Education; division of the department of engineering into (a) mechanical engineering, (b) electrical engineering; college courses for teachers developed; extension courses throughout the state incorporated; university's educational influence extended along many lines, and made to serve home, state and nation; marked emphasis was laid on research in every department.

The long list of Dr. Smith's investigations in many fields of chemistry need not be detailed here. Chief among them were electrochemistry, the complex inorganic acids, the rare earths and the revision of the atomic weights of the following elements: palladium, molybdenum, selenium, tungsten, tantalum, columbium, boron and fluorine. His investigations on the rarer elements—tungsten, molybdenum, vanadium, columbium, tantalum, rubidium and caesium—have been numerous.

Mrs. Edgar F. Smith has donated to the University of Pennsylvania Dr. Smith's valuable collections of historical books, pamphlets, letters and engravings relating to chemistry which will be preserved intact in his office in the John Harrison Laboratory, where they will be available to chemists for study and research.

The staff of the department of chemistry have resolved to perpetuate the memory of Dr. Smith by annually observing the birthday

Of one, who by his precepts, initiative and industry exerted upon us as individuals, upon this staff as a group, upon the entire University and, to no inconsiderable degree, upon the affairs of the world, an influence that could only be exerted by a Master of his chosen profession, an inspiring teacher, a considerate and tolerant advisor.

In sight of the laboratory which Dr. Smith planned and in which he labored for so many years there stands on the campus of the university, surrounded by nature's green, a statue, bearing the fitting legend:

EDGAR FAHS SMITH
Provost 1911–1920
Teacher Investigator Friend

WALTER T. TAGGART

SCIENTIFIC EVENTS

A THIRD EXPEDITION TO THE ANTARCTIC

COMMANDER DOUGLAS GEORGE JEFFERY, who was a member of Sir Ernest Shackleton's last South Pole Expedition, announced on June 6 that he was planning to lead an American-financed expedition next September into the Antarctic to define the boundaries from Grahams Land south to Ross Sea, and to discover whether the Antarctic continent was actually two or more bodies of land. Among those who have been asked to accompany him are Captain Argles, who is a pilot for one of the proposed transatlantic flights, and three other veterans of Sir Ernest Shackleton's explorations, Dr. George Vibert Douglas, of McGill University, a geologist, Dr. A. H. Macklin, of Dundee, surgeon on the *Endurance* and *Quest* voyages, and Mr. J. W. S. Mar, B.Sc., of Aberdeen, a biologist.

The expedition will take with it a large aeroplane, which is now being built, and a small Amphibian similar to that used by Captain Wilkins. The larger aeroplane will have a capacity of 1,500 gallons of petrol and a cruising radius of 6,000 miles. There may be a flight across the South Pole, although that is not the object of the enterprise. Commander Jeffery expects to establish a base some time in November far down the west coast of Grahams Land, and from there will explore on that side eastward to Coats's Land. He said that it was probable that they might cooperate by wireless with the Byrd and Wilkins expeditions, which would be on the opposite side of the Antarctic Continent. They would be able to check meteorological data, and the bases on each side would serve for transcontinental flights.

The expedition will go south in a vessel of the deep-sea mine-sweeper type. Its personnel will be limited to 25 at most. It is planned to start the return journey in May.

PROGRAM OF RESEARCH IN COAL AND METALLURGY AT THE CARNEGIE INSTITUTE OF TECHNOLOGY

A PROGRAM of fourteen research studies in coal mining and metallurgy will be carried on during the year of 1928–29 under the joint auspices of the Carnegie Institute of Technology, the U. S. Bureau of Mines and two advisory boards of mining and metallurgical engineers and executives. To make the investigations, eleven college graduates have been appointed to research fellowships, and, in addition, a research engineer, an assistant research engineer and an analyst have been appointed.

The new program is similar in scope to those of the past few years that have been conducted under the same auspices. The research fellows, in carrying out their investigations, will be candidates for the degree of master of science to be awarded by the institute. The reports of the studies will probably be published as in the past.

Appointees to research fellowships are Julius R. Adams and Kenneth Metcalfe, Rose Polytechnic Institute; Kenneth M. Irey, Monmouth College; John E. Jacobs and Henry Seaman, Carnegie Institute of