Meetings

American Nuclear Society

L. R. Hafstad, research vice president of the General Motors Corporation, and Walker L. Cisler, president of the Detroit Edison Company, will serve as general chairmen of the 1958 annual meeting of the American Nuclear Society, which is to be held at the Sheraton-Cadillac Hotel in Detroit, 8–10 December. The meeting will draw 1400 engineers and scientists, including representatives from European and South American countries.

Highlight of the meeting will be a report on the United Nations Second International Conference on the Peaceful Use of Atomic Energy. Twenty-four technical sessions have been arranged, featuring approximately 175 papers covering all phases of nuclear science and technology. Alfred Amorosi, Technical Director of Atomic Power Development Associates, Inc., has been appointed local program chairman. He reports that field trips are being planned to the Enrico Fermi Atomic Power Plant near Monroe, Mich., and to the University of Michigan Phoenix Memorial Project, including the Ford Test Reactor on the north campus at Ann Arbor.

Ice Age History

A paper to be presented at the December meeting of the AAAS in Washington, D.C., will include a proposal for a wholly new concept of ice age history. Full treatment of this subject will be presented in the future, but it is sufficient to announce at this time that abundant new data have been collected at the department of geography of Clark University during the present International Geophysical Year.

1) Deposits formerly attributed to four or five separate Pleistocene glaciations, both in America and in Europe, are deposits of a single glaciation.

2) Limits of the glaciation in the Missouri-Mississippi-Ohio drainage basin are marked by southern borders of the so-called Nebraskan, Kansan, and Illinoian till sheets, and on Long Island, by the terminal moraine.

3) At the climax of glaciation a depressed state of the earth's crust under the icecap centering in the region of Hudson Bay permitted waters of the lowest position of Glacial sea level to form estuaries penetrating to the ice border in the Mississippi embayment and in the Columbia River basin. These synchronous marine stages, known as the "Leverett Sea," were kept fresh by large outflow, like headwaters of the Baltic today.

4) Normal retreat of the borders of

the icecap permitted the Leverett Sea to expand into valleys of southern New England and the lower Hudson valley, and, in the Mississippi basin, over the whole area of the so-called Nebraskan, Kansan, and Illinoian glaciations, so that an immense ice-marginal body of water was formed, extending from Ohio to Montana and from the Gulf of Mexico to the Wisconsin driftless area. Iceberg-rafted erratic stones and boulders became grounded on the submerged topography of northern Kentucky, southwestern Missouri, and eastern Iowa (the so-called "Iowan" stage). Gumbo clays, until recently interpreted to be weathered tills, were deposited within the expanse of the sea-level waters, along with drift-wood and other organic material heretofore interpreted to be "interglacial deposits." Immense kames and eskers were built by subglacial rivers emerging from beneath the ice border under water.

5) When the edge of the icecap had melted and calved back to the so-called "Wisconsin" ice-border position, the relief from ice weight inaugurated a great upwarping movement of the earth's crust (called the Hubbard uplift), which lifted the entire glaciated area from the Atlantic to the Pacific. As the land rose and assumed directions of slope away from the ice, the ice-frontal estuaries of the Leverett Sea drained away and were replaced by the post-Glacial Ohio, Mississippi, Missouri, and Columbia rivers, thereby originating such features as the submerged channel of the Hudson River and the channeled scablands of the state of Washington. The Hubbard uplift took place shortly after New Haven, Connecticut, was uncovered, shortly before Indianapolis was uncovered, and long before the uncovering of the Glacial Great Lakes. At the end of the movement the ice border was almost all on dry land, on which thereafter it formed subaerial outwash plains, valley trains, and successive moraines. Drumlins which made their appearance during the ensuing retreat had been generated by land movement under the ice; dissection of many of the older submergence deposits commenced; and conditions became ideal for widespread loess deposition. The contrast in appearance of submergence deposits and deposits formed after the uplift partly explains how the concept of "Older" and "Last" glaciations came about.

6) During the Hubbard uplift the outer boundary of upwarping shifted iceward from a Hubbard hinge line of undetermined location outside the limits of glaciation to the Whittlesey hinge line in the Erie-Michigan basins. At the end of the Hubbard uplift the Leverett marine-water plane in the Mississippi embayment was left in the upwarped position it has today—submerged about 450 feet below present sea level in Louisiana,

raised 540 feet above present sea level in southeastern Missouri, and raised over 800 feet in northwestern Illinois.

7) Further recessional events followed essentially the present historical concepts, with a Glacial Great Lakes stage, additional marine stages (the DeGeer in Maine and in Puget Sound and the Champlain in the St. Lawrence), and iceward migration of hinge line activity from the Whittlesey to the Algonquin hinge line, as upwarping continued.

