provinces, W. L. G. Joerg, of the American Geographical Society, discussed the lines of approach that have been followed in outstanding attempts to delineate various types of geographic divisions.

All the regular Washington sessions were held in the buildings of the National Geographic Society. The Association of Geographers is greatly indebted to President Gilbert H. Grosvenor and the members of the society staff for their hospitality which did much to insure the success of the meeting. The officers for 1925 are: President, R. H. Whitbeck, University of Wisconsin; vice-president, H. L. Shantz, U. S. Bureau of Plant Industry; secretary, Chas. C. Colby, University of Chicago; treasurer, V. C. Finch, University of Wisconsin; editor, Almon E. Parkins, George Peabody College for Teachers; councilors, George R. Mansfield (U. S. Geological Survey), Wellington D. Jones (University of Chicago), Oliver E. Baker (U. S. Bureau of Agricultural Economics), Ellsworth Huntington (Yale University) and Curtis F. Marbut (U. S. Bureau of Soils).

## The National Council of Geography Teachers

President, W. R. McConnell, Miami University. Secretary, George J. Miller, State Teachers College, Mankato, Minn.

### (Report by George J. Miller)

Three sessions were held this year and each was characterized by strong addresses. The first session was devoted primarily to a discussion of geography as a social science in the junior high school and secondarily to a discussion of an illustrative type of detailed regional study. The distinctive contribution that geography has to make as a social science, and concrete illustrations of how the objectives of social science could be attained, were presented in the first paper. The inability of Dr. Rugg to attend and present his plan for a general social science course brought keen disappointment. The objectives of geographic instruction; the use of geographic principles in the study of cities, together with concrete illustrations; the organization of geographic material for teaching, and criteria for judging a geography text were the outstanding topics of the second session. The preliminary report of the committee to establish geography standards for the first six grades indicates that a very thorough study of the subject is in progress and that a final report of constructive value will be the outcome. The banquet and evening session marked the climax of a most eventful and profitable meeting, both from the standpoint of fellowship and from that of the character and interest of the discussion. For the first time in the history of the National Council the importance of "teacher training" for college and university instructors was ably presented and discussed. The grave need of giving such training to all who become university and college teachers and reasons why our higher institutions should recognize this need and provide adequate instruction was presented by Dr. Colby, of the University of Chicago. The presence of teachers—grade, high school, normal school, college, university—from widely scattered portions of the United States emphasized the national character of the council and contributed greatly to making the 1924 meeting one of the most successful in its ten years of existence. Dr. A. E. Parkins, of George Peabody College for Teachers, was elected president for 1925.

### ZOOLOGICAL SOCIETIES AT THE WASHINGTON MEETING

(A report for Section F appeared in Science for February 6.)

### The American Society of Zoologists

President, R. S. Harrison.

Secretary, W. C. Allee, University of Chicago, Chicago, Ill.

# (Report by W. C. Allee and H. W. Rand)

The American Society of Zoologists held sessions for the general program of papers on the mornings of Monday, Tuesday and Wednesday, December 29 to 31, and also Monday and Tuesday afternoons. Wednesday afternoon a session was devoted to a symposium on "Sex determination and sex differentiation," the participants being as follows: J. H. Schaffner, of Ohio State University; C. B. Bridges, of Columbia University; A. F. Shull, of the University of Michigan; W. W. Swingle, of Yale University; C. R. Moore, of the University of Chicago. The last session of the zoologists occurred Thursday morning in joint meeting with the Ecological Society of America. The program included 14 papers on miscellaneous ecological subjects. The entire zoological program, exclusive of the joint ecological program and the symposium papers, included 89 papers distributed by subjects as follows: general and comparative physiology, 29; endocrinology, 9; cytology, 6; embryology, 7; comparative anatomy, 9; protozoology, 9; parasitology, 17; evolution, 2; science teaching, 1. The annual zoologists' dinner took place Wednesday evening at the Hotel Raleigh. The dinner address was delivered by the retiring president of the society, Professor M. F. Guyer, of the University of Wisconsin, on "Soma and germ." Monday evening, at the City Club, was held a conference initiated and arranged by H. S. Colton, on problems of teaching zoology, with particular reference to the aims of teaching in the elementary college course. The discussion was led by R. A. Budington, E. C. Conklin, A. F. Shull and C. P. Sigerfoos. A dinner was arranged in conjunction with the conference. The zoological exhibits were accessibly and attractively arranged and received much attention. They included materials in the fields of histology, cytology, embryology, genetics, parasitology, physiology and economic biology. In addition to the purely scientific exhibits, various biological supply firms presented attractive and instructive exhibits of technical apparatus and materials.

