science. According to their best knowledge and ability the people are now judging and appraising the products of the labors of the scientific specialists—in some cases with more or less fearful forebodings apparently occasioned by the pains of intellectual and moral growth and the inevitable disintegration of many older standards and régimes, but generally with enthusiastic acclaim. Science becomes exoteric, whether its votaries will or no, and the public responsibility of those who understand its various fields and disciplines is thereby enormously enhanced. A liberty to think and speak and write as honestly as one can is surely being gradually approached, but extreme conservatism is too frequently too uninformed to be dealt with by logical reasoning and it continues instinctively to resist informing treatment. The progress of science seems no longer to encounter serious resistance among the intellectual leaders—the robed and the crowned—but a new and serious resistance is nevertheless encountered, chiefly from the multitude of the less well informed. It is consequently desirable that scientific workers take special thought toward the making of the great background of science available and understandable to thoughtful people in general.

Perhaps the most obvious need in this direction may be increased understanding of every field of science by those engaged in other fields; specialization must necessarily continue and become even more pronounced, but it is very essential that scientific men and women should increasingly appreciate the methods and accomplishments and aims that characterize science as a whole. Besides good physicists and biologists and psychologists we need, especially in the present exigency, more scientific philosophers or philosophical scientists. And we greatly require the help of all who are able to present the teachings and principles of their scientific fields so as to render them understandable to non-specialists.

The American Association, especially through its great meetings, offers a ready and effective instrument for the cultivation of both a broader appreciation of science as a whole and a more thorough understanding of the respective special sciences. It offers the most logical and promising means by which all workers in science may unite in opposing any reactionary

tendencies that seem to threaten the rapid continuation of scientific and rational progress.

The association aims to promote intercourse among those who are cultivating science in different parts of America, to cooperate with other scientific societies and institutions, to give a stronger and more general impulse and more systematic direction to scientific research and to procure for the labors of scientific men increased facilities and a wider usefulness. It has played a prominent rôle in the progress of science and of education in general. Invaluable to scientific men, its influence for rationality and the scientific method of thought has become inevitably incorporated into the structure of American institutions and American civilization.

The association belongs to its members, whose financial contributions make its organization and work possible, and to the numerous societies that are associated with it. Suggestions for possible improvements in association activities are heartily invited and will always be welcome.

Members are specially asked to secure new annual and life members and to be constantly on the lookout for opportunities to enlist the interest of public-spirited men who may be willing to become sustaining members or donors. The present endowment of the association is still very small (about \$131,000) and the income therefrom is correspondingly limited. Many lines of activity that deserve serious attention must be neglected in these years because of the lack of adequate funds for undertaking new kinds of work. The association is the only American organization that deals with the entire field of science and education and that enjoys the support and cooperation of so large a number of individuals and scientific organizations. It offers one of the most efficient means by which funds may be directed toward the general advancement of science and the improvement of education in America. Increased membership, increased endowment and increased active, critical and constructive interest on the part of its members and the members of the associated organizations are the great present needs.

Notices and announcements about the affairs of the American Association are published from time to time in its official journal, *SCIENCE*. A booklet of general information concerning the organization and its work is published each year and copies may be had from the permanent Washington office or at the registration office for the meeting. Members are urged to maintain familiarity with association affairs.

A new volume of the Summarized Proceedings of the American Association is about to appear. It includes much general information about the organiza-

tion, summary reports for the last four years, an annotated list of the hundred scientific organizations that are officially associated with the association, and a Directory of Fellows and other members, corrected to June, 1925. This volume may be secured from the Washington office at a price of \$2.50 to members, \$3.25 to others.

The annual meetings of the association are now held in convocation week (the week in which New Year's day falls). The meeting for 1926-27 will be held at Philadelphia, December 27, 1926, to January 1, 1927; the meeting for 1927-28 will be held in Nashville; and the great quadrennial convention for 1928-29 will be held at New York City, December 27, 1928, to January 2, 1929.

#### COMMITTEES AND REPRESENTATIVES FOR THE KANSAS CITY MEETING

##### LOCAL COMMITTEE

A. Ross Hill, *general chairman*.  
H. J. Waters, *vice-chairman* (deceased).  
Lyle Stephenson, *vice-chairman*.  
W. M. Symon, *secretary*.  
J. F. Porter.  
Geo. Melcher.  
Albert Saeger.

##### CHAIRMEN OF SUBCOMMITTEES

*Finance*: J. F. Porter, president, Kansas City Power and Light Co.  
*Publicity*: Lyle Stephenson, R. A. Long Building, 10th and Grand Ave.  
*Hotels and Housing*: W. M. Symon, manager, Convention Bureau, Chamber of Commerce.  
*Transportation and Signs*: Geo. Melcher, 226 Library Building.  
*Exhibits*: Albert Saeger, Junior College.  
*Dinners and Banquets*: W. M. Symon, manager, Convention Bureau, Chamber of Commerce.

##### LOCAL REPRESENTATIVES FOR SECTIONS OF THE ASSOCIATION AND RELATED SOCIETIES

*Section A (Mathematics)*: U. G. Mitchell, 1313 Mass. Ave., Lawrence, Kans.  
*Section B (Physics)*: Ben F. Eyre, 306 Land Bank Building, Kansas City.  
*Section C (Chemistry)*: Herman Schlundt, University of Missouri, Columbia, Mo.  
*Section D (Astronomy)*: D. E. Haynes, University of Missouri, Columbia, Mo.  
*Section E (Geology and Geography)*: H. A. Buchler, Rolla, Mo., *chairman*; Vernon F. Marsters, 123 Railway Exchange Building, Kansas City.  
*Section F (Zoological Sciences)*: H. H. Lane, University of Kansas, Lawrence, Kans.  
*Section G (Botanical Sciences)*: Albert Saeger, Junior College, Kansas City.  
*Section H (Anthropology)*: C. A. Ellwood, University of Missouri, Columbia, Mo.

*Section I (Psychology)*: W. A. Andrews, Kansas State Agricultural College, Manhattan, Kans.

*Section K (Social and Economic Sciences)*: N. S. McKelvy, 1022 West 54th St., Kansas City.

*Section L (Historical and Philological Sciences)*: Purd Wright, Public Library, Kansas City.

*Section M (Engineering)*: J. F. Porter, Kansas City Power and Light Co., Kansas City.

*Section N (Medical Sciences)*: W. W. Duke, 1814 Federal Reserve Bank Building, Kansas City.

*Section O (Agriculture)*: W. A. Cochel, Central Short-horn Breeders' Association, Hotel Baltimore, Kansas City.

*Section Q (Education)*: George Melcher, 226 Library Building, Kansas City.

*Representative at large*: W. M. Symon, Convention Bureau, Chamber of Commerce, Kansas City.

All these should be addressed, care of Mr. W. M. Symon, secretary of the Local Committee, Convention Bureau, Chamber of Commerce, Kansas City, Mo.

#### OFFICERS OF THE ASSOCIATION FOR THE CAL- ENDAR YEAR 1925, INCLUDING THE KANSAS CITY MEETING

##### *President*

M. I. Pupin, Columbia University, New York, N. Y.

##### *Retiring President*

J. McKeen Cattell, Garrison-on-Hudson, N. Y.

##### *Vice-Presidents,<sup>1</sup> Retiring Vice-Presidents and Secretaries of the Sections*

##### *Section A (Mathematics)*:

*Vice-President*, W. H. Roever, Washington University, St. Louis, Mo.

*Retiring Vice-President*, J. C. Fields, University of Toronto, Toronto, Canada.

*Secretary*, R. C. Archibald, Brown University, Providence, R. I.

##### *Section B (Physics)*:

*Vice-President*, H. M. Randall, University of Michigan, Ann Arbor, Mich.

*Retiring Vice-President*, K. T. Compton, Princeton University, Princeton, N. J.

*Secretary*, A. L. Hughes, Washington University, St. Louis, Mo.

##### *Section C (Chemistry)*:

*Vice-President*, H. B. Cady, University of Kansas, Lawrence, Kans.

*Retiring Vice-President*, F. G. Cottrell, Fixed Nitrogen Research Laboratory, American University, Washington, D. C.

*Secretary*, Gerhard Dietrichson, Suite 209, 48 Massachusetts Ave., Cambridge, Mass.

##### *Section D (Astronomy)*:

*Vice-President*, A. E. Douglass, University of Arizona, Tucson, Ariz.

<sup>1</sup> Vice-presidents are elected for a term of one year, from the close of one annual meeting to the close of the next following one.

*Retiring Vice-President*, John A. Miller, Swarthmore College, Swarthmore, Pa.

*Secretary*, Philip Fox, Northwestern University, Evanston, Ill.

*Section E (Geology and Geography):*

*Vice-President*, R. A. Daly, Harvard University, Cambridge, Mass.

*Retiring Vice-President*, W. C. Mendenhall, U. S. Geological Survey, Washington, D. C.

*Secretary*, G. R. Mansfield, U. S. Geological Survey, Washington, D. C.

