

Association Affairs

Programs Planned for the AAAS Chicago Meeting

Section and society programs in engineering, industrial science, education, and programs of general interest are given here. Programs in mathematics, physics, chemistry, astronomy, geology and geography, the biological sciences, anthropology, psychology, the social and economic sciences, the history and philosophy of science, the medical sciences, and agriculture have been previously announced [*Science* **130**, 1196, 1258, 1344, 1428 (1959)].

Engineering

Section M. Four-session symposium: "National and International Aspects of Systems of Units," cosponsored by the Western Society of Engineers; arranged by a committee, Carl F. Kayan, Columbia University, chairman; 28 and 29 Dec.

Part I: "The Confusion of Chaos in Units"; Carl F. Kayan, presiding. Papers on the international viewpoint of an American engineer on units (Walker L. Cisler, American Society of Mechanical Engineers); should American industry convert to the metric system?—summary of views recently expressed by industry (G. F. Hussey, Jr., American Standards Association); our units of weights and measures (Lewis V. Judson, National Bureau of Standards); international challenge to American education and its relationship to the unit system (John J. Theobald, Superintendent of Schools, New York City); farmers and grain processors unit simplification (Hamill Varner, Quaker Oats Company); the chaos in packaging (Colston E. Warne, Consumers Union).

Part II: "Public Education vs. the Consumer Public"; H. C. Diehl, Trans-American Refrigerating Services, presiding. Papers on decimalization in the schools (James H. Smith, Board of Education, Chicago); children versus decimals and other fractions (Lore Rasmussen and David A. Page, University of Illinois); food container standardization and the public interest (Howard Stier, National Canners Association); packaging identification and marking (Allyn C. Beardsell, Mead Corporation); common fractions versus decimals in stock ex-

change reporting (Robert M. Bishop, New York Stock Exchange).

Part III: "Problems of Design, Manufacture, and Commerce"; Robert J. Painter, American Society for Testing Materials, presiding. Papers on linear measure decimalization in building design and construction (Perry Coke Smith, Voorhees, Walker, Smith, Smith and Haines); measuring units for the textile industry—present and prospective (Arthur D. Scroggie, E. I. duPont de Nemours & Company); English and metric systems of measurements in the forest-products industries and their effect on manufacturing and construction practices (A. J. Panshin, Michigan State University); machine tools and the inch-meter conversion (H. S. Sizer, Brown and Sharpe Manufacturing Company); weighing with decimals (R. E. Bell, Toledo Scale Corporation); pro's and con's of the weighing problem versus decimal and metric changeover (C. G. Gehringer, Fairbanks, Morse and Co.).

Part IV: "The Look to the Future"; Clarence E. Davies, United Engineering Trustees, Inc., presiding. Papers on the decimal idea in handling units (Chauncey D. Leake, Ohio State University); progress report on the changeover problems for Great Britain (T. P. Thomas, British Association Metric Committee); the adoption of a new system of weights and measures (Irvine C. Gardner, National Bureau of Standards); enforcement of the recently adopted metric system in Japan (Mitsuo Tamano, Central Inspection Institute of Weights and Measures, Tokyo); accelerated progress in the automotive decimalization program (Roy P. Trowbridge, General Motors Company); Parke-Davis adopts the metric system (Don G. Neill, Parke-Davis Company); highlights of the special AAAS report on metric usage (Wilmer Souder, AAAS Committee on Metric Usage).

Section M is a cosponsor of Section E's three-session symposium, "Great Lakes Basin"; 29 and 30 Dec. [*Science* **130**, 1197 (30 Oct. 1959)] and the two sessions of the Conference on Scientific Manpower, "Higher Education" and "Training in Emerging Fields of Science and Technology"; 28 Dec.

Tau Beta Pi Association. Address: "A New Order of Technological Challenge

in the Nation's Space Program," T. Keith Glennan, National Aeronautics and Space Administration; Introduction by John T. Rettaliata, Illinois Institute of Technology; 27 Dec.; Donald A. Dahlstrom, Eimco Corporation, presiding.

Industrial Science

Section P. Industrial Science Award dinner; 28 Dec.; Allen T. Bonnell, Drexel Institute of Technology, presiding.

