(p. 13) that " Zero does not mean nothing " and the long and unconvincing treatment of the definite integral (pp. 88-92), in which small quantities are " neglected " in such a wholesale fashion that the author feels constrained to add a footnote to repress the scepticism which he expects this procedure to arouse. All this trouble could have been avoided by giving the simple treatment contained in Art. 145 of the 3rd edition of Hardy's *Pure Mathematics*. However, in spite of these defects, the book will be useful to those who desire to learn rapidly a little about the processes and applications of differentiation and integration.

The chief fault of Professor Phillips' *Differential Equations* is its extreme brevity. It contains less on differential equations than is given at the end of the usual English works on Integral Calculus. On the other hand it has a splendid collection of problems dealing with mechanics, physics, and chemistry. In these the student has first to form a differential equation from the data given and then integrate it. Several articles in the text illustrate the methods to be employed, but some of the problems, especially the electrical ones, are not likely to be solved by anyone restricted to the information given here. To those who have sufficient preliminary knowledge of the sciences involved the book should appeal strongly.

The method used for finding a particular integral of a linear equation with constant coefficients may be unfamiliar to English readers. Four rules are given (two of them not quite completely), the general principle of which is to assume a trial solution involving linearly all the functions that occur in the given differential equation and their derivatives. Exceptional cases arise when some of these functions occur in the complementary function. This method, which is used by several American writers, considerably reduces the amount of bookwork.

H. T. H. PIAGGIO.

MATHEMATICAL ASSOCIATION.

YORKSHIRE BRANCH.

A meeting of the Yorkshire Branch of the Mathematical Association was held at Leeds University on Saturday, Nov. 11. Professor Milne, on resigning the Presidency in accordance with the rules of the Branch, proposed as his successor Mr. W. F. Beard of Wakefield Grammar School, who was elected unanimously. Dr. Milne, whose work in founding the Branch has been so successful, was nominated as Vice-President with Dr. Clement Jones of Bradford. In place of the members of Committee who retire after three years' service, there were elected Mr. W. Newbold, Inspector of Secondary Schools, Mr. S. Lister of West Leeds High School, and Mr. W. H. Berwick of Leeds University. Mr. S. Lister, who during the war had experience as an Instructor of Midshipmen in Mathematics, gave a paper on " Some Problems of Navigation," after which Miss Sykes of Chapel Allerton High School introduced a discussion on the syllabus of the Additional Mathematics paper at the School Certificate Examination. As a result of this a Committee was appointed to co-operate with the Manchester Branch, which has also been discussing the matter, in making suggestions for a more suitable syllabus. A novel feature of the meeting was an exhibition of two rare first editions, one a copy of the first printed Euclid, the other a copy of the first edition of Copernicus' epoch-making work.

Obituary.

C. G. KNOTT, D.Sc., F.R.S.