

is repeated evidence of careful revision both in the addition of new matter and even in the smaller details of phraseology. The printing in the fifth edition, at least in the case of formulas, is a little more compact than in the fourth, and there is a considerable increase in the amount of matter in smaller type so that there is a reduction of twenty-one pages in size of the volume while there is an actual increase in matter.

As is to be expected in a fifth edition, the author adheres closely to the terminology which he had previously adopted. The most considerable change which came to the reviewer's attention is in the usage of the words "stream-line" and "stream-tube" as set forth in Sections 19 and 21; and even this is not of great importance.

In its new edition the book will continue to hold, and a little more effectively than ever before, the important place which it has now held for a generation.

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*Geschichte der Elementarmathematik.* By Johannes Tropicke. Bd. 7: *Stereometrie, Verzeichnisse.* Berlin and Leipzig, Walter de Gruyter & Co., 1924. iv + 128 pp.

The seventh and last volume of Tropicke's revised *History of Elementary Mathematics* maintains the high standard of the preceding volumes, and completes a work that is invaluable to the teacher of elementary mathematics, as well as to the student of the history of the subject. That the revision has been thoroughgoing is shown by the fact that the 35 pages of the first edition on solid geometry have been increased to 52 pages, while the number of references to the literature has been increased from 145 to 309. The very complete index covers 74 pages, and is arranged in two alphabets, under the headings "Names and Writings" and "Subject-matter".

Two items may be singled out for special mention, among the numerous improvements over the first edition. First, the additional information given concerning the history of technical terms is of great interest and value, especially for teachers, who will find such facts as are here to be found adding materially to the interest of many students in the subject-matter itself. Secondly, the history of the regular solids is enlarged and brought into line with the latest historical researches. The fact may be of general interest that the dodecahedron was known to the ancient Etruscans, who found it in natural form, in the crystals of iron pyrites that abound in northern Italy.

One error was noted. It is stated on page 32 that the theorem, "Sections of an oblique circular cone parallel to the base are circles", although known in antiquity, is first found explicitly proved in the *Book of the Three Brothers* in the 9th century. As a matter of fact, the proof occurs in Apollonius, along with that of the theorem that