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THE AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE

PRELIMINARY ANNOUNCEMENTS FOR THE INDIANAPOLIS MEETING

Edited by DR. F. R. MOULTON
PERMANENT SECRETARY

FROM December 27, 1937, to January 1, 1938, Indianapolis, Indiana, will be host to the association and its affiliated societies. On two previous occasions the association has held meetings in Indianapolis, the first time in August, 1871, and the second time in August, 1890.

Indianapolis has the advantage of being near the center of population of the United States and of having unsurpassed railroad connections in every direction. Being the capital of Indiana, it is well supplied with hotels, public buildings and places for holding meetings. Moreover, its principal hotels, public buildings and places for meetings are clustered around a large central plaza, from which many of its streets radiate. In spite of the large number of scientific programs that will be presented by the sections of the

association and by its affiliated societies, the accommodations for them will be adequate and the visiting members will be satisfactorily and conveniently housed.

HOTELS AND HEADQUARTERS

General Headquarters: Claypool and Lincoln Hotels.

Headquarters of the sections and of affiliated societies meeting in Indianapolis are as follows:

Claypool Hotel: Sections on Zoological Sciences (F), Botanical Sciences (G), Agriculture (O); also, American Society of Zoologists, American Society of Parasitologists, Botanical Society of America, American Society of Plant Physiologists, American Fern Society, Sullivant Moss Society, American Society of Naturalists, Genetics Society of America, American Microscopical Society, Limnological Society of America, American Society of

Agronomy, American Society for Horticultural Science, Potato Association of America, Society of the Sigma Xi, United Chapters of Phi Beta Kappa, American Association of University Professors, Gamma Alpha Graduate Scientific Fraternity. (Single rooms, \$3 to \$6; double, \$4.50 to \$8.)

Lincoln Hotel: Sections on Chemistry (C), Astronomy (D), Geology and Geography (E), Anthropology (H), Social and Economic Sciences (K), Historical and Philosophical Sciences (L), Engineering (M); also, American Association of Economic Entomologists, Entomological Society of America, Mycological Society of America, Ecological Society of America, Phi Sigma Society, Econometric Society, Metric Association, History of Science Society, American Science Teachers' Association, Honor Society of Phi Kappa Phi, Sigma Delta Epsilon Graduate Women's Fraternity, Institute for Aeronautical Sciences. (Single rooms, \$3 to \$6; double, \$4.50 to \$8.)

English Hotel: Wilson Ornithological Club. (Single rooms, \$1.50 to \$2.50; double, \$2.50 to \$3.50. Rooms without bath: single, \$1.25 to \$1.50; double, \$2 to \$2.50.)

Spink-Arms Hotel: American Meteorological Society, American Nature Study Society, American Association of Physics Teachers. (Single rooms, \$2.50 to \$4; double, \$4 to \$7.)

Severin Hotel: American Phytopathological Society. (Single rooms, \$2.50 to \$4; double, \$4 to \$7.)

Marott Hotel: Section on Mathematics (A), American Mathematical Society, Mathematical Association of America, Institute of Mathematical Statistics. (Single rooms, \$3 to \$4.50; double, \$5 to \$6.50.)

Warren Hotel: Mathematical Societies. (Single rooms, \$2.25 to \$3.50; double, \$3.50 to \$5.)

Antlers Hotel: Section on Medical Sciences (N), Subsection on Pharmacy, Subsection on Dentistry. (Single rooms, \$2.50 to \$4; double, \$4 to \$6.)

Athletic Club: Section on Physics (B), American Physical Society. (Single rooms, \$2.50 to \$4; double, \$5 to \$6.)

Columbia Club: Section on Psychology (I), Section on Education (Q). (Single rooms, \$3 to \$4.50; double, \$4.50 to \$7.)

Note: For reservations at Athletic Club and Columbia Club write Henry T. Davis, Indianapolis Convention and Publicity Bureau.

RAILROAD RATES

When reduced railway fares were adopted by railroads over a year ago, special convention rates were discontinued. The present regular rates, however, approximate the old convention rates. There may be special holiday rates for limited periods concerning which each person should make inquiry. The regular round trip fares to Indianapolis, including Pullman, from principal cities are as follows: New York, \$60.70; Atlanta, \$35.50; Cleveland, \$22.10; Detroit, \$25.00; Chicago, \$16.10; San Francisco, \$134.50.

REGISTRATION

Registration headquarters will be in the Murat Temple, with branches in the Claypool and Marott hotels.

