fibers. If we limit ourselves to a consideration of the nitrogen figures of the samples representing only the higher stages of development of the cotton fiber even then we are permitted to assume that the nitrogen was deposited early in the lumen of the fiber and its absolute value remained constant. This assumption becomes more plausible when the nitrogen figures are multiplied by 6.25 to express the percentage of proteins present in the fiber. Most of this early and constant protein deposit remains in the lumen in the form of insoluble albuminoids and in the form of alcohol soluble proteins; some of it is utilized by the growing fiber, probably by the spiral forming the walls of the lumen. That the proteins of the fiber are of an insoluble nature is shown by the fact that the percentage of nitrogen of gray cloth as obtained by Hebden (0.191 per cent.) remained practically unchanged after the "steep" (0.192 per cent.), and that some of it exists in the fiber in the form of alcohol soluble proteins, is shown by the number which he obtained for nitrogen after extracting the cloth by ether and alcohol. The percentage, as shown in his table, was reduced from 0.191 per cent. to 0.161 per cent. The fact that the first caustic boil removed 91.5 per cent. of the protein content clearly points to the decomposing action of boiling alkali upon the albuminoids.

The 7.3 per cent. of total protein content remaining in the fiber after all the operations of the bleaching process can be considered as that part of the fiber proteins which has become an inseparable part of the wall of the lumen. The lowest percentage for fats and waxes (2.200 per cent.) obtained by us for the fiber taken directly from the field was considerable higher than that obtained by Hebden for fibers which were ginned, carded, spun and woven (1.405 per cent.). The removal of a large part of the fats and waxes by mechanical means during ginning, carding, spinning and weaving proves that these constituents form the outside cover of the fiber, and it is reasonable to suppose, therefore, that they do not play as important a part in bleaching as is ascribed to them. The percentage of nitrogen in our experiment (0.1815 per cent.) was somewhat smaller than that obtained by Hebden for cotton in the form of cloth (0.191 per cent.) and points to the fact that, unlike the fats and waxes, the proteins of the fiber are not adventitious nor coating factors, but that they are within the lumen or are in part intimately bound to the fiber. As the proteins are of the insoluble kind, the above seems to justify the assumption of Hebden that in bleaching the removal of the proteins may be of more importance than that of the fats and waxes.

These results and the results of Hebden show the necessity of a careful investigation of the chemical nature of the fatty and waxy substance as well as of a further study of the effect of growth on these constituents of the cotton fiber.

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THE AMERICAN PHYTOPATHOLOGICAL SOCIETY

THE sixth annual meeting of the American Phytopathological Society was held in the medical building of the University of Pennsylvania, Philadelphia, Pennsylvania, December 29, 1914, to January 1, 1915. About 95 members were present; 7 new members were elected, making a total of 293. The following officers were elected for 1915:

President—H. H. Whetzel.

Vice-president—W. A. Orton.

Councilor—Mel. T. Cook.

Donald Reddick was elected editor for three years and made chairman of the board. The following associate editors were elected for three years: H. W. Barre, E. A. Bessey, H. R. Fulton, W. T. Horne.

C. L. Shear was elected business manager vice Donald Reddick.

The society decided to hold its next annual meeting at Columbus, Ohio, in connection with the American Association for the Advancement of Science.

A special meeting is to be held at San Francisco, August 2 to 7.

The committee on common names of plant diseases submitted a report which was ordered distributed to the members of the society for suggestion and criticism.

The society instructed the secretary to select two other persons, as required by law, and proceed to incorporate the society under the laws of the District of Columbia.

The society received greetings by telegraph from the newly organized Western Branch meeting at Corvallis, Oregon. The following resolution was adopted by the society:

"The council recommends that the society extend cordial greetings to the newly organized Western Branch of the American Phytopathological Society, and also recommends that a committee consisting of the present president, Haven Metcalf, and the secretary, with power to increase their number to five, be authorized to formulate the necessary terms of affiliation to provide for this and other future branches which may be organized."

The following constitutional amendment proposed at the last meeting was adopted:

Article 3, section 3, shall be changed to read: "Any person may become a patron upon the payment of $100."

