

Books of the Week

For the editorial information of our readers, books received for review since last week's issue are listed. For convenient purchase of any U. S. book in print, send a remittance to cover retail price (postage will be paid) to Book Department, Science Service, 1719 N. Street, N. W., Washington 6, D. C. Request free publications direct from publisher, not from Science Service.

CALCULUS REFRESHER FOR TECHNICAL MEN—A. Albert Klaf—*Dover*, 431 p., paper, \$1.95. Covering the most important aspects of integral and differential calculus in terms of the 756 questions most likely to occur to the technical reader. For a quick review of the subject. First published in 1944.

EXPANDING RESOURCES FOR COLLEGE TEACHING: A Report of the Conference on College Teaching Sponsored by the American Council on Education in Washington, D. C., January 19-20, 1956—Charles G. Dobbins, Ed.—*American Council on Education*, 137 p., paper, \$1.50. Containing suggestions of educators for solving the critical shortage of college teachers.

HANDBOOK ON BROAD-LEAVED EVERGREENS—E. Lowell Kammerer and others—*Brooklyn Botanic Garden*, 93 p., illus., paper, \$1.00. Beautifully illustrated booklet showing gardeners how to make the winter landscape more beautiful.

JOHN AND MARY R. MARKLE FOUNDATION 1955-56 ANNUAL REPORT—John M. Russell, executive director—*Markle Foundation*, 80 p., paper, free upon request direct to publisher, 511 Fifth Ave., New York 17, N. Y. Reporting on a program of five-year grants for young medical school faculty members.

THE LOST PYRAMID—M. Zakaria Goneim—*Rinehart*, 175 p., illus., \$3.50. Telling the exciting story of the finding by the author of a pyramid hidden under the desert sand. Author is Egyptian chief inspector of antiquities.

LOW-FAT COOKERY—Evelyn S. Stead and Gloria K. Warren with an introduction by Eugene A. Stead, Jr., and James V. Warren—*Blakiston*, 184 p., illus., \$3.95. If you are overweight or have hypertension and your doctor has put you on a low-fat diet, this book will help you get enough to eat and enjoy it.

MATHEMATICS, MAGIC AND MYSTERY—Martin Gardner—*Dover*, 176 p., illus., paper, \$1.00. Tricks, puzzles and mathematical games will provide hours of entertainment for you and your guests.

NATURAL HISTORY OF BIRDS: A Guide to

MATH IS FUN

By Joseph Degrazia, Ph.D.

Here is a treasury of brain-teasers. You need not be a mathematical genius to solve these problems and puzzles. What you need is to know how to THINK LOGICALLY—how to REASON. This is practically a "course" in applied logic and reasoning—besides being an immense amount of fun that will keep you absorbed for many hours. You will find not only that MATH IS FUN, but also that learning math can be fun!

CONTENTS: Trifles—On the Borderline of Mathematics—Faded Documents—Cryptograms—How Old Are Mary and Ann?—Wolf, Goat and Cabbage—and Other Odd Coincidences—Clock Puzzles—Trouble Resulting from the Last Will and Testament—Speed Puzzles—Railroad Shunting Problems—Agricultural Problems—Shopping Puzzles—Whimsical Numbers—Playing with Squares—Miscellaneous Problems—Problems of Arrangement—Problems and Games—Solutions.

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Ornithology—Leonard W. Wing—*Ronald*, 539 p., illus., \$6.75. Intended for the general reader as well as the student, this work serves as an introduction to the subject and also a reference work.

PSYCHOLOGY: General, Industrial, Social—John Munro Fraser—*Philosophical Library*, 310 p., illus., \$7.50. Surveying the field from the manager's point of view.

REBEL WITHOUT A CAUSE: The Hypno-analysis of a Criminal Psychopath—Robert M. Lindner, introduction by Sheldon Glueck and Eleanor T. Glueck—*Grove Press*, 296 p., paper, \$1.45. Psychopaths make up the small proportion of the prison population that gives the most trouble. The technique of hypno-analysis seems to give insight into this problem. This book is a verbatim report of such an analysis.

REYNOLDS ALUMINUM AIR DUCT GUIDE—*Reynolds Metals Co.*, 129 p., illus., paper, free upon request direct to publisher, 2500 So. Third Street, Louisville, Ky. An engineering treatise including guides for design and estimating.

