recommended to one who seeks pleasing applications of the most elementary mathematics to a chapter in scientific theory.

The chief merits of the exposition as an elementary treatment of its subject matter are intimately dependent upon the straightforward and simple manner of presentation on account of which the reader is able to follow the development with striking unity of effort and with little loss of energy consumed through divergent operations of thought. This renders the book particularly valuable for the learner who needs to concentrate attention upon the main issues in order to understand them thoroughly.

The effort to attain the advantages just mentioned has also led the author into the chief defects of his exposition. These are associated with the description of a special case as though it were the general case. Thus a lens is defined (page 56) as "a transparent body bounded by two spherical surfaces" and the student is left without any hint that lenses may also be of other forms. The most usual form of the kaleidoscope is described (page 13) as if there were no other form. A similar defect is in such a definition as that of optics (page 1) as "the science which treats of the properties of this mysterious agent" light, whereas the book itself deals with only a very narrow range of the properties of light and the student is given no hint of the more fundamental matters not treated in the book. The mathematical reader also feels a certain uneasiness in the free use of "infinity" (as on pages 84, 89, 113, and elsewhere) and in the uncritical use of processes of approximation. Nevertheless these minor defects do not obscure the real interest and value of this very elementary exposition.

R. D. CARMICHAEL.

NOTES.

THE fourth annual meeting of the Mathematical Association of America was held at the University of Chicago on Friday, December 27, 1918, in connection with the annual meeting of the American Mathematical Society. The morning programme included a conference on "Deductions from war time experiences with respect to the teaching of mathematics," a paper on "An experiment in supervised study," by D. R.