pointed to research fellowships to make the investigations.

The research fellows, while carrying out their investigations, will be candidates for the degree of master of science to be awarded by the Carnegie Institute of Technology in June, 1930. As in the past, the reports of the studies will be published.

Appointees to research fellowships are Austin Gudmundsen, University of Utah; Bernard A. Jettner, College of Agriculture, Berlin, Germany; George C. Sprunk, Michigan State College; Donald A. Wallace, Iowa University; Boris N. Daniloff, Missouri School of Mines; John A. Heidish, Colgate University; Max W. Lightner, Pennsylvania State College, and Robert B. Meneilly, Grove City College.

Following is a list of the investigations that have been planned:

#### **Fuel** Chemistry

A continuation of the Study of the Effect of Fusain and Related Inerts on the Properties of Pittsburgh Coal, with particular Reference to Coking Properties.

A continuation of the Study of the Chemistry of Decay in Relation to Peat and Coal Formation.

A continuation of the Study of the Relation of Particle Size and Temperature to Rate of Burning.

A Study of the Agglutinating Properties of Coal.

### Ferrous Metallurgy

Methods of Determining Non-metallic Inclusions. Viscosity of Open-hearth Slags. A Study of the Slag System MnO-Al<sub>2</sub>O<sub>2</sub>.

A Study of the Slag System MnO-Al<sub>2</sub>O<sub>3</sub>FeO.

## THE MURRY AND LEONIE GUGGENHEIM FOUNDATION

MR. AND MRS. MURRY GUGGENHEIM, of New York City, have announced the formation of the Murry and Leonie Guggenheim Foundation for "the promotion, through charitable and benevolent activities, of the wellbeing of mankind throughout the world." At present the foundation will confine itself to the establishment of clinics for free dental relief work among the children of the five boroughs of New York City. The first clinic will be built in Manhattan at a cost of between \$3,000,000 and \$4,000,000. In time there will be at least one clinic in each borough.

In making this gift, Mr. Guggenheim said:

Mrs. Guggenheim and I, having become thoroughly convinced of the great necessity for dental relief work, especially among the children of our great city, have decided to do what we can along this line. We are prepared to contribute a large sum of money for the construction, equipment and endowment of non-sectarian clinics for the treatment of children whose parents are not in a position to pay for this most important and essential work. Dr. S. S. Goldwater, former commissioner of health of New York City, has consented to formulate a suitable program. It is our intention to push the work vigorously, with the idea of placing the first unit in operation at the earliest date possible.

In addition to preventive and reparative work, including departments for straightening teeth, the clinics will train dental hygienists for work in public schools and industrial establishments. Efforts will be made to maintain a close affiliation with municipal health and school authorities. It is pointed out that the proposed clinics will benefit the dental profession by affording a new field for graduate study and training.

The charter members of the foundation are, besides Mr. and Mrs. Guggenheim, their son, Edmond A. Guggenheim; Carroll A. Wilson, lawyer; Hartley Robbins, Mr. Guggenheim's secretary, and Dr. S. S. Goldwater.

## THE AMERICAN INSTITUTE OF ELEC-TRICAL ENGINEERS

HAROLD B. SMITH, professor of electrical engineering at the Worcester Polytechnic Institute, Worcester, Mass., and consulting engineer of the Westinghouse Electric and Manufacturing Company, East Pittsburgh, Pa., has been elected president of the American Institute of Electrical Engineers for the year beginning August 1, 1929, as announced at the annual meeting of the institute held at Swampscott, Massachusetts, on June 25, during the annual summer convention of the institute.

Three distinguished American engineers were elected honorary members. These were:

Herbert Hoover, most outstanding American engineer. Charles F. Scott, engineer and inventor, head of the electrical engineering department of Yale University, past president of the institute.

Charles F. Brush, engineer and scientist, inventor of the arc lamp, Cleveland, Ohio, whose death occurred on June 15, at which time he was being balloted upon. The unanimous vote of the directors of the institute having been received, the directors voted on June 25 to record Dr. Brush's name in the list of honorary members.

Five other Americans and three representatives of foreign countries had previously been elected as honorary members of the institute. The Americans are John J. Carty, Thomas A. Edison, Michael I. Pupin, Ambrose Swasey and Elihu Thomson.