Symposium: "Science Looks at the Food Industry," cosponsored by the Institute of Management Sciences; 29 Dec.; arranged by Allen T. Bonnell with Earl P. Stevenson, Arthur D. Little, Inc., presiding. Papers on the biological sciences and the food industry (Walter L. Obold, Drexel Institute of Technology); the physical sciences and the food industry (John R. Matchett, U.S. Department of Agriculture); the social sciences and the food industry (Ross Anthony Kelly, University of Illinois); the behavioral sciences and the food industry (Leonard Kent, Needham, Louis and Brorby, Inc.).

Luncheon meeting and vice presidential address: "Scientific Man and Unscientific Society," by Frank C. Croxton, Battelle Memorial Institute; 29 Dec.; Earl P. Stevenson, presiding.

Institute of Management Sciences. Symposium: "Management Science," cosponsored by AAAS Section P; 29 Dec.; arranged by Merrill M. Flood, University of Michigan, with Abraham Charnes, Northwestern University, presiding. Papers on the study of problem-solving in humans and computers (Allen Newell, Rand Corporation); application of information theory to the learning of artificial languages (Anatol Rapoport, University of Michigan); a use of simulation in the study of inter-nation relations (Harold Guetzkow, Northwestern University).

Society for Industrial Microbiology. Organizational meeting; 29 Dec.; for the formal organization of the Chicago Section. A program of invited and contributed papers is being organized to celebrate the tenth anniversary of the national society by Charles C. Yeager, Scientific Oil Compounding Company.

Education

Section Q. Papers will be presented on "Organic and Social Factors in Mental Deficiency and Their Significance to the Educational Program," cosponsored by the Council for Exceptional Children; 26 Dec.; arranged by Frances A. Mullen, assistant superintendent of schools, Chicago, who will preside.

There will be a session of papers on "Weapons of the School in the War Against Delinquency," cosponsored by

the Council for Exceptional Children; 26 Dec.; arranged by Frances A. Mullen, with Ivan K. Garrison, Council on Exceptional Children, presiding.

Symposium: "How Attitudes Affect Disease Control," jointly with the National Society for Medical Research, cosponsored by the National Association of Biology Teachers; 29 Dec.; arranged by Ralph A. Rohweder, National Society for Medical Research, who will preside. Papers on attitudes that cause disease (Archie R. O'Connor, Clinton, Mich.); attitudes that block treatment (William Kaufmann, *International Archives of Allergy and Applied Immunology*); attitudes that obstruct public health measures (Robert Barr, State Board of Health, St. Paul, Minn.); attitudes that hamper medical science generally (John Hampton, Tulane University).

Vice presidential address: "Fallacies in the Concept of Over-achievement," Warren G. Findley, Board of Education, Atlanta, Ga.; 29 Dec.

There will be six sessions of contributed papers; 29 and 30 Dec. Session I: arranged by Herbert A. Smith, U.S. Office of Education, who will preside. Session II: arranged by Herbert A. Smith, with P. G. Johnson, Cornell University, presiding. Session III: arranged by Herbert A. Smith, with Clarence Boeck, University of Minnesota, presiding. Session IV: jointly with the American Educational Research Association; arranged by Warren G. Findley, with Herbert A. Smith presiding. Session V: jointly with the American Educational Research Association; arranged by Warren G. Findley, who will preside. Session VI: jointly with the American Educational Research Association; arranged by Warren G. Findley, with Chester W. Harris, University of Wisconsin, presiding.

Special session; jointly with the American Educational Research Association; 30 Dec.; arranged by Warren G. Findley, with John C. Flanagan, University of Pittsburgh, presiding. A report on the national project for the identification, development, and utilization of human talent.

Science Teaching Societies

In the General Program, which will be sent to advance registrants by first-class mail in the first half of December, and will also be available at the meeting, the programs of the four science teaching societies which meet regularly with the AAAS will be arranged in one convenient chronological sequence. It has seemed advisable, however, to arrange them by societies here. Mrs. Muriel Beuschlein, Chicago Teachers College, has served as program coordinator, not only for the general sessions, other joint sessions, but for the individual

programs of NABT, NARST, NSTA, and ANSS.

National Association of Biology Teachers. Session on "Space Medicine"; 27 Dec.; Paul Klinge, Indiana University, presiding. Papers on animal health and disease in the space age (Dean H. Ferris, University of Illinois); radio telemetry of nerve action potentials (Roger M. Morrell, Montreal Neurological Institute); significance of the results of the Jupiter bioflight program (Dietrich E. Beischer, U.S. Naval Aviation Medical Center).