*Section F (Zoological Sciences):*

*Vice-President*, H. S. Jennings, Johns Hopkins University, Baltimore, Md.

*Retiring Vice-President*, Edwin Linton, 1104 Milledge Road, Augusta, Ga.

*Secretary*, Geo. T. Hargitt, Syracuse University, Syracuse, N. Y.

*Section G (Botanical Sciences):*

*Vice-President*, Robert B. Wylie, University of Iowa, Iowa City, Iowa.

*Retiring Vice-President*, G. R. Lyman, West Virginia University, Morgantown, W. Va.

*Secretary*, Sam F. Trelease, Columbia University, New York, N. Y.

*Section H (Anthropology):*

*Vice-President*, C. B. Davenport, Station for Experimental Evolution, Cold Spring Harbor, N. Y.

*Retiring Vice-President*, E. A. Hooton, Peabody Museum, Cambridge, Mass.

*Secretary*, R. J. Terry, Washington University School of Medicine, St. Louis, Mo.

*Section I (Psychology):*

*Vice-President*, C. E. Seashore, University of Iowa, Iowa City, Iowa.

*Retiring Vice-President*, R. S. Woodworth, Columbia University, New York, N. Y.

*Secretary*, Frank N. Freeman, University of Chicago, Chicago, Ill.

*Section K (Social and Economic Sciences):*

*Vice-President*, F. R. Fairchild, Yale University, New Haven, Conn.

*Retiring Vice-President*, Thomas S. Baker, Carnegie Institute of Technology, Pittsburgh, Pa.

*Secretary*, F. L. Hoffman, Babson Institute, Babson Park, Mass.

*Section L (Historical and Philological Sciences):*<sup>2</sup>

*Vice-President*, W. A. Oldfather, University of Illinois, Urbana, Ill.

*Retiring Vice-President*, Louis C. Karpinski, University of Michigan, Ann Arbor, Mich.

*Secretary*, Frederick E. Brasch, Library of Congress, Washington, D. C.

<sup>2</sup> The only portion of Section L thus far organized is that dealing with the History of Science, and the Committee on History of Science functions as an interim committee for Section L. The chairman of the committee acts as vice-president and chairman for the section.

*Section M (Engineering):*

*Vice-President*, C. R. Richards, Lehigh University, Bethlehem, Pa.

*Retiring Vice-President*, A. E. Kennelly, Harvard University, Cambridge, Mass.

*Secretary*, N. H. Heck, U. S. Coast and Geodetic Survey, Washington, D. C.

*Section N (Medical Sciences):*

*Vice-President*, A. J. Carlson, University of Chicago, Chicago, Ill.

*Retiring Vice-President*, William G. MacCallum, Johns Hopkins University, Baltimore, Md.

*Secretary*, A. J. Goldfarb, College of the City of New York, New York, N. Y.

*Section O (Agriculture):*

*Vice-President*, C. V. Piper, U. S. Department of Agriculture, Washington, D. C.

*Retiring Vice-President*, L. R. Jones, University of Wisconsin, Madison, Wis.

*Secretary*, P. E. Brown, Iowa State College, Ames, Iowa.

*Section Q (Education):*

*Vice-President*, Otis W. Caldwell, Lincoln School, Columbia University, New York, N. Y.

*Retiring Vice-President*, L. A. Pechstein, University of Cincinnati, Cincinnati, Ohio.

*Secretary*, A. S. Barr, University of Wisconsin, Madison, Wis.

*Permanent Secretary*<sup>3</sup>

Burton E. Livingston, Johns Hopkins University, Baltimore, Md. (Association mail address: Smithsonian Institution Building, Washington, D. C.)

*General Secretary*<sup>3</sup>

W. J. Humphreys, U. S. Weather Bureau, Washington, D. C.

*Treasurer*<sup>3</sup>

John L. Wirt, Carnegie Institution of Washington, Washington, D. C.

*Assistant Secretary*

Francis D. Murnaghan, Johns Hopkins University, Baltimore, Md.

*Secretary of the Council and Program Editor*

Sam F. Trelease, Columbia University, New York, N. Y.

*Executive Assistant*

Sam Woodley, Smithsonian Institution Building, Washington, D. C.

*Auditor*

R. B. Sosman, Geophysical Laboratory, Washington, D. C.

<sup>3</sup> The permanent secretary, the general secretary and the treasurer are each elected for a term of four years; their terms of office expire at the end of the fifth New York meeting.

*Members of the Executive Committee of the Council for the Calendar Year 1925<sup>4</sup>*

J. McK. Cattell (1926), *chairman*, Garrison-on-Hudson, N. Y.

M. I. Pupin, president of the Association (1925).

Burton E. Livingston, permanent secretary (1928).

W. J. Humphreys, general secretary (1928).

B. M. Duggar (1925), Missouri Botanical Garden, St. Louis, Mo.

Herman L. Fairchild (1927), University of Rochester, Rochester, N. Y.

Vernon L. Kellogg (1928), National Research Council, Washington, D. C.

F. R. Moulton (1925), University of Chicago, Chicago, Ill.

W. A. Noyes (1927), University of Illinois, Urbana, Ill.

Henry B. Ward (1926), University of Illinois, Urbana, Ill.

Edwin B. Wilson (1928), Harvard School of Public Health, Boston, Mass.

#### GENERAL FEATURES OF THE KANSAS CITY MEETING

This year's annual meeting will be the eighty-second meeting of the association. It is necessarily only infrequently that an annual meeting is held so far west as Kansas City and this will be the first in that place. It will bring the great scientific convention to a region characterized by typical American progress and prosperity, to a community of high intellectual and educational ideals, and many members and other friends of the association who dwell in the region now to be visited and who do not generally find it possible to attend the annual meetings will be able this year to receive the benefits of attending. The distance to be traveled will be relatively short from places in the Mississippi and Missouri valleys, and the facilities for transportation to Kansas City from all parts of the country are unsurpassed.

The hotel accommodations at Kansas City are exceptionally excellent. The larger hotels are conveniently grouped in a small area and the Kansas City Junior College, at which many of the sessions will be held, is situated but a short distance away. The local arrangements for the meeting are in the hands of an able committee, of which Dr. A. Ross Hill is chairman. The Convention Bureau of the Kansas City Chamber of Commerce, which is deeply appreciative of the aims of men and women of science, is giving very valuable aid to the local committee.

#### THE THIRD AMERICAN ASSOCIATION PRIZE

The third annual American Association prize of one thousand dollars is to be awarded at the close

<sup>4</sup> The number in parentheses denotes the calendar year at the end of which the member's term of office expires.

of the Kansas City meeting. Funds for the annual prizes were given to the association by a broad-minded and far-seeing member who desires that his name be withheld. This feature of the annual meetings greatly increases interest and enthusiasm and has already demonstrated the wisdom as well as the generosity of the donor. The first annual prize was awarded at the third Cincinnati meeting (January, 1924) and the second award was made at the fifth Washington meeting (January, 1925). The Cincinnati prize was awarded to Dr. L. E. Dickson, of the University of Chicago, for original work in mathematics. The second award, at Washington, was equally divided between two prizemen: Dr. Edwin P. Hubble, of the Solar Observatory of the Carnegie Institution, at Mount Wilson, California, for original work in astronomy; and Dr. L. R. Cleveland, of the School of Hygiene of the Johns Hopkins University, for original work in parasitology and general physiology.

The award will be made by the Committee on Prize Award, which is appointed under the authority of the association council. Suggestions are to be received from the secretaries of sections and of the societies that meet with the association on this occasion, and the winner will be selected from those suggested. Membership in the association will not be considered in making the decision. The winner of the prize will be announced in *SCIENCE* and in the daily press, shortly after the close of the meeting. According to the terms of the gift, the work of the younger men is recommended to special consideration by the committee. There will be no competition in the usual sense and manuscripts are not to be submitted unless asked for by the Committee on Award. The prize is to be given to the author of some noteworthy contribution to scientific advancement presented in the program of this meeting. Because of the fact that contributions in the several fields of knowledge are generally not readily commensurable, it is not intended that the prize paper is to be necessarily the very best of the meeting; it is to be *one of the best*. The prize will not be divided in the future, as it was at the fifth Washington meeting last year.

#### GENERAL SESSIONS AND POPULAR LECTURES AT KANSAS CITY

##### GENERAL SESSIONS

The plans for the Kansas City meeting include an exceptionally attractive series of lectures to be given before general sessions of the association. The general sessions are calculated to be of interest and importance to men and women of science, with the special aim of furnishing convenient means by which

workers in any field of science may become familiar with problems, methods and results in other fields. They are presented under the auspices of the association or under the joint auspices of a science society and the association. These sessions are to be freely open to all who desire to attend. They are to be held in Kansas City Junior College, 11th and Locust Streets. The following announcements of general sessions may be made at this time.

*On Monday evening*, December 28th, at 8 o'clock, will be held the opening session of the Kansas City meeting. The president of the association, Dr. Michael I. Pupin, of Columbia University, will preside and the main lecture of the session will be the address of the retiring president of the association, Dr. J. McKeen Cattell, editor of *SCIENCE*, whose subject will be "Some psychological experiments."