Each person registered will receive a copy of the general program, an identification card, an association badge and a ticket of admittance to all general meetings and to the scientific exhibits.

Reservations for dinners and special functions will be made at the registration headquarters in the Murat Temple.

GENERAL SESSIONS

All evening sessions will be held in the Auditorium of the Murat Temple at 8:15.

Monday, December 27. Retiring presidential address by Dr. Edwin G. Conklin on the subject, "Science and Ethics," followed by a reception tendered by the Local Committee in the Lounge of the Murat Temple.

Tuesday, December 28. Annual Sigma Xi address by Dr. Irving Langmuir on the subject, "Biological Applications of Surface Chemistry."

Wednesday, December 29. Annual Phi Beta Kappa address by Dr. George Lyman Kittredge on the subject, "Shakespeare and the Critics."

Thursday, December 30. Address by Dr. Thomas Parran, Jr., Surgeon-General of U. S. Bureau of Public Health, on the subject, "Syphilis as a Public Health Problem."

Tuesday, December 28. At 4:00 P. M. in Antlers Hotel, the fourteenth annual Josiah Willard Gibbs lecture by Professor Charles A. Kraus, on the subject, "The Present Status of the Theory of Electrolytes."

OFFICIAL MEETINGS

The council of the association will meet on Monday at 2:00 in the Louis XIV Room of the Claypool Hotel, and thereafter daily at 9:00 in the same place.

The Academy Conference will be held on Monday at 4:00 in the Claypool Hotel, followed by a complimentary dinner to official representatives of the affiliated academies and designated representatives of the association.

The Secretaries Conference will be held on Friday at 10:00 in the Claypool Hotel, followed by a complimentary luncheon at 12:30 to secretaries of sections and of affiliated societies and to members of the council.

SOCIAL AFFAIRS, DINNERS AND LUNCHEONS

Annual reception by the local committee to members of the association and of affiliated societies, in the Lounge of Murat Temple, Monday evening, following the address of the retiring president of the association.

Academy dinner, complimentary to official representatives of affiliated state academies and representatives of the association, in the Claypool Hotel, Monday, at 6:15.

Secretaries' luncheon, complimentary to secretaries of sections of the association and of affiliated societies and to members of the executive committee, in Claypool Hotel, Friday, at 12:30.

Joint dinner for mathematicians, in Marott Hotel, Wednesday, at 6:15.

Luncheon of the Institute of Mathematical Statistics, in Marott Hotel on Thursday at 12, at which Dr. H. L. Rietz will speak.

Luncheon of National Council of Teachers of Mathematics, in Spink-Arms Hotel, Wednesday, at 12:00.

Dinner of the American Physical Society, in Athletic Club, Wednesday, at 6:15.

Luncheon of American Meteorological Society, in Spink-Arms Hotel, Tuesday, at 12:30.

Annual Biologists' Smoker, in Claypool Hotel, Tuesday evening.

Annual Zoologists' dinner, in Claypool Hotel, Wednesday, at 7:00.

Joint dinner of entomologists, sponsored by American Association of Economic Entomologists, in Lincoln Hotel, Wednesday, at 6:30, following which the annual public address of the society will be delivered by Professor P. J. Parrott.

Demonstration program and tea of the American Society of Parasitologists, in Indiana Medical School, Wednesday afternoon.

The Wilson Ornithological Club informal dinner, in English Hotel, Monday, at 6:15.

Annual dinner for all botanists, in Columbia Club, Wednesday, at 6:15, following which the retiring presidential address of the Botanical Society of America will be delivered by Dr. C. Stuart Gager.

Annual dinner of the American Phytopathological Society and the Mycological Society of America, in Severin Hotel, Tuesday, at 6:15.

Annual banquet of American Society of Plant Physiologists, in Claypool Hotel, Tuesday, at 6:15, following which the Stephen Hales address will be delivered and the Charles Reid Barnes life membership awarded.

Annual dinner of Ecological Society of America, in Lincoln Hotel, Tuesday, at 6:00, following which Dr. R. E. Coker, president of the society, will deliver an address.

Dinner of American Society of Plant Taxonomists, in Claypool Hotel, Tuesday, at 6:00.

Annual luncheon of the Genetics Society of America, Wednesday, at 12:00, following which there will be a business meeting of the society.

Breakfast of the Sullivant Moss Society, in Claypool Hotel, Thursday, at 7:45.