Session on "Streamlining Biology"; 28 Dec.; H. Seymour Fowler, Pennsylvania State University, presiding. Papers on the "block of time" idea for biology instruction (Addison E. Lee, University of Texas); streamlining biology (Oswald Tippo, Yale University; H. Burr Roney, University of Houston; Arnold Grobman, University of Colorado); advanced placement biology (John F. Mehner, Senior High School, Mount Lebanon, Pa.).

Presidential address: "Biology's Bright Future," by Paul Klinge; Howard E. Weaver, University of Illinois, presiding.

Session on "Planning Biology Teaching Facilities"; 28 Dec.; Phillip R. Fordyce, Oak Park High School, Oak Park, Ill., presiding. Papers on suggestions for improving the high school biology laboratory (Steve M. Pattee, Jefferson Senior High School, Iowa); functional planning for science facilities (Basil Castaldi, University of Illinois); the development and use of school grounds as outdoor laboratories for science (Richard L. Weaver, University of Michigan); general discussion of biology teaching facilities.

Session on "Methods in Senior High School Biology"; 29 Dec.; Paul V. Webster, Bryan, Ohio, presiding. Papers on tactics and strategy in dealing with the gifted students in biology (Paul F. Brandwein, Harcourt Brace and Company); problems dealing with the growth of rats using vitamins, minerals, and hormones—a project for gifted students (Arthur J. Baker and Leonard G. Scheel, Community High School, Illinois); kids like to study snakes (Gilbert Dehne, Michigan City High School, Michigan City, Ind.).

Luncheon; 28 Dec.; arranged by Philip R. Fordyce and Howard E. Weaver with Paul Klinge presiding. Address: "Life Forms To Be Expected Elsewhere than on the Earth," by Herman J. Muller, Indiana University.

National Association for Research in Science Teaching. Research symposium: 28 Dec.; arranged by Vaden W. Miles, Wayne State University, and John C. Mayfield, University of Chicago, with Vaden W. Miles presiding. Papers on a review of recent research in elementary

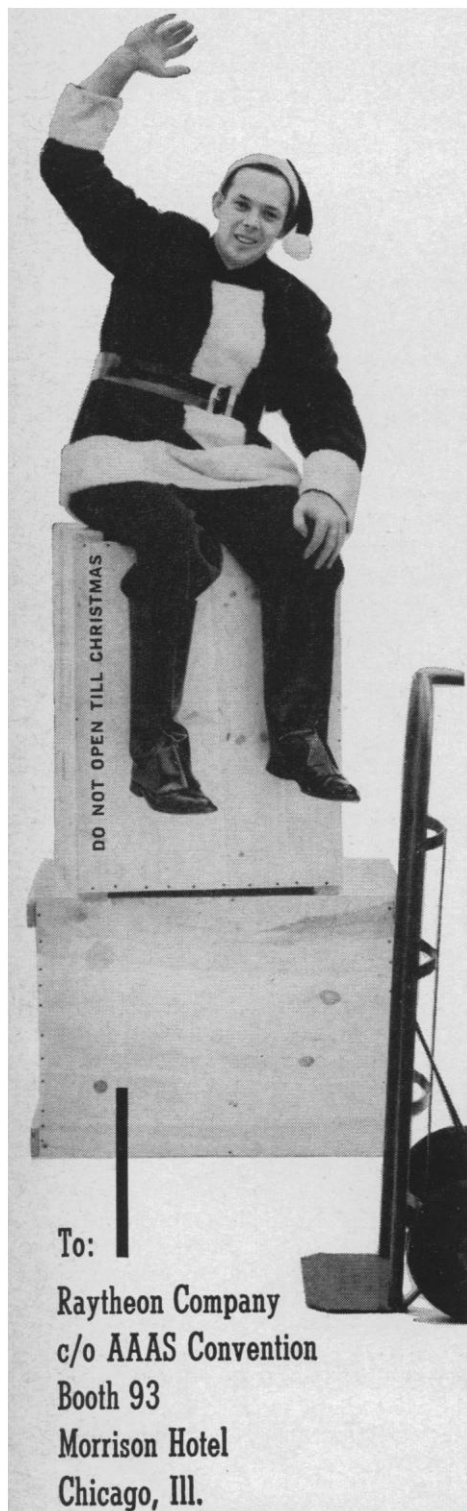
science education (Betty Lockwood Wheeler, Central Michigan University); implications of the findings of recent research in elementary science education (Paul E. Blackwood, U.S. Office of Education); review of recent research in secondary science education (Hubert Evans, Teachers College, Columbia University); implications of the findings of recent research in secondary science education (William B. Reiner, Board of Education, New York City); review of recent research in college level science education (John H. Woodburn, Johns Hopkins University); implications of the findings of recent research in college level science education (Herman R. Branson, Howard University); summary (Cyrus W. Barnes, New York University).