The method of presenting papers by abstract introduced at the Atlanta meeting was continued, with slight modifications, with much success. Six minutes were allowed for the presentation of each paper, the author being permitted to read the abstract as printed, or use the allotted time in giving additional explanations or presentation of the topic, after which five minutes were allowed for discussion. The same method of handling the program was adopted for the future and the secretary authorized to limit the time for the acceptance of titles and abstracts to December 1, in order that they might be published in the December issue of *Phytopathology*.

The following resolution in regard to the *Urophlyctis* disease of alfalfa was adopted:

WHEREAS, The plant pathologists or other officials of the individual states are unable properly to meet the situation, partly from lack of information, partly because it is essentially on international and interstate problem, be it therefore

Resolved, That we respectfully invite the attention of the Honorable Secretary of Agriculture and other officials of the U. S. Department of Agriculture to the above facts and urge the importance of immediate earnest investigation under their leadership as to the present occurrence and seriousness of the disease, as to its means of distribution and as to what steps, if any, should be taken to check its further spread.

The society passed a unanimous vote of thanks to the local committee for the excellent facilities and courtesies offered the society during the meeting, and to Dr. F. D. Heald for the care of the exhibits and other assistance in promoting the success of the meeting; also to the chair for conducting the meeting with promptness and carrying the program through on time.

The following program of 58 papers was presented:

Tuesday, Joint Session with Section G, American Association

Meeting of the council and board of editors, Hotel Walton.

December 30, 1914

"The *Verticillium* Wilt Problem," by C. W. Carpenter.

"Orchard Experiments in 1914," by Mel. T. Cook and G. W. Martin.

"A Nursery Disease of the Peach," by Mel. T. Cook and C. A. Schwarze.

"A Method for Excluding Mites from Pure Cultures," by C. W. Carpenter.

"Studies of the genus *Phytophthora*," by J. Rosenbaum.

"A Bacterial Leaf Spot Disease of Celery," by Ivan C. Jagger.

"The Spindling Sprout Disease of Potatoes," by F. C. Stewart.

"Thrombotic Disease of Maple," by W. H. Rankin.

"Mutation in *Phyllosticta*," by C. Harvey Crabill.

"A *Nectria* Parasitic on Norway Maple," by Mel. T. Cook.

"An Unreported Fungus on the Oak," by C. A. Schwarze.

"The Use of Sulphur for the Control of Potato Scab," by H. Clay Lint.

"*Citrus* Canker," by A. B. Massey.

"The *Citrus* Canker Situation," by R. Kent Beattie.

Meeting with the Botanical Society of America

Symposium: Genetic relationship of organisms.

December 31, 1914

"Leaf-spot and Some Fruit Rots of Peanut," by Frederick A. Wolf.

"Hosts of Brown-rot *Sclerotinia*," by J. B. S. Norton.

"Resistance to *Cladosporium fulvum* in Tomato Varieties," by J. B. S. Norton.

"Loss from Mosaic Disease of Tomato," by J. B. S. Norton.

"Notes on Soil Disinfection," by Carl Hartley.

"A Wilt Disease of Japanese and Hybrid Plums," by B. B. Higgins.

"The Perfect Stage of *Phyllosticta paviae* Desm," by V. B. Stewart.

"Studies on *Plasmopora viticola*," by C. T. Gregory.

"A New Rust of Economic Importance on the Cultivated Snapdragon," by Geo. L. Peltier and C. C. Rees.

"The Relation between *Puccinia graminis* and

Host Plants Immune to its Attack,'' by E. C. Stakman.

''Further Studies on the Spread and Control of Hop Mildew,'' F. M. Blodgett.

''The Longevity of Pycnospores and Ascospores of *Endothia parasitica* under artificial conditions,'' by F. D. Heald and R. A. Studhalter.

''Field Studies of Apple Rust,'' by N. J. Giddings and Anthony Berg.

''Cotyledon Infection of Cabbage Seedlings by the Bacterial Black Rot,'' by Charles Drechsler.

''Fungus Host Relationship in Black Knot'' (with lantern), by E. M. Gilbert.

''Stigmonose: A Disease of Fruits,'' by M. B. Waite.

''Jonathan Spot, Bitter Pit and Stigmonose'' (with lantern), by Charles Brooks and D. F. Fisher.

''The Organization of the Plant Disease Survey,'' by R. Kent Beattie.

