

Hausdorff concerning logarithmico-exponential functions are omitted. They are both elegant and useful.

The final part V deals with Abelian and Tauberian theorems and ends with the Ikehara theorem. The Wiener theorem is mentioned but not proved in detail and most of the work is based on the more elementary methods of Hardy, Littlewood, and Karamata. This part also contains original material and is basic for the applications to asymptotic representations.

The book contains at least fifteen research problems inserted in the text, relating to open questions in the theory. Some are fairly easy to solve on the basis of available results, others will require a more substantial effort.

References occupy a section of twelve pages and there is an excellent bibliography. The press work is beautiful and misprints very rare.

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*Leçons de logique algébrique.* By H. B. Curry. (Collection de Logique Mathématique, Série A, Monographies réunies par Mme Destouches-Fevrier, no. II.) Paris, Gauthier-Villars, 1952. 183 pp. \$4.86.

This expository monograph is the outcome of a course given at Louvain in 1950–51. Although the important theoretical results have appeared in the works of the author and others, it is a valuable contribution to the literature by reason of its lucid architectonic treatment of elementary mathematical logic from the viewpoint of modern mathematics.

Chapter 1 treats of the nature and methodology of formal systems as previously proposed [*A theory of formal deducibility*, Notre Dame Mathematical Lectures, no. 6, University of Notre Dame, Notre Dame, Ind., 1950]. Mathematics is defined as the study of formal systems and mathematical logic is concerned with those formal systems which have some connection with philosophical logic.

These lectures are restricted to the logical algebras as characterized in Chapter II. Algebras are formal systems with free but no bound variables and with a fundamental transitive relation. Where this relation is reflexive, the algebra is called relational or in its reduced form, logistic. Logical algebras are relational or logistic algebras with two binary operators (sum and product) and the idempotent laws (tautology). Those considered of interest are also (at least) general lattices. A variety of interpretations are given, some propositional.

Postulates for semi-lattices (group logics) and lattices are intro-