The opening session will be followed by a general reception in the Kansas City Athletic Club, 11th and Baltimore Sts., to which all science workers and friends of the association are cordially invited.

*On Tuesday evening* will be given the Fourth Annual Sigma Xi Lecture, under the joint auspices of the association and the Society of Sigma Xi. President F. D. Farrell, of the Kansas State Agricultural College, will be the lecturer this year. His subject will be "A desert becomes a garden."

*On Tuesday afternoon* will be given the address of the president of the American Physical Society, Dr. Dayton C. Miller, of the Case School of Applied Science, on "The Michelson-Morley ether-drift experiment, its history and significance."

*On Wednesday afternoon* the Third Annual Josiah Willard Gibbs Lecture of the American Mathematical Society will be given under the joint auspices of the association and the society. The lecturer will be Professor James Pierpont, of Yale University, who will speak on "Some Modern Views of Space." Another program of general interest and of great present importance is planned for Wednesday afternoon, to be devoted to papers on the rôle of science in education. Arrangements for this program are in charge of the association's special committee on science in education, the chairman of which is Dr. Otis W. Caldwell, of the Lincoln School in New York City.

*The Wednesday evening session* is to be of special interest to engineering scientists. It will be devoted to discussions of the general relations of engineering to the fundamental sciences. President Pupin will preside.

*At the Thursday evening session* Dr. F. R. Moulton, of the University of Chicago, will speak on "The origin and evolution of worlds."

Other general sessions are being arranged and will be announced later.

#### POPULAR LECTURES

The American Association has adopted a plan by which the annual meeting is to include a series of illustrated popular lectures on scientific subjects, complementary to the people of the city in which the meeting is held. Such a plan is followed by the British Association, with great benefit to the public and with marked success. These presentations are to be by prominent workers in science, who will speak with the authority of thorough knowledge, but they are to be as nontechnical as possible, capable of being understood by people who are not professional scientists.

The association is specially interested in thus helping to supply means by which people who are not engaged in science work and who have not received special education in science may become better acquainted with the great and far-reaching results of science and with the methods and aims of scientific investigators and teachers. Every individual in our communities, no matter what his status may be, constantly employs the practical results of scientific research, and the thoughts and feelings of all are being remoulded continually by philosophical and religious contributions from science specialists. Science is not just knowledge, it is even more an attitude of mind, a general method of thought. An appreciation of science furnishes by far the best general means yet brought forward for cultivating self-control in the individual—the best general means by which each of us may the better fit into his surroundings, attain more of his ideals and achieve greater satisfaction. The scientific method of approach to the problems and difficulties of life is now being so rapidly developed and enlarged that it amounts to something really new in human experience, especially on account of the fact that it is lately permeating the whole population.

The lectures given at the general sessions of this meeting will be interesting to people who are not scientists, and every one is invited to attend them. But the series of popular and illustrated talks is being specially prepared for those who are not educated and trained in science. They will furnish presentations of science made easy and interesting and will not involve unnecessary technicality. These lectures will be announced later.

It is hoped that this special effort of the association to bring a really valuable contribution to the intellectual life of the people of Kansas City may meet with interest, appreciation and approval.

## THE SCIENCE EXHIBITION

The association is this year undertaking to produce a much more comprehensive and a much better arranged and handled exhibition than has ever been heretofore attempted at one of our annual meetings. Arrangements have been made to hold the exhibition in the Aladdin Hotel, which is just completed. The ball room and the two floors below it have been taken and ample space is provided for all exhibits.

The management of the exhibition is in the hands of Major H. S. Kimberly, of Washington, D. C., who has had much experience in this kind of work. Correspondence about the placing of exhibits and about securing advertising space in the general program of the meeting should be addressed to Major Kimberly, director of the Kansas City Exhibition, American Association for the Advancement of Science, Smithsonian Institution Building, Washington, D. C.

There is being secured for the exhibition an extensive and representative series of exhibits from individual scientific workers and from educational and research institutions. Members who have recently devised new research methods or improved demonstrations or who have secured research results that can be exhibited, are urged to place these on view at Kansas City. Every institution where scientific investigation is being carried on should be represented in what will, it is hoped, prove to be a sort of pageant of American scientific progress. Individuals, institutions and organizations are asked to contribute exhibits and to arrange for them immediately with the director of the exhibition. No charge will be made to individuals and research institutions. Only a little time remains, but this feature of the Kansas City meeting is to be made a landmark in the history of the association and the prompt and hearty cooperation of all scientific workers is needed.

Firms that manufacture or distribute scientific apparatus or materials or that publish scientific books are invited to take space in the Kansas City exhibition, arrangements for which are to be made with the director of the exhibition. Commercial exhibitors are asked to contribute toward the cost of the undertaking and to take advertising space in the general program of the meeting. The exhibition will offer a very unusual and perfect means by which manufacturers, publishers and dealers may bring their products directly to the attention of the professional men and women of science and the public generally. The benefits of such direct demonstration must be mutually helpful and must greatly stimulate American scientific advancement. Members of the association and members of the associated organizations are all asked to do all they can to help the director of the

exhibition in securing the much needed cooperation of commercial firms.

The Kansas City exhibition will be located and arranged so as to be a convenient and pleasant meeting place for personal contacts and conversations among those who go to the great convention. All who attend are invited and urged to take advantage of this feature, to view the exhibits of both scientists and commercial firms and to help in this way toward making this new departure the great success that it surely ought to be.

## PUBLICITY ARRANGEMENTS

The general public has rather recently become greatly interested in the progress of science and this interest continues to increase. One of its clearest manifestations is found in a correspondingly great and increasing demand from newspaper editors, who desire to furnish the public with accurate and trustworthy as well as interesting and understandable stories of recent scientific achievement. Especially, American newspapers have shown in recent years a marked and growing desire to report our annual meetings to their readers. The association heartily approves of this progressive tendency and it bespeaks a helpful attitude in this respect on the part of those who are to present papers or otherwise take part in the Kansas City meeting. It specially requests all who give papers at the meeting to make sure that their ideas and findings will be readily available for the press through our publicity organization.

A publicity office will be maintained, as usual, this year in charge of Mr. Lyle Stephenson, who is chairman of the local committee's subcommittee on publicity. The office will be in the Aladdin Hotel. It will have charge of the careful release of news items for the use of newspapers throughout the period of the meeting. Science Service, of Washington, in which the American Association has official representation, will again cooperate with the publicity office in this important work. This cooperation has proved highly efficient and helpful at recent annual meetings and the association welcomes its continuation for the Kansas City meeting.

*Those who are to read papers or deliver addresses at the Kansas City meeting are asked to prepare, as soon as possible, two copies of each of their manuscripts, sending one copy to Mr. Lyle Stephenson, in care of Mr. W. M. Symon, Convention Bureau, Chamber of Commerce, Kansas City, Mo., and the other copy to Science Service, 21st and B Sts., N. W., Washington, D. C. Each manuscript should be accompanied by a summary or abstract as simply and as clearly phrased as possible, in a style to interest*

the general reader. The summaries should not be over 400 words in length, *but the complete manuscript is wanted also in every case.*

The publicity office and Science Service will make use of these manuscripts and abstracts to supply local and distant newspapers with correct information for their publication. Material should be sent in just as soon as possible, but it will not be released to the press until the day each paper is read at the meeting. To be used to best advantage, manuscripts and abstracts should be in hand by December 15th. A large amount of work is involved in preparing releases for the newspapers, and fine promptness on the part of those who are to read papers at the meeting will greatly aid in the popularizing of science and in making the newspaper reports of the meeting (which appear throughout the country) accurate and truly representative of the work for which the association exists.

Manuscripts and summaries that are not sent in time to be received before the opening of the meeting should be handed in at the publicity office at the meeting. If copies of the manuscript can not be sent, be sure to send two copies of a summary, as above noted.

Those who are to take part in the Kansas City programs are asked and urged to do their share in this great work of publicity in which the association is engaged. Please do not neglect this request.

#### SESSIONS OF THE SECTIONS AND SOCIETIES AT KANSAS CITY

The various sections of the association and the many scientific societies that are to meet with the association this year will hold numerous sessions for the reading of papers and the delivering of addresses, by leaders and specialists in nearly all branches of science. A preliminary account of the section and society programs that are being arranged, so far as information about these had been received from the secretaries when this announcement went to press, is given in the following pages. Complete information about the various sessions will be given in the general program of the meeting. The following account is arranged under headings that correspond to the sections of the association.

