

SCIENCE

VOL. 96

FRIDAY, NOVEMBER 27, 1942

No. 2500

The American Association for the Advancement of Science:

Preliminary Announcement of the New York Meeting: Edited by DR. F. R. MOULTON 479

Scientific Events:

Deaths and Memorials; War Emergency Courses in the University; Meteorological Officers in the Army Air Forces; Charles L. Mayer Awards of the National Science Fund; The National Foundation for Infantile Paralysis; The Nutrition Foundation 488

Scientific Notes and News 491

Discussion:

Bacterial Generic Names as Common Nouns: DR. R. S. BREED and DR. H. J. CONN. *Another Mould with Anti-Bacterial Ability:* DR. M. I. TIMONIN. *A Meteorite from Vermont:* PROFESSOR CHARLES G. DOLL. *The Tools of Science and the War Industry:* PROFESSOR HOLBROOK WORKING 493

Scientific Books:

The Crisis of Our Age: PROFESSOR JOHN M. COOPER 495

Special Articles:

The Presence of a Cortin-like Substance (Cold Protecting Material) in the Urine of Normal Men: DR. RALPH I. DORFMAN, BENJAMIN N. HORWITT and WILLIAM R. FISH. *Hay Fever and Vitamin C:* DR. HARRY N. HOLMES and WYVONA ALEXANDER 496

Scientific Apparatus and Laboratory Methods:

A Simplified Procedure for the Concentration and Purification of Influenza Virus: DR. THOMAS FRANCIS, JR., and JONAS E. SALK 499

Science News 8

SCIENCE: A Weekly Journal devoted to the Advancement of Science, edited by J. McKEEN CATTELL and published every Friday by

THE SCIENCE PRESS

Lancaster, Pennsylvania

Annual Subscription, \$6.00

Single Copies, 15 Cts.

SCIENCE is the official organ of the American Association for the Advancement of Science. Information regarding membership in the Association may be secured from the office of the permanent secretary in the Smithsonian Institution Building, Washington, D. C.

THE AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE

PRELIMINARY ANNOUNCEMENT OF THE NEW YORK MEETING

Edited by Dr. F. R. MOULTON

PERMANENT SECRETARY

THE one hundred eleventh meeting of the association will be held in New York City from next December 28 to January 2, inclusive. This will be the sixth meeting of the association in New York, the first having been held in August, 1887, thirty-nine years after the association was organized; the second in June, 1900; the third in December, 1906-January, 1907; the fourth in December, 1916; and the fifth in December, 1928-January, 1929.

All earlier meetings of the association in New York City were held while the United States was at peace, though in December, 1916, the first World War was in its third year, and it was becoming evident that the United States would be drawn into it. Now this coun-

try is involved in a war that is making unparalleled demands upon all its resources. Under these conditions obviously no scientific meeting or other convention should be held unless it contributes much to the current war effort and begins to look forward to the post-war future. Fortunately a large meeting can be held in New York City with a minimum of railroad travel because about 3,000 members of the association live in the City and about 10,000 within three or four hours' travel.

In order to compare the coming meeting of the association with earlier meetings held in New York City, a few statistics will be presented. The membership for 1942 is as of September 30, the end of the

fiscal year. The number of papers that will be presented is of course as yet subject to some uncertainty and the number of persons who will register is only a conjecture.

Year	Membership	Papers Read	Registration
1887	1,956	250	729
1900	1,925	253	447
1906-07	4,498	360	934
1916	No record	1,252	2,100 ±
1928-29	16,328	2,200 ±	3,935
1942-43	23,671	1,500 ±	3,000 ±

The New York meeting will be not only a large gathering of scientists but one in which many fields of science will be represented. Its value will depend fully as much upon the diversity of the interests represented as upon the number of scientists attending its programs. Fifteen of the association's sections will either present individual programs or participate in joint programs. In addition, 44 affiliated associated and cooperating societies will hold sessions ranging in character from those at which scores of technical papers will be presented to dinners or luncheons at which addresses by distinguished scientists will be delivered.

Naturally the war and questions related to the war will receive a great deal of attention, often in joint programs of two or more sections or societies. For example, there will be symposia on such important subjects as food in war and peace, strategic materials, nutrition, development of humid tropics, war and post-war readjustment of personnel, the outlook for rubber, tropical medicine, science in the war of production and high-school science and the manpower problem. Although thousands of scientists are either in the armed services of the country or otherwise engaged in war work, still many scientists of the highest distinction and representatives of the Government will attend the meeting either because of their official positions or because they will appear on important programs. For example, Dr. Irving Langmuir, retiring president of the association, will deliver his retiring address, and Dr. Arthur H. Compton, now president of the association, will preside at all general sessions, while Dr. Ruiz Castañeda, a distinguished scientist from Mexico City, will deliver the Theobald Smith Lecture of the New York Society of Tropical Medicine at a joint session with the Section on Medical Sciences. The New York meeting promises to be a very good one because of the war as well as in spite of the war.

REGISTRATION

There will be two principal places of registration, one in the Hotel Commodore and the other in the Hotel Pennsylvania. In addition, there will be registration branches in the Henry Hudson Hotel and the Hotel Edison.

Each person registering will receive a General Program of the meeting, a book of about 250 pages which will contain (a) complete information respecting hotel headquarters for all sections and societies, (b) a schedule of all general sessions, (c) complete scientific programs of all sections and societies, (d) a schedule of all special dinners, luncheons and breakfasts, (e) an alphabetical index of all persons appearing on the programs, (f) lists of officers of the association and of societies participating in the meeting, (g) a brief description of each exhibit in the Science Exhibition and (h) a daily summary of events. Each person registering will receive also an identification card that may be required for admittance to certain functions or programs. Free copies of *SCIENCE*, *The Scientific Monthly* and the *A.A.A.S. Bulletin* and lists of the publications of the association will be available at each of the registration places, and tickets to dinners and luncheons will be on sale at the places of registration. The registration fee will be one dollar as heretofore.

