

may almost say necessary. There may be other books as good ; but for this particular purpose these are not easily improved upon.

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ÉCOLE NORMALE SUPÉRIEURE,
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SHORTER NOTICES.

Urkunden zur Geschichte der Mathematik im Mittelalter und der Renaissance. By M. CURTZE. Zweiter Theil. *Abhandlungen zur Geschichte der mathematischen Wissenschaften*, XIII Heft. Leipzig, Teubner, 1902. 292 pp. 14 marks.
Abhandlungen zur Geschichte der mathematischen Wissenschaften, XIV Heft, Leipzig, Teubner, 1902. 338 pp. 16 marks.

THE first part of Curtze's *Urkunden*, forming the twelfth volume of the *Abhandlungen*, has been reviewed in the *BULLETIN* * so recently that it is quite surprising to find two new volumes of the series already published. Indeed no better evidence of the present revival of interest in the history of mathematics can be found than is seen in the encouragement recently given to this series founded a quarter of a century ago by Professor M. Cantor. The publication of the first seven volumes extended through a period of nineteen years, while the last seven, including the two under review, have appeared since 1897.

The second part of Herr Curtze's *Urkunden* is devoted to two interesting manuscripts, one the *Practica Geometriæ* of Leonardo Mainardi of Cremona, and the other the algebra of *Initius Algebras*. The first, which also bears the title *Leonardi Cremonensis Artis Metricæ Practice Compilatio*, is a transcript, with German translation, from an Italian codex in the Venetian dialect in the university library at Göttingen. This codex is not unique, for Prince Boncompagni had two Latin manuscripts of the same work ; but not only has it never before been published, but Leonardo Mainardi has been practically unknown to historians of mathematics. It consists of fifty folios, of which the first twenty-nine and the last fourteen are here

* Vol. 9, p. 123, Nov., 1902.