National Science Teachers Association. Three concurrent sessions: "Here's How I Teach Space Science"; 27 Dec. Session I: Elementary School Level; Helen J. Challand, National College of Education, Illinois, presiding. The speakers will be Lawrence F. Hubbell, Elementary Schools, Oak Park, Ill.; Mildred L. Ballou, Public Schools, Des Moines, Iowa; Eileen M. Nelson, National College of Education. Session II: Junior High School Level; Edward Victor, Northwestern University, presiding. The speakers will be John Sternig, Public Schools, Glencoe, Ill.; Theodore W. Wallschlaeger, Palmer School, Chicago; Donald A. Boyer, Public Schools, Winnetka, Ill.; Session III: Senior High School Level; John S. Richardson, Ohio State University, presiding. The speakers will be Murl B. Sailsbury, Evanston High School, Evanston, Ill.; Eloise A. McElfresh, Roosevelt Junior High School, Charleston, W. Va.; Nelson L. Lowry, Arlington Heights High School, Illinois.

Three-session symposium: "K-12 Planning"; 28 and 29 Dec. Part I; Robert A. Rice, Berkeley High School, Berkeley, Calif., presiding. Papers on problems and issues (Donald G. Decker, Colorado State College); what research says (Kenneth E. Anderson, University of Kansas); the critical years, grades 7-9 (Erwin L. Slesnick, University High School, Columbus, Ohio); teaching the talented (J. Ned Bryan, North Central Association); science and the technical arts (James Kendall, Oak Park-River Forest High School, Illinois); extending the program beyond normal school hours (Lester S. Hollinger, Glen Rock High School, New Jersey); earth science in the K-12 program (Loren T. Caldwell, Northern Illinois University); science in the elementary school (Robert C. Van Raalte, Department of Public Instruction, Madison, Wis.).

Part II; Round Table Discussions; Donald G. Decker, Colorado State College, coordinator. The leaders will be

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Robert A. Bullington, Northern Illinois University; William C. Forbes, Oakland County Schools, Michigan; Kenneth E. Vordenberg, Cincinnati Public Schools; Milton O. Pella, University of Wisconsin; James A. Rutledge, University of Nebraska; J. Donald Henderson, University of North Dakota; Peter M. Dean, Wayne State University; John G. Navarra, Jersey City State College; Albert Piltz, Detroit Public Schools; Robert A. Rice, Berkeley Public Schools, California; Sylvia S. Neivert, Bayside High School, New York; Edmund T. Burke, Montgomery County Schools, Maryland.

Part III; Summary of Round-Table Discussions; Donald G. Decker, presiding.

Conference on the Future Scientists of America Program; 30 Dec.; Zachariah Subarsky, Bronx High School of Science, presiding.

American Nature Study Society. Session on "Natural History of the Chicago Area"; 27 Dec.; Stanley B. Mulaik, University of Utah, presiding. Papers on reptiles and amphibians of the Chicago area (James A. Fowler, Cranbrook Institute of Science); plant life of the Chicago area (Floyd A. Swink, Forest Preserve District of Cook County); native grasses and ecology of the Illinois prairie (Alice Goodrich, Chicago); Chicago and the rest of the universe (Daniel Q. Posin, DePaul University); the dunes area (Terzo P. Amidie, Gary, Ind.).

Session on "Contributions of Research toward a Better Interpretation of Nature"; 28 Dec.; Emery L. Will, New York State University, College of Education, presiding. Papers on interrelationships of biological and physical sciences in ecological studies (Ted F. Andrews, Kansas State Teachers College); the naturalist and the scientist (Harlow B. Mills, Illinois State Natural History Survey); natural history research for the layman (Verne N. Rockcastle, Cornell University); importance of scientific accuracy in field studies for better nature interpretation (Howard H. Michaud, Purdue University).