**A. Mathematics.**—The American Mathematical Society and the Mathematical Association of America will meet jointly with Section A of the A. A. A. S. on Wednesday forenoon, December 30. Professor J. C. Fields, of the University of Toronto, retiring vice-president for Section A, will deliver an address on "The algebraic numbers and division" and Professor T. H. Hildebrandt, of the University of Michigan,

retiring vice-president of the American Mathematical Society, will also address this session, his subject being "The Heine-Borel theorem and allied theorems." The third annual Josiah Willard Gibbs Lecture will be given, under the joint auspices of the American Mathematical Society and the American Association, by Professor James Pierpont, of Yale University, at a general session of the association on Wednesday afternoon. Professor Pierpont's address will be on "Some modern views of space." The American Mathematical Society will hold its sessions for the reading and discussion of papers on Tuesday, December 29, and the Mathematical Association of America will hold similar sessions on Thursday, December 31. Professor J. L. Coolidge, of Harvard University, will deliver his retiring vice-presidential address on "Robert Adrain and the beginnings of American mathematics." An informal dinner for all mathematicians and their guests will be held at the City Club of Kansas City on Wednesday evening, December 30. The headquarters for the mathematicians will be at the Baltimore Hotel, 12th and Baltimore Streets.

**B. Physics.**—Section B will hold a joint session with the American Physical Society on Tuesday afternoon, December 29, at which Professor K. T. Compton, of Princeton University, retiring vice-president for Section B, will deliver an address on "Dielectric constants and molecular structure." This address will be followed by a symposium, details of which will be announced later. The American Physical Society will hold sessions for the reading and discussion of papers on Monday, Tuesday and Wednesday, December 28 to 30. Professor D. C. Miller, of the Case School of Applied Science, will deliver his vice-presidential address on "The Michelson-Morley ether-drift experiment—its history and significance." There will be a dinner for members of the society on Tuesday evening, December 29. The American Meteorological Society will meet for the first time in the Kansas City region when it meets with the association this year. The society will hold its sessions on Monday and Tuesday, December 28 and 29, and the problems of weather and climate peculiar to the great interior plains of North America will be discussed. Mr. S. D. Flora will speak on "Tornadoes of the Middle West" and Dr. Dinsmore Alter will discuss "Rainfall periods." Among other topics, the effects of weather on crops and long-range weather forecasting will probably be subjects for discussion. An excursion to the University of Kansas is being planned.

**C. Chemistry.**—Section C will hold joint sessions with the Kansas City and neighboring sections of the American Chemical Society on the forenoons and afternoons of Tuesday, Wednesday and Thursday,



December 29 to 31. It is planned to devote one day to the chemistry of milling and baking and other characteristic industries of the Kansas City region. Special half-day sessions will be devoted to several of the fundamental branches of chemistry and it is hoped, in this connection, that joint sessions may be arranged with other sections of the association. Dr. F. G. Cottrell, director of the Fixed Nitrogen Research Laboratory, will deliver his retiring vice-presidential address on "The relation of pure science to technology in government research." Further details will be given in the general program of the meeting.

*D. Astronomy.*—Section D is arranging a program which will be of interest to visiting astronomers and to members of the local astronomical society. It is planned to have the meetings of the section begin on Wednesday, December 30, thus allowing the members to visit other sections on Monday and Tuesday. Joint sessions with Sections A and B are being arranged.

*E. Geology and Geography.*—Section E will hold sessions for the reading and discussion of papers on Monday, Tuesday and Wednesday, December 28 to 30. At one of these sessions W. C. Mendenhall, of the U. S. Geological Survey, retiring vice-president for Section E, will deliver an address on "Some modern trends in American geology." Plans are under way for an exhibition of interest to geologists and geographers.

*F. Zoological Sciences.*—Section F is planning a complete program which will extend over several sessions. The papers presented by members of the section will be arranged under such groups as embryology, cytology, comparative anatomy, physiology, genetics and ecology. Other groups will be added if necessary. Dr. Edwin Linton, of the University of Georgia, will deliver his retiring vice-presidential address on "The scientific method and authority," on Tuesday afternoon, December 29. Professor C. E. McClung, of the University of Pennsylvania, will also deliver an address at this session on "A quarter-century of American cytology." A joint session with the Ecological Society of America is planned for Thursday afternoon, December 31. The Entomological Society of America will hold morning and afternoon sessions on Tuesday and Wednesday, December 29 and 30. The closing session will be on Wednesday evening, when Dr. Vernon Kellogg, permanent secretary of the National Research Council, will deliver the annual public address of the society on "Isolation or cooperation in science." A symposium on "Insect parasitism" will be held at a joint session with the American Association of Economic Entomologists on Wednesday afternoon, December 30.

The sessions on Monday afternoon and Tuesday are reserved for contributions by members and plenty of time for discussion is assured. The business session will be held on Wednesday morning at ten o'clock. There will, as usual, be an exhibit of specimens, apparatus, photographs, drawings and uniques. The Hotel Baltimore will be headquarters for all entomologists. The American Association for Economic Entomologists will hold its thirty-eighth annual meeting from December 29 to January 2. The Section of Quarantine and Inspection will meet Tuesday, December 29, their program to continue throughout the day. The Extension Entomologists plan to hold a meeting Tuesday evening. The Section of Apiculture is to meet Wednesday morning. Wednesday afternoon will be devoted to a symposium on parasitism in a joint session of this association with the Entomological Society of America. Thursday morning will mark the opening session of the Economic Entomologists, at which time the presidential address will be delivered by Professor H. A. Gosard, entomologist, Agricultural Experiment Station, Wooster, Ohio. Business will also be transacted at this session. The remaining sessions on Thursday, Friday and Saturday will be devoted to reading of papers and discussions by the membership, terminating with a final business session on Saturday. The entomologists will hold a dinner Friday night. There will be exhibits, as usual, of life history mounts of injurious insects, photographs of damage wrought by them and apparatus. The American Society of Parasitologists, a newly organized society, will hold sessions on Tuesday, Wednesday and Thursday, December 29 to 31. An important feature of the program will be the retiring address of the first president of the society, Professor Henry B. Ward, on "The needs and opportunities of parasitology." A joint symposium with Section N (Medical Sciences) on the "Diseases produced by animal parasites in the United States" will be held on Wednesday afternoon, December 30. Among the speakers at the symposium will be Professor W. A. Riley, who will represent the Medical Entomologists, and Dr. M. C. Hall, who will discuss the subject of anthelmintics. At the business meeting of the society a permanent constitution will be adopted. It is planned to hold a luncheon for members and guests of the society on Wednesday noon before the symposium. At least two half-day sessions for the presentation of papers are planned.

*G. Botanical Sciences.*—Section G will meet jointly with the several botanical societies on Tuesday afternoon, December 29. At this session the following invitation papers will be presented: "Botanical problems of tropical agriculture," by Dr. W. A.

Orton, director of the Tropical Plant Research Foundation; "The present crisis in plant physiological science," by Dr. Burton E. Livingston, of the Johns Hopkins University; "The nature and cause of persistency of secondary sexual states with special reference to Typha," by Dr. John H. Schaffner, of Ohio State University; "Stimulative and formative substances in plants," by Dr. F. E. Denny, of the Boyce Thompson Institute for Plant Research. From Dr. George T. Moore, director of the Missouri Botanical Garden, has been received a communication by which the Missouri Botanical Garden cordially invites those who may be able to do so to stop at St. Louis *en route* to Kansas City and to visit the Garden on Sunday, December 27. The laboratories, library and herbarium will be open all day and opportunity will be offered for viewing many of the plant collections. The Garden also invites those who accept this invitation to be its guests at a dinner on Sunday evening at 7:30. Arrangements will be made by which guests at the dinner will be enabled to arrive in Kansas City Monday morning. Those planning to take advantage of this exceptional opportunity to visit the Missouri Botanical Garden should purchase their tickets to Kansas City through St. Louis and have them read *via* the Missouri Pacific Railroad from St. Louis to Kansas City. Those who plan to attend the dinner Sunday night are to intimate this to Dr. Moore immediately, also informing him if they wish to have a berth reserved on the Sunday night train from St. Louis to Kansas City on the Missouri Pacific, and whether an upper berth would be acceptable.

The Botanical Society of America will hold sessions on Tuesday, Wednesday and Thursday, December 29 to 31. All sections will hold programs, including papers of a general nature and discussions of particular topics. The Joint Genetics Section and the General Section will meet as usual for the reading of papers and the Physiological Section will conduct a joint session with the Ecological Society of America on Wednesday forenoon and another with the American Society of Plant Physiologists on Thursday forenoon. The Mycological Section will devote one session to "Sexuality in fungi" and the Systematic Section will receive further reports on the topic discussed at the Washington meeting, the training of systematic workers. The joint session with Section G of the American Association will be held on Tuesday afternoon. The dinner for all botanists is planned for Tuesday evening. Exhibits and demonstrations will add to the interest of the meeting.

The American Phytopathological Society will hold sessions on Tuesday, Wednesday and Thursday, December 29 to 31. Sessions of special interest this

year are the Extension Pathologists' conference on Tuesday afternoon; a conference, to be held on Wednesday forenoon, on the teaching of plant pathology in our universities and agricultural colleges; a joint session on Wednesday afternoon with the Potato Association of America on the subject of potato diseases, and a symposium on Thursday afternoon with the American Society of Agronomy on "Selection and breeding of cereal and feed crops for disease resistance." On Tuesday afternoon the society will hold a joint session with Section G of the association. The Phytopathologists' dinner with its entertainment features will take place on Wednesday evening, December 30.