SYMPOSIUM ON VITAMIN METABOLISM: Proceedings of a Symposium Held Under the Auspices of the University of Texas and the National Vitamin Foundation, Incorporated, New York City, March 6, 1956—G. M. Brown and others—*National Vitamin Foundation, Nutrition Symposium Series Number 13*, 118 p., paper, \$2.50. Summarizing, in part, present knowledge in this field and pointing to areas in which additional investigation is required.

TECHNICAL METHODS AND PROCEDURES OF THE AMERICAN ASSOCIATION OF BLOOD BANKS—John B. Ross and others—*Burgess Publishing Co.*, rev. ed., 111 p., paper, \$3.00. A manual for laboratory technicians.

TRIGONOMETRY REFRESHER FOR TECHNICAL MEN—A. Albert Klaf—*Dover*, 629 p., illus., paper, \$1.95. For those who want to master the subject rapidly and for those who want a quick review. First published in 1946.

UNIT OPERATIONS OF CHEMICAL ENGINEERING—Warren L. McCabe and Julian C. Smith—*McGraw-Hill*, 945 p., illus., \$10.50. Text for junior or senior undergraduates.

UNIVERSITAS: A German Review of the Arts and Sciences, A Survey of Current Research, English edition, Vol. 1, No. 1—H. Walter Bahr, Ed.—*Wissenschaftliche Verlagsgesellschaft (Rayelle)*, 111 p., illus., paper, quarterly, \$4.30 per year, single copies \$1.25. The first issue contains articles by the Nobelists Otto Aahn and Adolf Butenandt and other eminent scientists and men of letters.

A WORLD GEOGRAPHY OF FOREST RESOURCES—Stephen Haden-Guest, John K. Wright and Eileen M. Teclaff, Eds.—*Ronald*, American Geographic Society, 736 p., illus., \$12.50. Telling of the wealth provided by forests and their relation to rainfall, temperature and soil.

Science News Letter, December 29, 1956

Reported in the U. S. only since 1944, atrophic rhinitis is now considered a major disease of swine.

In 1956, aircraft sprayed and dusted insecticides on areas throughout the United States totaling more than 5,000,000 acres.

Do You Know?

Sound waves in a liquid clean by "cold boiling" with the repeated formation and collapse of millions of tiny entrapped vapor bubbles many thousand times per second.

Examination of thin sections of rocks on microscope slides enables the geologists to detect the presence of fossils—a valuable clue to oil.

Without tire chains it takes three to 12 times as far to stop an automobile on snow and ice as it does on dry pavement.

One of the newer chemical weed killers, dalapon, has proved effective for controlling quackgrass in potato fields, producing better yields.

SURGERY

Russian Describes Stapler For Severed Blood Vessels

► A RUSSIAN SURGICAL DEVICE that staples together the doubled-over ends of broken blood vessels with tantalum clips is described by Dr. P. I. Androsov of Moscow's Slivosovsky Institute in *Archives of Surgery* (Dec.) published by the American Medical Association.

This is the first Russian-authored medical article submitted for American publication in many years, and includes three papers on various uses of the surgical stapler.

The instrument has many parts but can be disassembled easily in a short time, Dr. Androsov reports. It solves the problem of restoring blood supply stopped by injury or disease, and opens the way for "unlimited grafting" of various organ parts throughout the body.

Because only four parts of it have to be operated, it is "within the reach of rank-and-file surgeons," Dr. Androsov believes.

Previous methods of sewing severed vessels back together were time consuming and subject to repeat bleeding, the Russian surgeon says, but the new mechanical method makes possible "automatically faultless" connections.

Two other uses of the device reported are for the creation of an artificial esophagus and the by-passing of blood vessel aneurysms.

The artificial esophagus, the channel connecting the throat and stomach, is made from a section of small intestine. The surgical stapler makes it possible to preserve the transplanted intestine's blood supply by connecting the graft to other blood vessels.

For aneurysms, the balloon-like swellings in weakened sections of a blood vessel, the stapling device is used for connecting a graft to by-pass the affected spot.

The instrument was designed by a team of Russian engineers and physicians including Dr. Androsov.

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