Session on "Reaching the Public—Problems Ahead"; 28 Dec.; H. Raymond Gregg, National Park Service, presiding. Papers on public information program for adults (Roland F. Eisenbeis, Forest Preserve District of Cook County, Ill.); nature study in tomorrow's schools (John W. Brainerd, Springfield College); the fight for wilderness in an urban society (William J. Beecher, Chicago Academy of Science); the National Park Service prepares for the future (John E. Doerr, National Park Service); reaching America's youth through the Boy Scouts of America (E. Laurence Palmer, Ithaca, N.Y.).

Session on "Nature Writing for the Present and Future"; 29 Dec.; S. Glid-

den Baldwin, Danville, Ill., presiding. Papers on an author looks to the future (Robert M. McClung, Chevy Chase, Md.); writing for today's children (Dorothy M. Matala, Iowa State Teachers College); royalty, retirement, and rebellion: three R's of nature writing (E. Laurence Palmer); watching the birds with a million readers (Anne Douglas, Gary, Indiana).

Banquet; 29 Dec.; arranged by Elizabeth Blair, Barrington, Ill., with Stanley B. Mulaik, University of Utah, presiding. Address: "Adventure in Africa," by Murl Deusing, Museum of Science and Natural History.

Joint Sessions of the Four Science Teaching Societies. General session on "Man and Space Travel"; 27 Dec.; arranged by Robert H. Carleton, National Science Teachers Association, who will preside. Papers on surface of the moon (John A. O'Keefe, National Aeronautical and Space Administration); the place of planetaria in teaching space science (James A. Fowler, Cranbrook Institute of Science).

Elementary-Junior High School Science Assembly; 29 Dec.; J. Myron Atkin, University of Illinois, presiding. Papers on the building of science programs: kindergarten-grade 8 (Ernest Bonhivert, Glencoe Public Schools, Illinois); teaching about chemical changes (Kenneth George, Midlothian Public Schools, Illinois); teaching modern concepts in astronomy (Fred Wilkin, Highland Park Public Schools, Illinois); teaching about insects (Alvin Quinn, Lincolnwood Public Schools, Illinois).

Programs of General Interest

Academy Conference. Junior Scientists Assembly, four sessions at the Chicago Museum of Natural History; 29 and 30 Dec.; arranged by M. B. Salsbury, Evanston Township High School, Illinois. Many selected students from the Chicago area, who are interested in science as a career, have been invited to the Assembly. The program will consist of a series of meetings on different frontiers of science with emphasis on science projects in order to assist students in choosing a project on which they may work. At each session different outstanding completed projects will be shown.

Junior Academy session; 27 Dec.: Elnore Stoldt, Jacksonville Illinois High School, presiding; H. Neil Hardy, Ohio State University, recorder. Papers on a brief review of former Junior Academy sessions (H. Neil Hardy); the Louisiana Junior Academy Project supported by the National Science Foundation (Harry J. Bennett, Louisiana State University); the Tennessee Junior Academy Program supported by the National Science Foundation (M. S. McCay, University of Chattanooga); the Young Naturalists'

GRASSLANDS

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This volume is intended as a review of knowledge on many aspects of grasslands resources. The 44 authors were selected by their own professional colleagues as being particularly competent to present the respective subjects. Thirty-seven papers are arranged under these chapter headings:

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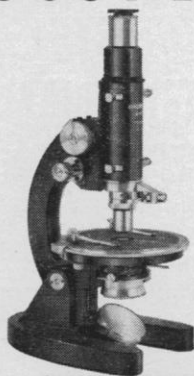
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and Young Technicians' Circles—Soviet counterpart of the Junior Academy of Science (C. Leplie Kanatzar, MacMurray College).

Business meeting and reports; 28 Dec.; A. M. Winchester, Stetson University, presiding. Papers on the do's and don'ts of applying for National Science Foundation and other grants (John A. Yarbrough, Meredith College); Academy utilization of AAAS grants over the past ten years (Clinton Baker, Southwestern at Memphis).