The business meeting of the American Society of Zoologists followed the business session of Section F, American Association for the Advancement of Science, on Tuesday afternoon. Eighteen resignations from membership were received, caused in the majority of cases by dissatisfaction with the journal arrangements of the society. Twenty-eight active and 17 associate members were elected, making the present total membership 423. The following officers were elected: President, C. R. Stockard; vice-president (one year), C. R. Moore; secretary (three years), D. E. Minnich; treasurer (three years), L. B. Arey; member of executive committee (five years), R. G. Harrison; representative in National Research Council (three years), L. L. Woodruff; for Board of Journal of Morphology (three years), H. B. Ward, F. Payne and R. W. Hegner; representatives in council, American Association for the Advancement of Science (one year), H. S. Jennings and M. H. Jacobs; representatives in council. Union of American Biological Societies, F. R. Lillie and R. G. Harrison; members of advisory editorial board, Biological Abstracts: H. S. Pratt and G. K. Noble (taxonomy); D. H. Tennent (embryology), and M. H. Jacobs (general physiology). Collection of voluntary contributions from members to provide support for the organization expense of Biological Abstracts for 1925 (in addition to \$20,000 available from the Rockefeller Foundation) was authorized to be made in cooperation with the Union of American Biological Societies; \$5,000 more is needed. Minutes were adopted on the death of three members, William A. Locy, Alexander MacGillivray and George A. Piersol. A resolution was adopted favoring the oceanographic survey proposed by the U.S. Navy, provided the scientific program is worked out in conjunction with the National Research Council; also resolutions favoring the protection of breeding grounds of birds and fish and the protection of waterways, harbors, lakes and ocean shores from oil wastes. The society voted to separate the payment of dues from subscription to the Wistar Institute journals. The dues for the coming year were placed at \$2.00, in an effort to protect and if possible build up the reserve fund. Under the new plan the Wistar Institute allows members of the soclety to subscribe for journals at special rates.

It was voted that the 1925 meeting should be held at New Haven, in connection with the dedication exereises of the Peabody Museum of Natural History, and that members of the society or of the Genetics Sections who desire to present or introduce papers at Kansas City in connection with the next annual meeting of the American Association for the Advancement of Science shall be given the same service as regards the publication of abstracts as will those who offer papers for the New Haven meeting.

To avoid the growing congestion of the program at the annual meetings the program rules were modified so as to read as follows:

Papers shall be listed in their respective groups in the order received. Each active member is entitled to 15 minutes of the time of the society at the annual meeting, which he may use to present one or more papers personally, or he may use any or all of this time in introducing papers of non-members on the program. The society recognizes, however, the right of the Genetics Section to make its own program rules in conjunction with the Genetics Section of the Botanical Society of America.

Detailed proceedings were published in the Anatomical Record for January, 1925.

THE ENTOMOLOGICAL SOCIETY OF AMERICA

President, Charles W. Johnson.

Secretary-treasurer, C. L. Metcalf, University of Illinois, Urbana, Illinois.

#### (Report by C. L. Metcalf)

The nineteenth annual meeting opened on Monday afternoon and continued through Tuesday and Wednesday, in the armory of the Central High School. There were four half-day sessions for the presentation of contributions, the one on Tuesday afternoon being a joint session with the Ecological Society of America. About thirty-five scientific papers, dealing with the physiology, ecology, morphology, life-histories and classification of insects were presented. Attendance at the several sessions ranged from about 75 to 250. At the business session on Tuesday morning the following officers were elected for 1925: President, George A. Dean, Kansas State Agricultural College; first vice-president, Lawson Caesar, Ontario Agricultural College; second vice-president, Paul S. Welch. University of Michigan; secretary-treasurer, C. L. Metcalf, University of Illinois; members of executive committee, E. P. Felt, Glenn W. Herrick, E. C. Van Dyke, J. A. G. Rehn, F. E. Lutz, Edith M. Patch; representatives in the council of the American Association for the Advancement of Science, W. A. Riley and W. E. Britton. It was announced that the following had been elected to fellowship in the society: F. E. Blaisdell, H. A. Gossard, Clarence M. Weed, T. L. Casey, E. T. Cresson, Jr., W. C. O'Kane, W. E.