HOTELS AND HEADQUARTERS

Mathematics (A): Section on Mathematics; American Mathematical Society; Mathematical Association of America; Institute of Mathematical Statistics—Hotel Governor Clinton.

Physics (B): Section on Physics; American Physical Society; American Association of Physics Teachers; Sigma Pi Sigma Physics Honor Society—Hotel Pennsylvania. American Meteorological Society—Hotel Governor Clinton.

Chemistry (C): Section on Chemistry—Hotel Pennsylvania.

Astronomy (D): Section on Astronomy—Hotel Pennsylvania.

Geology and Geography (E): Section on Geology and Geography; Geological Society of America; Association of American Geographers—Hotel Pennsylvania.

Zoological Sciences (F): Section on Zoological Sciences; American Society of Zoologists; American Society of Parasitologists—Hotel Commodore. American Association of Economic Entomologists; Entomological Society of America—Hotel New Yorker.

Botanical Sciences (G): Section on Botanical Sciences; Botanical Society of America; American Society of Plant Physiologists; American Society of Plant Taxonomists; American Fern Society—Hotel Commodore. American Phytopathological Society—Hotel Edison.

Zoological and Botanical Sciences (F-G): American Society of Naturalists; Ecological Society of America; Genetics Society of America; American Microscopical Society; Union of American Biological Societies—Hotel Commodore. National Association of Biology Teachers—Hotel Governor Clinton.

Anthropology (H): Section on Anthropology—Hotel Pennsylvania.

Psychology (I): Section on Psychology—Hotel Pennsylvania.

Social and Economic Sciences (K): Section on Social and Economic Sciences; Econometric Society—Hotel Pennsylvania. Biometrics Section, American Statistical Association; Metric Association—Hotel Commodore.

Historical and Philological Sciences (L): Section on Historical and Philological Sciences—Hotel Pennsylvania.

Engineering (M): Section on Engineering—Hotel Commodore.

Medical Sciences (N): Section on Medical Sciences; Subsection on Dentistry—Hotel Commodore. Subsection on Pharmacy; U. S. Public Health Service—Hotel Pennsylvania.

Agriculture (O): Section on Agriculture; American Society for Horticultural Science—Henry Hudson Hotel. Potato Association of America—Hotel Edison.

Education (Q): Section on Education—Hotel Pennsylvania.

Science in General: Society of the Sigma Xi; American Science Teachers Association; American Nature Study Society; Gamma Alpha Graduate Scientific Fraternity; Cooperative Committee on Science Teaching; United Chapters of Phi Beta Kappa—Hotel Pennsylvania. Sigma Delta Epsilon, Graduate Women's Fraternity; American Association of Scientific Workers—Hotel Commodore. New York State Science Teachers Association—Hotel Governor Clinton. Research Council on Problems of Alcohol—Hotel Roosevelt.

HOTEL RATES

In the list that follows the rates are for single and double rooms with bath, respectively.

Commodore, Lexington Ave and 42nd St.: \$3.50, \$5.50–\$6.60.

Roosevelt, Madison Ave. and 45th St.: \$3.50, \$5.50–\$6.60. *Pennsylvania*, 7th Ave. and 33rd St.: \$3.50–\$7.70; \$5.50–\$9.90.

New Yorker, 34th St. and 8th Ave.: \$3.50–\$4.40; \$5.50–\$7.70.

Governor Clinton, 31st St. and 7th Ave.: \$3.00–\$3.85; \$4.50–\$7.70.

Henry Hudson, 353 W. 57th St.: \$2.50–\$3.00; \$3.50–\$4.00. *Edison*, 46th St., west of Broadway: \$3.00–\$4.00; \$4.50–\$5.50.

BUSINESS SESSIONS

The Executive Committee of the Council will meet in the permanent secretary's room in the Hotel Pennsylvania on Sunday afternoon, December 27, at 4 o'clock, and thereafter as may be arranged.

The Council of the association will meet on Monday afternoon, December 28, at 2:15 in Parlor 1 in the Hotel Pennsylvania. Later sessions of the council will be held in the same room on mornings at 9 o'clock as agreed upon at the first session. It is expected that the session of the council at which the president for

1943 will be elected will be held at 9 A.M. on Thursday, December 31.

Subjects to be considered by the council are usually first brought before the executive committee through the permanent secretary. Communications for the executive committee may be submitted in writing, at the mail clerk's desk in Hotel Pennsylvania, addressed to Dr. F. R. Moulton. Matters should be communicated early in the meeting in order that their consideration may not have to be deferred to a later meeting.

The Academy Conference will be held on Monday, December 28, at 3:30 P.M., or immediately following the first session of the council, in Parlor 1 in the Hotel Pennsylvania. The session will be followed by a dinner at 6:30 P.M., in Parlor 2, Hotel Pennsylvania.

The Secretaries Conference will be held on Thursday, December 31, beginning with a dinner at 6:30 P.M., in Parlor A, Hotel Pennsylvania.

ANNUAL SCIENCE EXHIBITION

The annual science exhibition will be held in the Grand Ballroom of the Hotel Commodore. It will be open to the public from 10 A.M. until 9 P.M. on Monday-Wednesday, December 28–30, and from 9 A.M. until 1 P.M. on Thursday, December 31.

