

*Modern Business Arithmetic, Complete Course.* By H. A. FINNEY and J. C. BROWN. New York, Holt, 1917.

THE book under review is a modern up-to-date text on the arithmetic of modern business, intended primarily for use as a text in commercial schools and business colleges.

The book has a number of features of interest to the mathematician as well as to the teacher of elementary mathematics. On the purely arithmetical side the most important feature is the emphasis placed on drill in correct methods of computation as essential to the acquirement of facility and accuracy, which means efficiency, in practical work. Numerous exercises, both oral and written, to be completed within a certain time limit, are given for the purpose of developing speed. Various checks, such as casting out the nines, and also special short methods are given, and the pupil is taught to check his results at every step. This aspect of the work is especially important in grade work, as most children rely on an answer book or verification by the teacher for the proof of their work, and have no confidence in their own work or means of determining its correctness. This lack of initiative and self-confidence constitutes a serious defect in our present training in arithmetic which the methods adopted in this book would assist materially in correcting.

On its applied side, the work, although comprised in less than 500 pages, is a veritable compendium of modern business practice, and will prove a valuable reference book for teachers of seventh and eighth grade arithmetic. Ruled forms and tabulated business statistics are freely used, in order to put the pupil in touch with the actual demands of the business world.

The first fourteen chapters, covering 152 pages, are devoted to the fundamental processes of arithmetic, including percentage, and the use of graphs for presenting business statistics. Numerous exercises are included, many of which are purely arithmetical, while others are stated in the form of problems met in business practice.

The remainder of the book is devoted to technical commercial applications. Chapters 15-23, covering 79 pages, relate to trading activities, including such topics as profit and loss, recording sales, paying for goods, collecting bills and taking inventory.

Chapters 24–28, comprising 34 pages, are on borrowing and loaning, and include the modern field of contract purchases and installment payments.

Chapters 29–36, covering 54 pages, are devoted to business expenses, such as wages and payrolls, insurance and taxation, and include such modern topics as depreciation, advertising and the income tax.

Chapters 37–60, covering 19 pages, are concerned with business organization, partnership, corporations, insolvency and bankruptcy.

Chapters 41–45, occupying 40 pages, relate to business efficiency, and form the most up-to-date section of the entire book. The nature of this section is apparent from the list of topics covered, which include factory costs, buying and selling expenses, determination of profit and loss by departments and for separate sales, and tabulations for the sales manager such as department and salesmen's records.

Chapters 46–48, occupying 12 pages, conclude the work with miscellaneous topics not previously treated, such as consignments and commissions, life insurance and farm management.

The impression made by this book is that the authors have succeeded in producing not only an unusually complete and well written treatise on business arithmetic, but also a work that is eminently teachable, as it is bright and interesting, and well arranged for classroom purposes.

S. E. SLOCUM.

*Plane Trigonometry with Tables.* By E. H. BARKER. Philadelphia, P. Blakiston's Son and Co., 1917. 172 pp.

BARKER'S Trigonometry treats, in its few pages, the usual topics of the subject. The functions of an acute angle are defined as ratios in the first chapter, the functions of a general angle being postponed to Chapter IV, while the intervening chapters deal with the relations between the functions of an acute angle. For the graphs the line values of the functions are used. The addition formulas are proved for acute angles, without the use of directed lines. Geometrical proof is given for the laws of sines and cosines, and analytical proof for the law of tangents. Some unusual formulas are given in the work on solutions of triangles. The ninth chapter, on circular measurement of angles and inverse identities, completes