8) Reduction of the ice age to "unity" shortens geological history and nullifies the present meaning of the terms *Nebraskan, Kansan, Illinoian, Wisconsin,* and the several *"interglacials."* Ice age history appears to have been influenced or regulated far less by climatic changes and moraine building than by the intermittent character of the great land movements which continue to the present. There is urgent need in America and Europe for a tectonic chronology of the ice age, based on transatlantic correlation of marine stages and simultaneous timing of the continental uplifts.

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Clinical Chemistry

More than 200 clinical chemists attended the recent meeting of the American Association of Clinical Chemists in Iowa City, 4–6 September. The program included a symposium on the applications of quality control to clinical laboratories and a series of 46 papers dealing with various aspects of clinical chemistry.

In the presidential address, Oliver Gaebler briefly reviewed the history of the AACC; then he pointed out that contact with scientists in other disciplines is the best way for stimulating not only clinical chemistry, but the individual clinical chemist.

A highlight of the meeting was the presentation of the Bischoff Award to Marschelle H. Power, senior consultant in biochemistry at the Mayo Clinic, "for outstanding contributions to clinical chemistry." The award, which is sponsored by the Ames Company of Elkhart, Ind., consists of a medal, a citation, and an honorarium of $500. The 11th annual meeting will be held in Cleveland, Ohio, in the fall of 1959.

Biology Teaching

The second annual meeting of the Association of Midwest College Biology Teachers was held at Western Illinois University (Macomb), 10–11 October. More than 200 representatives of some 90 colleges and universities attended. The primary purpose of the organization is to seek and develop ways of improving the teaching of biology at all levels of instruction.

Most of the meeting was devoted to seven discussion sections. Among the topics considered were the nature of the first course in biology, the biology-major program, the preparation of high school biology teachers, the education requirements for high school teachers, the graduate preparation of college biology teachers, laboratory and field work in the first course, and special readings for biology majors. Two addresses were given: one by W. H. Bragonier, Iowa State College, "Science Education and You," and the other by James F. Crow, University of Wisconsin, "What Is a Gene?"

Willis H. Johnson of Wabash College succeeds Leland P. Johnson of Drake University as president of the association.

Forthcoming Events

December

18–20. American Physical Soc., Los Angeles, Calif. (K. K. Darrow, APS, Columbia Univ., New York 27.)

26–31. American Assoc. for the Advancement of Science, annual, Washington, D.C. (R. L. Taylor, AAAS, 1515 Massachusetts Ave., NW, Washington 5.)

The following 47 meetings are being held in conjunction with the AAAS annual meeting.

AAAS Committee on the Social Aspects of Science (C. D. Leake, Ohio State Univ. College of Medicine, Columbus, Ohio). 27 Dec.

AAAS Cooperative Committee on the Teaching of Science and Mathematics (J. W. Buchta, Univ. of Minnesota, Minneapolis, Minn.). 28 Dec.

Academy Conf. (J. A. Yarbrough, Meredith College, Raleigh, N.C.). 27–28 Dec.

Alpha Epsilon Delta (M. L. Moore, 7 Brookside Circle, Bronxville, N.Y.). 27 Dec.

American Assoc. of Clinical Chemists (Miss E. G. Frame, Clinical Center, Natl. Institutes of Health, Bethesda 14, Md.). 29–30 Dec.

American Assoc. of Scientific Workers (R. J. Rutman, 6331 Ross St., Philadelphia 44, Pa.).

American Astronautical Soc. (R. Fleisig, 58 Kilburn Rd., Garden City, N.Y.). 27–30 Dec.

American Geophysical Union (W. E. Smith, AGU, 1515 Massachusetts Ave., NW, Washington 5).

American Meteorological Soc. (K. Spengler, 3 Joy St., Boston, Mass.).

American Nature Soc. (S. Mulaik, Biology Dept., Univ. of Utah, Salt Lake City). 26–30 Dec.

American Physiological Soc. (F. A. Hitchcock, Ohio State Univ., Columbus).

American Political Science Assoc. (E. M. Kirkpatrick, APSA, 1726 Massachusetts Ave., NW, Washington, D.C.). 27 Dec.

American Psychiatric Assoc. (L. J.

West, Univ. of Oklahoma School of Medicine, Oklahoma City 4). 27–28 Dec.

American Soc. of Criminology (D. E. J. MacNamara, Dean, New York Inst. of Criminology, Inc., 40 E. 40 St., New York 16). 27–28 Dec.

American Soc. of Naturalists (J. Schultz, Inst. for Cancer Research, Philadelphia, Pa.).

