BOOK REVIEWS

The Philosophy of Alfred North Whitehead. Edited by Paul Arthur
Schilpp. (The Library of Living Philosophers, vol. 3.) Evanston
and Chicago, Northwestern University, 1941. 20+745 pp. $4.00.

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 per-
mitting critics to ask them crucial questions which they are to
answer. Each volume purports to be the edited record of this journal-
istic 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 White-
head, 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 mathe-
matician. 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 ade-
quately 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 mathe-
matical 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 rela-
tivity 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, and
prehension*. 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,

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

<div align="right">A. R. TURQUETTE</div>

Introduction to Logic and to the Methodology of Deductive Sciences. By Alfred Tarski. Enlarged and Revised Edition. New York, Oxford University Press, 1941. 18+239 pp. $2.75.

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-