magnitudes, graphs are used to show the relation between volume, surface, and edge of a regular tetrahedron, cube, etc. The final chapter on limits is excellent, and introduces many new ideas not usually presented.

The usual faulty proof of the theorem on the volume of an oblique prism is retained. The minor errors are not numerous, but the following have been noticed: On page 51, line 16, the word cylinder is used where prism is meant. On page 85, line 8 from the bottom, d is used in place of $\frac{1}{2}sd$.

The book is very teachable, and taken altogether is a marked improvement over the usual text.

F. W. OWENS.

First Course in Algebra. By H. E. HAWKES, W. A. LUBY, and F. C. TOUTON. Ginn and Company. vii+334 pp.

THE purpose of the authors as stated in the preface, namely, "to build up a text book thoroughly modern, scientifically exact, teachable and suited to the needs and to the ability of the boy and girl of fourteen," has been in a large measure accomplished. The topics and problems, with a few exceptions which will be noted later, seem to have been chosen with excellent judgment. The idea of reasoning with symbols instead of numbers is introduced gradually but insistently; transposition is explained by means of addition and subtraction and the student is taught the actual use of equations before the term equation is defined at all. The lists of examples in factoring, in linear and quadratic equations, and several other topics, are sufficiently varied and extensive to give the student a thorough drill in elementary mathematical reasoning and manipulation. The authors have made good their intention as stated in the preface to use clear and exact English throughout the book. Typographical errors are few, but we have noted the following: on page 139, line 5, read fraction instead of fractions; replace 3 by $\sqrt{3}$ in the answer to example 1, page 321. We would suggest the use of the word may instead of should in line 7, page 211. The sentence beginning in line 6, page 262, is spoiled somewhat by the presence of the two words graph and figure. It would seem better to use a capital G in the last word on page 263, and similarly in example 18, page 264. One might question the value of asking in example 21, page 322, for a proof that the product of conjugate imaginary numbers is real, after conjugates have been defined on the preceding page