*F-G. Societies related to both Sections F and G (Zoological and Botanical Sciences).*—The Ecological Society of America, with membership open to all who are interested in any phase of the interrelationship of organisms and their environments, will hold its annual meeting from December 29 to 31. On Wednesday morning a joint session will be held with the Botanical Society of America and Wednesday afternoon will be devoted to a symposium on the "Plant and animal ecology of the prairie." The program of the last-mentioned session is in charge of Dr. A. S. Pearce, of the University of Wisconsin, president of the society. On Thursday afternoon there will be a joint session with Section F of the American Association. The remaining sessions will be devoted to the reading of papers of general ecological interest. There will be an informal dinner, to which all biologists interested in ecology are invited. The headquarters of the society will be at the Baltimore Hotel. Persons not members of the society may obtain copies of the advance program, with abstracts of papers to be given, by writing to the secretary after December 1.

The Executive Committee of the American Microscopical Society will have a luncheon at 12 on Wednesday, December 30, and the regular annual business meeting will occur at 4:30 on the same day.

The Phi Sigma Biological Research Society will hold its annual convention on the forenoon of Monday, December 28, and this will be followed by a luncheon for members of the society. The afternoon session on Monday will be devoted to a scientific program by active members of various chapters. Further details will be given in the general program of the meeting.

The American Nature-Study Society will hold sessions on Monday and Tuesday, December 28 and 29. It will meet jointly with the American Nature Association and the program will be representative of the activities of the two organizations. In addition to

papers dealing with the problems of science-teaching in elementary schools, in various social units, there will be outlined a survey of the situation being conducted by the American Nature Association. The address of the president, Mr. M. R. Van Cleve, director of nature study and general science, Toledo, Ohio, on "The chief function of nature study" will be given at the Tuesday afternoon session.

*H. Anthropology.*—The meetings of Section H will take place on Wednesday, Thursday and Friday, December 30 to January 1, with morning, afternoon and probably evening sessions, and on Saturday, January 2, with a morning session. At one of these sessions Professor E. A. Hooton, of Harvard University, will read his retiring vice-presidential address on "Methods of racial analysis." In conjunction with this meeting of Section H there will be held a meeting of the Committee on State Archeological Surveys on Wednesday, December 30. A meeting of the section is tentatively set for Friday, January 1, at 12 noon. The exact hours and places for meeting will appear in the final program. Return postal card notices of the meeting of Section H have been mailed to members requesting replies as to attendance at the meeting, presentation of papers, specimens and apparatus for exhibition and attendance at a subscription dinner for the Anthropologists; communications on these subjects should be sent at the earliest possible moment (not later than December 5) to the secretary of Section H, Dr. R. J. Terry, Washington University School of Medicine, St. Louis, Mo.

*I. Psychology.*—Section I will hold sessions for the reading and discussion of papers on Wednesday, Thursday and Friday, December 30 to January 1. On Wednesday evening there will be a joint dinner with Section Q (Education) and with the Phi Delta Kappa Educational Fraternity. At this dinner the address of the retiring vice-president for Section Q, and probably also that of the retiring vice-president for Section I, will be given. On Thursday two joint sessions with Section Q will be held, with invited papers on the "Technique of testing" and on "Laboratories for the study of pre-school children, or studies in the mental development of children." Professor C. E. Seashore, of the University of Iowa, will give an illustrated lecture on "Scientific methods of vocational guidance in music." At the morning and afternoon sessions on Friday there will be short papers, contributed by members of the section, on the results of research in psychology.

*K. Social and Economic Sciences.*—Section K will hold sessions on the forenoon and afternoon of each of the days, Tuesday, Wednesday and Thursday, December 29 to 31. It will have this year a symposium on "Research methods and results." The papers

to be presented will emphasize particular phases of research, including a large variety of subjects, introduced by an address on "Research and progress" by the retiring vice-president, Dr. Thomas S. Baker, of the Carnegie Institute, Pittsburgh. This will be followed by an address on "Research in forestry taxation" by the vice-president for Section K, Professor Fred R. Fairchild, of Yale University, followed by Mr. Maurice A. Holland, of the National Research Council, and Mr. E. P. Stevenson, of Arthur D. Little, Inc., Cambridge, Mass. At the second session there will be papers on "Science, charlatanry and nutrition," by Dr. H. E. Barnard, of the American Institute of Baking; on "Scientific nutrition and modern foods," by Dr. C. Robert Moulton, of the American Meat Packers Institute; and "The future of agricultural research," by Mr. E. D. Ball, entomologist of the Florida State Plant Board. The third session will be opened by an address on "Cooperation between industry and university," by Dr. George D. McLaughlin, of the Tanners' Council Laboratory, followed by an address on "Science in the lime industry," by Mr. G. J. Fink, and one on "Research in synthetic plasters," by Mr. L. V. Redman, of the Bakelite Corporation. The fourth session will commence with an address on "Scientific research, as applied to concrete construction," by Mr. Duff A. Abrams, of the Lewis Institute, followed by an address on "The administration of research under the industrial fellowship system," by a representative of the Mellon Institute. The last address of this session will be on "Air transportation," by Lieut. J. Parker Van Zandt. The fifth session will open with an address on "Research and the incandescent lamp industry," by Dr. Forsythe, of the National Lamp Works, followed by an address on the "Economic basis of medical charges," by Dr. Michael M. Davis, and one on "Cancer research," by Dr. F. L. Hoffman. The last session, on the third day, will be introduced by a paper on "A résumé of research work of underwriters' laboratories," by Mr. A. H. Nuckolls, followed by an address on "Research in insurance," by a representative of the Woods Agency, Pittsburgh. There will also be an address on "The application of research to the rubber industry," by Mr. R. P. Dinsmore, of the Goodyear Rubber Company, the last address to be given by Mr. F. O. Clements, of the General Motors Corporation, Detroit.

The Metric Association will hold its annual meeting on Monday, December 28. Manufacturers, merchants, educators and others are urged to attend and take part in the sessions. Following the address of welcome, manufacturers in various fields and from many parts of the country will discuss the problems of changing over to the exclusive use of metric weights

and measures. A conference of educators will follow, at which time representative men and women interested in education will discuss the various phases of the metric movement and methods of teaching. Dr. George F. Kunz, president of the Metric Association, will preside. A luncheon will be held at the Kansas City Athletic Club at 1:00 P. M. The general conference will be held during the afternoon, following a short executive session, election of officers, etc. Papers will be presented by leaders of the metric movement in the United States and discussion will be open to all. Arrangements are being made with local educational authorities to have an intercollegiate debate staged at 5:00 P. M., on the question, "Resolved, that the metric system should be adopted for general use in the United States." The meeting will close with a "Metric Dinner" to be held at the Hotel Muehlebach at 7:00 P. M. Monday evening. Reservations for the dinner should be made early. Men and women interested in metrology and standardization are invited to take part in the program. Federal, state and municipal departments and all organizations interested are requested to send representatives. Programs may be secured from the Metric Association, 156 Fifth Avenue, New York, N. Y.

*L. Historical and Philological Sciences.*—The program of the Historical Sciences portion of Section L will this year be held in joint session with Sections A (Mathematics), C (Chemistry) and D (Astronomy) and it is designed to conform to arrangements and dates fixed by these sections. It is planned that Section L will present at each meeting the life and work of some noted American scholar, and Professor William H. Roever, of Washington University, St. Louis, will this year give a paper containing the results of his study on the "Life and work of William Chauvenet," with special reference to Chauvenet's mathematical contributions to astronomy. Another paper will be by Professor Florian Cajori, of the University of California, on "The early studies of Sir Isaac Newton," especially Newton's early study of the Apocalypse. The story of the first text-book of arithmetic in America will be given by Professor L. C. Karpinski, of the University of Michigan. Dr. Frank B. Dains, of the University of Kansas, will present an illustrated paper on "Some phases in the early development of chemical symbols."

*M. Engineering.*—Three sessions are being planned for Section M, to be held on the forenoon, afternoon and evening of the same day. The evening session will be devoted to a discussion by speakers of national reputation, especially emphasizing the relation of engineering to the fundamental sciences. At the morning session papers will be presented dealing with engineering accomplishments which have advanced

science and with the contribution of science to engineering. At this session the address of the retiring vice-president for Section M, Professor A. E. Kennelly, of Harvard University, on "Advancement of engineering in relation to the advancement of science," will be read. The afternoon session will be along similar lines, but with more time for discussion. More detailed information, including the date and place of the session, will be given in the general program of the meeting. Since the last meeting a conference has been held between representatives of the engineering societies, the president of the American Association, and officers of the section, in regard to closer relations between engineers and other scientific men and the placing of greater emphasis on the relation between engineering and the advancement of science. There will be ample opportunity to discuss these important subjects.

