The book closes with an informal discussion of source material and references and a bibliography containing 52 entries. Approximately one-third of these are vital to the present undertaking, the others being either marginal in value or representing a caprice of the author. No errors major or minor were detected, a fact which is only one indication of the very careful way in which the booklet was prepared. Most pages exhibit a zest for play as well as work which is refreshing. Indeed, at times one may have a vague apprehension that the author is preparing a prank or baiting a trap; however it seldom turns out to be more than a friendly tweak given with a wink. Such an intimate style, in the present desert of works written with an unexceptionable scientific detachment, is warmly welcome. It is certainly a facet to the general success enjoyed by Halmos' previous books.

E. R. LORCH

A theory of formal deducibility. By H. B. Curry. (Notre Dame Mathematical Lectures, no. 6.) University of Notre Dame, 1950. 9+126 pp.

The monograph contains a detailed account of the predicate calculus as presented by Gentzen (Math. Zeit. vol. 39 (1934) pp. 176–210, 405–431) in a sequence calculus in which the rules of inference follow in a natural way from the intended meanings of the logical connectives. However, Curry's treatment differs in several major respects from earlier ones. The predicate calculus is approached as an episystem over a basic formal system of elementary propositions. Various portions of the classical and intuitionistic systems are studied separately. There is a discussion of alternative concepts of negation. And a final chapter suggests a new approach to modal logic.

A formal system is specified by a primitive frame which defines inductively terms, elementary propositions, and theorems. (The author develops here notions presented in a paper in Bull. Amer. Math. Soc. vol. 47 (1941) pp. 221–241.) In Curry's usage, the Hilbertian formal systems have as elementary propositions, propositions of the form "A is a provable formula," the formulas being terms in Curry's terminology. In studying a formal system it is customary and convenient not to limit attention only to elementary propositions, but to consider in addition compound propositions such as "Not for all formulas A, is A provable." These compound propositions are formed from the elementary ones by use of the logical connectives. Curry speaks of this broader system as an episystem over a formal system. (An episystem is not to be confused with a metasystem over