''Some Technical Aids for the Anatomical Study of Decaying Wood'' (with lantern), by E. W. Sinnott and I. W. Bailey.

''Apple Rots'' (with lantern), by Charles Brooks, D. F. Fisher and J. S. Cooley.

''The Relation of Temperature to the Infection of Cabbage by *Fusarium conglutinans* Wollenw,'' by J. C. Gilman.

''Third Progress Report on Fusarium Resistant Cabbage'' (with lantern), by L. R. Jones.

''York Spot and York Skin Crack'' (with lantern), by H. S. Reed.

''Soil Stain and Pox, Two Little-known Diseases of the Sweet Potato'' (with lantern), by J. J. Taubenhaus.

''*Rhizoctonia* in America'' (with lantern), by Geo. L. Peltier.

''Lightning Injury to Cotton and Potato Plants,'' by L. R. Jones and W. W. Gilbert.

''Orchard Experiment with Jonathan Spot Rot in 1914,'' by G. W. Martin.

''The Perfect Stage of the Fungus of Raspberry Anthracnose,'' by W. H. Burkholder.

January 1, 1915, Business Meeting

''Parasitism, Biology and Cytology of *Eocronartium typhuloides* Atk.,'' by Harry M. Fitzpatrick.

''Negative Heliotropism of the Urediniospore Germ Tubes of *Puccinia rhamni*,'' by F. D. Fromme.

''The Ascigerous Stage of *Helminthosporium teres* Sacc.,'' by A. G. Johnson.

''A Gymnosporangium with Repeating Spores,'' by J. C. Arthur.

''A Preliminary Report on Twig and Leaf Infection of the Peach by Means of Inoculations with *Cladosporium carpophilum* Thüm,'' by G. W. Keitt.

''Notes on *Cronartium comptoniae* and *C. ribicola*,'' by Perley Spaulding.

''How to Know the Polypores,'' by W. A. Murrill.

''Some Problems of Plant Pathology in Reference to Transportation,'' by F. L. Stevens.

''A Disease of Red Clover and Alsike Clover Caused by a New Species of Colletotrichum,'' by P. J. O'Gara.

''An Anthracnose of *Asclepias speciosa* Caused by a New Species of Colletotrichum,'' by P. J. O'Gara.

''A Disease of the Underground Stems of Irish Potato Caused by a New Species of *Colletotrichum*,'' by P. J. O'Gara.

''A Preliminary Report on the Relation of Grass Rusts to the Cereal Rust Problem,'' by E. C. Stakman.

''Some Facts of the Life History of *Ustilago zeae* (Beckm.) Unger,'' by Frank J. Piemeisel.

''A Promising New Fungicide,'' by W. M. Scott.

''The Potato Study Trip of 1914,'' by W. A. Orton.

''Some Effects on Chestnut Trees of the Injection of Chemicals'' (with lantern), by Caroline Rumbold.

C. L. SHEAR,
Secretary-Treasurer

THE PHILADELPHIA MEETING OF THE AMERICAN PSYCHOLOGICAL ASSOCIATION

THE twenty-third annual meeting of the American Psychological Association was held on December 29, 30 and 31, 1914, in affiliation with the American Association for the Advancement of Science and the Southern Society for Philosophy and Psychology at the University of Pennsylvania, Philadelphia. Professor Robert Sessions Woodworth, of Columbia University, presided.

As president of the association for the ensuing year, Professor John B. Watson, of the Johns Hopkins University, was selected. As members of the council, to succeed Professors Max Meyer and Margaret F. Washburn, Professors Roswell P. Angier, of Yale University, and Walter Dill Scott, of Northwestern University, were chosen. The association's representative upon the council of the American Association for the Advancement of Science will be Dr. Thomas H. Haines, of Columbus, Ohio.

It was decided to hold a special meeting for the reading of papers at San Francisco, in affiliation with the American Association for the Advancement of Science. The dates of this meeting will fall within the time selected by the larger association, August 2–7, 1915. The organization of this special meeting, and all arrangements pertaining to the program, etc., was left in the hands of a committee appointed by the president. This committee consists of Professor G. M. Stratton, University of California, chairman, and Professors Lillien J. Martin and Warner Brown. The place of the twenty-fourth annual meeting, to be held as usual during Convocation Week of 1915, was left