

There are shorter items by Burali-Forte, Padoa, Richard, König, Wiener, Fraenkel, Finsler, Weyl and Bernays. We also find letters by Dedekind and Cantor, and the famous correspondence between Russell and Frege. The volume is generously endowed with references and index.

J. Lambek, McGill University

The basic laws of arithmetic, by Gottlob Frege. Translated and edited by Montgomery Furth. University of California Press, 1967. lxiii + 144 pages. Paperback \$1.95.

This is a translation of approximately one-fifth of Frege's "Grundgesetze der Arithmetik". Its main portion is the "Exposition of the Begriffsschrift", and there is an appendix devoted to Russell's paradox. Frege's two-dimensional symbolism has not been tampered with. There is a long introduction by the editor.

J. Lambek, McGill University

On the syllogism, by Augustus de Morgan. Edited by Peter Heath. Yale University Press, 1966. Distributed by McGill University Press. xxxi + 355 pages. \$10.00.

De Morgan was born in India. He was a man of strong anti-establishment principles, on account of which he was barred from a fellowship and resigned his positions twice. He was engaged in a protracted controversy with the Scottish logician William Hamilton.

In the book under review he is mainly concerned with bringing the syllogism up-to-date, and there are the rudiments of a theory of relations. I could not find "De Morgan's Law", but it seems that this was already known to the scholastics.

J. Lambek, McGill University

The problem of the minimum of a quadratic functional, by S.G. Mikhlin, translated by A. Feinstein. Holden-Day, 1965. ix + 151 pages. \$9.50. (Original published in 1952 as Problema Minimuma Kvadratischnogo Funktsionala, State Publishing House, Moscow-Leningrad.)

In elementary calculus of variations we find extremals by solving the Euler-Lagrange equations. In other words, we reduce the problem of minimizing a functional to the integration of a differential equation or system of differential equations. This book is concerned with the reverse process. In particular, it is concerned with boundary-value problems of mathematical physics (of elliptic type) which can be reduced to the problem of finding the minimum of some functional.