American Soc. of Photogrammetry (R. G. Ray, U.S. Geological Survey, Washington 25). 29 Dec.

American Soc. of Zoologists (G. Moment, Dept. of Biology, Goucher College, Towson, Baltimore 4, Md.). 27–29 Dec.

American Sociological Soc. (K. Davis, Inst. of International Studies, Univ. of California, Berkeley 4). 29 Dec.

Association of American Geographers, Middle Atlantic Div. (J. E. Guernsey, 9707 Parkwood Dr., Bethesda, Md.). 29 Dec.

Association for Computing Machinery (J. Douglas, Mathematics Dept., Rice Inst., Houston, Tex.).

Astronomical League (Miss G. C. Scholz, 410 Mason Hall Apts., Alexandria, Va.). 26 Dec.

Biometric Soc. (J. Cornfield, Johns Hopkins Univ., Baltimore, Md.). 30 Dec.

American Statistical Assoc. (E. Glazer, 305 George Mason Dr., Falls Church, Va.). 30 Dec.

Conference on Scientific Communication Problems (G. L. Seielstad, Applied Physics Lab., Johns Hopkins Univ., Silver Spring, Md.) 28–30 Dec.

Conference on Scientific Manpower (T. J. Mills, National Science Foundation, Washington 25). 30 Dec.

Ecological Soc. of America (D. E. Davis, Johns Hopkins Univ., School of Hygiene, Baltimore, Md.).

History of Science Soc. (M. C. Leikind, 1334 Aspen St., NW, Washington 12). 29 Dec.

Instrument Soc. of America (O. L. Linebrink, Battelle Memorial Inst., Columbus, Ohio). 30 Dec.

International Geophysical Year (H. Odishaw, National Acad. of Sciences, Washington 25). 29–30 Dec.

Junior Scientists Assembly (K. C. Johnson, Supervising Director of Science, District of Columbia Public Schools, Woodrow Wilson High School, Washington 16). 27–28 Dec.

Metric Assoc. (J. T. Johnson, 694 W. 11 St., Claremont, Calif.).

National Acad. of Economics and Political Science (D. P. Ray, Hall of Government, George Washington Univ., Washington, D.C.). 27 Dec.

National Assoc. of Biology Teachers (P. Klinge, Jordan Bldg., Indiana Univ., Bloomington). 26–30 Dec.

National Assoc. for Research in Science Teaching (E. S. Obourn, U.S. Office of Education, Washington 25). 26–30 Dec.

National Assoc. of Science Writers (J. Billard, U.S. News and World Report, Washington, D.C.).

National Geographic Soc. (W. R. Gray, NGS, 16 and M Sts., NW, Washington 6). 30 Dec.

National Science Teachers Assoc. (W. A. Kilgore, District of Columbia Teachers College, Washington 9). 26–30 Dec.

National Speleological Soc. (W. E.

Davies, 125 Greenway Blvd., Falls Church, Va.). 28–29 Dec.

Philosophy of Science Assoc. (C. W. Churchman, Case Inst. of Technology, Cleveland, Ohio).

Pi Gamma Mu (Mrs. Effie B. Urqhart, Winfield, Kan.).

Scientific Research Soc. of America (D. B. Prentice, 56 Hillhouse Ave., New Haven 11, Conn.).

Sigma Delta Epsilon (Mrs. V. L. Blackford, 2630 Adams Mill Rd., NW, Washington 10). 26–30 Dec.

Society for General Systems Research (R. L. Meier, Mental Health Research Inst., Univ. of Michigan, Ann Arbor). 29 Dec.

Society for Industrial Microbiology, Washington section (W. N. Ezekiel, Bureau of Mines, Washington 25). 27–28 Dec.

Society of the Sigma Xi (T. T. Holme, 56 Hillhouse Ave., New Haven 11, Conn.). 29 Dec.

Society of Systematic Zoology (G. W. Wharton, Dept. of Zoology, Univ. of Maryland, College Park). 26–30 Dec.

United Chapters of Phi Beta Kappa (C. Billman, 1811 Q St., NW, Washington, D.C.). 27 Dec.

Washington Acad. of Sciences (G. W. Irving, ARS, U.S. Dept. of Agriculture, Washington 25).

27–29. American Economic Assoc., Chicago, Ill. (J. W. Bell, AEA, Northwestern Univ., Evanston, Ill.)

27–29. Econometric Soc., Chicago, Ill. (R. Ruggles, Box 1264 Yale Station, Yale Univ., New Haven, Conn.)

27–30. American Folklore Soc., New York, N.Y. (MacE. Leach, AFS, Univ. of Pennsylvania, Philadelphia, Pa.)