GENERAL SESSIONS

On Monday, December 28, at 8:30 P.M., Dr. Irving Langmuir, associate director of the Research Laboratory of the General Electric Company, will deliver his address as retiring president of the American Association for the Advancement of Science in the Grand Ballroom of the Hotel Pennsylvania.

On Tuesday, December 28, at 8:30 P.M., Dr. John T. Tate, dean of the College of Science, Literature and the Arts, University of Minnesota, will deliver the twenty-first annual lecture under the joint auspices of the American Association for the Advancement of Science and the Society of the Sigma Xi, in the Grand Ballroom of the Hotel Pennsylvania. The subject of Dr. Tate's lecture is "Scientists in War and Peace."

On Wednesday, December 29, at 8:30 P.M., the Honorable Dr. Hu Shih, formerly Ambassador from the Chinese Government to the Government of the United States, will deliver the eighth annual lecture under the joint auspices of the American Association for the Advancement of Science and the United Chapters of Phi Beta Kappa, in the Grand Ballroom of the Hotel Pennsylvania.

DINNERS AND LUNCHEONS

Monday

Reception following retiring president's address. Hotel Pennsylvania.

National Association of Biology Teachers. Luncheon.
Hotel Governor Clinton.

Tuesday

Sigma Pi Sigma Physics Honor Society. Luncheon.
American Society of Parasitologists. Luncheon. Hunter
College.
American Physical Society. Dinner.
Section on Chemistry. Dinner. Hotel Pennsylvania.
American Phytopathological Society. Dinner. Hotel
Edison.
American Society of Plant Physiologists. Dinner. Hotel
Commodore.
Ecologists' Dinner. Hotel Commodore.
Biologists' Smoker. Hotel Commodore.

Wednesday

American Science Teachers Association. Luncheon.
Hotel Pennsylvania.
Section on Engineering. Luncheon. Hotel Commodore.
Section on Geology and Geography. Dinner.
Zoologists' Dinner. Hotel Commodore.
Entomologists' Dinner. Hotel New Yorker.
Botanists' Dinner. Hotel Commodore.
Metric Association. Dinner. Hotel Commodore.
American Society for Horticultural Science. Dinner.

Thursday

Naturalists' Dinner. Hotel Commodore.

SECTION AND SOCIETY PROGRAMS

In addition to the 15 sections of the association, about 44 affiliated and associated societies and other cooperating organizations will participate in the New York meeting. Many of the programs are subject to possible changes and the details of several programs are not yet available.

The Section on Mathematics and affiliated societies (Dec. 28-30). Section A will hold a joint session with the American Mathematical Society, the Mathematical Association of America and the Institute of Mathematical Statistics on Wednesday morning, at which G. T. Whyburn, vice-president of the association for the section, will deliver his retiring address on "Reduction of Mappings."

The American Mathematical Society will hold sessions from Monday to Wednesday, inclusive. On Monday the sessions will be for the presentation of general papers; on Tuesday morning Deane Montgomery will deliver an address on "Transformation Groups and Spheres"; on Tuesday afternoon the annual J. Willard Gibbs Lecture will be delivered by John von Neumann on "The Ergodic Theorem and Statistical Mechanics"; on Wednesday morning the society will join with Section A for the address of G. T. Whyburn on "Reduction of Mappings," and on Wednesday afternoon the society will hold a joint session with sections B,

D and L for the presentation of a symposium on "Freedom of Thought and Science."

The Mathematical Association of America will hold a session on Wednesday morning for the discussion of the adjustments that departments of mathematics are making to meet the demands arising from the war. On Wednesday afternoon the society will join with sections A, B, D and L in the symposium on "Freedom of Thought and Science," and with the Cooperative Committee on Science Teaching in its programs on "High School Science and the War."

The Institute of Mathematical Statistics will join with the American Mathematical Society in its various programs.

The Section on Physics and affiliated societies (Dec. 28-30). On Tuesday the section will hold a joint session with the American Physical Society and the Society for X-ray and Electron Diffraction. On Wednesday the section will join with the American Physical Society, the American Association of Physics Teachers and sections A, D and L in two symposia, in the morning on "Freedom of Thought and Science" and in the afternoon on "The Philosophy of Physical Science."

The American Physical Society will hold sessions on Monday and Tuesday, in addition to participating in the symposia on Wednesday. On Tuesday evening the society and the American Association of Physics Teachers will hold a joint dinner.

The American Association of Physics Teachers will join with Section Q in sponsoring addresses by past presidents of the association, and will hold a session for the delivery of the annual Richtmyer Lecture and the presentation of the Oersted Medal.

The Sigma Pi Sigma Physics Honor Society will hold a luncheon on Tuesday.

The Section on Chemistry (Dec. 29-30) will hold three symposia, two on Tuesday and the third on Wednesday morning, and a dinner on Tuesday evening in honor of Henry C. Sherman, of Columbia University, following which a program of three papers on nutrition will be presented. All programs except that of the third symposium will be presented under the chairmanship of Hugh S. Taylor, vice-president of the association for the section.

The Tuesday morning symposium will be on "The Food Industry in War and Peace." Introductory remarks by the chairman will be followed by papers: "Sugars in Wartime," Arthur P. Hellwig; "Newer Knowledge of the Chemistry of Bread," John C. Baker; "Can Maker's Wartime Problems," James A. Stewart; "Dehydrated Foods," R. S. Hollingshead; and "Quick Frozen Foods," E. T. Gibson. The afternoon symposium on "Strategic Materials" consists of three papers: "Synthetic Rubber," Per K. Frolich; "Quinine and Antimalarials," Marston T. Bogert; and

"Non-Ferrous Materials," Colin G. Fink. The program following the Tuesday evening dinner is: "Origin and Function of Vitamin C," C. G. King; "Food Nutrition in Relation to World Adjustment," Frank G. Boudreau; and "Calcium, Riboflavin and Vitamin A in Nutrition," Henry C. Sherman.