*N. Medical Sciences* (see also F, above).—Section N is planning to hold two sessions on Wednesday, December 30. The morning session will be devoted to a symposium on "Borderline and interrelated problems in the fields of pathology, bacteriology, anthropology, physiology, public health and medicine." Professor William G. MacCallum, of Johns Hopkins University, will open the session with the retiring vice-presidential address on "A survey of our present knowledge of filterable viruses." Professor C. H. Danforth, of Leland Stanford University, will discuss borderline problems of anatomy, anthropology and medicine. Professor Ralph G. Mills, of the University of Colorado, will discuss borderline problems of bacteriology, serology, chemistry and public health. Professor A. J. Carlson, of Chicago, will preside. Other speakers, to be announced later, will discuss other border and interrelated problems and the session promises to be a stimulating and rounded seminar of interest to all workers in these fields. In conformity with the policy of this section to bring together workers in related fields, there is planned a joint session with the American Society of Parasitologists on the afternoon of December 30. This session will be devoted to a discussion of "Diseases produced by animal parasites in the United States." Professor H. B. Ward, of the University of Illinois, will read the address of the first retiring president of the society, his subject being "The needs and opportunities in parasitology." Professor William A. Riley, of the University of Minnesota, will discuss parasitology from the point of view of the medical entomologist. Other speakers will discuss this most important problem from the point of view of public health, pathology, etc.

*O. Agricultural Sciences* (see also G, above).—Section O has arranged for a joint program to be

given with the American Phytopathological Society and the American Society of Agronomy on Thursday afternoon, December 31. This session will be devoted to a symposium on the subject, "Breeding for disease resistance," and the retiring vice-president for Section O, Dr. L. R. Jones, of the University of Wisconsin, will deliver his address on "Securing disease-resistant plants, how important is it, whose job is it?" at this symposium. The section has arranged no separate program but will meet in conjunction with the several affiliated societies.

The American Society of Agronomy will hold a joint symposium with the American Phytopathological Society and Section O on Thursday afternoon, December 31, the subject of the symposium being "Breeding for disease resistance."

The Association of Official Seed Analysts of North America will hold its annual meeting on Tuesday, Wednesday and Thursday, December 29 to 31. A very interesting program is being arranged. An outstanding feature will be a round table discussion on various phases of seed germination. This session will be of vital interest to every seed analyst as well as botanists and taxonomists. Results of investigational work done by the members during the year will be reported. Dr. David Schmidt, who has started his third year's work on the "hard seeds" in legume seeds, will report the results of his investigations to date. The annual certification of seed laboratories, on the basis of performance, will attract much interest. The first woman president of the association, Miss Anna M. Lute, of Colorado, will deliver the president's address at the annual banquet on the evening of December 30.

The Potato Association of America will hold its twelfth annual meeting at Kansas City on Tuesday, Wednesday and Thursday, December 29 to 31, and this meeting promises to be one of the best ever held by the association. The morning session on Tuesday, December 29, will be devoted to introductory remarks by the president, reports of the secretary-treasurer, of the editor and business manager of *The Potato News Bulletin* and of the chairmen of the various permanent committees. Tuesday afternoon's session will be devoted to the discussion of seed certification, with reference to: (1) "The value of regional disease demonstration plots in the training of inspectors," (2) "Administration of seed-potato certification," (3) "The value of the certified seed plot in certification," (4) "Methods of conducting and the importance of the seed plot in potato improvement work," (5) "Problems confronting the certification authorities." The Wednesday morning session will be devoted to a consideration of seed-potato disinfectant methods, on which seven papers are to be read. A joint ses-

sion will be held in the afternoon with the American Phytopathological Society. At this session papers dealing with potato diseases will be read and discussed by members of both organizations. The morning and afternoon sessions on Thursday, December 31, will be devoted to the presentation of miscellaneous papers, reports of committees, election of officers, *et cetera*.

The American Society for Horticultural Science will meet on Tuesday, Wednesday and Thursday, December 29 to 31, holding two sessions each day. For December 30 there will be simultaneous sessions on vegetables and fruits. President H. C. Thompson, of Cornell University, will give an address on "Some important research problems in vegetable production and handling." Other subjects on vegetable growing are: Effects of fertilizers on sweet potatoes; factors influencing the curing of sweet corn; varieties of corn and methods of making hominy; training and pruning tomatoes; ripening tomatoes with ethylene gas; effect of nutrition on number and dropping of tomato blossoms; importance of phosphorus in forming seed and pulp of tomatoes; steam sterilization of greenhouse soil; toxic relation of other crops to tomatoes; fruiting habit and pollination of the watermelon; carbohydrate nitrogen relations in seeding celery; types and varieties of celery; physical and chemical changes in celery during storage; factors influencing seed production of wintered over cabbage; value of check plots in cabbage and tomato fertilizer experiments; horticultural types of cucurbits. Some of the fruit topics are: Handling Italian prunes for fresh fruit shipment; propagation of own-rooted apple stocks; polarity in the formation of scion roots; propagating apple trees on their own roots; use of burr-knots in propagating apples by cuttings; importance of the organic content of the soil in orchard fertilizer experiments; effect of girdling filler trees and its commercial possibilities; effect of time of plowing under cover crops on soil moisture and nitrates; color pigment in relation to the development of Jonathan spot; effect of inbreeding on the vigor of apple seedlings; pollination studies of McIntosh, Cortland and Baldwin apples; sterility in the Winesap group of apples; relation of temperature to pollen tube growth *in vitro*; fruiting habit of the grape; effects of fruiting on Concord grape vines; effects of pruning on grape production; growth and yield of Concord grape vines; growth and fruitfulness in some varieties of apples; is fruiting of the apple an exhaustive process?; fruiting habit of York Imperial apple; fruit-bud formation and growth; regularity of bearing in the Baldwin apple as influenced by fertilizers; fruit spur composition in relation to fruit-bud formation; relation of leaf area to the growth of apples; meaning of chemical analyses of horticultural plants; effect of

nitrate of soda and sulphate of ammonia on the chemical composition of spurs at critical times; relation of chemical composition of fruit spurs to fruit bud formation; results of bending the branches of young apple and pear trees; factors influencing the production of peaches in the south; influence of varieties of peaches upon their progeny; flower bud formation in the Dunlap strawberry; field plot technic with strawberries; sprays and spraying material; uncongeniality in disease resistant stocks; use of plant characters to identify red raspberry varieties; use of leaf characters in identifying plums; storage and Balling-concentration of cherries; soft scald and breakdown of apples in storage; maturity of California fruits for eastern shipments. There will be no joint meetings with other societies.

*Q. Education* (see also I, above).—Section Q is arranging an interesting program, details of which will be given in the general program of the meeting. The retiring vice-presidential address by Professor L. A. Pechstein, of the University of Cincinnati, will be given at a joint session of the section with Section I (Psychology) and the Phi Delta Kappa Fraternity on Wednesday evening, December 30. Two joint sessions will be held with Section I on Thursday, December 31. A general session on Wednesday afternoon is being planned, to be devoted to the rôle of science in education. The program is being arranged by Dr. Otis W. Caldwell, of the Lincoln School, New York City, who is chairman of the American Association's special committee on this subject. On Wednesday evening will be held the annual dinner of the Phi Delta Kappa Fraternity, to which all students of education are invited. It will be followed by a joint session of the fraternity and Sections Q and I.

*Societies Not Specially Related to Any Particular Section.*—The Society of Sigma Xi will hold jointly with the association the general session of Tuesday evening, December 29, on which occasion the fourth annual Sigma Xi lecture will be given by President F. D. Farrell, of Kansas State Agricultural College, on "A desert becomes a garden." A business session of the society will be held at 2 on Tuesday, to be followed by the annual Sigma Xi banquet at 6:15. The Gamma Alpha Graduate Scientific Fraternity will hold its annual meetings and banquet on Tuesday, December 29. The early date (Tuesday) for the banquet will necessitate prompt registration at the Gamma Alpha booth in the association registration room. The Honor Society of Phi Kappa Phi will hold its ninth biennial convention on Thursday, December 31; sessions will begin at 10 and 2 o'clock, with the convention dinner the same evening. In addition to important business to be considered at the convention, one or two papers will be given on ways

and means of promoting interest in better scholarship among college students. The headquarters of the society will be the Baltimore Hotel.

