

BOOK REVIEWS

"Thinking Machines" by Irving Adler

Published by Signet Science Library, \$1.00

This book is all about computers – not how to make them or program them – but simply what they are and how they think. It is typical of Irving Adler who has the ability to make complicated things very simple. He talks about machines in general and how to talk to them, which leads him on to binary numbers (numbers with base 2) and calculating machines. He goes on to talk about machines which can think logically by showing how logic can be translated into turning switches on and off and how an electronic machine does this. Finally, he talks about the most complicated computer of all – your brain. The book is a must for any who will ever use a computer – and that probably means you.

"Mathematics in Everyday Things" by William Vergara

Published by Signet Science Library, \$1.00

Why does the whistle of a train seem to change pitch as it travels by us? What is the theory of relativity? What keeps a satellite in the sky? How can shadows be used to measure an object's height? How far is it to the horizon? How fast do meteors travel? What is π ? What is an abacus? Why is the day divided into 24 hours? etc, etc, etc.

That is all the book is about – answers to questions that you ask every day, a most compact encyclopaedia of commonplace mathematics. My only objection to the book is that the topics do not seem to be placed in any systematic order.

"150 Puzzles in Crypt-Arithmetic" by Maxey Brooke

Published by Dover Publications, \$1.65

In "Sphinx", a Belgian Mathematical Magazine, M. Vatriquant said *"Cryptographers, to hide the meaning of messages, put figures in place of letters. By way of reprisal, we will replace each digit of the following problem with a distinct letter"*. What that problem was may be found in this book, along with 149 other cryptarithms. Those who enjoy the problem "seven" of this issue of Parabola are sure to enjoy this book even more.

"101 Puzzles in Thought and Logic" by C.R. Wylie, Jr

Published by Dover Publications, \$1.65

This is an excellent book of puzzles in logic, of cryptarithms (like "seven"), puzzles of the kind "who is married to whom?" (see Problem O170 of Vol 7, No 3) and problems consisting of a set of statements where you know how many are wrong (but not which ones) and you have to decide which is which. Besides these, there are several miscellaneous logical problems. But the thing I like most about the book is that there is an introduction showing you how to solve problems of the above types.

“New Puzzles in Logical Deduction” by George J. Summers

Published by Dover Publications, \$1.80

This book is another collection of 50 puzzles similar to the previous one. Although not as good as that book, it is a useful supplement as it has very few problems in common with similar books. If you have trouble with any of the problems the author has given you some hints at the bottom to get you started, and the solutions are very full.

“Mathemagic” by Royal Vale Heath

A Dover Reprint, \$1.95

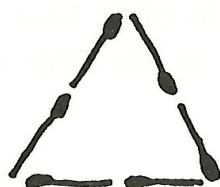
The biggest problem I had with magic when I was younger was that I was no good at sleight-of-hand. Forty years ago, Mr Heath invented and collected these magical tricks which depend on mathematics rather than the magician himself, and now Dover have reprinted his book. As well as mathemagic, the book contains ‘Number Symphonies’, easy ways to multiply large numbers, Magic Squares and Appendigits (variations on Magic Squares). Those people who like to mystify their friends will find this book most useful.

Rodney James



Figure the Matches

With a certain pile of matches, I can make (with no matches left over) any two of the following figures: an equilateral triangle, a square, a regular pentagon and a regular hexagon. What is the smallest number that I need in my pile? e.g. if I had eleven matches, I could make a triangle and pentagon:



or a hexagon and a pentagon:



but not a triangle and a hexagon.

(Answer on page 36)