The Wednesday morning symposium on "Utilization of Farm Commodities in Industry," under the chairmanship of O. E. May, is as follows: "Introductory Remarks. Life and Work of Henry G. Knight," O. E. May; "Fermentation as a Tool in the Industrial Utilization of Farm Products," Robert D. Coghill; "Starch Adhesives," Lee T. Smith; "Laws of Nature," Wheeler McMillen; "Starch Industry," W. B. Newkirk; and "Alcohol Present and Future," Paul Kolachov.

The Section on Geology and Geography, the Geological Society of America and the Association of American Geographers (Dec. 30-31) will hold two joint sessions on Wednesday, a joint dinner on Wednesday evening, to be followed by an address by Morris M. Leighton, vice-president of the association for the section on "Present Knowledge and Problems Concerning the Glacial History of Illinois," a session on Thursday morning for general geographic papers, and a final session in the afternoon for general geologic papers.

The Wednesday morning program is a symposium on "Development of the Humid Tropics with Special Reference to Latin America," and the afternoon symposium is on "War and Post-War Readjustment of Personnel."

The Section on Zoological Sciences and affiliated and associated societies (Dec. 28-31). The section will join with the American Society of Zoologists in its programs (reported to be unexpectedly large, including two symposia, one to be held on Wednesday afternoon jointly with the Genetics Society of America on "Immunological Techniques in Biological Research" and the other to be held on Thursday afternoon jointly with the American Society of Naturalists on "The Naturalist in America").

The American Association of Economic Entomologists (Dec. 29-31) will present a program largely devoted to problems related to the war. After a meeting of the Section of Agriculture on Tuesday morning, H. B. Weiss, president of the society, will deliver his presidential address on "Color Perception in Insects." The Tuesday afternoon program will be a joint symposium with the Entomological Society of America on "Entomology and the War." In the evening F. M. Carpenter will deliver a public address on "The Earliest Insects" before a joint meeting of the society and the Entomological Society of America.

On Wednesday morning the Section of Extension will hold a conference on the work of entomologists

in support of the U. S. Department of Agriculture's goals for the production of war supplies. At the same time the society will join the Biometrics Section of the American Statistical Association, the American Phytopathological Society and the Entomological Society of America in a conference on "Reduced Dosages of Insecticides and Fungicides," under the chairmanship of C. I. Bliss. In the afternoon the Teaching Section will hold a session, and a session will be held for the presentation of general papers. On Wednesday evening the two entomological societies will hold the annual entomologists' dinner.

On Thursday morning the society will hold a general session, and its Section of Plant Quarantine and Pest Control will present a program of papers in its own field. In the afternoon the society will hold a business meeting, followed by a session for the presentation of general papers.

The Committee on Coordination of Entomology with the War Effort appointed by the society for each of thirty-five important agricultural products will report informally on its work during 1942.

The Entomological Society of America (Dec. 29-31) will hold eight sessions, three of which will be joint sessions with the American Association of Economic Entomologists, and the society will be a joint sponsor of the annual entomologists' dinner. The sessions for the presentation of general papers will be held on Tuesday morning, Wednesday morning and afternoon and Thursday morning and afternoon.

The American Society of Parasitologists (Dec. 28-30) has scheduled its program in six sessions at which 42 papers will be read by the authors, two presented only as demonstrations and 23 read by title. In addition, the society is a joint sponsor with the Section on Medical Sciences (N), the National Malaria Society, the American Society of Tropical Medicine and the New York Society of Tropical Medicine for two sessions on "Tropical Medicine."

On Monday afternoon the society will hold a session at which 11 technical papers will be presented. A session will be held on Tuesday morning at which 7 papers will be presented, following which Henry E. Meleney, president of the society, will deliver his presidential address on "The Role of Parasitologists in World War II." After the annual Parasitologists' Luncheon, the society will hold its annual business meeting. The afternoon program will consist of demonstrations and, by invitation, Eugene R. Kellersberger will deliver, by invitation, an illustrated address on "African Sleeping Sickness."

On Wednesday the society will hold both morning and afternoon sessions at each of which 11 papers will be presented.

The Section on Botanical Sciences and Affiliated Societies (Dec. 29-31). The section will hold a joint

session with the Botanical Society of America, the American Phytopathological Society, the American Society of Plant Physiologists, the American Society of Plant Taxonomists and the American Fern Society at which G. M. Smith, retiring vice-president for the section, will deliver his address on "The Marine Algae of the Monterey Peninsula." The address will be followed by a symposium of three papers on "Botany and the War."

The Botanical Society of America (Dec. 29-31) will hold sessions for the presentation of papers under the General, Paleobotanical, Physiological and Systematic sections of the society. A special program has been organized for Tuesday afternoon by the Cooperative Committee on Science Teaching on "High School Science and the War." A joint symposium of the Physiological Section of the society, the American Society of Plant Physiologists and the American Society for Horticultural Science on "Some Aspects of Mineral Nutrition in Plants and in Animals" will be presented on Wednesday afternoon. On Wednesday evening John T. Buchholz, president of the society, will deliver his retiring address at the annual dinner for all botanists.

