BOOK REVIEWS


This book is the third volume of a series entitled The Library of Living Philosophers published at Northwestern University under the direction of Professor Paul Schilpp. The basic aim of the series is to effect a clearer understanding of contemporary thinkers by permitting critics to ask them crucial questions which they are to answer. Each volume purports to be the edited record of this journalistic version of the Socratic method. Unfortunately, the present volume does not realize this aim. Professor Whitehead’s health did not allow him to answer his critics. Nonetheless, there are interesting essays in the volume, and the publishing of some of Whitehead’s latest papers adds to its worth. Especially valuable is the eleven page Autobiographical notes, excellent as a revelation of Whitehead, the man. It is difficult to agree with the editor, however, that the essays entitled Mathematics and the good and Immortality are summaries of Whitehead’s philosophy. It is even more difficult to consider them answers to his critics. They should be thought of as late chapters in the Whiteheadian corpus.

But what does this volume contain by way of interest to the mathematician? There is little that will attract the pure mathematician. The only possible exception would be W. V. Quine’s essay, Whitehead and the rise of modern logic, but even this embraces too many of the evils of secondary sources. There are some interesting points regarding Whitehead’s contributions to Boolean algebra in his Treatise on Universal Algebra, but these can be appreciated adequately only by a study of the original. By far the largest portion of Quine’s essay is devoted to the monotonous task of sketching the high points of Principia Mathematica. If one is familiar with mathematical logic this offers little that is new. If one is not familiar with mathematical logic, it is doubtful whether the essay will serve as an adequate introduction to the subject.

Mathematicians with interest in the philosophical aspects of relativity theory may find something to their taste in the essays by F. S. C. Northrop and E. B. McGilvary. These are entitled respectively, Whitehead’s philosophy of science, and Space-time, simple location, andprehension. Those with a general interest in philosophy will profit most from the volume. There are many essays covering a variety of
philosophical themes such as, Whitehead's theory of value and Whitehead's idea of God.

The book as a whole is well designed, and the print is good. There is an occasional typographical error such as formula (12) on page 150 which should read,

\[ \hat{a} \sim (\alpha \in a) \in \hat{a} \sim (\alpha \in a) \equiv \sim [\hat{\alpha} \sim (\alpha \in \alpha) \in \hat{\alpha} \sim (\alpha \in \alpha)] \]

A. R. Turquette


This is an amplified and revised version of a book which first appeared in Polish in 1936, and was translated into German in 1937. The intention of the original book was to give an elementary but clear account of the concepts of modern mathematical logic for the benefit of readers interested in mathematics but with no technical knowledge of it beyond that possessed by a well trained college freshman. In the English version various additions have been made to make the work more suitable as a textbook for college courses.

This book and its preceding editions have been already reviewed in several places; in particular the German version was reviewed in this Bulletin (vol. 44, p. 317) by Quine. For a considerable list of other reviews see the indexes to volumes 4 (1939) and 6 (1941) of the Journal of Symbolic Logic—on pp. 193 and 187 respectively—; to the lists there given should be added the review by Frink in Mathematical Reviews, vol. 2 (1941), p. 209. In view of this fact it is superfluous for the present reviewer to do more than summarize the general purport of these reviews and to add to the criticisms certain amplifications of his own.

All reviewers, including the present one, are agreed that this is a work of exceptional merit. For the purpose for which it was originally designed it is a masterpiece of exposition. Whether the patching which the book has received to convert it into a textbook will succeed in that endeavor is doubtful—for some there will not be enough technique and for others not enough application to extra-mathematical domains—; but the value of the book for the independent reader is enhanced thereby. The exercises at the ends of the chapters are an excellent feature. For the seasoned mathematician the book is, perhaps, too easy, and it certainly does not give an adequate idea of the difficulty of some logical problems; nevertheless it contains material of interest and value. Within the limitations imposed by its objec-