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BOOKS

THE WATER SEEKERS by Remi A. Nadeau Doubleday, N.Y., \$3.00

> Reviewed by Franklin Thomas Professor of Civil Engineering

FORTUNATELY THERE ARE deliberative agencies and courts which have jurisdiction over rights to water in the arid West. Controversies over where limited quantities of water shall be used and by whom become

Mr. Remi A. Nadeau, fifth generation descendant of an early Californian, graduate of Stanford, and a resident of Santa Monica, has produced a fascinating narrative of crucial events and plans which have largely determined the destiny of important areas in the Southwest. The author recounts the activities of individuals and happenings related to the origin and consummation of the Owens River Aqueduct and the various projects using Colorado River water to exemplify the tensions and conflicting interests which arise.

The book is an important and factual record based upon very extensive research covering an extensive bibliography which the author lists as an additional benefit for his readers.

Anyone who spends time interestingly in a perusal of this book will have increased appreciation for the water which flows freely for his comfort and convenience.

THE PHILOSOPHY OF MATHEMATICS

by Edward A. Maziarz, C.P.P.S., M.S., Ph.D. Philosophical Library, N.Y., \$6.00 Reviewed by E. T. Bell Professor of Mathematics

FOR ABOUT 2400 YEARS philosophers from Pythagoras to Kant tried to tell mathematicians what mathematics is really about. Then, in 1854, George Boole published his Laws of Thought, the effective beginning of symbolic logic. By 1895, with the work of the Italian School of symbolic logic, it at last became possible to state the basic problems of the so-called philosophy of mathematics in a clear and unambiguous form. In the succeeding half century the English, German, and American schools of symbolic logic created subtle and penetrating techniques for investigating the foundations of mathematics. The outcome was a vast literature that no philosopher could understand.

In an endeavor to bring the mathematicians and the philosophers within shouting distance of one another. Dr. Maziarz proposes in Part II of his book a return to pure metaphysics as practiced in the Middle Ages. Part I is a summary, with hundreds of references and excerpts wrenched from their contexts, of the efforts of mathematicians to understand their subject. To the reviewer it seems that the summary is slanted toward the author's scholastic bias evident in Part II. The mathematician who hopes for illumination from this part will have to understand numerous passages such as the following on page 195: "Quantity is analogously divided by metaphysicians into transcendental and predicamental. They point out that transcendental quantity, a field of metaphysical inquiry, is used to signify the amount of perfection or entiative being which a thing possesses. (The author here refers to Saint Thomas Aguinas, In V Metaphysicorum, Lect. 15, nn. 954-976.) The being of a giraffe, for example, is intrinsically greater than the being of a stone. Transcendental quantity, as based on the substantial or accidental perfection of a being-on its amount or plenitude of perfection-is spoken of as virtual quantity, while that based on a consideration of a plurality of such things is spoken of as transcendental quantity or transcendental number.'

Not having a copy of the Metaphysicorum at hand, the reviewer is predicamentally unable at the moment to decide whether pi (3.1415926...) is a transcendental number or a giraffe.

INTERNAL BALLISTICS OF SOLID-FUEL ROCKETS

by R. N. Wimpress

McGraw-Hill, N.Y., \$4.50

FIRST OF A TWO-VOLUME series on rockets from the California Institute of Technology, this book carries the subtitle: Military Rockets Using Dry-Processed Double-Base Propellant As Fuel. It has been compiled by R. N. Wimpress, now associated with Industrial Engineers, Inc., and a former member of the Propellants Group of the rocket development organization working under Contract

CONTINUED ON PAGE 4

BOOKS

CONTINUED FROM PAGE 2

OEMsr.418 between the California Institute and the Office of Scientific Research and Development.

The material presented here is based almost entirely upon the activities of the group who worked with rockets at Caltech during 1941-45, and Dr. Bruce H. Sage, Professor of Chemical Engineering at the Institute, and one of the supervisors of the Propellants Group, contributes an introduction to the volume which points up the achievements of some of the Institute personnel who worked on the project.

The information in this book has been available up to now only in unpublished reports.

VIRUSES 1950 Edited by M. Delbruck

Division of Biology, California Institute of Technology, \$2.50

VIRUSES 1950 consists of the proceedings of the conference held at the Institute last spring (E & S, April '50), which brought together for the first time scientists working

on the three great groups of viruses—those which attack animals, plants and bacteria. The book has been edited by Dr. Max Delbruck, Professor of Biology at the Institute, who warns readers in a foreword not to expect to find a comprehensive coverage of all virus problems here. He does not add, however, that this is as close to a comprehensive coverage of virus problems as any interested reader will yet find — and as such, invaluable.

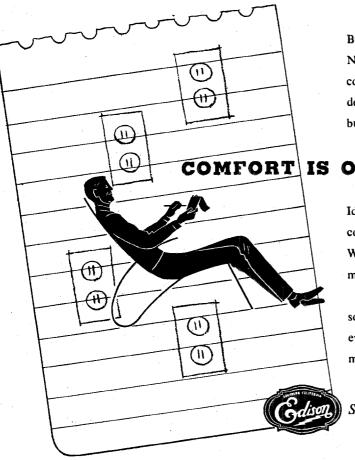
SECRET
by Michael Amrine
Houghton Mifflin, Boston, \$3.00
Reviewed by E. T. Bell
Professor of Mathematics

MANY READERS OF THIS MAGAZINE will be personally familiar with one phase or another of the situation Amrine describes in his novel. The hero, Halverson, a specialist in the applications of radiation to cancer, early got sucked into the atomic bomb project. When the war ended he returned to his own research, only to become embroiled in the futile attempt to get atomic energy under civilian control.

Amrine knows what he is talking about here, as he was publications director of the Federation of American Scientists. If he himself did not provide a Roman holiday for the Senate committee, he evidently knew somebody who did. Likewise for Halverson's tangles with the military and the F.B.I. Finally, under various pressures, moral and otherwise, Halverson is sucked in again, this time for army research on a Super-killer. There the story leaves him, with both feet in the quicksands from which there is no escape.

It is clear that Amrine does not particularly care for colonels, generals, senators, and F.B.I. agents in their relations with science. This goes for some others, too. Even our benign eldest statesman is dismissed as one of "the grand and archaic Baruchs". But it was rather unkind to include Senator Rankin in the same sentence.

Readers looking for salvation will ask what is to be done about the situation if we don't like it. What does a pint-sized wrestler do when three hundred pounds of solid meat is sitting on his head?



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