First Glances at New Books

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Electricity

ELECTRICITY—W. L. Bragg—*Macmillan,* 272 p., illus., $4. From his lectures for young people at the Royal Institution in 1934, Nobelist Prof. Bragg has prepared this book with its simple title. Mathematics is avoided but technical terms are used, being explained on the first occasions when they occur. He feels—and there are many who agree with him—that attempts to write popular science without technical terms are about like describing a football game without using words like "ball," "punt," "center," "end" and "forward pass." After a brief summary of what science has discovered about electricity he turns to the applications in power transmission, motors and dynamos, power generation, telephones and telegraphs and the oscillating circuits and vacuum tubes which make radio possible.

Science News Letter, January 16, 1937

Chemistry

THE MARCH OF CHEMISTRY—A. Frederick Collins—*Lippincott,* 290 p., illus., $3. With 28 previous books to his credit, Mr. Collins is one of America's most prolific writers of applied science books of the beginners', experimental or how-to-understand type. Here he turns a description of the more recent developments in theoretical and applied chemistry with less sureness than in some of his previous works. More thought and care in the illustrations—both drawings and photographs—would have added interest.

Science News Letter, January 16, 1937

Medicine

TOXICOLOGY, OR THE EFFECTS OF POISONS (3d ed.)—Frank P. Underhill—*Blakiston,* 325 p., $2.50. This text for medical students by the late Dr. Underhill has been revised and brought up-to-date by Dr. Theodore Koppanyi of Georgetown University School of Medicine.

Science News Letter, January 16, 1937

Mathematics

AN INVITATION TO MATHEMATICS—Arnold Dresden—*Holt,* 453 p., $2.80. This book is the answer to the growing trend of colleges to drop mathematics as a required subject. The author points out that whatever a mathematician must think about this "dropping" of his pet, there must be something the matter with the pedagogy. In a hurried trip from algebra through geometry and on to calculus the applications of the methods to realities are stressed, and along with what the author admits may in parts be unorthodox mathematical writing are interposed some 500 problems for those people who really want to take the bit in their teeth and learn some math.

Science News Letter, January 16, 1937

Almanacs

1937 FRANCISCAN ALMANAC—*St. Anthony's Guild,* 556 p., 50c. Although published primarily for giving condensed data on religious topics, this new almanac contains a surprising variety of scientific, historical, and educational information as well, much of which is not obtainable in other publications of the same general class.

Science News Letter, January 16, 1937

Engineering

THE PROFESSIONAL ENGINEER—Esther Lucile Brown—*Russell Sage Foundation,* 86 p., 75c. A monograph dissecting the economic status of the engineer; what he earns, when, what he has to study, where he works, and what fields of work he may wander into after his technical education. A compact social study of the engineering profession.

Science News Letter, January 16, 1937

Traffic

SENSE AND SAFETY ON THE ROAD—Robbins Battell Stoeckel, Mark Arthur May, Richard Shelton Kirby—*Appleton,* 299 p., illus., $1.50. A commissioner of motor vehicles, a psychology professor and an engineer join forces to present the comprehensive picture of the complex problem broadly grouped under traffic. Intended for the average reader, the book clearly brings forward the seriousness of the traffic situation in its many aspects and in the end outlines a 17-point program of improvement.

Science News Letter, January 16, 1937

History of Science

SCIENTIFIC INTERESTS IN THE OLD SOUTH—Thomas Carey Johnson, Jr.—*Appleton-Century,* 217 p., $2.50. An interesting and valuable contribution to the history of science in America. The University of Virginia's associate professor of history has made a study of the attitude of the planters, politicians and professional men of the Cotton Kingdom and of their wives and daughters toward the natural sciences. The ante-bellum South, he finds, displayed a genuine and eager interest in science.

Science News Letter, January 16, 1937

Physics

THE NATURE OF PHYSICAL THEORY—P. W. Bridgman—*Princeton Univ. Press,* 138 p., $2. Harvard University's well known experimental physicist looks at the modern scientific scene in his field and sets forth his thinking on what it all means in its philosophical aspects.

