entitled From Newton to Hausdorff, the author summarises in a dozen pages the movement of ideas which culminated in the notion of an abstract topological space.

The author's method is to give in the various chapters brief summaries of the works which marked important steps in the development of the ideas which proved to be important, supported by an extensive bibliography of primary sources and a much smaller one of secondary sources. Some efforts which proved abortive are also recorded. In the author's words, this is a story of mathematics, not of mathematicians. This, however, is not necessarily the complete story since it takes no account of the interplay of personalities, which is often important. No personal details are given. But within the limits he has set himself the author has organised his material with skill and judgment to produce a book of much interest on the genesis and maturation of one of the great formative influences in modern mathematics.

There are some surprising omissions. There is no mention of René Baire or of the important notion of the category of a set which he introduced. The Youngs' famous book *The Theory of Sets of Points* (1906) is not in the bibliography nor is W. H. Young mentioned. Another omission is the Schoenflies Report of 1900 to the Deutscher Mathematiker Vereinigung; but perhaps most important of all is the omission of the Cantor-Dedekind correspondence (*Briefwechsel Cantor-Dedekind*, edited by E. Noether and J. Cavaillès, 1937) which reveals very clearly how much Cantor relied for support on the friendly critical judgment of Dedekind from 1872 onwards. A few misprints were noted; in a future edition Emil Borel should be corrected to Émile, Elias Hastings Moore to Eliakim and Everit W. Beth to Evert. But these are minor blemishes which do not detract from the value of a book which deserves a place in every library catering for history of mathematics.

E. F. COLLINGWOOD

SIERPIŃSKI, WACŁAW, *A Selection of Problems in the Theory of Numbers*, translated from the Polish by A. Sharma (Popular Lectures in Mathematics, Vol. 11, Pergamon Press, 1964), 126 pp., 30s.

This fascinating little book begins with a section of problems on the borders of geometry and number theory, such as A. Schinzel's result that for every positive integer n there exists a circle on whose circumference there lie exactly n points with integral coordinates. The greater part of the book is concerned with properties, proved and conjectured, about prime numbers, and the last section lists one hundred elementary but difficult problems. These are classified as of the first or second kind. A problem of the first kind is one for which we know how to obtain a complete solution, the only difficulty being that we are not in a position to perform all the necessary computations, even with modern computing methods, because of their length. All other unsolved problems are of the second kind. A few of the problems stated have been solved and references are given. (Erratum: on p. 116 in Problem 77 replace 1 by >1.) Although the translation could be improved in places, this does not detract from the great interest of the book which can be understood by the intelligent layman.

R. A. RANKIN

MARGULIS, B. E., *Systems of Linear Equations*, translated and adapted from the Russian by Jerome Kristian and D. A. Levine (Pergamon Press, 1964), 88 pp., 17s. 6d.

This is Volume 14 of the series " Popular Lectures in Mathematics ", edited by I. N. Sneddon and M. Stark, and is included in a survey of recent East European mathematical literature conducted by A. L. Putnam and I. Wirszup of the University of Chicago.

A great merit of this little book is that it is virtually self-contained, nothing being assumed beyond the fundamental concepts of a linear equation and systems of linear