Annual banquet of American Society for Horticultural Science, in Claypool Hotel, Wednesday, at 6:15, at which Dr. A. J. Heinecke, retiring president of the society, will deliver the principal address.

Supper meeting of Pea Aphis Committee, Lincoln Hotel, Monday, at 6:15.

Banquet of the American Nature Study Society, Spink-Arms Hotel, Wednesday, at 6:15.

Annual dinner of the Section on Anthropology (H), in Lincoln Hotel, Friday, at 6:15, after which Dr. T. M. N. Lewis will show motion pictures of the archeological work connected with the T.V.A.

Joint dinner of the Section on Psychology (I) and the Section on Education (Q), in Columbia Club, Tuesday, at 6:15, after which the retiring vice-presidential addresses of the respective sections will be delivered by Dr. A. T. Poffenberger and Dr. E. S. Evenden.

Joint luncheon of the Section on Education (Q) with the Botanical Society of America, in Claypool Hotel, Wednesday, at 12:15, at which the report of the Committee on Botany Teaching will be presented and discussed.

Luncheon of American Science Teachers' Association, Columbia Club, Thursday, at 12:30, at which Dean George D. Birkhoff, president of the association, will speak.

Annual formal dinner of American Association of University Professors, Claypool Hotel, Friday, at 6:15, at which Dr. A. J. Carlson will deliver his retiring presidential address. Luncheons will be held daily.

Delegates' breakfast of the Honor Society of Phi Kappa Phi, Tuesday, at 8:00, at which Dr. Frederick D. Kershner will speak on "A Journey through Utopia."

Luncheon of Sigma Delta Epsilon, Graduate Women's Scientific Fraternity, for all women in science, in Claypool Hotel, Tuesday, at 12:15, at which Dr. Alice C. Evans will speak on Brucellosis.

Banquet of the Phi Sigma Society, Wednesday, at 6:15.

SYMPOSIA

"The Applications of Surface Chemistry in Biology," organized by the Section on Chemistry (C). Tuesday. Speakers: Drs. William D. Harkins, G. H. A. Clowes, L. H. Germer, Harry Sobotka and Irving Langmuir.

"Recent Advances in Chemical Physics," organized by the Section on Chemistry (C). Wednesday. Speakers: Drs. Albert Sherman, Merle Randall, Oliver R. Wulf, Linus Pauling, John Y. Beach, H. Sponer, F. G. Brickwedde, James H. Hibben, Charles P. Smyth and Harold C. Urey.

"Petroleum Geology of the Illinois-Indiana Basin," organized jointly by the Section on Geology and Geography (E) and the Geological Society of America. Friday.

"Sex Differentiation," held jointly by the American Society of Zoologists and the Genetics Society of America, under the direction of Dr. B. H. Willier. Wednesday afternoon. Speakers: Drs. J. T. Patter-

son, R. K. Burns, L. V. Domm and Richard Goldschmidt.

"Hydrobiology," held jointly by the American Society of Zoologists and the Limnological Society of America, under the direction of Professor Chancey Juday. Thursday morning.

"The Relationships Between Insects and Plant Diseases," organized jointly by the Entomological Society of America and the American Association of Economic Entomologists. Tuesday afternoon.

"Codling Moth Conference," organized by the American Association of Economic Entomologists. Monday afternoon.

"The Growth and Differentiation of Meristems with Special Reference to Reproduction," held jointly by the American Society of Plant Physiologists, the American Society for Horticultural Science and the Physiology Section of the Botanical Society of America. Wednesday morning.

"The Endocrines as Related to Behavior," organized by the Section on Psychology (I) under the chairmanship of Dr. Calvin P. Stone. Tuesday. Speakers: Drs. C. R. Stockard, Carl Hartman, Josephine Ball, Louis A. Lurie and Hugh T. Carmichael.

"Science and Society—Fundamental Resources as Affected by Science," organized by the Section on Social and Economic Sciences (K), under the direction of Dr. H. G. Moulton. Monday to Friday. For speakers see program of Section K.

"The Maya Civilization," organized jointly by the Section on Historical and Philological Sciences (L) and the History of Science Society. Thursday.

"Syphilis," a comprehensive symposium on the disease, organized by the Section on Medical Sciences (N). Tuesday, Wednesday and Thursday. For speakers see program of Section N.

