with relative admissibility (§7), two major though probably corrigible errors occur. First, as H. B. Curry discovered, the rule a, $b \rightarrow a \wedge b$ is not relative admissible, e.g., in the system whose only rules are $+$ and $+a \rightarrow 0$. Second, $a \wedge b \rightarrow a$ is not admissible, e.g., in the system whose only rules are $+$ and $+a+ \rightarrow + + a +$ and (D_1^0). Despite all these shortcomings, which probably require a thorough revision to overcome, the book constitutes an essentially sound and indeed outstanding contribution.

WILLIAM CRAIG

Introduction to Mathematical Logic, Vol. I, by Alonzo Church. Princeton, The Princeton University Press, 1956. 10+376 pp. $7.50.

This is a revised edition of the slim, paper-backed volume which appeared in 1944 as one of the Annals of Mathematics Studies. Of the five chapters two are devoted to propositional calculus, two to functional calculi of first order, and the last to second-order calculi, so that the plan of the original edition is followed to treat the most basic formal systems of mathematical logic. But the material of the original has been so greatly altered and expanded that it seems best to report the important features of the new work directly, rather than to compare it in detail with its predecessor.

Several unusual features of the book are apparent even before one begins to read: There is an introduction 68 pages in length; it is divided into 10 sections, which is exactly the number of sections in each of the five chapters; there are 590 consecutively numbered footnotes, at least one of which is a full page in length; there was a lapse of five years between the completion of the writing and the appearance of the published volume. While there are separate sections for historical notes, these spill over liberally into the highly informative footnotes; so that when the author's pre-eminent reputation for painstaking attention to historical detail is considered, it seems manifest that this work will quickly establish itself as a definitive reference volume. The book also contains a great many exercises, ranging from simple illustrations to brief sketches of developments not treated in the text. For some curious reason textbooks in symbolic logic have always evinced a conspicuous paucity of problems suitably challenging to mathematically inclined students, a phenomenon which has tended to place this subject at a competitive disadvantage with most of the other mathematical sciences. The present innovation is thus very welcome, and will greatly enhance the value of the book's use in connection with beginning courses for students with some background of mathematical experience.