for P. faberi by Delacroix and Maublanc,[1] Rosenbaum[2] and Reinking.[3] The fungus is pathogenic to wounded tomatoes, potatoes and green coconuts, but not to cacao pods, in this respect differing from Reinking's strain and corresponding to a Phytophthora isolated from coconuts in Jamaica by Ashby.[4]

Inoculations have demonstrated that this strain of *P. faberi* may cause the death of wounded or unwounded mature palms with the appearance of typical bud rot symptoms. Results obtained from wounding are not considered reliable, since wounded uninoculated palms exhibited pathogenic symptoms and in some instances died. Penetration of the generative tissue may occur laterally through the leaf bases or vertically through young leaves.

Bacteria resembling *Bacillus coli* (Escherich) Migula, regarded by Johnston[5] as the cause of bud rot in Cuba, were isolated from diseased buds. Inoculations demonstrated the inability of the bacteria to penetrate healthy mature palms. When injected into wounds the resulting decay could not be distinguished from that which occurred in the wounded checks.

High precipitation, at least during a few months of the year, is considered the most important factor in the development of epidemics of bud rot.

Eradication of diseased palms has been found efficacious in reducing the incidence of the disease in an experimental grove.

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AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE

ADDITIONAL REPORTS ON THE FIFTH WASHINGTON MEETING

IT was planned that reports of all sections and societies that met with the American Association at

[1] Delacroix, G., and Maublanc, C., 1909, "Les Maladies des Plantes Cultivées dans les Pays Chauds. Maladies du Cacaoyer." "L'Agriculture Pratique des Pays Chauds," 9: 314–318.

[2] Rosenbaum, J., 1917, "Studies of the Genus Phytophthora," *Journ. Agr. Research*, 8: 233–276.

[3] Reinking, Otto A., 1923, "Comparative study of *Phytophthora faberi* on coconut and cacao in the Philippine Islands," *Journ. Agr. Research*, 25: 267–284.

[4] Ashby, S. F., 1921, "Relation between cacao pod rot and coconut bud rot," *Agricultural News*, Barbados, 20: 318.

[5] Johnston, John R., 1912, "The history and cause of the coconut bud rot," U. S. D. A., Bur. Pl. Ind., Bull. 228, p. 1–175.

Washington should be published together in the special enlarged issue of SCIENCE for February 6, but when the reports were assembled they were found to overrun the available number of pages. It seemed best to meet this difficulty by including in the special issue only reports bearing on the association as a whole, reports for the several section organizations themselves and reports for a few societies in fields that are related to a number of sections or to scientific thought in general. The remaining reports are to appear in later issues of SCIENCE and the first installment is published below. The reports are to be arranged in the order of the entries of the societies in the general program of the meeting, in groups corresponding to the several sections of the association to the fields of which they are most closely related.

A complete list of the scientific organizations that met with the association at Washington follows, in the order mentioned above: (A) The American Mathematical Society, The Mathematical Association of America and the Pi Mu Epsilon Fraternity. (B) The American Physical Society and the American Meteorological Society. (D) The American Astronomical Society and the International Astronomical Union. (E) The Association of American Geographers and the National Council of Geography Teachers. (F) The American Society of Zoologists, the Entomological Society of America and the American Association of Economic Entomologists. (G) The Botanical Society of America, the American Phytopathological Society, the American Society of Plant Physiologists, the American Fern Society and the Wild Flower Preservation Society. (F–G) The American Society of Naturalists, the Ecological Society of America, the American Microscopical Society, The American Nature-Study Society, the Phi Sigma Biological Society and the Genetics Sections of the American Society of Zoologists and the Botanical Society of America. (H) The American Anthropological Association and the American Folk-Lore Society. (I) The American Psychological Association. (K) The Metric Association and the American Political Science Association. (Reports of both these organizations have been published in SCIENCE for February 6.) (L) The History of Science Society. (Report already published, as above.) (N) The Society of American Bacteriologists, the Annual Conference of Biological Chemists and the Federation of American Societies for Experimental Biology. (The report for the Federation in general has been published, as above, but reports for the four constituent societies are still to appear. These societies are: The American Physiological Society, the American So-

ciety for Pharmacology and Experimental Therapeutics, the American Society of Biological Chemists and the American Society for Experimental Pathology.) (O) The American Society of Agronomy, the Society of American Foresters, the American Society for Horticultural Science, the Association of Official Seed Analysts, the Potato Association of America, the Crop Protection Institute and the Geneticists Interested in Agriculture. (Q) The Phi Delta Kappa Education Fraternity. (X) The Society of Sigma Xi, the American Association of University Professors, the Gamma Alpha Graduate Scientific Fraternity and the Sigma Delta Epsilon Graduate Women's Scientific Fraternity. (Reports for these have been published, as above.)

