

to be desired from the standpoint of details, and details which are essential to a clear and comprehensive discussion of the localities in which gold is found and its associated minerals.

The book is well written, and while it contains much of interest it is doubtful whether it fills any great and pressing need which is not already occupied by other works. An important and valuable feature is the comparatively large number of references embodied in the text to which the reader may turn for verification of stated facts or to extend his information. Its chief value lies in the fact that the occurrence of gold is given for the whole world and not for some particular country. To those who enter upon the study of precious metals, a keen regret must be experienced in the perusal of such a work, that both of the precious metals, gold and silver, could not have been considered together, owing to their intimate association in ore deposits and their relations to commerce and industry in the world's community. In many respects this work is a valuable addition to the literature on the occurrence of gold, and will be welcomed by many.

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#### SCIENTIFIC JOURNALS AND ARTICLES

THE June number (volume 15, number 1) of the *Bulletin of the American Mathematical Society* contains the following papers: Report of the April meeting of the society, by F. N. Cole; Report of the April meeting of the Chicago section, by H. E. Slaught; "A Set of Criteria for the Summability of Divergent Series," by W. B. Ford; "On Fredholm's Equation," by P. Saurel; "The Chicago Symposium on Mathematics for Engineering Students," review by H. W. Tyler; "Osgood's Calculus," review by C. N. Haskins; "Shorter Notices": Bachmann's *Grundlehren der neueren Zahlentheorie*, by J. W. Young; Whitehead's *Axioms of Descriptive Geometry*, by F. W. Owens; Jouguet's *Lectures de Mécanique*, and Andoyer's *Cours d'Astronomie*, by W. R. Longley; "Notes"; "New Publications."

The July number (concluding volume 15) of the *Bulletin* contains: "Tautochrones and Brachistochrones," by E. Kasner; "Degenerate Pencils of Quadrics connected with  $\Gamma_{n+1, n}^{n+2}$  Configurations," by W. B. Carver; "On the Use of  $n$ -fold Riemann Spaces in Applied Mathematics," by J. McMahon; "Mathematical Appointments in Colleges and Universities," by E. J. Wilczynski; Picard's *Algebraic Functions of Two Variables*, review by J. I. Hutchinson; "Shorter Notices": Correspondance d'Hermite et de Stieltjes, by James Pierpont; Scott's *Cartesian Plane Geometry*, Part I., *Analytical Conics*, by E. G. Bill; Hilbert's *Grundlagen der Geometrie*, third edition, by A. R. Schweitzer; Klein-Schimmack, *Vorträge über den mathematischen Unterricht an den höheren Schulen*, Part I., by J. W. A. Young; "Notes"; "New Publications"; "Eighteenth Annual List of Papers read before the Society and Subsequently Published"; Index of Volume.

#### SPECIAL ARTICLES

##### DIPLODIA DISEASE OF MAIZE (SUSPECTED CAUSE OF PELLAGRA)

FOR about two years the writers have been studying the *Diplodia* disease of corn now serious in some parts of the country, with especial reference to its manner of infection. An examination of a bundle of maize plants sent from the west in 1907 indicated pretty clearly that the infection of the cobs was from within, *i. e.*, from the interior of the stem by way of the root system, and not simply a local attack as hitherto supposed. The mycelium was found in all the inner parts of many stems from roots to cobs and in the interior of the latter, and the kernels were moldy (white).

In February, 1908, pot experiments were started in one of the hothouses to verify this inference, the soil being inoculated with pure cultures of the fungus. On June 2 in one of the pots the *Diplodia* was found fruiting on the roots and at the base of the stem, and the mycelium of the fungus was found in the interior of the root, stem and cob in abun-