

THE MUSEUM OF SCIENCE AND INDUSTRY AND THE CENTURY OF PROGRESS EXPOSITION

THE Museum of Science and Industry at Chicago, according to the *Museum News*, will receive many important exhibits from the Century of Progress Exposition, which closed on October 31. From the Hall of Science at least 170 separate exhibits in the fields of physics, chemistry, biology, geology, medicine, engineering and astronomy will be transferred to the museum. Historical material in the sciences includes a diorama of Benjamin Franklin's kite experiment; replicas furnished by the Government of Italy of instruments used by Marconi in early transatlantic wireless experiments, of one of Galileo's telescopes, of the first alternating current generator designed by Pacinotti in 1865 and of Nobili's galvanometer, and a large group of exhibits furnished by the Government of Denmark.

In the field of chemistry probably the most important exhibit obtained is the periodic table of the elements from the Hall of Science. All the ninety-two elements are shown in this exhibit, to which six universities, Ward's Natural Science Establishment, the Memorial Hospital in New York and more than thirty commercial organizations contributed. The chemistry of petroleum is shown in a group of exhibits contributed by the industry. Other exhibits in chemistry are a diorama of the mining of sulphur and demonstrations of the chemistry of coal tar, chemical changes and processes and colloid chemistry.

In physics the museum obtains demonstrations in molecular motion, in sound and speech, in electromagnetism and in light. A group of exhibits on color and rays demonstrates the three primary colors, the photoelectric cell, helium and radium rays and the principles of television.

In biology models of generalized plant cells show cell division, a group of models illustrates roots and root characteristics and another group shows the origin of beeswax, spermaceti and whale wax, lanolin, paraffin wax, vegetable waxes and the uses of wax.

In geology two groups of exhibits illustrate methods of prospecting and drilling for oil; a generalized model shows an Artesian basin, a source of ground water and a diorama of Indiana sand dunes, with a small moving dune in the foreground, demonstrates how the dunes are shifted by the wind.

The Government of Italy contributes groups of exhibits on engineering and medicine, and the Government of Denmark groups on astronomy, physics and chemistry.

From other buildings, material is contributed by the U. S. Government and several of the states. Also exhibits, largely of commercial origin, are promised from the Electrical Building, Agriculture Building,

Home Planning Hall, Social Science Hall, Colonial Village, Southern Cypress House and the buildings of Sears-Roebuck, T. & T., General Motors, Common Brick Association, American Radiator, Ford, General Houses, Lumber Association and Wings of a Century. Altogether the museum will receive more than 230 exhibits and groups of exhibits from the fair.

THE PITTSBURGH MEETING OF MATHEMATICIANS

THE nineteenth annual meeting of the Mathematical Association of America will be held under the presidency of Professor Arnold Dresden, of Swarthmore College, at Pittsburgh, Pennsylvania, on Saturday, Monday and Tuesday, December 29 and 31, 1934, and January 1, 1935, in affiliation with the American Mathematical Society and the American Association for the Advancement of Science. The meetings will be held in the Administration Building of the Carnegie Institute of Technology.

At a joint session of the three organizations on Monday morning Professor C. N. Moore as retiring chairman of Section A will deliver an address on "Mathematics and Science" and Professor Arnold Dresden as retiring president of the Mathematical Association will speak on "A Program for Mathematics."

A significant feature of the week will be a joint session of the association with the National Council of Teachers of Mathematics on Saturday afternoon at which Professor W. L. Hart, representing the association, and Professor P. W. Hutson and Dr. M. L. Hartung, representing the National Council, will discuss "The Need for a Reorientation of Mathematics in the Secondary Schools." Separate sessions of the National Council will also be held on Friday evening and Saturday morning.

Sessions of the Mathematical Association will be held on Monday afternoon and Tuesday morning. The Monday session will be devoted to a symposium (of non-advanced character) on "Equipotential Loci of Green's Function," led by Professor J. L. Walsh, with the assistance of Professors Morris Marden and J. J. Gergen. At the Tuesday session Professor A. A. Bennett will speak on "The Cubic Equation and the Geometry of the Triangle"; Professor T. R. Holcroft on "Linear Systems of Algebraic Surfaces," and Professor R. L. Jeffery on "Productive Scholarship in the Undergraduate College." The annual business meeting and election of officers will be held at the close of the session Monday afternoon. The complete program will be mailed to members early in December, as usual.