Science News Letter, January 16, 1937

Economics

PRICES IN RECESSION AND RECOVERY, A SURVEY OF RECENT CHANGES—Frederick C. Mills—*Natl. Bur. of Economic Research,* 581 p., $4. Dr. Mills rounds out a study of prices which began with *The Behavior of Prices,* published in 1927, and *Recent Economic Tendencies,* published in 1932.

Science News Letter, January 16, 1937

Editorial Work

PREPARATION OF SCIENTIFIC AND TECHNICAL PAPERS (3d ed.)—Sam F. Trelease and Emma Sarepta Yule—*Williams & Wilkins,* 125 p., $1.50. A handbook of fundamental usefulness to those who create the record of science.

Science News Letter, January 16, 1937

Photography

YOU AND YOUR CAMERA—Eleanor King and Wellmer Pessels—*Harper,* 63 p., plates, $1.75. This book strikes an important point in modern amateur photography for it concentrates less on *how* to take a picture than on *what* to take in a scene. Herein lies the difference between the snapshots of a summer vacationist and the professional angle pictures which spread through the better magazines and in the rotogravure sections of the paper. A survey of the illustrations shows the emphasis on lights and shadows, and always angles and angles.

Science News Letter, January 16, 1937

Engineering

HIGH-SPEED DIESEL ENGINES—L. H. Morrison—*Amer. Technical Soc.,* 243 p., illus., $2.50. A practical textbook for future diesel engineers and mechanics and for those who have been thinking of buying a diesel engine for their business.

Sctence News Letter, January 16, 1937

Mathematics

ELEMENTARY ANALYTICAL CONICS—J. H. Shackleton Bailey—*Oxford,* 378 p., $2.75. A British text designed to outline the fundamentals needed to pass Higher Certificate Examinations and other education awards in Great Britain.

Science News Letter, January 16, 1937

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Mathematics

PORTRAITS OF EMINENT MATHEMATICIANS WITH BRIEF BIOGRAPHICAL SKETCHES, Portfolio I: 12 portraits—David Eugene Smith—*Scripta Mathematica,* $3. Archimedes, Copernicus, Viète, Galileo, Napier, Decartes, Newton, Leibniz, Lagrange, Gauss, Lobachevsky and Sylvester. So runs the collection of portraits and brief biographies in this beautiful collection edited by one of the nation's best known historians of mathematics. Many a school classroom will have these pictures framed on the walls just as, thirty years ago, they mounted Prof. Smith's earlier collection. The author promises other collections in the future, which is good news to all those who wish to make mathematics more human by showing what the great leaders in that science looked like.

Science News Letter, January 16, 1937

Chemistry

THE CHEMISTRY OF NATURAL PRODUCTS RELATED TO PHENANTHRENE—L. F. Fieser—*Reinhold Pub. Corp.,* 358 p., $6.50. Another important book in the American Chemical Society's series of scientific monographs. Prof. Fieser points out that phenanthrene is related to the sterols and bile acids. And also to sex hormones, heart poisons secreted by toads, and cancer-creating chemicals, to mention only a few more. As one of the basic building blocks of organic chemistry, it deserves every one of its more than three hundred pages.

Science News Letter, January 16, 1937

Anatomy

CLEARING AND STAINING SKELETONS OF SMALL VERTEBRATES—D. Dwight Davis and U. R. Gore—*Field Museum of Natural History,* 15 p., 35c.

Science News Letter, January 16, 1937

Electrical Engineering

FUNDAMENTALS OF ELECTRICITY—Charles F. Petersen—*Bruce,* 112 p., illus., 96c. Electricity for boys of the junior high school age but so written that pupils in the seventh and eighth grades can understand it.

Science News Letter, January 16, 1937

Physics

THE WORLD AROUND US, A MODERN GUIDE TO PHYSICS—Paul Karlson—*Simon and Schuster,* 293 p., 8 plates, $3. Thoroughly readable in the sense that it may be recommended to those who have never had even an elementary course in physics, this is a contribution to the popularization of science. The illustrations by W. Petersen in the form of sketches in the text are attractive. It was written in Germany and comes to America by way of England as a result of editing by A. E. Fisher.

