Die Pseudosphäre und die Nichteuklidische Geometrie. By F. Schilling. Parts I and II. 2d edition. Leipzig and Berlin, Teubner, 1935. iv+215 pp.

A review of the first part and first edition of this book appeared in this Bulletin, vol. 38 (1932), p. 335, and what was stated there concerning Schilling's *Pseudosphäre* also holds for the second edition with its addition of a second part.

In the latter the author treats of the geodesic circles of the pseudosphere and their neighborhood (Umwelt). Altogether it contains an admirable account of the geometry on this remarkable surface and its representations of hyperbolic non-euclidean geometry. Particular additions to the usefulness of the book are the beautiful figures of curves and models of the surface. Professor Schilling is a master of graphic representation and has succeeded by more or less elementary means, although in a mathematically rigorous fashion, in making an otherwise abstract subject very attractive.

ARNOLD EMCH

Mengenlehre. By Felix Hausdorff. 3d edition. Berlin and Leipzig, de Gruyter, 1935. 307 pp.

Reviews of the two earlier editions of this work have already appeared in this Bulletin.* The present edition consists of the first nine chapters of the second edition, unchanged except for the correction of misprints and the addition of footnote references to Chapter 10 and the appendices. A new supplementary chapter (Chapter 10, pp. 276–297) has been added, containing two topics on which considerable new material has been published. The first topic is the Baire condition for sets and for functions, the treatment of the text being based on the researches of Banach and Kuratowski. The second half of the chapter is concerned with Borel and Souslin sets, the results being chiefly due to Lusin. Four brief appendices (pp. 298–299) are related to topics discussed in the first nine chapters. The bibliography and source list have also been brought up to date. This revision makes Hausdorff's book even more valuable for those interested in the topics of which it treats.

H. M. GEHMAN

Generalized Hypergeometric Series. By W. N. Bailey. Cambridge Tract, No. 32. Cambridge University Press, 1935. 108 pp.

This tract furnishes an excellent systematic account of the present status of the theory of the generalized hypergeometric series. Since many of the recent contributions to the theory are due to Professor Bailey himself, one can rest assured of having an authoritative treatment of the subject.

The ordinary hypergeometric series is treated in the first chapter, but only to the extent necessary for use in the subsequent discussion. Two of the last three chapters deal with Heine's basic hypergeometric series and Appell's hypergeometric functions of two variables.

C. N. MOORE

* First edition (*Grundzüge der Mengenlehre*) reviewed by H. Blumberg, vol. 27 (1920–21), pp. 116–129; second edition, reviewed by H. M. Gehman, vol. 33 (1927), pp. 778–781.