## LOCAL ARRANGEMENTS AND TRANSPORTATION

### RAILROAD TICKETS

#### *Reduced Rates and Dates*

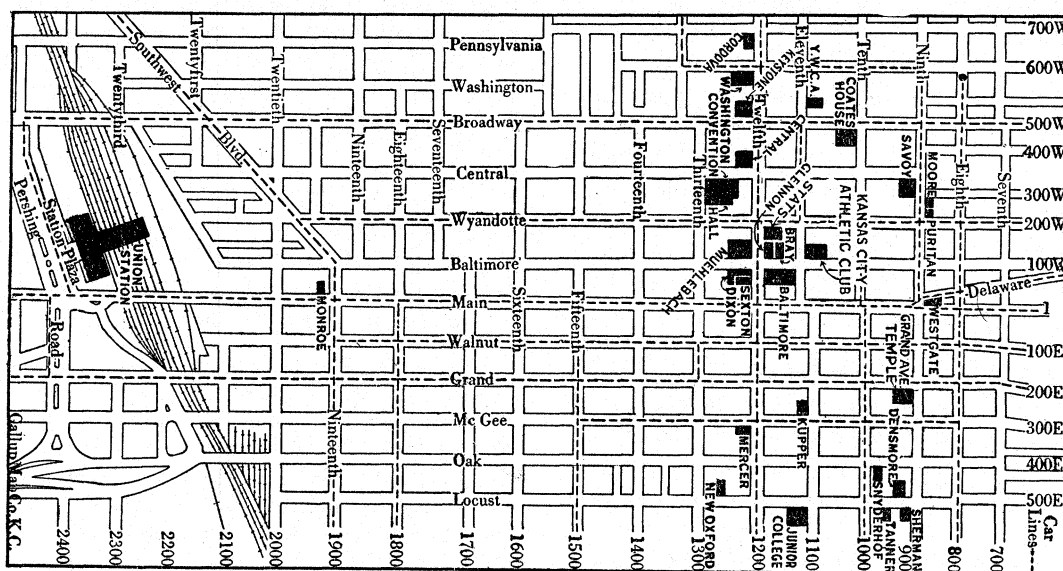
Reduced railway rates, certificate plan, for those attending this meeting have been granted by railway passenger associations of the United States and Canada. The association is again very fortunate this year, and the courtesy and public spirit of the railway associations will be greatly appreciated. The round-trip fare is to be one-and-a-half times the regular one-way fare.

Tickets to Kansas City are to be purchased within time limits as follows. December 24 to 30, inclusive, for the following lines: Canadian Eastern lines, New England lines, Trunk lines, Central lines, Southeastern lines, Western and Transcontinental lines from Colorado, Illinois, Iowa, Kansas, Manitoba (on Great Northern, Northern Pacific, and Minnesota, St. Paul & Sault Ste. Marie Ry., also from Winnipeg *via* Canadian Pacific Ry.), Minnesota, Missouri, Nebraska, Northern Michigan, North Dakota, South Dakota, New Mexico, Wisconsin, and Wyoming. December 23 to 29, inclusive, from Arizona, Montana, and Utah. December 22 to 28, inclusive, from British Columbia, California, Idaho, Nevada, Oregon, and Washington. For the Southwestern lines the limits are December 24 to 30. (The following Southwestern lines are *not party* to the reduced excursion fares: Arkansas & Louisiana-Missouri Ry.; Ft. Smith & Western R. R.; Graysonia, Nashville & Ashdown R. R.; Jonesboro, Lake City & Eastern R. R.; Kansas, Oklahoma & Gulf Ry.; Louisiana & Arkansas Ry.; Mississippi River & Bonne Terre Ry.; National Railways of Mexico; St. Louis, El Reno & Western Ry.)

#### *Purchasing Tickets to Kansas City*

1. *For persons residing in the regions of reduced rates (almost all the U. S. and Canada, see above).*—Purchase a first-class, full-fare, one-way, through ticket to Kansas City, and be sure to secure a certificate on Standard Certificate Form reading for the Kansas City meeting of the "American Association for the Advancement of Science and Associated Societies"; a receipt is not required.

2. *For persons residing outside of the regions of reduced rates.*—Purchase a round-trip ticket to nearest station issuing through tickets to Kansas City and lying within the region of reduced rates. At that station purchase a one-way ticket to Kansas City



and secure a certificate as directed in the preceding paragraph.

*Endorsement of Certificates by A. A. A. S. and  
Validation by Transportation Companies*

Upon arrival at the meeting, register immediately in the registration room in the Aladdin Hotel. On the registration card be sure to fill in the blanks referring to railway tickets. Secure a numbered identification card at the registration desk. After registering and receiving your identification card, leave your railway certificate at the validation desk, being sure that your identification card is there marked to show that you have deposited a certificate and paid the validation fee of 50 cents. Retain the identification card. Your certificate will later be endorsed by the agent of the American Association and validated by the agent of the transportation companies. Call for it later at the validation desk, presenting your identification card. Unvalidated certificates will not be honored for the purchase of return tickets, and unendorsed certificates can not be validated. The funds secured by the association in the form of validation fees are to be used to defray a portion of the expense of operating the registration offices, etc. The fee (50 cents) is to be payable when the railway certificate is deposited at the validation desk.

*Purchasing Return Tickets from Kansas City*

The ticket agents at Kansas City will honor any properly endorsed and validated certificate if presented at least 30 minutes before the train for which it is to be used is due to leave. To each person presenting an endorsed and validated certificate they

will sell a continuous-passage, one-way, return ticket for one half of the regular fare, by the same route as that followed in the trip to Kansas City. The last date on which certificates may be validated is December 31. The last date on which return tickets may be purchased is January 6.

LODGING AND LUNCHEON ACCOMMODATIONS

The meeting places for the Kansas City convention will be near together and in or near the hotel district of the city. A list of Kansas City hotels has been published in *SCIENCE* for November 14th. The Aladdin Hotel will be the general headquarters of the association and it can supply many rooms. Some of the organizations that will meet with the association have named other hotels as their headquarters. Available information in this regard is given in this announcement under the heading, Sessions of the Sections and Societies. *Hotel rooms should be engaged at once if not already cared for.* A map of the central part of Kansas City, furnished by the Kansas City Convention Bureau, is shown on this page. Convenient accommodations for luncheons and other meals will be available.

REGISTRATION AT KANSAS CITY

Those who attend any of the Kansas City sessions, which will be fully open to all, whether they are members of the association or not and whether they are from away or reside in Kansas City, should register as promptly as possible. The registration room will be in the Aladdin Hotel. The registration offices will be open from 9 A. M. to 9 P. M. on the first three days, and from 9 to 5 on the remaining days. Registration will be in charge of Mr. Sam Woodley,



executive assistant, of the Washington office of the association.

Registration is necessary, in order to secure the official identification card, general program, and badge, and in order that railway certificates may be endorsed and validated. Having filled out the registration card, hand it in at the registration desk where you will receive your identification card, your badge, and your copy of the general program. Your name and address will be entered immediately in the visible directory of those in attendance.

Next, leave your railway certificate at the validation desk and have your identification card receipted for the certificate and for the validation fee (50 cents). The certificate, after endorsement and validation, will be returned to you later, on presentation of your receipted identification card, at the validation desk.

Delegates from institutions and organizations, and all official guests, are specially requested to register as such.

#### INFORMATION SERVICE AT THE KANSAS CITY MEETING

Those in attendance at the meeting may obtain information of all sorts by applying at the information desk in the registration room at the Aladdin Hotel. Attention is called, however, to the visible directory of those in attendance, from which information regarding attendance, and the addresses of attending members of the association and societies, may be obtained without application at the desk. Also, a bulletin board will be installed in the registration room, which will furnish information of various kinds.

Before the meeting, information may be obtained from the secretaries of the sections or of the associated societies or other societies meeting with the association at Kansas City (regarding programs, etc.), from the members of the local committee on special arrangements or the local representatives of sections (regarding local arrangements), or from the permanent secretary's office in the Smithsonian Institution Building, Washington (regarding general association affairs).

#### MAIL, EXPRESS, TELEGRAMS, ETC.

Persons attending the meeting may have mail, etc., addressed to them in care of the American Association for the Advancement of Science, Registration Room, Aladdin Hotel, Kansas City, Mo. They should call at the registration room daily, to inspect the personal bulletin, which will be conveniently located. If a person's name appears on this bulletin, he should inquire at the proper desk for mail, etc.

At the close of the meeting, or upon departing,

each person who has been in attendance is urged to leave a forwarding address for mail, etc. If this is not done, letters, etc., that are not delivered will be re-sent to the addresses shown in the files of the permanent secretary's office.

#### SOCIETIES MEETING AT KANSAS CITY

THE following is a list of the scientific societies that have thus far intimated their intentions to meet with the association at Kansas City this year, together with the names and addresses of their secretaries:

American Mathematical Society; R. G. D. Richardson, Brown University, Providence, R. I.

Mathematical Association of America; W. D. Cairns, Oberlin College, Oberlin, Ohio.

Pi Mu Epsilon Mathematical Fraternity; E. D. Roe, Jr., 123 W. Ostrander Ave., Syracuse, N. Y.

American Physical Society; Harold W. Webb, Columbia University, New York, N. Y.

American Meteorological Society; Charles F. Brooks, Clark University, Worcester, Mass.

Entomological Society of America; C. L. Metcalf, University of Illinois, Urbana, Ill.

American Association of Economic Entomologists; C. W. Collins, Melrose Highlands, Mass.

American Society of Parasitologists; W. W. Cort, 310 W. Monument St., Baltimore, Md.

Wilson Ornithological Club; Gordon Wilson, 1434 Chestnut St., Bowling Green, Ky.