BURTON E. LIVINGSTON,
Permanent Secretary

THE MATHEMATICAL SOCIETIES AT THE WASHINGTON MEETING

(A report for Section A appeared in SCIENCE *for February 6)*

The American Mathematical Society
President, G. D. Birkhoff.
Secretary, R. G. D. Richardson, Brown University, Providence, R. I.

(Report by R. G. D. Richardson)

The American Mathematical Society held its thirty-first annual meeting from Monday to Thursday, inclusive. The sessions on Monday afternoon and Tuesday morning and afternoon were devoted to the reading of short papers. Joint sessions were held on Wednesday morning with the Mathematical Association of America and Section A of the American Association for the Advancement of Science and on Thursday morning with the Mathematical Association and Sections A, B and D. The following trustees, officers and other members of the council were elected: *President,* G. D. Birkhoff; *vice-president,* G. C. Evans; *assistant secretary,* Arnold Dresden; *member of editorial committee of the Bulletin,* E. R. Hedrick; *member of editorial committee of the Transactions,* H. H. Mitchell; *members of the council,* G. A. Campbell, E. W. Chittenden, A. J. Kempner, H. E. Slaught, Virgil Snyder; *trustees,* G. D. Birkhoff, L. P. Eisenhart, W. B. Fite, Robert Henderson, R. G. D. Richardson.

The Mathematical Association of America
President, H. L. Rietz.
Secretary-Treasurer, W. D. Cairns, Oberlin College, Oberlin, Ohio.

(Report by W. D. Cairns)

The Mathematical Association held its ninth annual meeting on Wednesday and Thursday, with an attendance of 268. The following officers for 1925 were elected or appointed: *President,* J. L. Coolidge; *vice-presidents,* A. A. Bennett and Dunham Jackson; *trustees for three years,* R. C. Archibald, L. P. Eisenhart, E. V. Huntington and H. L. Rietz; *secretary-treasurer,* W. D. Cairns; *representatives in Council of A. A. A. S.,* W. D. Cairns and T. M. Focke. Fifty-one individuals and two institutions were elected to membership, the association now numbering 1,740 individual and 109 institutional members. The financial report showed a small balance for the fiscal year. The trustees voted to hold the next two annual meetings at Kansas City and Philadelphia, to approve the organization of a Southern California Section, the sixteenth section of the association, and to approve a very favorable arrangement made by Mrs. Mary Hegeler Carus to further the publication of the Carus Monographs.

The separate program of the association consisted of seven papers, as follows:

Outlines of fields of research: the mathematics of finance: G. C. EVANS, Rice Institute.
Outlines of fields of research: general analysis: T. H. HILDEBRANDT, University of Michigan.
On the empirical representation of certain production curves: C. E. VAN ORSTRAND, U. S. Geological Survey.
Preliminary report of the committee on standard departments of mathematics in colleges: R. D. CARMICHAEL, University of Illinois.
Application of Ritz's method to practical problems in engineering: WILLIS WHITED, Pennsylvania State Department of Highways.
Browse: a course in scientific literature: BESSIE I. MILLER, Rockford College.
New conformal world maps derived from elliptic functions: DR. O. S. ADAMS, U. S. Coast and Geodetic Survey.

Sections A, B and D met in joint session Thursday morning with an attendance of 250, Professors W. F. G. Swann and J. A. Miller presiding in turn. Professor H. N. Russell, of Princeton University, spoke on "Stellar evolution," giving a classification of stars according to brightness and color. He pointed out how the plotting of the surface temperatures against the amount of light emitted gives definite clusterings on the diagram, running in what Eddington calls the main sequence from hot white stars to cooler red stars but with a branch composed of the giant stars for which brighter light is accompanied by lower temperature. It was explained how the consideration of inner temperature, rate of radiation of heat and radioactive changes, with the con-