

the harmonious adjustment of the internal mechanism.

The practitioner should not be blamed too severely for a certain amount of empiricism. Physiology has not yet solved all of its problems and until the solution is forthcoming a strictly rational treatment of all diseases is impossible.

If my meaning has been clearly expressed, it should be apparent that physiology is a *living* science and is concerned with the manifestations of life; its action is cooperative, not only to the tissues in an individual organism, but in a broader sense to the other biological sciences; it is fundamental especially to pathology and medicine, and, cooperating with them, seeks to conserve the general health of animals and man.

PIERRE A. FISH

CORNELL UNIVERSITY

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ADDITIONAL FACTS ABOUT THE CHEST-  
NUT BLIGHT

THROUGH a desire to be as concise as possible, the early history of the chestnut blight investigation in Pennsylvania was not given in my recent account in *SCIENCE*. As there seems to be a demand for the facts, the following is submitted:

On June 13, 1908, Professor John W. Harshberger received a letter from Mr. Harold Peirce, of Haverford, asking if the University of Pennsylvania could detail a man to investigate the work of a borer, or of a fungus, on the chestnut trees in his woodland at Haverford. Under date of June 18, 1908, Mr. Peirce arranged for Professor Harshberger to inspect his trees with a view to discovering the cause of their disease. As a result of the microscopic study, it was found that the trees were attacked by the chestnut blight fungus recently described by Dr. Murrill, of New York. Thus Mr. Peirce became deeply interested and called together a number of public-spirited citizens. Several public meetings were held at which Professor John Mickle-

borough and Professor Harshberger gave an account of the life history of the fungus and what might be done to stay the advance of the blight. Subsequently, at the suggestion of Professor Harshberger, a committee of the Main Line Citizens' Association requested the Pennsylvania Department of Forestry to assist in inspecting the chestnut trees in the neighborhood of Bryn Mawr and Haverford. On May 3, 1910, a meeting was held at the house of Mr. Robert W. Lesley, at which meeting, in response to their request, the Deputy Commissioner of Forestry (the undersigned) met with the committee and formulated the chestnut blight campaign. As a result of the agitation, the committee of the Main Line Citizens' Association, consisting of Messrs. Harold Peirce (Chairman), Theodore N. Ely, Allan Evans, Edgar C. Felton, William Richter Fisher, Alba B. Johnson and Robert W. Lesley, under date of August 1, 1910, issued an appeal to the property holders of their neighborhood for money to make a preliminary inspection.

The response was a generous one, so that the committee secured the assistance of Mr. George H. Wirt, state forest inspector, and a force of student foresters from the State Forest Academy at Mont Alto, under the direction of the writer, while Professor John W. Harshberger, of the Botanical Department of the University, agreed to assist as fungologist and botanist. Mr. Clarence R. Cornman, of Gladwyne, represented the committee in the active field work, while Mr. Oglesby Paul also aided the committee with counsel and advice.

On September 1, 1910, the inspectors from Mont Alto arrived and headquarters were opened in the Merion Title & Trust Company Building in Ardmore. As the work of inspection proceeded the Main Line Citizens' Committee realized that the work had assumed a national scope. At the suggestion of Professor Harshberger, the United States Department of Agriculture was requested to cooperate and a favorable reply to that request was received on November 1, 1910, from Dr. Haven Metcalf, in charge of the office of forest pathology, Bureau of Plant Industry.

Since that date, Dr. Metcalf has actively co-operated. 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 Alumnae, 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