28–30. Archaeological Inst. of America, Cincinnati, Ohio. (L. A. Campbell, AIA, Dept. of Classics, Brooklyn College, Brooklyn, N.Y.)

29–30. National Council of Teachers of Mathematics, New York, N.Y. (M. H. Ahrendt, NCTM, 1201 16 St., NW, Washington 6.)

28–30. Western Soc. of Naturalists, Seattle, Wash. (J. P. Harville, San Jose State College, San Jose 14.)

January

7–9. Northeastern Weed Control Conf., 13th annual, New York, N.Y. (E. R. Marshall, Carbide & Carbon Chemical Co., New York, N.Y.)

12–14. Reliability and Quality Control, 5th natl. symp., Philadelphia, Pa. (W. T. Sumerlin, Philco Corp., 4700 Wissahickon Ave., Philadelphia 44.)

20–22. American Mathematical Soc., annual winter, Philadelphia, Pa. (E. G. Begle, Leet Oliver Hall, Yale Univ., New Haven, Conn.)

21–22. American Group Psychotherapy Assoc., 3rd annual institute, New York, N.Y. (C. Beukenkamp, Public Relations Chairman, 993 Park Ave., New York 28.)

22–23. Mathematical Assoc. of America, 42nd annual, Philadelphia, Pa. (H. M. Gehman, MAA, Univ. of Buffalo, Buffalo 14, N.Y.)

23–24. American Group Psychotherapy Assoc., 16th annual conf., New York, N.Y.

(C. Beukenkamp, Public Relations Chairman, 993 Park Ave., New York 28.)

26–29. American Meterological Soc., New York, N.Y. (K. C. Spengler, AMS, 3 Joy St., Boston 8, Mass.)

26–29. American Soc. of Heating and Air Conditioning Engineers, 65th annual, Philadelphia, Pa. (W. M. Vidulich, ASHACE, 62 Worth St., New York 13.)

26–29. Institute of the Aeronautical Sciences, 27th annual, New York, N.Y. (IAS, 2 E. 64 St., New York 21.)

27–30. Society of Plastics Engineers, Inc., 15th annual tech. conf., New York, N.Y. (L. A. Bernhard, SPE, 65 Prospect St., Stamford, Conn.)

28–29. Nuclear Fuel Elements, 1st intern. symp., New York, N.Y. (H. H. Hausner, 1st Intern. Symp. on Nuclear Fuel Elements, 730 Fifth Ave., New York 19.)

28–31. American Physical Soc., annual, New York, N.Y. (E. R. Fitzgerald, Dept. of Physics, Pennsylvania State Univ., University Park.)

29–31. Western Soc. for Clinical Research, 12th annual, Carmel-by-the-Sea, Calif. (W. N. Valentine, Office of the Secretary, Univ. of California Medical Center, Department of Medicine, Los Angeles 24.)

February

1–6. American Inst. of Electrical Engineers, winter general, New York N.Y. (N. S. Hibshman, 33 W. 39 St., New York 18.)

9–11. Nature of Coal, symp., Bihar, India. (Director, Central Fuel Research Inst., P. O. Fuel Research Inst., Dhanbad District, Bihar.)

12–13. Solid State Circuits Conf., Philadelphia, Pa. (A. B. Stern, General Electric Co., Bldg. 3, Syracuse, N.Y.)

14. Short Range Navigation Aids., Montreal, Canada. (Intern. Civil Aviation Organization, Maison de l'Aviation Internationale, Montreal.)

15–19. American Inst. of Mining, Metallurgical, and Petroleum Engineers, annual, San Francisco, Calif. (E. O. Kirkendall, AIME, 29 W. 39 St., New York 18.)

16–19. Problems in Field Studies in Mental Disorders, intern. work conf., New York, N.Y. (J. Zubin, American Psychopathological Assoc., 722 W. 168 St., New York 32.)

20–21. Epidemiology in Mental Disorders, annual meeting of the American Psychopathological Assoc., New York, N.Y. (J. Zubin, APA, 722 W. 168 St., New York 32.)

26–28. Genetics and Cancer, 13th annual symp. on fundamental cancer research, Houston, Tex. (Editorial Office, Univ. of Texas, M. D. Anderson Hospital and Tumor Inst. Texas Medical Center, Houston 25.)

27–1. National Wildlife Federation, 23rd annual convention, New York, N.Y. (NWF, 232 Carroll St., NW, Washington 12.)

March

1–5. Gas Turbine Power Conf., Cincinnati, Ohio. (O. B. Schier, ASME, 29 W. 39 St., New York, N.Y.)