The American Phytopathological Society (Dec. 28-31) will hold four joint sessions and four sessions independently.

The program for Monday afternoon consists of a conference, sponsored by the Committee on Coordination in Cereal and Vegetable Seed Treatment Research, on seed treatment with reports on 1942 results, under the chairmanship of M. B. Moore; and a discussion on the integration of seed treatment services with the war effort in 1943, under the leadership of G. L. McNew. On Monday evening the society will hold a discussion on the importance and advisability of an adequate plant disease survey to protect vital economic crops, under the direction of the Plant Disease Survey Sub-Committee of the War Emergency Committee, J. G. Leach, chairman.

On Tuesday morning there will be brief reports from the executive committee, subcommittees and regional committees of the society's War Emergency Committee, followed by a discussion to assist the War Emergency Committee in determining future policies. The afternoon session will be devoted to a discussion of the question, "What Should be our Major Plant Disease Control Objectives in 1943?"

On Tuesday afternoon the society will join in the symposium of Section G on "Botany and the War."

On Wednesday morning the society will hold a joint session with the Biometrics Section of the American Statistical Association and the American Association of Economic Entomologists on "Reduced Dosages of Insecticides and Fungicides." On Wednesday afternoon the society will hold a joint session with the

Potato Association of America on potato diseases and their control.

On Thursday morning the society will hold a joint session with the American Association of Economic Entomologists for a program on "Pest Control—A New Science and its Supporting Sciences."

The American Society of Plant Physiologists (Dec. 29-31) will hold joint sessions with the Physiological Section of the Botanical Society of America on all three days of its meeting, and will join other societies in the field of botany in the program on Tuesday afternoon at which the address of G. M. Smith, the retiring vice-president for Section G, will be delivered. On Wednesday it will hold a joint session with the Physiological Section of the Botanical Society of America and the American Society for Horticultural Science in a symposium on "Some Aspects of Mineral Nutrition in Plants and in Animals." The annual Physiologists' dinner will be held on Tuesday evening.

The American Society of Naturalists (Dec. 30-31) will sponsor the Biologists' Smoker on Tuesday evening. In a joint session with the zoological and botanical societies, the society will hold a symposium on "The Naturalist in America" on Thursday afternoon. The Naturalists' dinner will be held on Thursday evening.

The Ecological Society of America (Dec. 29-31) will hold four joint sessions with other societies, seven sessions for the presentation of technical papers, two sessions for the transaction of business and a dinner. On Tuesday morning the society will hold two sessions, one on animal ecology and one on plant ecology. On Wednesday and Thursday mornings the society also will hold two sessions on the same subjects, and a session on Wednesday afternoon for discussion of ecological work in relation to war conditions. On Thursday afternoon the society will hold a joint symposium with the Biometrics Section of the American Statistical Association on "The Problem of Optimal Catch," under the chairmanship of A. G. Huntsman, of the Fisheries Research Board of Canada.

The Genetics Society of America (Dec. 29-31) will present one "Invitation Program," join in three symposia with other societies, hold two sessions for the presentation of general papers and an evening session for an informal discussion of the contributions that genetics and geneticists may make in the present emergency. The contributors to the invitation program include Martha Lee Bozeman, H. J. Muller, Elizabeth S. Russell and W. Lawson Russell, Harold H. Smith, T. M. Sonneborn, L. J. Stadler and Herschel Roman, Curt Stern, and F. S. Straus and J. W. Gowen. On Wednesday afternoon the society will join with the American Society of Zoologists in

a symposium on "Immunological Techniques in Biological Research," with the Biometrics Section of the American Statistical Association in a symposium on the "Distribution of Gene Frequencies," and with the American Society of Naturalists in a symposium on "The Naturalist in America."

The American Microscopical Society (Dec. 28) will hold two business sessions on Monday, the executive committee luncheon and the annual business meeting in the afternoon.

The National Association of Biology Teachers (Dec. 28) will hold a luncheon on Monday and a session for the presentation of papers on which Oscar Riddle, Jay B. Nash, E. Laurence Palmer and O. E. Fink will appear. In addition, there will be motion picture demonstrations by New York City high schools.

The Section on Anthropology, in cooperation with the American Association of Physical Anthropologists and with geneticists representing the Eugenics Conference, will hold sessions at which attention will be centered on two principal themes, the integration of anthropology with other biological and social sciences, and the possible contributions of anthropology to the present war and the future peace. At least twenty papers will be on the program, most of which are by authors from the New York area.

The Section on Psychology (Dec. 29-30) will join the Section on Education in a session at which past presidents of the association will deliver addresses on "What Should the Ordinary Citizen Know About My Field?" and the two sections will hold a joint dinner on Wednesday evening.

The Section on Social and Economic Sciences (Dec. 30-31) will hold two sessions of three papers each on "The Placement of Scientific Personnel in the War Effort." At the first session L. K. Frank, vice-president of the association for the section, will deliver his retiring address on "National Resources of Scientific Personnel." It is expected that the British practice in the placement of scientific personnel will be discussed by a speaker not yet announced. Leonard Carmichael will explain the scope and use of the National Roster of Scientific and Specialized Personnel, and James O. Babcock will discuss the work of the Civil Service Commission. Lieutenant Colonel Edward A. Fitzpatrick will discuss the deferment practice with respect to scientific personnel under selective service.

The Econometric Society (Dec. 29-30) will hold four sessions on the respective general subjects "Economic Theory and Econometrics," "Economic Statistics," "Applied Economics" and "Economic Life and Depreciation."

