

ing Foundation, to a recent meeting of the British Institute in London.

Expressing the development of a conscious policy of closer relations with the engineers of other countries, the American Institute, through its president, William Kelly, of Iron Mountain, Mich., has sent a message to the British engineers expressing appreciation of their generosity "in placing the results of their scientific labors at the disposal of the entire world."

The mining engineers will journey from Washington by special train, stopping at the Caves in the Shenandoah Valley, the Pocahontas coal fields, the Mascot zinc mines, the Tennessee marble quarries, Copperhill, Ducktown and the battlefields of Chattanooga. October 13, 14 and 15 will be spent at Birmingham. The return to Washington will be via Sheffield, Ala., where the Wilson Dam and power plant are nearing completion.

Papers to be presented at the Birmingham technical sessions will deal chiefly with the industries centered around the points to be visited. Speakers and their topics will include: Wilbur A. Nelson, Nashville, "Geology of the Mascot (Tennessee) zinc deposits" and "Geology of the east Tennessee copper deposits"; Robert Ammon, New York, "Milling practice at Mascot"; H. A. Coy, Brooklyn, N. Y., and J. A. Nobel, Mascot, "Mining methods at Mascot"; Milton H. Fies, Birmingham, "Alabama coal mining practices"; Henry S. Geismer, Birmingham, "Blast furnace practice in Alabama"; T. L. Joseph, Minneapolis, "Effect of sulphur in blast furnace practice"; Theodore Swann, Birmingham, "Production of ferro phosphorus in the electric furnace"; Richard Moldenke, Watchung, N. J., "Manufacture of cast iron pipe in the south"; James Bowron, Birmingham, "The Alabama steel industry."

THE CENTENARY CELEBRATION OF THE FRANKLIN INSTITUTE

THE centenary celebration of the founding of the Franklin Institute and the inauguration exercises of the Bartol Research Foundation were held in Philadelphia on September 17, 18 and 19 in accordance with the program that has been printed in *SCIENCE*. Dr. William C. L. Eglin, the president of the institute, presided, and the arrangements were in charge of Professor Gellert Alleman, vice-president of the institute and chairman of the executive committee.

At the first general meeting on the morning of September 17, the delegates and guests assembled at the Hall of the Franklin Institute and were welcomed at the Walnut Street Theater by the mayor of Philadelphia. Addresses were made by President Eglin and Dr. Elihu Thomson, honorary chairman of the centenary celebration, who reviewed the history of the in-

stitute, in connection with which some of his earlier scientific work had been done. At an open meeting on the evening of September 18, Professor Sir Ernest Rutherford, of the University of Cambridge, gave an address on "The natural and artificial disintegration of elements."

On the morning of September 19, a tablet was unveiled at the Bartol Research Foundation in its temporary buildings facing the Academy of Natural Sciences. Mr. C. C. Tutwiler, vice-president of the institute, presided and made an address, and the tablet was unveiled by a grandniece of the donor, who bequeathed to the institute a sum in excess of a million dollars for research in fundamental problems of physical science and for investigating scientific problems that may arise in industry. Following the unveiling of the tablet a general session was held at the Academy of Natural Sciences with addresses by Dr. Arthur D. Little, of Cambridge, and Dr. D. S. Jacobus, of New York.

There were daily luncheons at the Bellevue-Stratford, a garden party on the afternoon of September 18, and a banquet for delegates and guests on the evening of September 19. Among the speakers at the banquet were Sir Ernest Rutherford for the British Empire, Professor Charles Fabry for France, and Professor F. Haber for Germany. Greetings were presented from a large number of representatives of universities and colleges and of learned and professional societies.

At the sectional meetings held on September 17, 18 and 19, there was a distinguished list of speakers, which included Professor Joseph S. Ames, Professor Wilder D. Bancroft, Professor Sir William H. Bragg, Professor William L. Bragg, Professor P. W. Bridgeman, General John J. Carty, Professor E. G. Coker, Dr. William D. Coolidge, Director Arthur L. Day, Professor F. G. Donnan, Dr. William Leroy Emmet, Professor Charles Fabry, Professor F. Haber, Professor W. J. Humphreys, Brigadier-General Edgar Jadwin, Dr. George L. Kelley, Professor A. E. Kennelly, Dean Dexter S. Kimball, Dr. Irving Langmuir, Professor C. H. Mathewson, Dr. C. E. K. Mees, Professor Charles E. Mendenhall, Professor A. A. Michelson, Professor Dayton C. Miller, Professor W. Lash Miller, Dr. Ralph Modjeski, Mr. Daniel E. Moran, Sir Charles Algernon Parsons, Major-General Mason M. Patrick, Dean Harold Pender, Mr. F. W. Peek, Director Charles L. Reese, Dr. E. W. Rice, Provost Emeritus Edgar F. Smith, Dr. Frank J. Sprague, Major-General George O. Squier, Professor Julius Stieglitz, Professor Bradley Stoughton, Professor W. F. G. Swann, Professor John Sealy Edward Townsend, Professor Augustus Trowbridge, Major-General C. C. Williams and Professor Pieter Zeeman.