by reason of the greater space he has allowed himself, thereby gaining enormously in comprehensiveness and lucidity. A noticeable feature of Voigt's book is the admirable bibliography of each branch of the subject; Christiansen's book has nothing of the nature of a reference for collateral reading.

Professor Magie has used for translation the German edition by Müller of the Danish original. His rendering into English is excellent, and does not slavishly follow the German text, but is free and natural.

We wish that the work of the publishers were equally deserving. The Macmillans have brought out the book in their usual elegant dress in so far as paper and type are concerned; but upon what score of economy can they be excused for the manner in which the equations are treated? One may pardon the use of the Solidus for mathematical expressions printed in the text, but surely no valid reason can be advanced for the use of the Solidus in all equations, and for the placing bodily of most of the equations in the text. The effect of a page upon the eye is dazzling and confused; and not only is eye-sight ruined, but valuable time lost, in trying to discover an equation to which reference has been made. It is to be hoped that the publishers have already come to the conclusion that this experiment in economizing in paper has not been a brilliant success.

The typographical errors which we have observed have not been numerous, and have been usually quite unimportant.

A. STANLEY MACKENZIE.

Introduction to Infinite Series. By WILLIAM F. OSGOOD, PH.D., Assistant Professor of Mathematics, Harvard University. To be obtained of the Publication Agent of Harvard University, 2 University Hall, Cambridge, Mass. 8vo, 71 pp. Price, 75 cents.

A beginner is almost invariably repelled by the aridity and apparent unprofitableness of the subtle discussions that occur in the theory of infinite series. In his interests it is highly desirable that stress should be laid at first on the essential principles involved, to the neglect of such parts of the subject as belong merely to what we may call mathematical technique: *e. g.*, complicated tests of convergence. That it is possible at once to interest the reader, to make no sacrifice of thoroughness, and to arrange the material in organic connection with the other parts of mathematics is proved by Professor Osgood's short pamphlet on infinite series.