

notes contributed by the author. The printing is in the familiar style of the Cambridge University Press, with the added luxury of a marginal index.

T. H. GRONWALL

*Euclides Danicus.* By Georg Mohr. Amsterdam, 1672. Copenhagen, Høst, 1928. Price \$2.50.

Towards the end of the eighteenth century Mascheroni arrived at the amazing conclusion that all euclidean constructions may be executed with compasses alone, without the aid of the ruler. This was the starting point for the study of the rôle of instruments in geometric constructions, so successfully carried out during the nineteenth century. But Mascheroni's book *Geometria del Compasso*, (Pavia, 1797), remained the standard work on Mascheronian constructions. It has been superseded only very recently (A. Quemper de Lanascot, *Géométrie du Compas*, Paris, Blanchard, 1925).

Had Mascheroni died in childhood would science have been deprived forever of Mascheronian geometry? Usually such a question is a moot one. Not so in this case. In 1672 a Danish mathematician, Georg Mohr, published a book in Dutch and in Danish simultaneously, which contains Mascheroni's basic result and a good many of his problems. Little is known about Mohr. Leibnitz mentions him in one of his letters. Mohr's book passed completely unnoticed. Mascheroni says explicitly in the preface of his *Geometria* that he knows of no previous work of this kind. There is no reason to doubt his word.

Due to the efforts of J. Hjelmslev, the Danish Scientific Society has published a facsimile copy of the Danish edition of Mohr's book together with a German translation of it. The Danish Society deserves to be congratulated for having rescued this book from oblivion. While the book does not add to our geometric knowledge, it is an interesting historical document, in more than one respect. The typography of the book is excellent.

N. A. COURT

*Hoehere Mathematik.* Teil I. *Differentialrechnung und Grundformeln der Integralrechnung, nebst Anwendungen.* By Rudolf Rothe. 3d edition. Leipzig, B. G. Teubner, 1930. vii+189 pp.

This edition differs but little from the first and second editions (reviewed in this Bulletin, vol. 31, pp. 556-7, vol. 33, p. 791). The changes consist of a few alterations and corrections in the text, the addition of a paragraph relating to moments, which might well have received more extended treatment in volume II, a paragraph in the discussion of Taylor's formula, and a paragraph deriving Lagrange's rule for maxima and minima of functions of more than one variable with supplementary condition, in which the author assures us that the vanishing of the jacobians:  $\partial(f,g)/\partial(x,z)$  and  $\partial(f,g)/\partial(y,z)$  is equivalent to the existence of a constant  $\lambda$  such that  $\partial f/\partial x + \lambda \partial g/\partial x = \partial f/\partial y + \lambda \partial g/\partial y = \partial f/\partial z + \lambda \partial g/\partial z = 0$ .

T. H. HILDEBRANDT

*Analytische Geometrie.* By L. Bieberbach. Leipzig and Berlin, Teubner, 1930. iv+120 pp.

This little book (volume 29 of Teubner's *Mathematische Leitfäden*) presupposes an elementary knowledge of the subject. The novelty of the treat-