Introduction to Set Theory and Topology, by K. Kuratowski. (Internat. Series of Monographs in Pure and Applied Mathematics, Vol. 13. Translated by L. F. Boron.) Pergamon Press, 1961. 283 pages. $7.50.

Contents are as follows: Part 1 (Set Theory): Propositional calculus, algebra of sets, propositional functions, finite and infinite set operations, the concept of power, cardinal numbers, ordering and well-ordering, order types and ordinal numbers; Part 2 (Topology): metric spaces, closure and limits, basic definitions, continuous and homeomorphic maps, separability, completeness and compactness, connectedness and local connectedness, continua, dimensions, an introduction to homology and homotopy, and a proof of the Jordan theorem.

Each chapter is followed by problems, the harder ones of which have hints to the solution (and introduce many new topics) and brief discussions. There is an index, a symbol list and two reading lists.

The book appears to be a careful and thoughtful contraction of the author's well-known treatise on topology and of his Polish book (written jointly with A. Mostowski) on the theory of sets. The logical notation is not that used on this continent but that should present no difficulty. No errors or misprints were found. The translation is smooth and the book reads very pleasantly, --something of a boon to advanced undergraduate and beginning graduate students of the subject.

Z. A. Melzak, McGill University

Mathematisches Wörterbuch, mit Einbeziehung der theoretischen Physik, edited in collaboration with many specialists by Josef Naas and Hermann Ludwig Schmid for the Institut of Pure Mathematics of the Deutsche Akademie der Wissenschaften. Pergamon Press, Oxford, London, New York, Paris, 1961. Two volumes; xii + 1043 and viii + 952 pages. Price £40/-/-.

This is an encyclopedia, listing alphabetically technical terms and their definitions, theories, theorems, principles of pure and applied mathematics and theoretical physics, including their history and main representatives. Each item is followed by an article of variable length and individual conception with large numbers of cross references. The names of eminent mathematicians of the past occur with the dates of their birth and death; their main places of activity and their most important fields of research are mentioned in all cases, mostly only in a few words. But taking into account the large number of enumerated mathematical objects called after Euler, we find exactly nine pages on him and his contributions to mathematics; similarly eleven pages on Gauss, but only five pages on Hilbert, one and a half pages on H. Weyl, and less than half a page on G. Cantor.