Botanical Society of America; I. F. Lewis, University, Va.

American Phytopathological Society; R. J. Haskell, Bureau of Plant Industry, Washington, D. C.

American Society of Plant Physiologists; Wright A. Gardner, Alabama Polytechnic Institute, Auburn, Ala.

Ecological Society of America; A. O. Weese, University of Oklahoma, Norman, Okla.

American Microscopical Society; H. J. Van Cleave, University of Illinois, Urbana, Ill.

American Nature Study Society; E. Laurence Palmer, Renwick Heights, Ithaca, N. Y.

Phi Sigma Biological Research Society; C. I. Reed, Baylor University Medical School, Waco, Tex.

Metrie Association; Howard Richards, Jr., 156 Fifth Ave., New York, N. Y.

American Society of Agronomy; P. E. Brown, Iowa State College, Ames, Iowa.

American Society for Horticultural Science; C. P. Close, College Park, Md.

Association of Official Seed Analysts; A. L. Stone, University of Wisconsin, Madison, Wis.

Potato Association of America; William Stuart, U. S. Department of Agriculture, Washington, D. C.

Phi Delta Kappa Fraternity; Clayton R. Wise, 10403 St. Clair Ave., Cleveland, Ohio.

Society of Sigma Xi; Edward Ellery, Union College, Schenectady, N. Y.

Gamma Alpha Graduate Scientific Fraternity; J. E.



Ackert, Kansas State Agricultural College, Manhattan, Kans.

Honor Society of Phi Kappa Phi; C. H. Gordon, University of Tennessee, Knoxville, Tenn.

#### MEMBERSHIP AND ASSOCIATESHIP IN THE AMERICAN ASSOCIATION

The American Association for the Advancement of Science is now a cooperative organization of upwards of 14,000 individuals, and it has the official approval of more than a hundred science organizations that are associated with it. Its aim is to further the advancement of science in all feasible ways. The work of the association is mainly supported by contributions made by its members and associates. Annual members contribute five dollars a year, life members make a single contribution of one hundred dollars and sustaining members contribute a thousand dollars at one time, but only the income from the last two classes of contributions is used, the funds themselves being permanently invested. Associates contribute five dollars toward the expenses of the meeting for which they become associates. Members receive either the official journal, *SCIENCE*, or *The Scientific Monthly*. The fiscal year begins October 1 and the corresponding journal subscriptions begin the following January 1. New annual members pay an entrance fee of five dollars when they join the association, but this may be omitted by life and sustaining members. It may also be omitted by members of newly affiliated societies and by new members of all affiliated societies.

The easiest and one of the most effective ways by which an individual may aid the advance of knowledge and prepare the way for finer and fuller lives among those of coming generations is to maintain membership in the American Association. The association needs the help of every one who appreciates these aims. Its work is limited in extent and in influence only by its limited funds and the extension and improvement of its various activities is following closely upon its recent rapid gain in membership and the consequent possibility of increased expenditure. Those who are not already members and who are willing to take part in the work of the association are asked to join. They should fill in the blanks on a membership application card and send it, with proper remittance, to the Washington office of the permanent secretary, or else present card and remittance at the registration desk at Kansas City. Copies of a pamphlet on the organization and work of the association, as well as membership application cards and sample copies of the journals, may be had from the permanent secretary at any time.

Special attention is called this year to life mem-

bership as a convenient means for making a permanent contribution to the advancement of science. The number of life members is increasing rapidly in recent years. For persons not too advanced in years this form of membership safely constitutes a very productive form of investment, considered on an actuarial basis. For all persons it constitutes an excellent way to make a real and lasting contribution to the work of the association. All who can possibly do so should become life members. The fee is only one hundred dollars, which is within the reach of all who read this announcement.

#### SPECIAL PRIVILEGE FOR MEMBERS OF AFFILIATED SOCIETIES

Any member of a society officially affiliated with the American Association may become a member of the latter without paying the usual entrance fee of five dollars if he makes application before the second annual meeting following his entrance into the society. Also, members of recently affiliated societies may join the association without paying the entrance fee, if they do so before the second annual meeting following the affiliation. This special privilege is open to *all members* of the following affiliated societies:

American Electrochemical Society  
American Ceramic Society  
National Education Association  
Mineralogical Society of America  
American Society of Plant Physiologists  
American Public Health Association  
American Society of Parasitologists  
History of Science Society  
Honor Society of Phi Kappa Phi  
Institute of Radio Engineers.

Members of the American Society of Parasitologists, the History of Science Society, the Honor Society of Phi Kappa Phi, and the Institute of Radio Engineers have until the close of the Philadelphia meeting (January 1, 1927) to accept this offer, while members of the other societies listed above have only until the close of the Kansas City meeting to take advantage of the special privilege.

Those who wish to omit the payment of the entrance fee should use a blue membership application card and mail it to the permanent secretary's office, together with their annual dues (\$5), or present card and dues in the registration room at the Aladdin Hotel.

#### BUSINESS SESSIONS AT KANSAS CITY

The members of the executive committee of the association, the secretaries of the sections and the

secretaries of the societies that meet with the association this year will dine together at Kansas City on the evening of Sunday, December 27, at 6:30. The evening will be devoted to the secretaries' conference on various affairs of the association and its relation to the associated organizations.

The executive committee will hold its first Kansas City session in the permanent secretary's consulting room in the Muehlebach Hotel, on Monday forenoon, December 28, at 10 o'clock. Matters to be considered by the committee or by the council should be transmitted to the permanent secretary at the Washington office, so as to arrive by December 20.

The council of the association will hold its first session in the council room at the Muehlebach Hotel on Monday afternoon, December 28, at 2 o'clock.

Other meetings of the council will probably occur in the council room at 9 o'clock on Tuesday, Wednesday, Thursday and Friday mornings.

Other meetings of the executive committee will probably occur in the permanent secretary's consulting room at 10 o'clock on Tuesday, Wednesday, Thursday and Friday mornings.

Special attention is called to the rule that business to come before the council must regularly be first considered by the executive committee.

#### FURTHER ANNOUNCEMENTS AND REPORTS OF THE MEETING

Later announcements about the Kansas City meeting will be made in *SCIENCE*. Full information will be contained in the General Program, which will be available in the registration room at Kansas City on the morning of Monday, December 28. A copy of the program will be mailed free to each member who requests it, provided that every such request reaches the permanent secretary at the Washington office of the association before December 21.

It is planned that a general report of the Kansas City meeting will appear as a special issue of *SCIENCE* about February 1st. This is to contain reports on the main general features of the convention, the business transacted, and especially a full series of readable reports on the section and society programs, the latter reports based on material to be supplied by the secretaries of those organizations. All new members who join the association before the time of its publication will automatically receive the special issue of *SCIENCE*.

BURTON E. LIVINGSTON,  
*Permanent Secretary*

## SCIENTIFIC EVENTS

### THE NORWEGIAN EXPEDITION TO SPITZBERGEN AND BEAR ISLAND

THE *Geographical Journal* gives a description of the principal results of the Norwegian expedition to Spitzbergen and Bear Island carried out during the past summer under the leadership of Dr. Hoel, whose previous labors in the same field have added greatly to our knowledge. In Spitzbergen the sphere of operations lay in the south central part of the West Island, between Van Mijen Bay and Ice fiord, and four parties took the field with a view to completing the survey of the eastern part of the coal-bearing tract in this region. As the country is covered with ice and snow transport was a matter of difficulty, the parties being equipped for the whole summer and each having a kit weighing some 1,000 kilograms; depôts laid out by the Store Norske Company were however of considerable help. Two of the parties set out from Sassendal, and two from Braganza Bay, and they met halfway. They were fortunate enough to effect a connection with the Russian survey points on Stor fiord. Dr. Hoel, Dr. Braastad, and Mr. Orwin carried out geological work slightly further west, and the last-named made the interesting discovery of the skeleton of a giant lizard of Jurassic age, found partly imbedded in shale. No such complete remains had ever been found in Spitzbergen. In the absence of suitable implements for digging out the remains, it was necessary to leave them till another occasion. On the peaks at Van Mijen Bay Dr. Braastad examined remains of fossil trees of Tertiary age. There were large trunks and smaller pieces not so well preserved, and it seemed as if regular lumbering had been carried on. Although the expedition worked in what are considered the best reindeer districts in the country, only eight or ten animals were seen, so that the stocks must have greatly diminished, and there is urgent need of protection. Work was also done on Bear Island by Messrs. Horn and Marstrander, who, besides boring for coal, investigated occurrences of galena in the south-east of the island. It has been proved that mixed seams of sulphate of barytes and galena occur, and that there is one pure seam of galena 30 to 40 centimeters thick, so that the prospects of working it with success are thought to be good. At sea, Captain Hermansen and other officers of the *Farm* carried out soundings and other oceanographical observations. The inner part of Ice fiord was sounded, and data collected for completing the chart of the waters between South Cape and Cross Bay on the scale of 1/100,000. Temperature observations gave the remarkable result that at