

energy supply of the world (fuel, solar energy, etc.), while a third suggestion dealt with the difficult and complicated question of international patents. The risk of overlapping efforts and the possible fear of interference with the special work of the unions is avoided by the provision—now coming into force—that the executive committee of the Research Council, which hitherto consisted of five members, should be enlarged, each union nominating an additional member.

At the concluding meeting the five members of the executive committee appointed by the general assembly were elected as follows: M. E. Picard (president), Mr. G. Lecointe and Professor Vito Volterra (vice-presidents), Dr. G. E. Hale, and Sir Arthur Schuster (general secretary).

#### THE ASSOCIATION OF IRON AND STEEL ELECTRICAL ENGINEERS

THE sixteenth annual convention will meet September 11 to 15 at Cleveland, Ohio, at which time there will be presented and discussed subjects dealing particularly with steel mill problems.

The papers have been written with a view of giving to the engineers as much practical data as is possible, feeling that this class of information is far more beneficial than the theoretical side when dealing with steel mill problems.

Some of those who will present and discuss the subjects are Dr. C. P. Steinmetz, Messrs. B. G. Lamme, Wilfred Sykes, A. G. Witting, F. C. Watson, D. M. Petty, L. W. Heller, R. B. Gerhardt, D. B. Rushmore, J. B. Crane, E. R. Fish, H. M. Rush, R. M. Butler, F. Hodson, Professor Edgar Kidwell, F. W. Cramer, A. R. Leavitt, E. T. Moore, R. H. Bauer, F. A. Wiley, L. F. Galbraith and R. S. Shoemaker.

A tentative list of the subjects to be presented are:

Improvement in Efficiency of Electric Power Supply.

A Review of Steel Mill Electrification.

Boiler Practices of 1922.

Education and Safety.

The Gas Engine as a Prime Mover for Power Generation.

Steam Turbines.

Judging Combustion from Gas Analysis.

Electrification of the International Nickel Company's Works for Monel Metal.

Some Considerations in the Electrification of the Steel Plant Railroad Yard.

Power in the Iron and Steel Industry.

Control—Motor—Lighting and Crane Standardization.

Electric Furnaces.

Electrical Developments in 1922.

Investigation of Insulators for Steel Mill Service.

In addition to the technical sessions, there will be an exhibition of apparatus of particular interest to the steel mill engineers. This exhibit will cover approximately 30,000 square feet of floor space and will be held in the same hall as is the technical sessions.

Representatives from practically every steel mill in the United States are expected at this convention for it is planned to interest practically every class of engineer, such as general managers, general superintendents, department superintendents, chief engineers, steam engineers, electrical engineers, electrical superintendents, mechanical engineers, master mechanics, superintendents of power, engineers of tests, safety engineers and department foremen.

#### THE AMERICAN ELECTROCHEMICAL SOCIETY

THE meeting will be opened by President Schluelerberg at Montreal on Thursday, September 21, and the technical program will proceed with the presentation and discussion of papers on electrolysis and electroplating. The recently organized Division on Electrodeposition (G. B. Hogaboom, *chairman*; Wm. Blum, *secretary*) will be well represented and take active part in the discussion of these papers.

One of the papers of the Thursday morning session will deal with the physical properties of electrolytic iron—a product which is being turned out commercially, contrary to all predictions of ten years ago. There will also be papers on zinc, brass and other electrodeposited metals.

On Thursday afternoon and Friday morning a symposium on "Industrial Heating" will be in progress. The Electrothermic Division

(Bradley Stoughton, *chairman*; Colin G. Fink, *secretary*), which held a most successful symposium on "Electric Cast Iron" at the Baltimore meeting, in April last, will again be in charge. Twelve papers especially prepared for this session and dwelling on industrial heating in electric furnaces, other than fusion and melting furnaces, will be placed open to discussion.

There will be papers on:

- a. History of industrial heating.
- b. Principles of design of furnaces.
- c. Comparison of fuel costs in different types of electric furnaces, and with combustion furnaces. (In this connection, electric energy would be estimated as a "fuel cost.")
- d. Resistor materials.
- e. Specific heats.
- f. Electric conductivity of insulating materials at industrial furnace temperatures.
- g. Heat emissivity.
- h. Heat transfer.

There will be an excursion to Shawinigan Falls, affording members an opportunity to inspect the various industrial plants of one of the most progressive centers on the continent. It is planned to have a special train for this all day trip from Montreal.

A popular lecture on "Progress in physical science" is scheduled for Thursday evening. Section Q will be in charge of an old-fashioned smoker on Friday evening.

The headquarters for this meeting will be the Hotel Windsor. Members and guests are urged to make their hotel reservations immediately.

#### THE BIOLOGY CLUB OF THE OHIO STATE UNIVERSITY

DURING the academic year of 1921-1922, the Biology Club of the Ohio State University held monthly meetings from October to May inclusive. Considerable interest was manifested in the programs, to which contributed various members of the biological and related departments, and some graduate students doing original research in these departments. The following papers were presented:

October 3: "Experiences in England, with observations on the status of botanical research and interest there," Professor A. E. Waller.

November 7: "The ductless glands," Professor R. G. Hoskins; "The work of the Ohio State Fish Survey," Professor R. C. Osburn.

December 5: "Glaciation of the San Juan Mountains, with notes of paleontological and natural history interest," Dr. R. F. Webb.

January 9: Reports of the zoological and entomological meetings and other sessions and general meetings of the American Association for the Advancement of Science, at Toronto, Professor R. C. Osburn, Professor F. H. Kreeker, Professor D. M. DeLong, Professor C. H. Kennedy.

February 13: "The problems of biology from the standpoint of a philosopher," Professor A. E. Avey.

March 6: "The distribution of the dragon flies of the Put-in-Bay region," Professor C. H. Kennedy; "The reactions of house flies to radiant heat," Professor W. M. Barrows.

April 3: "The physiology of the guard cells of *Rumex patientia*," Mr. J. D. Sayre; "The nature of twig abscission in cottonwood, *Populus deltoides*," Miss Lois Lampe.

May 8: "Mushrooms and toadstools," Professor W. G. Stover; "Habits of aphid parasites," Mr. H. Spencer.

The president of the club for the year was Dr. E. P. Durrant, of the department of physiology; the vice-president, Dr. R. C. Baker, of the department of anatomy, and the secretary-treasurer, Mr. W. C. Kraatz, of the department of zoology and entomology.

#### THE GORGAS MEMORIAL

IN response to a request received from the directors of the Gorgas Memorial Institute of Tropical and Preventive Medicine for the co-operation of the American Medical Association, a committee representing the association was appointed consisting of Dr. Charles W. Richardson, Washington, D. C.; Dr. Fred B. Lund, Boston, and Dr. George E. de Schweinitz, Philadelphia. This committee has presented the following report:

As a result of the stimulating suggestion of President Porras, of Panama, it has been resolved that a fitting memorial shall mark the humanitarian service of the late Major General William C. Gorgas, and the beneficent influence of his life and work on mankind throughout the world. Following the thought of President Porras, it has further been decided that this memorial shall take the form of a scientific institute for the study