The Section on Historical and Philological Sciences (Dec. 30-31) has organized with the cooperation of the sections on mathematics, physics and astronomy

two symposia on subjects of great importance in the history of science. The title of the first, which will be held on Wednesday morning, is "Freedom of Thought and Science," a symposium in commemoration of the three hundredth anniversary of Galileo's death. The participants in this symposium will be Henry Crew, on "Galileo, Pioneer in Physics"; George di Santillana, on "Galileo, the Ancient"; and Chauncey D. Leake, on "Contributions of Science to the Concept of Freedom."

The title of the second symposium, which in a sense is a companion to the first, is "Natural Philosophy," a program in commemoration of the three hundredth anniversary of Newton's birth. It will be presented on Wednesday afternoon. The participants in it are Louis T. More, on "Newton's Dualistic Philosophy of Nature"; George D. Birkhoff, on "Newtonian and Other Forms of Gravitational Theory"; and Richard C. Tolman, on "Physical Science and Philosophy." Dr. Tolman's contribution is his retiring address as vice-president of the association for the Section on Physics.

In addition, the section and the History of Science Society will hold a joint session on Thursday morning for the presentation of the program: "Ethico-genesis," retiring address of Chauncey D. Leake, vice-president for the section in 1940; "Influence of Medicine on the Development of Physical Science," by Morris R. Cohen; and "Post-War Reconstruction," by Joseph Mayer, vice-president for the section.

The Section on Engineering (Dec. 30) will hold a luncheon and two sessions for the presentation of papers. The general subject of the Wednesday morning session is "Aviation Medicine." The papers to be presented at this session are: "The Tilting Ballistocardiograph: Apparatus for Recording the Thrust of the Heart," by Robert W. Wilkins, M.D., the Robert Dawson Evans Memorial, Boston; "Development of Instruments for Test and Classification of Flight Personnel," by E. Lodwig and J. Zaleski, Mobile Refrigeration, Inc., New York; and "The Application of Engineering Principles to Clinical and Aviation Medicine," by Alvan L. Barsch, M.D., Columbia University.

The general subject of the Wednesday afternoon session is "Dehydration of Foodstuffs." The papers to be presented at this session are: "Theory of Processes," by H. J. Masson, New York University; "Application of Theory to Manufacture," by Graham L. Montgomery, associate editor, *Food Industries*, New York; and "Military and Civilian Practice," by Captain Robert P. Melson, U. S. Quartermaster Corps, Chicago.

At luncheon on Wednesday, Willis R. Woolrich, vice-president of the association for the section and dean of engineering, the University of Texas, will deliver his retiring address on "The Romance and Engineering of Food Preservation."

Section on Medical Sciences (Dec. 28-30). The Monday morning session will be devoted to the presentation of a series of papers on various subjects, the contributors being Alexander Hollaender and Jesse P. Greenstein, National Institute of Health; Robert J. Fitzgerald and W. Harry Feinstone, American Cyanamid Company; W. Harry Feinstone, Richard H. Follis, Jr., Roger D. Williams and John F. Kennedy, American Cyanamid Company; W. F. Wells and M. W. Wells, University of Pennsylvania; Milton Levine and David State, Cook County Hospital, Chicago; Trigant Burrow and Hans Syz, the Lifwynn Foundation, New York; and Albert Claude, The Rockefeller Institute for Medical Research, New York.

The program for the Monday afternoon session is a symposium on "Carbohydrate Metabolism," which will be presented under the joint sponsorship of the section and the New York Section of the Society for Experimental Biology and Medicine. The program consists of six papers by D. E. Green (chairman), College of Physicians and Surgeons, Columbia University; S. Ochoa, New York University College of Medicine; W. C. Stadie, the School of Medicine, the University of Pennsylvania; W. W. Westerfield, Harvard University Medical School; K. A. C. Elliott, the Institute of the Pennsylvania Hospital, Philadelphia; R. F. Furchgott and E. Shorr, Cornell University Medical College, New York; and E. A. Evans, Jr., Birgit Vennesland and Louis Slotin, The University of Chicago.

The Section on Medicine, the American Society of Parasitologists, the National Malaria Society, the American Society of Tropical Medicine and the New York Society of Tropical Medicine are joint sponsors of two sessions on "Tropical Medicine." At the first (on Tuesday morning) session papers will be presented by Colonel J. S. Simmons, Office of the Surgeon General, the War Department; Colonel Richard P. Strong, Army Medical School, Washington; Lieutenant Colonel Thomas T. Mackie, Army Medical School, Washington; and Alan Gregg, M.D., the Rockefeller Foundation, New York. At the close of this program Arthur H. Compton, president of the association, will present the fifth Theobald Smith Award.

At the Tuesday afternoon session on "Tropical Medicine" papers will be presented by Colonel George R. Callander, Army Medical Center, Washington; Malcolm H. Soule, University of Michigan, Ann Arbor; Lowell T. Coggeshall, Institute of Public Health, University of Michigan, Ann Arbor; and Wilbur A. Sawyer, Rockefeller Foundation, International Health Division, New York. After the completion of this program, Dr. Wade W. Oliver, vice-president of the association for the Section on Medical Sciences, the Long Island College of Medicine, will

deliver his retiring address on "The Man Who Lived for Tomorrow."

On Tuesday evening the section will join with the New York Society of Tropical Medicine at its Theobald Smith Lecture, which will be delivered by M. Ruiz Castañeda, M.D., Hospital General, Departamento de Investigaciones Médicas, Mexico, D. F.