Hinds, F. L. Washburn, R. W. Doane, R. A. Cooley and Annette F. Braun. Dr. L. O. Howard, chief of the Bureau of Entomology, was elected an honorary fellow, a distinctive honor that has been conferred upon only fourteen entomologists since the society was founded. Fifty-nine new members were elected during the year, bringing the total membership to 689. A grant of fifty dollars was made to the Imperial Bureau of Entomology for the support of the Zoological Record. The Thomas Say Foundation announced that the second memoir, Needham and Classen's "Monograph of the Plecoptera," is in press and will be ready for distribution early in February. The closing session of the society was held on Wednesday evening at the Cosmos Club. Dr. L. O. Howard delivered the annual public address on the subject "The needs of the world as to entomology," to an enthusiastic audience that filled the hall to overflowing. At the close of the address the visiting entomologists were delightfully entertained at a smoker tendered by the Entomological Society of Washington.

AMERICAN ASSOCIATION OF ECONOMIC ENTOMOLOGISTS President, A. F. Burgess.

Secretary, C. W. Collins, Melrose Highlands, Mass.

# (Report by C. W. Collins, W. B. Wood and G. M. Bentley)

The sessions of the thirty-seventh annual meeting of this association opened Wednesday morning and continued till Saturday. Excluding symposia, there were 99 papers presented. The entomologists' dinner on Friday night was well attended-the local entomologists of Washington furnishing unique and original entertainment, with Dr. L. O. Howard acting as toastmaster. The Extension Entomologists and the Insect Pest Survey held a meeting Thursday evening, which was well attended. The first session of the general association opened Thursday morning and continued until Saturday. Business was transacted at the first and last sessions. The attendance throughout the meeting was good, this being the largest meeting ever held by the association, about 275 members and visitors present. H. A. Gossard, of Wooster, Ohio, was elected president for 1925, and C. W. Collins, of Melrose Highlands, Mass., was continued as secretary. Ninety-eight applicants were admitted to membership. The general program contained many interesting and important papers being grouped according to subject-matter as: "Insects affecting fruits," "Insects affecting forage and field crops," "Insecticides," "Insects affecting truck crops," "Insects affecting greenhouse crops," "Insects affecting stored products," "Insects affecting man and animals," and "Japanese beetle." The president's address, by A. F. Burgess, was on "Our association." He dealt at length with the origin of the organization and the salient points for which it stands—looking in the future to an endowed association whereby our activities and our usefulness to science and the public at large could be increased.

The section on horticultural inspection (chairman, E. R. Sasseer; secretary, W. B. Wood, U. S. Department of Agriculture, Washington, D. C.), held a session on Wednesday afternoon. The chairman gave an address on "Plant quarantine, past, present and future," in which he discussed the evolution of this work. He spoke particularly of the need for better trained inspectors. The advisability of devoting more time to the program of this section was discussed. Dr. C. L. Marlatt spoke on the recent work of the Federal Horticultural Board and discussed a number of recent developments in connection with quarantine enforcement. Mr. D. M. Rogers explained the operation of the brown-tail, gipsy and satin moth quarantines with reference to methods of inspection of materials shipped from the quarantine areas. A few of the problems encountered in port inspection were mentioned by Mr. Lee A. Strong in an informal talk which he gave on the subject. Japanese beetle quarantine operations were discussed by Mr. C. W. Stockwell, who explained the methods of inspection of nursery stock and fruits and vegetables. He also spoke of the methods employed in preventing the infestation of plants by the beetle, and the use of carbon bisulphide for killing the larvae in the soil. Mr. H. K. Plank gave a paper on the camphor scale, illustrating it with several lantern slides. His talk dealt with the progress of the work and the methods employed in controlling the insect. The chairman of the section for 1925 is C. H. Hadley and the secretary is W. B. Wood.

The Section on Apiculture (chairman, R. W. Harned; secretary, G. M. Bentley, University of Tennessee, Knoxville, Tenn.) held an excellent session Wednesday forenoon. Professor R. W. Harned gave the opening address, which was followed by report of the Seventh International Apicultural Congress, by Dr. E. F. Phillips. The program of contributions consisted of 9 short papers on such topics as "Bee diseases," "Promotion of honey production," Effect of weather upon colony weight changes," "Brood rearing studies," "Sense of smell as a factor enabling the bee to locate pastures," "Federal cooperation in apiary inspection," "Brood rearing determinations," and a symposium on "Inspection methods in different states." Professor R. L. Webster was elected chairman for 1925, and Professor G. M. Bentley, of Knoxville, Tenn., was reelected as secretary.