"The Rôle of Minor Element Fertilization in Economic Plant Production," held jointly by the Section on Agriculture (O), the American Society of Agronomy, the Potato Association of America and the Vegetable Crops section of the American Society for Horticultural Science. Tuesday afternoon. Speakers: Drs. J. S. McHargue, L. G. Willis, H. L. Crane, I. C. Hoffman and others.

ANNUAL SCIENCE EXHIBITION

The annual science exhibition, which will be conveniently housed in the Murat Temple, will include exhibits both of research laboratories and of manufacturers of scientific apparatus and equipment. The outstanding books on science published during 1937 will be on display and available for examination. Scientific motion pictures will be shown, including a number of new ones on physical sciences and human physiology, produced by the University of Chicago. Tickets of admittance to the science exhibition will be given to all registrants

for the meeting. The Lounge of the Murat Temple, adjacent to the exhibits, will be found a convenient and attractive place for informal gatherings of scientists.

SECTIONAL AND SOCIETY PROGRAMS

Section on Mathematics (A). Tuesday morning to Thursday noon, joint meeting with the American Mathematical Society; Thursday afternoon to Friday noon, joint meeting with the Mathematical Association of America. On Thursday the Institute of Mathematical Statistics will meet jointly with the section and the mathematical societies. In addition to the numerous papers of the regular sessions, there will be the retiring vice-presidential address (Thursday) by Dr. Griffith C. Evans on the subject, "Mathematical Progress in Theoretical Economics" and the fourteenth Josiah Willard Gibbs lecture by Dr. Charles A. Kraus on the subject, "The Present Status of the Theory of Electrolytes." Headquarters: Marott Hotel.

The National Council of Teachers of Mathematics will meet on Thursday in Central Shrine of the World War Memorial Building.

Section on Physics (B). Tuesday, Wednesday and Thursday, joint meeting with the American Physical Society (39th annual meeting and 218th regular meeting); Thursday, joint meeting with the American Association of Physics Teachers. Among the principal papers will be the retiring vice-presidential address of Dean George B. Pegram, and also the address of Dr. H. M. Randall, retiring president of the American Physical Society, on the subject, "The Spectroscopy of the Far Infra-red." Headquarters: The Athletic Club.

The American Meteorological Society, affiliated with Section B, will meet on Monday, Tuesday and Wednesday.

Section on Chemistry (C). Tuesday, Wednesday and Thursday. The outstanding features of the program of Section C are the symposia on the subjects, "The Applications of Surface Chemistry in Biology" and "Recent Advances in Chemical Physics." (Speakers are listed in preceding section on symposia.) Headquarters: Lincoln Hotel.

Section on Astronomy (D). Tuesday and Wednesday. In addition to general sessions for the presentation of shorter papers, on Tuesday afternoon Dr. Frederick H. Seares will deliver his retiring vice-presidential address. Headquarters: Lincoln Hotel.

Section on Geology and Geography (E) and the Geological Society of America. Thursday and Friday. Special features of the program will be the retiring vice-presidential address of Dr. G. R. Mansfield, the symposium on petroleum geology of the Illinois-Indiana basin, papers on karst topography, glacial phe-

nomena and problems in the Till Plains and recent stratigraphic research in the Central Lowlands. Among the speakers on the symposium and other programs are Drs. A. H. Bell, D. G. Cooper, E. R. Cumings, C. A. Malott, W. A. Newton, S. M. Schopf, R. A. Smith, W. D. Thornbury, Karl Ver Steeg, H. R. Wanless and J. M. Weller. Headquarters: Lincoln Hotel.

Section on Zoological Sciences (F) and Affiliated Societies. Tuesday, Wednesday and Thursday, Section F will hold joint sessions with the American Society of Zoologists. Plans have been made for general programs, symposia, dinners and luncheons by the Entomological Society of America, American Association of Economic Entomologists, American Society of Parasitologists, Ecological Society of America, Genetics Society of America and Limnological Society of America. In general, the morning sessions will be devoted to the presentation of miscellaneous scientific papers, and the afternoons to symposia, invited papers, demonstrations and business meetings. The symposia on "Sex Differentiation," "Hydrobiology" and "The Relationships Between Insects and Plant Diseases" have been mentioned above.

At the Zoologists' dinner, on Wednesday evening, Dr. Ralph S. Lillie, vice-president of the section, will deliver an address on "The Nature of Organizing Action." At the Entomologists' dinner sponsored by the American Association of Economic Entomologists, also on Wednesday evening, Dr. P. J. Parrott will deliver the annual public address of the Entomological Society of America. On Wednesday morning Dr. George R. La Rue will deliver the presidential address of the American Society of Parasitologists on "Life History Studies and their Relation to Problems in Taxonomy of Digenetic Trematodes." A demonstration program and tea will be given on Wednesday afternoon.

