

better presented elsewhere or, like the paragraphs on parabolic and hyperbolic problems, could be omitted entirely. Later chapters include a careful formulation of the group diffusion equations of reactor physics, detailed descriptions of known iterative and semi-iterative methods and a valuable discussion of the results of careful numerical experiments. The book concludes with a chapter on the author's new non-linear iterative procedure whose effectiveness, as the author admits in the preface, has yet to be evaluated. This could prove to be a significant advance in this field; in any event the book will be valuable as a sourcebook and reference for the iterative methods it describes.

James L. Howland, University of Ottawa

Polish logic, 1920-1939, edited by Storrs McCall. Oxford University Press, 1967. viii + 406 pages. \$15.00.

These are English translations of 18 papers by the following Polish logicians who flourished between the two wars: Ajdukiewicz, Chwistek, Jaskowski, Jordan, Leśniewski, Łukasiewicz, Slupecki, Sobociński and Waisberg. The notable exception is Tarski, whose papers have already appeared in "Logic, Semantics, Metamathematics", reviewed in this Bulletin some years ago.

This is undoubtedly a very interesting collection, and the editor deserves great credit for having brought it together. The reviewer was particularly interested in seeing the article "Syntactic connection" by Ajdukiewicz, the first attempt to produce a type-theoretic analysis of the grammars of natural languages.

The papers are remarkably uniform in style: the bracketless "Polish" notation prevails. On the whole, however, it would seem to the reviewer that they are not in the mainstream of logical development and that there is a preoccupation with side-issues.

J. Lambek, McGill University

From Frege to Gödel, edited by Jean van Heijenoort. (A source book in mathematical logic, 1879-1931). Cambridge, Mass., Saunders of Toronto, 1967. x + 660 pages. \$18.50.

This is an invaluable collection of 45 contributions to mathematical logic in its classical period, written in or translated into English, each preceded by an explanatory preface. The editor has been assisted by Dreben, Quine, and Hao Wang.

In this reviewer's opinion, the contributions have been wisely chosen to illuminate the birth of the most important ideas in modern logic and the controversies surrounding them. This volume should be on the shelf of every one interested in logic or the history of mathematics.