The final session of the Section on Medical Sciences will be held on Wednesday morning for the presentation of papers on a variety of subjects. Those contributing papers include C. C. Macklin, University of Western Ontario, London, Ontario; W. S. Hartroft, University of Western Ontario; Miles Atkinson, New York Hospital; Jesse P. Greenstein, National Cancer Institute, Bethesda, Md.; Ben Karpman, St. Elizabeth's Hospital, Washington; Harry Eagle, The Johns Hopkins Hospital, Baltimore; and E. C. Rosenow, The Mayo Foundation, Rochester, Minn.

U. S. Public Health Service (Dec. 28-30) sponsors a symposium on "Drug Intoxication and Drug Addiction," which will be presented at six sessions to be held on Monday, Tuesday and Wednesday.

The Monday morning session will consist of five papers on various subjects under the general head "Barbiturates, Bromides and Chloral." The contributors include Theodore Koppányi, R. P. Herwick, Frank Curran, Max Levin and Lawrence D. Thompson. The Monday afternoon program is on the general subject, "Cocaine, Marihuana and Peyote," to which contributions will be made by A. T. DuMez, George B. Wallace, Dudley D. Shoenfeld, Karl M. Bowman and Samuel Allentuck, and John Collier.

The remaining four sessions will all be devoted to "The Opiates." The contributors to the Tuesday morning session will be: Bertil Renborg, Lyndon F. Small, George W. Merck, Nathan B. Eddy, Fred W. Oberst and Erwin G. Gross, and Howard L. Andrews. This program relates primarily to the opium problem and opium drugs. The contributors to the afternoon program, which relates to drug addiction and physiological effects, are S. D. S. Spragg, Maurice H. Seevers, E. G. Williams, R. R. Brown, H. L. Andrews, Robert C. Batterman and C. K. Himmelsbach, F. W. Oberst and Wendell A. Preston.

On Wednesday the papers in the morning program concern primarily the drug addict. Contributors to this session will be R. R. Brown, D. C. Cameron, M. A. Diamond, Robert P. Knight, Robert H. Felix, Michael J. Pescor and J. D. Reichard. The final session on Wednesday afternoon will be concerned with the legal and administrative aspects of the prevention and control of drug addiction. The first four contributors to this session will be H. L. Anslinger, Herbert O. Calvery, Morris Ploscowe and Walter K. Urich.

The symposium will close with a public meeting at 4 o'clock on Wednesday afternoon at which Dr.

Thomas Parran, Surgeon General, U. S. Public Health Service, will introduce Dr. Lawrence Kolb, Assistant Surgeon General, Division of Mental Hygiene, U. S. Public Health Service, who will deliver an address on "Drug Addiction as a Public Health Problem."

The Section on Agriculture (Dec. 30) and the American Society for Horticultural Science will present a joint symposium of five papers on "Nutrition" as follows: "Nutritional Requirements of Animals. Some Deficiencies Coming through Soils and Crops," L. A. Maynard, Cornell University; "Nutritional Requirements of Man. Vitamins—the More Recent Developments," C. A. Elvehjem, the University of Wisconsin; "Field Crop Production for Efficient Feeding (retiring vice-president's address), Richard Bradfield, Cornell University; "Fruit and Vegetable Production for Efficient Food," J. R. Magness, U. S. Bureau of Plant Industry, Beltsville, Md.; and "Utilization of Foods in the Human Diet," Lydia Roberts, The University of Chicago.

The American Society for Horticultural Science (Dec. 29–30) will hold sectional sessions for the presentation of papers on Tuesday morning and afternoon, and in the afternoon the Section on Vegetable Crops will hold a joint session with the Potato Association of America. On Tuesday evening the society will hold round table discussions on "varieties, nomenclature, fertilizers and extension methods" and a joint session with the Biometrics Section of the American Statistical Association.

On Wednesday morning the society will hold a joint session with the Section on Agriculture for the presentation of a symposium on "Nutrition"; and in the afternoon a joint symposium with the Physiological Section of the Botanical Society of America and the American Society of Plant Physiologists on "Some Aspects of Mineral Nutrition in Plants and in Animals." On Wednesday evening it will hold its annual banquet and social evening, at which Dr. J. C. Miller, president of the society, will deliver his retiring address.

The Section on Education (Dec. 29–30) will meet jointly on Tuesday and Wednesday with the Section on Psychology for a series of addresses by past presidents of the association on "What Should the Ordinary Citizen Know About My Field?" Societies which will join in at least a part of this program include the American Association of Physics Teachers, the American Science Teachers Association and the Cooperative Committee on Science Teaching.

On Wednesday evening the section and the Section on Psychology will hold their annual joint dinner at which Dr. Harold Clark, vice-president for the Section on Education, will deliver his retiring address on "Scientific Experiments in Social Sciences." The recent untimely death of Dr. Edmund S. Conklin, vice-

president of the association for the Section on Psychology, will deprive the dinner of a second vice-presidential address.

The Society of the Sigma Xi (Dec. 28–29) will hold meetings of its executive committee on Monday evening and Tuesday morning, and its forty-third annual convention on Tuesday at 3:00 P.M. On Tuesday evening the twenty-first annual Sigma Xi lecture under the joint auspices of the association and the society will be delivered by Dean John T. Tate, the University of Minnesota, on "Scientists in War and Peace."

The United Chapters of Phi Beta Kappa (Dec. 30). On Wednesday evening the eighth annual lecture under the joint auspices of the association and the society will be delivered by the Honorable Dr. Hu Shih, formerly Ambassador from the Chinese Government to the United States, on a subject to be announced.