The American Association of Economic Entomologists will convene on Monday afternoon (its fifteenth annual meeting), prior to its general sessions, for a Codling Moth Conference, to be followed by the Tobacco Insects Council on Monday evening. On Monday evening the Pea Aphis Committee will have a supper meeting and an open meeting the following morning. On Tuesday morning the Apiculture section of the society will meet and at noon a general session of the society will be opened with its presidential address. After the joint symposium, Tuesday afternoon, with the Entomological Society of America on "The Relationships Between Insects and Plant Diseases," the day's program will close with an evening meeting of its section on extension entomology. Wednesday will be devoted to scientific sessions and a joint dinner in the evening, which has been mentioned. On Thursday the society and its section on Plant Quarantine

will hold meetings concurrently throughout the day. The program of the society will continue on Friday with the final business meeting in the afternoon. Headquarters: Lincoln Hotel.

The Wilson Ornithological Club, an associated society, will hold its twenty-third annual meeting on Monday and Tuesday. One session will be devoted to reports on bird-banding activities and a part of another to a symposium on Alexander Wilson. An informal dinner on Monday evening will be followed by a program arranged by the local committee under S. E. Perkins, III, as chairman. Headquarters: English Hotel.

In addition to participating in the American Society of Naturalists' symposium on Thursday afternoon, the Genetics Society of America will hold demonstration sessions on Tuesday and Wednesday mornings, its annual luncheon on Wednesday noon, a session of invited papers on Wednesday afternoon and a round table on an agricultural topic on Thursday morning. Headquarters: Claypool Hotel.

The Limnological Society of America will hold at least two general sessions in addition to participating in the symposium on "Hydrobiology" on Thursday morning. Headquarters: Claypool Hotel.

Section on Botanical Sciences (G) and Affiliated Societies. Tuesday, Wednesday and Thursday. On Tuesday afternoon, the section will meet in joint session with the Botanical Society of America, American Phytopathological Society, American Society of Plant Physiologists and Mycological Society of America, at which Dr. J. M. Greenman will deliver his retiring vice-presidential address, followed by invited papers by Drs. K. C. Hamner, J. N. Couch and W. A. Sisson.

The Botanical Society of America plans the following session: The physiological and systematic sections will meet from Tuesday to Thursday, inclusive. The new paleobotanical section will meet on Tuesday; at other times with the general section. The following joint sessions have been arranged. Tuesday afternoon the society will meet with other societies affiliated with Section G; on Wednesday morning, the physiology section will meet with American Society of Plant Physiologists and American Society for Horticultural Science; on Wednesday afternoon, the systematic and general sections will meet with the Ecological Society of America; on Thursday afternoon, the society will meet with the American Society of Naturalists and affiliated societies. At the annual dinner for all botanists, on Wednesday evening, Dr. C. Stuart Gager will deliver an address as retiring president of the Botanical Society of America. Headquarters: Claypool Hotel.

The American Phytopathological Society will meet from Monday to Thursday, inclusive. In addition to its general scientific sessions, it will meet with Section

G and other affiliated societies on Tuesday afternoon and with the Mycological Society of America, the Potato Association of America and the Floricultural Section of the American Society for Horticultural Science on Thursday morning. The annual dinner of the society will be held on Tuesday evening. Headquarters: Severin Hotel.

The American Society of Plant Physiologists will meet in joint session with Section G and other affiliated societies on Tuesday afternoon and with the physiological section of the Botanical Society of America, and with the American Society for Horticultural Science on Wednesday forenoon in a symposium on "The Growth and Differentiation of Meristems with Special Reference to Reproduction." The society will hold its annual banquet on Tuesday evening, at which the Stephen Hales address will be delivered and the Charles Reid Barnes life membership awarded. Headquarters: Claypool Hotel.

The Mycological Society of America will meet from Tuesday to Thursday, inclusive, during which it will hold its regular scientific session, except when it will meet with Section G and other affiliated societies on Tuesday afternoon and Thursday morning. On Tuesday morning Dr. John Dearnness will deliver his retiring presidential address. The society will join with the American Phytopathological Society and the Botanical Society of America in their dinners. Headquarters: Lincoln Hotel.