The Mathematical Society will hold regular sessions on Thursday, Friday and Saturday in the Administration Building. Professor A. B. Coble will deliver his

retiring presidential address. The eleventh Josiah Willard Gibbs Lecture will be given by Professor Albert Einstein. The second award of the Cole Prize in Algebra will be made at this meeting. A special feature of the meeting will be a symposium on group theory as applied to quantum mechanics, at a joint session with the American Physical Society on Saturday afternoon.

The joint dinner of the mathematicians is planned for Saturday evening at the Hotel Webster Hall, the price being \$1.50 per plate. Special entertainment is being arranged for Sunday afternoon. In the evening there will be a concert in the Carnegie Music Hall, consisting of organ and symphony orchestra music. Headquarters will be at the Hotel Webster Hall, about half a mile from the Carnegie Institute of Technology and about three miles from the center of the city.

MEETING OF SCIENCE TEACHERS WITH THE AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE

At the Science Teachers' Meeting held in Boston in December, 1933, in connection with the meetings of the American Association for the Advancement of Science, it was requested that another full day's program be organized for this year. This program will be presented in the Pittsburgh Athletic Association Building on Saturday, December 29. Invitation to participate is extended to delegates from science teachers' organizations and to individual teachers of science from elementary and high schools, colleges, universities and state administrations. The Pittsburgh Athletic Association, where this meeting will be held, is near the buildings in which occur the other meetings of the

American Association for the Advancement of Science.

The program will be opened by Professor Otis W. Caldwell, chairman of the Committee on the Place of Science in Education of the American Association for the Advancement of Science, who will speak briefly on the purpose of the meeting. The subject of the morning session will be "Newer Knowledge of Interest to Science Teachers," when papers will be presented on "The Influence of Certain Gases upon Plants," by Dr. P. W. Zimmerman, assistant director, Boyce Thompson Institute for Plant Research; on "Research in Sound and Communication," by Dr. Harvey Fletcher, Research Laboratories, Bell Telephone Company, and on the "Present Status of Knowledge of Cosmic Rays," by Professor Robert A. Millikan, Norman Bridge Laboratories, Pasadena, California. Each paper will be followed by a discussion from an invited speaker. In the afternoon a program has been arranged by the special committee appointed at the Boston meeting on "A National Organization of Science Teachers."

At the luncheon Professor Edward L. Thorndike, president of the American Association for the Advancement of Science, will make an address on "The Psychology of Attitudes," after which scientific men who are invited guests will be presented.

Reservations for the luncheon, which will be served at noon at the cost of \$1, should be sent to the local chairman, Dr. John A. Hollinger, Administration Building, Bellefield Avenue at Forbes, Pittsburgh, Pa. The final program, giving the names of the speakers, will be sent on application to the Committee on the Place of Science in Education, 433 West 123rd Street, New York, N. Y.

SCIENTIFIC NOTES AND NEWS

THE Perkin Medal for 1935 has been awarded by the American section of the Society of Chemical Industry to Dr. George O. Curme, Jr., vice-president of the Carbide and Carbon Chemicals Corporation, for his "distinguished research in the field of organic synthesis which has led to the founding of a new industry."

THE Hanbury memorial gold medal of the Pharmaceutical Society of Great Britain has been awarded to Dr. George Barger, professor of chemistry in relation to medicine at the University of Edinburgh. This medal is for "high excellence in the prosecution or promotion of original research in chemistry and the natural history of drugs."

THE Beal Medal of the American Gas Association was presented at the recent convention at Atlantic City to W. H. Fulweiler, chemical engineer of the United Gas Improvement Company.

PROFESSOR RALPH H. MCKEE, of the department of chemical engineering of Columbia University, has received the Commander's Cross of the Polonia Restituta Order of the Republic of Poland in recognition of his services to the Polish Government.

THE Academy of Physical Medicine at the recent New York meeting conferred the title of fellow of the academy upon Dr. Robert Tait McKenzie, physician and sculptor, professor of physical education at the University of Pennsylvania.

AN informal tea for Professor Gilbert D. Harris was given on October 21 in McGraw Hall by members of the faculty of geology at Cornell University and of the two geological societies, Chi Upsilon and Sigma Gamma Epsilon. A correspondent writes: "Professor Harris, who this fall retires from active teaching, plans to continue the publication of the *Bulletins of American Paleontology* and with the