# OBITUARY

## RECENT DEATHS

WORCESTER REED WARNER, founder with Mr. Ambrose Swasey, of Warner and Swasey, Cleveland, known among scientific men for their construction of astronomical telescopes, died at Eisenach, Germany, on June 25, in his eighty-fourth year. Mr. and Mrs. Warner sailed on May 8 to spend the summer in Europe.

M. R. OLDFIELD THOMAS, for many years assistant in charge of Mammalia at the British Museum, died on June 16, aged seventy-one years.

HENRI ANDOYER, professor of astronomy at the Sorbonne, Paris, died on June 12, aged sixty-six years.

THE deaths are also announced of Jules Cornet, professor of geology in the University of Ghent, and of Aldo Perroncito, professor of general pathology in the University of Pavia.

# SCIENTIFIC EVENTS

## THE CENTENARY OF JAMES SMITHSON

THE Smithsonian Institution commemorated on June 27 the one hundredth anniversary of the death of its founder, James Smithson, and prepared the following statement:

Smithson was an Englishman. He never set foot in this country. Yet he left his impress for good upon this nation and through it upon the world as no other citizen and resident of another country has ever done. For what Smithson bequeathed to the keeping of the United States was not merely a sum of money nor an institution. It was an idea; an idea fifty to a hundred years ahead of the times in which he secured it to America, but now the very root-idea of modern achievement. It was the idea of scientific research, of the importance of knowing. "No ignorance is probably without loss to man, no error without evil," wrote James Smithson, and he grubstaked this belief with his fortune. The Smithsonian Institution and all that it has meant to America and the world are the results.

We moderns are much closer to James Smithson than were his contemporaries and the honor that he lacked in his lifetime we can and should give him. The known details of his life are few and rather tragic. The natural son of Hugh Smithson, who later became the Duke of Northumberland, and of Elizabeth Keate Macie, who herself was descended from King Henry VII, he seems to have felt bitterly all his life the bar sinister on his name. He studied at Pembroke College, Oxford, and is reputed to have been the best chemist and mineralogist of his year. Certainly his devotion to science expressed itself at an early age, for at the age of twenty-two, the year after his M.A. from Oxford, he had already achieved enough to win him election to the Royal Society.

Smithson missed being a great scientist as a research worker, but he was a thorough and an indefatigable one. He made many chemical analyses of minerals, wrote several hundred papers, and did much field work in geology and mineralogy. His name lives in the mineral Smithsonite, the carbonate of zinc. But two qualities did render him a great man in science—one was the clarity of his thought and the other his tolerant vision. Nothing was too small nor too great for his consideration. With equal zeal he discussed the origin of the earth and improved oil lamps. Most important of all, he saw clearly and far ahead. He knew how much was to be done and saw the manner in which it would have to be done.

James Smithson never married; in his last years his health failed, and it must have been in the midst of unhappiness and with a sense of frustration that, away from his native land in Genoa, Italy, on June 27, 1829, he died. However, it is perhaps not too much to say that had he been the greatest scientist of his age he could not have served the world better than he did in leaving his fortune of roughly $540,000 "to the United States of America to found at Washington, under the name of the Smithsonian Institution, an establishment for the increase and diffusion of knowledge among men."

In the hands of Joseph Henry, first secretary of the Smithsonian and the foremost American man of science of his day, Smithson's bequest became the inspiration of American science and even to a measurable extent of world science. It proclaimed actively the ideal of research, it provided funds at a time when there were no funds, it trained men, it seized fleeting opportunities, it gave direction to the most powerful single material force in modern life. Smithson's words and ideal have served as an inspiration to other men and institutions. "For the increase and diffusion of knowledge" has become the common expression of purpose for research establishments. The good that James Smithson did lives after him with a fruitfulness beyond measure.

## RESEARCH IN COAL MINING AND METALLURGY AT THE CARNEGIE INSTITUTE OF TECHNOLOGY

A PROGRAM of eight research studies in coal mining and metallurgy will be carried on during the year 1929–30, under the joint auspices of the United States Bureau of Mines, the Carnegie Institute of Technology and Mining and Metallurgical Advisory Boards composed of mining and metallurgical engineers and executives. Eight college graduates have been ap-

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 $MnO\text{-}Al_2O_3$.

A Study of the Slag System $MnO\text{-}Al_2O_3FeO$.

## 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 ELECTRICAL 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).