The Ecological Society of America has arranged a four-day program extending from Tuesday to Friday, including a field trip on Friday. Its joint sessions on Tuesday and Wednesday afternoons have been mentioned above. On Wednesday morning the society will hold a general session on animal ecology. The annual dinner will be on Tuesday evening, following which Dr. R. E. Coker, president of the society, will deliver an address. Headquarters: Lincoln Hotel.

The thirtieth annual meeting of the American Nature Study Society will be held on Tuesday and Wednesday. The program will include discussions of the value of nature study in schools, as recreation for scientist and amateur, and the conservation of wild life. At the closing banquet on Wednesday evening, Dr. Edwin H. Rudner will be the guest speaker. Headquarters: Spink-Arms Hotel.

On Friday morning the American Fern Society will meet under the chairmanship of Dr. Willard N. Clute, founder of the society, at the Claypool Hotel.

The Sullivant Moss Society will have a breakfast, business meeting and scientific sessions on Thursday at the Claypool Hotel.

The American Microscopical Society will hold its meetings on Tuesday and Wednesday at the Indiana Medical School.

The annual meeting of the Council of the Union of

American Biological Societies will be held in the Claypool Hotel on Wednesday evening. The agenda for the meeting include reports as follows: Committee on Arrangements for Biological Abstracts; Committee on the Present State of Biological Science Teaching; the Woods Hole Conference on Aging; the International Union of Biological Societies; the present status of the American Documentation Institute.

The Phi Sigma Society will meet on Tuesday and Wednesday in the Lincoln Hotel.

Section on Anthropology (H). Thursday, Friday and Saturday. In cooperation with the Indiana Historical Society, the programs of the section will center in recent archeological researches in Indiana and contiguous areas and the relations of these regions to the upper and middle Mississippi complexes. On Friday evening Dr. John Swanton, chairman of the section, will deliver his retiring vice-presidential address. At the annual dinner on Friday evening, Dr. T. M. N. Lewis will exhibit motion pictures of archeological work in the TVA area. Headquarters: Lincoln Hotel.

Section on Psychology (I). Monday, Tuesday and Wednesday. In addition to the papers of a full general program, there will be a symposium on Tuesday morning, under the chairmanship of Dr. Calvin P. Stone, on "The Endocrines as Related to Behavior." Speakers: Drs. C. R. Stockard, Carl Hartman, Josephine Ball, Louis A. Lurie and Hugh T. Carmichael. On Tuesday evening there will be a joint dinner of the section with the Section on Education (Q), at which the retiring vice-presidential addresses of the sections will be delivered by Dr. A. T. Poffenberger and Dr. E. S. Evenden, respectively. Headquarters: Columbia Club.

Section on Social and Economic Sciences (K) and Affiliated Societies. Monday to Friday, inclusive. The program of the section and its affiliated societies consists of two principal parts. One is the first of the series of conferences on "Science and Society" under the direction of Dr. H. G. Moulton. The subject of this first conference, which will consist of five sessions at 4:30 p.m. daily, is "Fundamental Resources as Affected by Science." Speakers: Among the speakers are Drs. H. G. Moulton, retiring vice-president (Monday), Gove Hambidge, A. A. Potter, David Friday, Frederick Osborn, E. C. Lindeman and H. S. Person.

The other part of the program, organized by the Econometric Society, will consist of sessions on Wednesday and Thursday devoted to monetary theory, national income, theory of employment and wages, price analysis, welfare economics, statistical techniques, and a session for miscellaneous papers. One session will be a joint meeting of the Econometric Society, the Institute of Mathematical Statistics and the Section on Mathematics (A). Among the speak-

ers on this part of the program will be Drs. James Harvey Rogers, Harold Hotelling, Alvin Hansen, Harold T. Davis, P. Luzzata-Fegiz, Russell H. Whitman, Victor S. von Szeliski, Francis McIntyre and Charles F. Roos. Headquarters: Lincoln Hotel.

Section on Historical and Philological Sciences (L) and the History of Science Society. Thursday. The two special features of the joint program of the section and its affiliated society, under the chairmanship of Dr. R. C. Archibald, are a symposium on "Maya Civilization" and a demonstration of Bibliofilm Service, followed by a discussion on scientific libraries and the handling of scientific literature. Dr. George Sarton will present a paper on "A Survey of the Scientific Literature Transmitted in the Incunabula," Dr. Hugh Miller will discuss "Applications of the Evolutionary Concept to the Natural Sciences," Dr. Grant McColley will report on "Astronomical Doctrines Before and After the Renaissance," and Dr. Henry E. Sigerist will discuss "The Social Implications of Modern Science." Headquarters: Lincoln Hotel.