The American Science Teachers Association (Dec. 30) will hold a session on Wednesday morning for the presentation of a program on "Science Teaching in War Time," which will be featured by an address by M. M. Peake, chief, Pre-Induction Training Section of the War Department, on "Science Teaching in Wartime as Related to Pre-Induction Training," and by an address by Brigadier General Lewis B. Hershey, director, Selective Service System, on "Science Instruction at all Levels in Relation to the War." Other papers will be presented by Ralph E. Horton and Arthur Rose.

The society will hold a luncheon on Tuesday afternoon and an afternoon session on "Curricular Problems," in which Warren W. Knox, Roy W. Hatch, Walter Thurber, Philip G. Johnson and Benjamin Harrow will participate.

Gamma Alpha Graduate Scientific Fraternity (Dec. 29) will hold a meeting of its executive board on Tuesday afternoon and a "convention breakfast" on Wednesday morning.

Sigma Delta Epsilon Graduate Women's Scientific Fraternity (Dec. 28–30) will hold a meeting of its "national council" on Monday morning and Wednesday afternoon; its national convention, at breakfast on Wednesday; and its annual luncheon for all women in science, on Tuesday noon.

The American Association of Scientific Workers (Dec. 29–30) will hold four sessions for the presentation of papers. The general subject for discussion at the first session, to be held on Tuesday morning, is "Scientific Research in the War Effort," under the chairmanship of Kirtley F. Mather, president of the society. Among the papers presented at this session will be two on "Science in Military and Naval Problems" by Colonel Alden H. Waitt and Dean J. W. Barker. "Medicine in the Armed Forces and on the

Home Front" is the title of a paper that will be presented by Dr. Morris Fishbein. On Tuesday evening a session will be held on the general subject "War Science in the United Nations."

Two sessions will be held on Wednesday, the morning session on "Science in the War of Production," under the chairmanship of Ralph W. Gerard. Papers will be presented on "Effective Use of Productive Manpower," "Effective Use of the Industrial Machine," "Supplies" and "Food." The general subject of the afternoon session is "Morale and Propaganda," under which papers will be included on "Potentialities of Psychiatry," "Psychological Warfare," "Practical Morale Building," "The Role of the Press in the Social Function of Science" and "Education under Total War."

The Cooperative Committee on Science Teaching (Dec. 29) will present a program on "High School

Science and the Manpower Problem." Among the subjects that will be discussed are "Where Do We Stand?," by Robert J. Havighurst; "What Can Biology Teachers Do to Meet Manpower Needs?," by Oscar Riddle; "What Can Mathematics Teachers Do to Meet Manpower Needs?," by Raleigh Schorling; and "What Can Physical Science Teachers Do to Meet Manpower Needs?," by Karl Lark-Horovitz.

The American Biological Society (Dec. 29) has scheduled its annual meeting for Tuesday at 5:15 P.M.

The New York State Science Teachers Association (Dec. 30) will meet on Wednesday with New York City teachers working on education problems of the Army and Navy to consider what can be done to make existing science courses more effective under present-day war conditions and what new science courses should be taught. Other sessions will be held on Monday and Tuesday.

SCIENTIFIC EVENTS

DEATHS AND MEMORIALS

DR. CHARLES SCHUCHERT, emeritus professor of paleontology and historical geology of Yale University, curator of the geological collections of the Peabody Museum, died on November 20 at the age of eighty-four years.

DR. HENRY GORDON GALE, professor of physics and dean emeritus of the Division of Physical Sciences of the University of Chicago, died on November 16 at the age of sixty-eight years.

DR. O. M. BALL, professor emeritus of biology and curator of the museum of the Agricultural and Mechanical College of Texas, died on November 11 at the age of seventy-four years. He had been with the college since 1903, retiring as head of the department of biology to become curator of the museum in 1937.

DR. TRACY GILLETTE, associate geologist of the Illinois State Geological Survey, died on November 9 at the age of thirty-seven years. Before joining the staff of the Illinois Survey he was assistant to the chief geologist of the Consolidated Oil Corporation of New York City and chief geologist of the Venezuelan Petroleum Company, a subsidiary.

DR. J. N. COLLIE, F.R.S., emeritus professor of organic chemistry at University College, London, died on November 1 at the age of eighty-three years.

DR. K. N. MOSS, professor of mining at Birmingham University and dean of the faculty of science, died on October 20 at the age of fifty-one years.

THE Physical Society, London, has founded a biennial Rutherford Memorial Lecture. The first lecture was delivered on November 6 by Professor

H. R. Robinson, professor of physics in the University of London (Queen Mary College), in the lecture theater of the Science Museum. He spoke on Rutherford's life and work up to the end of the Manchester period.

WAR EMERGENCY COURSES IN THE UNIVERSITY

THE YALE SCHOOL OF MEDICINE, in order to help to meet the need for physicians of the armed forces, is now prepared to admit students who have completed two years of approved pre-medical college work in recognized institutions. The cut in preparation is effective with the class which will enter on December 31, 1943. This action has been taken on the recommendation of the Association of American Medical Colleges that member colleges revise their admission requirements for the duration of the war. A detailed schedule outlining the prescribed course for admission under the new requirements will be issued soon. Applications for admission to the School of Medicine may be made at any time, but acceptance under the wartime provision will be deferred until after April 5. Upon presentation of certification from the dean, accepted students may then make application for provisional commissions in the Medical Administrative Corps, U. S. Army, or the Naval Reserve Corps. Since 1922 three years of college work have constituted the minimum requirement for admission to the school, the majority of students having held bachelor's degrees.

SEVENTEEN U. S. Army medical officers are being given a special course in laboratory training and methods in the Medical School of the University of Michigan. The officers now in training are the first