Officers elected were:

Vice-presidents, E. C. Stone, Pittsburgh, Pa.; W. S. Rodman, Charlottesville, Virginia; Herbert S. Evans, Boulder, Colo.; C. E. Fleager, San Francisco, Calif.; C. E. Sisson, Toronto, Ontario. *Directors*, J. E. Kearns, Chicago, Ill.; W. S. Lee, Charlotte, N. C.; C. E. Stephens, New York, N. Y. *National Treasurer*, George A. Hamilton, Elizabeth, N. J. (reelected). These officers, together with the following hold-over officers, will constitute the board of directors for the next administrative year, beginning August 1:

R. F. Schuchardt (retiring president), Chicago, Illinois; Bancroft Gherardi, New York, N. Y.; E. B. Merriam, Schenectady, N. Y.; H. A. Kidder, New York, N. Y.; W. T. Byan, Minneapolis, Minnesota; B. D. Hull, Dallas, Texas; G. E. Quinan, Seattle, Washington; I. E. Moultrop, Boston, Massachusetts; H. C. Don Carlos, Toronto, Ontario; F. J. Chesterman, Pittsburgh, Pennsylvania; F. C. Hanker, East Pittsburgh, Pennsylvania; E.

# SCIENTIFIC NOTES AND NEWS

THE Lister medal of the Royal College of Surgeons has been awarded to Dr. Harvey Cushing, Moseley professor of surgery in the Harvard Medical School and surgeon-in-chief of the Peter Bent Brigham Hospital. Dr. Cushing has undertaken to give an address in London in 1930.

THE final banquet of the convention of New York State Veterinarians, which has been in session at Cornell University, was devoted to paying tribute to Dr. Veranus A. Moore, retiring dean of the college of veterinary medicine. A testimonial scroll was presented on behalf of his many colleagues, former students and members of the veterinary profession by Professor W. A. Hammond, dean of the university faculty, and a tribute was paid in an address by Dr. Frank H. Miller, of New York City. On June 30 Dr. Moore completed thirty-three years of service to Cornell University, the state and the nation, twentyone years of which he was dean of the college.

PRESIDENT HERBERT HOOVER, Surgeon-General H. S. Cumming, of the U. S. Public Health Service, and Dr. Frederick F. Russell, of the Rockefeller Foundation, have been elected honorary members of Delta Omega, the honorary public-health society. The gold key and the certificate of the society were presented to Mr. Hoover at the White House on June 18, by Lieutenant-Colonel Edward G. Huber and Dr. James A. Tobey, national president and secretary, respectively. Surgeon-General Cumming also participated in this ceremony. The only other honorary member of Delta Omega is Dr. Charles V. Chapin, of Providence, R. I., former president of the American Public Health Association.

THE degree of doctor of engineering was conferred on June 14 on Dr. Wm. H. Hobbs, head of the department of geology in the University of Michigan, by the Worcester Polytechnic Institute, where he delivered the commencement address on "Engineering and Polar Exploration." B. Meyer, Newark, New Jersey; H. P. Liversidge, Philadelphia, Pennsylvania; J. Allen Johnson, Niagara Falls, N. Y.; A. M. MacCutcheon, Cleveland, Ohio; A. E. Bettis, Kansas City, Missouri.

The annual report of the board of directors, presented at the meeting, showed a total membership on April 30 of 18,133. In addition to three national conventions and three regional meetings, 1,400 meetings were held during the year by the local organizations in the principal cities and educational institutions in the United States and Canada.

At the commencement exercises of Williams College the doctorate of science was conferred on Dr. Robert Allyn Budington, head of the department of zoology at Oberlin College.

DR. FRANK C. JORDAN, professor of astronomy in the University of Pittsburgh, received the honorary degree of doctor of science at the ninety-fourth annual commencement of his alma mater, Marietta College, on June 17.

AT the recent commencement exercises of Lehigh University the honorary degree of doctor of engineering was conferred on Robert Ridgway, of New York City, chief engineer of the New York City Transit Commission and past president of the American Society of Civil Engineers; the degree of doctor of science upon John Arthur Wilson, of A. F. Gallun and Sons Company, Milwaukee, in recognition of his work in the fields of colloidal and biochemistry and his contributions to the knowledge of leather technology, and the degree of doctor of laws upon Henry Chapman Mercer, of Doylestown, Pa., for his contributions to research in archeology and his inventions in the manufacture of art tiling.

DR. THOMAS MCCRAE, Philadelphia, has been elected president of the Association of American Physicians for the ensuing year. Dr. Rufus I. Cole, New York, has been elected vice-president, and Dr. James H. Means, Massachusetts General Hospital, Boston, secretary. The next annual meeting will be at Atlantic City on May 6 and 7, 1930.

PROFESSOR R. E. BUCHANAN, of the department of bacteriology at Iowa State College and dean of the graduate school, has been asked to serve as president of the section of bacteriology of the International Botanical Congress to be held in Cambridge, England, in August of 1930.

At the annual general meeting of the Institute of Physics, London, held on May 28, the following officers were elected: *President*, Dr. W. H. Eccles;