

The pages are fairly well supplied with footnotes pointing out sources in which fuller detail of development can be seen, or drawing attention to certain special features of transformations that are worthy of particular attention by the practitioner.

On the whole, the volume is an unusually practicable summary for workers in trigonometry, is singularly free from typographical errors, and is printed in type of such size and variety as to enable the eye to catch readily the particular thing the reader may want. As a ready reference handbook it leaves little to be desired.

G. W. MYERS.

*Beispiel-Sammlung zur Arithmetik und Algebra.* Von Dr. Hermann Schubert, Professor an der Gelehrtenschule des Johanneums in Hamburg. Dritte, durchgesehene Auflage. Leipzig, G. J. Göschen'sche Verlagshandlung, 1905. 136 pp.

THIS is one of the little 80-pfennige handbooks of the well-known Sammlung-Göschen. On 120 pages, 3 inches by 4 inches, it contains 1275 exercises and problems, formal and clothed (eingekleidet), covering the following topics: the transition from calculation to arithmetic, modes of calculating of the first order, of the second order, applications of these modes, quadratics, modes of calculating of the third order, an appendix of problems on higher arithmetic, and selected results.

The appendix contains, in the language of problems: observations on building arithmetic systematically, arithmetic and geometric series, compound interest and annuities, the binomial theorem, Moivre's theorem, and cubic equations.

The problems are arranged in a developmental order, according to the German idea of development. In mathematics the German notion, as shown by their text-book literature, seems to be to begin a topic with a large number of formal and easy exercises, to pass by easy gradations to and through more complicated problems, still of the formal type, and, lastly, to give a list of carefully graded verbal problems having a real content. This accords with the views of some American writers on high school mathematics.

In the view of other writers in our own country and in England, we should get on much better if pupils were not first mechanized by the formal problems. These writers favor fewer of the formal type of problem, and a much larger pro-