Section on Engineering (M). Monday to Friday. The program of the section, organized in cooperation with the Indiana Engineering Council, consists of three parts: (1) a stated meeting of the section on Wednesday afternoon for scientific papers, including the retiring vice-presidential address by Dr. William E. Wickenden on "The Social Sciences and Engineering Education"; (2) attendance at the conferences on "Science and Society" organized by Section K, Monday to Friday; (3) attendance at the annual Sigma Xi address on Tuesday at 8:15 by Dr. Irving Langmuir. Headquarters: Lincoln Hotel.

The Institute for Aeronautical Sciences will have programs on Tuesday afternoon and Wednesday morning.

Section on Medical Sciences (N). Monday, Tuesday, Wednesday and Thursday. On Monday afternoon the section will hold a joint session with the Subsection on Pharmacy, following a meeting of the latter in the morning. The remainder of the program of the section will consist largely of a thoroughly organized and comprehensive symposium by outstanding investigators on "Syphilis," closing with a general address on Thursday evening by Dr. Thomas Parran, Jr., on "Syphilis as a Public Health Problem." The speakers on this symposium include Drs. Wm. Allen Pusey, Charles S. Butler, Howard Fox, Norman R. Ingraham, Richard E. Olsen, Thomas B. Turner, Louise Pearce, Herman Beerman, Jarold E. Kemp, Henry E. Michelson, Paul O'Leary, Alfred C. Beck, W. T. Daily, Charles C. Dennie, Roy W. Scott, Francis E. Seneear, Frank W. Hartman, Elizabeth Yagle, Reuben L. Kahn, Benjamin S. Kline, John Kolmer, Harry C. Solomon, Walter M. Simpson, Arthur L.

Tatum, Lester M. Wieder, Harry Eagle, Rudolph Kampmeier, Dudley C. Smith and Udo J. Wile.

At the beginning of the Wednesday afternoon session, the medal accompanying the Theobald Smith Award will be presented to Dr. Robley D. Evans, who will deliver an address on the subject, "Biophysical Problems of Chronic Radium Poisoning." On Thursday afternoon, Dr. Esmond R. Long will discuss "Tuberculosis, Leprosy and Allied Mycobacterial Infections." Headquarters: Antlers Hotel.

Section on Agriculture (O) and Affiliated Societies. Tuesday, Wednesday and Thursday. The program of the section will center in a symposium on "The Role of Minor Element Fertilization in Economic Plant Production." Among the participants in the symposium will be Drs. J. S. McHargue, L. G. Willis, H. L. Crane and I. C. Hoffman. A memorial address will be delivered by Dr. J. G. Lipman in honor of Dr. P. E. Brown, whose untimely recent death left the section without its retiring chairman. The American Society of Agronomy will meet jointly with the section and participate in its program.

The American Society for Horticultural Science will hold its annual meeting on Tuesday, Wednesday and Thursday. Its program will include sections on general pomology, plant propagation and rootstocks, plant breeding, vegetable crops, floriculture and ornamental horticulture and small fruits. The vegetable crops section will meet with Section O and the Potato Association of America. On Wednesday morning, the entire society will meet with the American Society of Plant Physiologists and the Physiology Section of the Botanical Society of America in the symposium on "Growth and Differentiation of Meristems with Special Reference to Reproduction." On Thursday morning, the section of the society on floriculture and ornamental horticulture will meet with the American Phytopathological Society. At the annual banquet of the society on Wednesday evening, Dr. A. J. Heinecke will deliver his retiring presidential address. Headquarters: Claypool Hotel.

The Potato Association of America will meet on Tuesday, Wednesday and Thursday. On Tuesday morning Dr. Fred H. Bateman will deliver his presidential address. As was stated above, the society will have a joint session on Tuesday afternoon with the American Society for Horticultural Science and on Thursday morning with the American Phytopathological Society. In addition, it will have a full program of scientific sessions. Headquarters: Claypool Hotel.

