Since that date, Dr. Metcalf has actively cooperated. Two experts have been detailed by him to assist in the work in Pennsylvania, viz: Professor J. Franklin Collins and Professor Ernest Shaw Reynolds. The appropriation of $5,000 by congress, secured through the efforts of Senator Boies Penrose, and the large appropriation of $275,000 by the state of Pennsylvania, have been mentioned in the preceding account in SCIENCE. Since the Chestnut Blight Commission was organized, Professor J. Franklin Collins has been in charge of an instruction camp in Lancaster County, where the scouts are trained and a scientific investigation of the disease has been begun by a special collaborator of the United States Department of Agriculture, Dr. Caroline Rumbold.

Through the active interest of Provost Charles C. Harrison and his successor, Provost Edgar F. Smith, the University of Pennsylvania, in November, 1910, placed at the disposal of the commission the apparatus of the botanical department of the university, of which Professor John M. MacFarlane is the head. During the past summer and early fall, Dr. Rumbold has been conducting a series of cultures and experiments of the most important nature.

The public-spirited action of the authorities of the University of Pennsylvania is especially deserving of commendation. Those interested in this work look with confidence to the university to make known new facts of lasting value.

I. C. WILLIAMS

THE SARAH BERLINER FELLOWSHIP

THE donor of the Sarah Berliner Fund, Mr. Emile Berliner, of Washington, has taken so much satisfaction in the work done by the holders of the fellowship which it supports that he has now doubled the original endowment, and the fellowship will hereafter be awarded every year, instead of every other year. Applications for this fellowship should be in the hands of the chairman of the committee, Mrs. Christine Ladd Franklin, 527 Cathedral Parkway, New York, by the first of January of each year; they should contain (1) testimonials as to the value of work already done, (2) copies of published contributions, or other accounts of investigations already carried out, (3) evidence of thoroughly good health, (4) detailed plans for the proposed use of the fellowship. Applicants must already hold the degree of doctor of philosophy, or be similarly equipped for the work of further research. The value of the fellowship is one thousand dollars, and it is available for study and research in physics, chemistry and biology (including psychology), in either Europe or America.

The directors of the foundation, besides the chairman, are: President M. Carey Thomas, Bryn Mawr College; Miss Laura Drake Gill, president of the Association of Collegiate Alumnæ, Boston; President Ira Remsen, Johns Hopkins University, and Professor William H. Howell, of the Johns Hopkins Medical School.

This is one of the two largest endowed fellowships offered to women in the United States. The donor of the fund, Mr. Berliner, is well known as one of the perfecters of the telephone and the inventor of the gramophone. It is named in honor of the donor's mother, who was a woman of remarkable force of character.

Most fellowships accessible to women—and, in fact, the same thing is true of fellowships for men—are given to recent graduates of colleges, to enable them to proceed towards the degree of doctor of philosophy. The object of this endowment, on the other hand, is to give to women who have shown, in work already accomplished, promise as investigators an opportunity to pursue special scientific researches—and, in particular, to tide them over the period between the time when they deserve to hold a good instructor's position in some college and the time when they succeed in obtaining it. Many doctors of philosophy are forced to go into teaching in the preparatory schools, and they thus lose in exhausting work the very years when they are best fitted to be original investigators—as has been forcibly pointed out by Professor Woodworth in a

recent article in SCIENCE. There is no way in which the endowment of research can be more successfully carried out than by saving for a scientific career those students who have already shown distinguished capacity for work. Not to save them, when they are already an expensive as well as a rare product, is a lamentable piece of wastefulness. The Sarah Berliner Fellowship Fund is therefore calculated to do more certain and more effective good than many a larger endowment.

C. L. F.

NEW YORK,
November 3, 1911

A FIELD SCHOOL OF GEOLOGY

DURING the month of September a party of eleven advanced students from the Department of Geology of the University of Chicago undertook a careful examination and geologic survey of a portion of the Montrose Quadrangle of southwestern Colorado. The work was done under the direction of Dr. Wallace W. Atwood, and was the opening season of the Field School of Geology which has been established in connection with the advanced work in geology at the University of Chicago.

The headquarters during the season was Ouray, Colorado. The party lived in camp, and the work was conducted as nearly as was practicable in conformity with the requirements of the National Survey. The area selected for work was west of the Ouray Quadrangle and north of the Telluride Quadrangle. It was at the north side of the San Juan Mountains where a large variety of formations and of structural and stratigraphic problems was presented.

During the first few days the party worked as a single group, visiting typical exposures of the formations as they had been mapped in the adjoining quadrangles, in an excursion into the interior of the range for an appreciation of the mountain mass adjoining the area to be surveyed and in an examination of certain of the more accessible mines and mills in the vicinity of Ouray. At the close of this introductory work the party was broken up into "teams" of two or three each, and each "team" was given a separate portion of the unmapped area for which that "team" was held responsible. When the work accessible to one camp had been completed, the camp was moved into the adjoining area and the new territory divided among the various "teams." Special care was given in the redistribution of work that the men received as wide a range of experience in field work as was possible. During the four weeks the party surveyed with care about 160 square miles, and had opportunity of examining a somewhat larger area. The problems met with involved many in stratigraphy, some in faulting, folding, intrusion, extrusion, glaciation and a complex erosion history. The region selected was one of great scenic beauty and of diverse human interests, so that the season in camp was a most pleasant and agreeable one. The average expense for the student, including the tuition at the university and all traveling and camp expenses, was $150. The University of Chicago has purchased a camp outfit and it is proposed that the work of this Field School of Geology be continued in Colorado for a number of seasons. It may then be moved to some other region where there is an unsurveyed field that presents a wide range of geologic phenomena.

WISCONSIN GEOLOGICAL AND NATURAL HISTORY SURVEY

THE work of the survey, during the season just closed, has been carried on in three divisions.

I. *Geology.*—State Geologist W. O. Hotchkiss, has been in charge of a party of six men, completing the field work begun in 1910 on the Florence Iron District. This district is the western extension of the Menominee Iron Range of Michigan and connects that range with other districts to the northwest. Its geology has long been a puzzle to geologists, as well as to those interested in mining, and the results of the survey are awaited with much interest. The territory has been very carefully studied and the survey will show a considerable area in which it will be worth while to prospect for iron ore.