Science News Letter, January 16, 1937

Science

MODERN SCIENCE PROBLEMS, A TEXTBOOK IN GENERAL SCIENCE—Ellsworth S. Obourn and Elwood D. Heiss—*Webster,* 322 p., illus., $1.08. Arranged on the unit plan, the 182 included experiments for teacher or pupils should vivify and make more effective the teaching.

Science News Letter, January 16, 1937

Biography

BROOKINGS, A BIOGRAPHY—Hermann Hagedorn—*Macmillan,* 334 p., $3.50. The story of the life of the founder of the Brookings Institution in Washington—that organization which is using scientific methods upon economic problems—and also the "refounder" of Washington University in St. Louis

Science News Letter, January 16, 1937

Technology

PROCEDURE HANDBOOK OF ARC WELDING DESIGN AND PRACTICE (4th ed.)—*Lincoln Electric Co.,* 819 p., illus., $1.50. Complete and exhaustive information on modern welding practice for the artisan and engineer alike.

Science News Letter, January 16, 1937

Geometry

DESCRIPTIVE GEOMETRY PROBLEM BOOK—Frank W. Bubb—*Macmillan,* 12 p., 300 figures, $1.75. Three hundred problems—more than sufficient for any course on the subject—are given on detachable sheets of paper with the basic lines already printed on them. The aim of the book is to emphasize, for the student, that in geometry he must think in three dimensions but draw in two. The problem book was designed to supplement the text of the author on the subject but can be used separately.

Science News Letter, January 16, 1937

Acoustics

THE NEW ACOUSTICS—N. W. McLachlan—*Oxford,* 166 p., $2.75. British survey book of applied acoustics which starts with the beginnings of radio broadcasting in the early 1920s.

Science News Letter, January 16, 1937

History of Science

THE STUDY OF THE HISTORY OF SCIENCE — George Sarton — *Harvard Univ. Press,* 75 p., $1.50. Prospective purchasers of this book should carefully note its title; for it is not a history of science but the research procedures required if one wishes to study the history of science. Both scientists and historians will find this book by Prof. Sarton stimulating.

Science News Letter, January 16, 1937

Aeronautics, Juvenile

THE DIRIGIBLE BOOK, A PHOTOGRAPHIC PICTURE-BOOK WITH A STORY—William Clayton Pryor and Helen Sloman Pryor—*Harcourt, Brace,* 100 p., plates, $1. Following the newer technique of telling a continuous story in pictures, the authors take two children, Bill and Ann, under, over, around and inside dirigibles from the little blimps to the giant Hindenburg.

Science News Letter, January 16, 1937

Mechanics

INGENIOUS MECHANISMS FOR DESIGNERS AND INVENTORS, VOL. II—Franklin D. Jones—*Industrial Press,* 538 p., illus., $5. Don't be fooled by the title of this book. It is not a collection of nut inventions, as one might suppose, but highly intricate and skillful machines to do special tasks. Want to see how to wind golf balls with spherical cores, or how a hat finishing machine with a mechanism for changing the angular velocity works? They are there along with something like 500 others. The value comes, of course, in being able to realize how a problem solved in one field may be turned to virgin inventive territory.

Science News Letter, January 16, 1937

Mathematics

LA MASSE EN CINÉMATIQUE ET THÉORIE DES TENSEURS DU SECOND ORDRE—Ch. Platrier—*Hermann & Cie, Paris,* 81 p., 18fr.

Science News Letter, January 16, 1937

Mathematics

CINÉMATIQUE DU SOLIDE ET THÉORIE DES VECTEURS—Ch. Platrier—*Hermann & Cie, Paris,* 55 p., 12fr.

Science News Letter, January 16, 1937

Mathematics

CINÉMATIQUE DES MILIEUX CONTINUS—Ch. Platrier—*Hermann & Cie, Paris,* 34 p., 8fr.

Science News Letter, January 16, 1937