Section on Education (Q). Tuesday and Wednesday. In addition to general papers, there will be special programs on Teacher Training, Reading Disability, Curriculum, Guidance and Personnel and Mea-

surement of Intangibles in Education. On Tuesday afternoon the program will consist of reports of national committees: The President's Committee on the National Reorganization of Education, by Dr. Floyd W. Reeves, and the Cooperative Study of Secondary School Standards, by Drs. George E. Carrothers and Carl G. F. Franzén. On Wednesday afternoon the section will have a joint session with the Section on Psychology (I) at which the subject will be "Educational Psychology." A forum on "The Problems of Teaching in the Social Studies in High Schools" will also be held on Wednesday afternoon. A joint luncheon will be held Wednesday noon with the Botanical Society of America, following which the report of the Committee on Botany Teaching will be presented and discussed. The joint dinner of Sections I and Q will be held on Wednesday evening, at which Dr. E. S. Evenden will deliver his retiring vice-presidential address on "Factors Affecting the Salaries of College and University Teachers." Headquarters: Columbia Club.

OTHER PROGRAMS

American Science Teachers' Association. Friday. The morning session will consist of a symposium on "New Knowledge of Matter." Speakers: Drs. A. H. Compton, Irving Langmuir and Wendell M. Stanley. At the luncheon at the Columbia Club, Dean George D. Birkhoff, president of the American Association for the Advancement of Science, will deliver an address. The first part of the afternoon program will be devoted to papers on "Science in Elementary and Junior High Schools," by W. Knox, Miss Mary Melrose, Miss Bertha Parker and Dr. Morris Meister; the second part of the afternoon program will be devoted to papers on "Science in Senior High Schools," by

Homer W. Le Sourd and George L. Bush, which will be followed by discussions. Headquarters: Columbia Club.

The Society of Sigma Xi will hold its thirty-eighth annual convention on Tuesday at 4 p. m. At 8:15 on Tuesday its sixteenth annual lecture will be delivered as one of the general sessions of the association by Dr. Irving Langmuir on "Biological Applications of Surface Chemistry." Headquarters: Claypool Hotel.

The third annual Phi Beta Kappa-American Association for the Advancement of Science lecture will be delivered at 8:15 on Wednesday as one of the general sessions of the association by Dr. George Lyman Kittredge on "Shakespeare and the Critics." An exhibit of *The American Scholar*, Phi Beta Kappa's quarterly, will be included in the Annual Science Exhibition.

The American Association of University Professors will hold its twenty-fourth annual meeting on Friday and Saturday. The program will consist of a symposium on "What the American Association of University Professors is and What it is Not," followed by an open forum and reports of various committees of the association. At the annual formal dinner on Friday evening, Dr. A. J. Carlson will address the delegates as retiring president. Headquarters: Claypool Hotel.

Sigma Delta Epsilon, Graduate Women's Scientific Fraternity, will meet on Monday afternoon and Thursday afternoon. It will have a luncheon for all women in science in Claypool Hotel on Tuesday at 12:15.

The Honor Society of Phi Kappa Phi will hold business meetings on Monday morning and afternoon and a delegates' breakfast on Tuesday morning. Headquarters: Lincoln Hotel.

OBITUARY

PROFESSOR DUNCAN STARR JOHNSON

IN the death of Professor Duncan Starr Johnson, of the Johns Hopkins University, the science of botany has lost one of its most active and profound scholars. Born at Cromwell, Connecticut, on July 21, 1867, he died at the Johns Hopkins Hospital, in Baltimore, on February 16, 1937.

In 1892 Johnson received the degree of bachelor of science at Wesleyan University, Middletown, Connecticut. The same university conferred on him the honorary degree of doctor of science in 1932. After studying at Yale University for a short time he entered the Johns Hopkins University in 1893, where he was most fortunate in coming under the influence of the great Lotsy and the brilliant young James Ellis Humphrey. It was the former who suggested the first objectives of research for Johnson, and the latter who guided him in

the pursuit of them. The untimely death of Humphrey, in 1897, left Johnson as his first and only graduate student. Johnson received his Ph.D. degree from the Johns Hopkins University in 1897, and the whole of his after life, except for summer responsibilities at various outside laboratories, was spent in the service of that institution. He was first an assistant, then an associate in botany, becoming associate professor in 1901 and professor of botany in 1906. He had spent a few months of study with von Goebel at Munich in 1901. In 1913 he became director of the new botanical garden at the Johns Hopkins University, for the planning and planting of which he was directly and wholly responsible.

Among Johnson's many lines of botanical activity only a few can be mentioned in this short account. He led seven summer expeditions to Jamaica, with short