Panel discussion on current senior academy problems; 28 Dec.; John G. Arnold, Jr., Loyola of New Orleans, presiding. Discussion on membership—how to increase it (Kenneth B. Hobbs, Ohio Academy of Science); attendance—how to stimulate it (W. C. Oelke, Grinnell College). There will be a debate on the topic "Academies of Science should establish permanent headquarters and obtain full time executive leadership." The affirmative will be taken by Robert C. Miller (California Academy of Sciences) and Harold W. Hansen (Minnesota Academy of Science); the negative by P. H. Yancey (Alabama Academy of Science) and Wayne Taylor (Michigan Academy of Science).

Academy Conference Dinner and Presidential Address: "Tribulations of the Science Textbook Author," by A. M. Winchester, Stetson University; 28 Dec.; John A. Yarbrough, presiding.

American Council on Women in Science. Conference on Encouraging the Participation of Women in Science, cosponsored by Sigma Delta Epsilon; 28 Dec.; keynote speaker, Alan T. Waterman, National Science Foundation. There will be three panel workshops following Dr. Waterman's address: motivating women to select and advance in scientific careers, problems of the working woman scientist, undergraduate and graduate training for women in science.

Conference on Scientific Communication. Symposium: "Research in Documentation and Communication"; 29 Dec.; Joseph Gray Jackson, William Steell Jackson and Sons, presiding. Papers on semiautomatic indexing and encoding (Julius Frome, U.S. Patent Office); metallurgical document classification, storage, and retrieval (Marjorie R. Hyslop, *Metal Progress*); storing numerical values in an inverted file for mechanized information retrieval (D. D. Andrews, U.S. Patent Office); machine literature searching in science (Allen Kent, Western Reserve University).

Symposium: "International Communications in Science"; 29 Dec.; J. George Adashko, *Soviet Physics*, presiding. Papers on going abroad for translations (W. E. Sievers, National Science Foundation); who is winning the information war? (G. H. Rostky, *Electronic Design*); tracking the Russian satellite

and rocket literature (I. Hersey, American Rocket Society); a combination translation and abstracting program (G. Herrmann, Columbia University).

Session on the Principles of Communication, cosponsored by Science Service; 30 Dec.; writing and science presentation by Watson Davis, Science Service.

Conference on Scientific Manpower. Two sessions: "Higher Education and Training in Emerging Fields of Science and Technology," cosponsored by the Engineering Manpower Commission, the Scientific Manpower Commission, the National Research Council, the National Science Foundation, and AAAS Section M—Engineering; 28 Dec. Part I; papers on engineering programs in the light of new technology (Harold L. Hazen, Massachusetts Institute of Technology); graduate training and the space sciences (John P. Hagen National Aeronautics and Space Administration); education and manpower problems in oceanography (Gordon A. Riley, Yale University).

Part II; S. B. Ingram, Bell Telephone Laboratories, presiding. Papers on implications of nuclear sciences developments for graduate training (Charles W. Shilling, Atomic Energy Commission); graduate training for metallurgy (Walter R. Hibbard, Jr., General Electric Company); graduate training requirements in chemical fuels (Richard D. Geckler, Aerojet-General Corporation).

Honor Society of Phi Kappa Phi. Triennial meeting; 30 and 31 Dec.

National Association of Science Writers. Business meeting; 28 Dec. Reception and dinner, by invitation; 27 Dec.; presentation of AAAS-Westinghouse Science Writing Awards; Pierre C. Fraley, *Philadelphia Bulletin*, presiding.

Scientific Research Society of America. Annual convention; 29 Dec. There will be a joint luncheon with the Society of the Sigma Xi; 29 Dec. Scientific Research Society of America address and award of the William Procter Prize will follow the luncheon.

Sigma Delta Epsilon. National Council and Board of Directors Meeting; 27 Dec.; Esther S. Anderson, Bureau of the Census, presiding.

Annual dinner and grand chapter meeting; 29 Dec.; Esther S. Anderson, presiding.

Luncheon for all women in science and address: "Science in Education and Education in Science," by Delaphine Rosa Wyckoff, Wellesley College; 30 Dec.; Esther S. Anderson, presiding.

The Society of the Sigma Xi. Sixtieth Annual Convention; 29 Dec.

Address, jointly with Phi Beta Kappa: "Adventure in Learning," by Lee A. DuBridge, California Institute of Technology; 29 Dec.