

# ● First Glances at New Books

## Physics

THE STORY OF ENERGY—Morton Mott-Smith—*Appleton-Century*, 305 p., \$2. Mechanical power, the tireless slave of man, is the tool that distinguishes the present civilization from all others of the past. Yet it is only 169 years old. From the rudimentary steam engine of Watts the use of controllable energy has so increased that today some billion horsepower is obtained by the combustion of fuel alone. This is five times the physical energy which the entire population of the world could develop if it worked as hard as it could continuously. As a physicist Dr. Mott-Smith avoids a discussion of the social and economic effects of the discovery of the previously untapped "mine" of energy. Some would say that it made the world join the "nouveau riche" category of one who squanders his irreplaceable capital. As a physicist the author sticks to the fascinating story of how mankind discovered its "energy mine" and adapted it more and more to its uses; first by trial and error improvements in steam engines and finally by the true understanding of the nature of heat and its relation to energy. The Story of Energy is the latest volume in the readable "Appleton New World of Science Series."

*Science News Letter, August 18, 1934*

## Physics

THE ELECTROMAGNETIC FIELD—H. F. Biggs—*Oxford University Press*, 158 p., \$3.50. English text designed for students who, in America, would be first year graduate students in physics. The reasoning is from the physical rather than the mathematical side. Sometimes this approach introduces approximate truths into the analysis but the author maintains with justification, "The very inaccuracies of such steps is often instructive."

*Science News Letter, August 18, 1934*

## Mathematics

A HISTORY OF MATHEMATICS IN AMERICA BEFORE 1900—David Eugene Smith and Jekuthiel Ginsburg—*Open Court Pub. Co.*, 209 p., \$2. A valuable contribution to the history of science in the western hemisphere. It is interesting that the clergy were the first in the New World to feel a need for mathematics beyond simple measurements and calculation. Being the most highly educated, they were called upon to decide matters concerning the calen-

dar, and the Catholics fixed Easter, Christmas and various saints' days. Out of this, there grew the demand for observatories and courses in astronomy in early colleges. Progress after 1900 is not covered.

*Science News Letter, August 18, 1934*

## Mathematics

MATHEMATICS ESSENTIAL FOR ELEMENTARY STATISTICS—Helen M. Walker—*Holt*, 246 p., \$1.50. The old adage about liars figuring applies equally well to those ill-equipped persons who rush into statistics and produce unintentional untruths. Use of a book such as this to acquire some of the fundamentals of mathematics necessary in statistical work should increase the general validity of one's handling of figures. The author is assistant professor of education, Teachers College, Columbia University.

*Science News Letter, August 18, 1934*

## Mathematics

TABLES OF THE HIGHER MATHEMATICAL FUNCTIONS—Harold T. Davis—*Principia Press*, 377 p., \$6.50. Volume I of what is to be a series of books on mathematical functions. Contains interpolation tables, Gamma functions and Psi functions.

*Science News Letter, August 18, 1934*

## Hygiene

SEEING AND HUMAN WELFARE—Matthew Luckiesh—*Williams and Wilkins*, 193 p., \$2.50. Here is an attractively illustrated, interesting book on what the author calls "the new science of seeing."

*Science News Letter, August 18, 1934*

## Business Administration

BUSINESS ORGANIZATION AND COMBINATION—Richard N. Owens—*Prentice-Hall*, 649 p., \$5. Non-corporate business organizations, corporations and other industrial combinations are explained, together with the regulations that surround them. The author is professor of accounting and business administration in George Washington University.

*Science News Letter, August 18, 1934*

## Chemistry

THE CHEMISTRY OF SOLIDS—Cecil H. Desch—*Cornell University*, 213 p., \$2.50. This volume contains the substance of the lectures delivered by the author at Cornell University during the first semester of 1931-32 as the George Fisher Baker Non-Resident Lecturer in Chemistry.

*Science News Letter, August 18, 1934*

## Trigonometry

PLANE AND SPHERICAL TRIGONOMETRY—Claude Irwin Palmer and Charles Wilber Leigh—*McGraw-Hill*, 229 p., \$1.50. A new set of problems at the end of each chapter makes this, the fourth edition of the well-known text, an important one.

*Science News Letter, August 18, 1934*

## Physical Chemistry

UN NOUVEAU CORPS SIMPLE, LE DEUTERIUM OU HYDROGENE LOURD—E. Darrow—*Hermann et Cie., Paris*, 24 p., 7 fr. Resumé of the history of "heavy water" and the double-weight isotope of hydrogen from their discovery up to December 1933.

*Science News Letter, August 18, 1934*

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# ● First Glances at New Books

## Agriculture

YEARBOOK OF AGRICULTURE, 1934—U. S. Dept. of Agriculture—*Govt. Print. Off.*, 783 p., \$1. Outstanding in this newest report of a year's progress is the discussion of the New Deal in agriculture, now in full swing. The ideas of crop control, fitting the country's agricultural production to its possible market, of price parity and the devices used under the A. A. A. to achieve it, of soil erosion control and forest conservation on their new basis, of agricultural financing, are all forcefully set forth by Secretary Wallace in his introductory section. The customary record of advances in the production of better crop plants, the combatting of pests and diseases, and other means for increasing the efficiency of the farm as a production unit is given full space; for it is recognized that the farmer is still benefited by lowering of the per-bushel production costs, even when the total number of bushels is being curtailed for the sake of a better selling price.

*Science News Letter, August 18, 1934*

## Geology

COMPILACION DE LOS ESTUDIOS GEOLOGICOS OFICIALES EN COLOMBIA—1917 a 1933, Tomo I—Roberto Scheibe—*Colombia, Imprenta Nacional (Bogota)*, 475 p. The first volume of a new series on the geology of a country of great economic possibilities as well as high scientific interest. The text is in simple, easy-flowing Spanish, which even a North American university graduate ought to be able to read. Four more volumes are announced to complete the series.

*Science News Letter, August 18, 1934*

## Mathematics

CARRÉS MAGIQUES AU DEGRÉ N—E. Cazalas—*Hermann et Cie.*, 191 p., 40 francs. Mathematical theory of why those magic number squares add up to 7 or 9 or 119 each way.

*Science News Letter, August 18, 1934*

## Psychology

EXTRAORDINARY POPULAR DELUSIONS AND THE MADNESS OF CROWDS—Charles Mackay—*L. C. Page*, 724 p., \$6. A verbatim reprint of the edition of 1852 with reproduction of the original illustrations. This edition did not contain certain passages which occurred in a previous edition of 1841 and these selections are now published separately in a pamphlet which can be obtained

from the same publisher for \$1. A wide variety of famous superstitions, fallacies and frauds are discussed, including the Mississippi Scheme, the South-Sea Bubble, the Witch Mania, haunted houses, and Robin Hood.

*Science News Letter, August 18, 1934*

## Astronomy

WHEN THE STARS COME OUT—Robert H. Baker—*Viking*, 188 p., \$2.50. A book on progress of astronomy from Biblical times to the present for young readers of high school or college age. Pleasingly illustrated with charts, diagrams and photographs.

*Science News Letter, August 18, 1934*

## Astronomy

RED-SHIFTS IN THE SPECTRA OF NEBULAE—Edwin Hubble—*Oxford*, 17 p., 80c. Mt. Wilson Observatory's universe explorer here makes his Halley Lecture available in printed form.

*Science News Letter, August 18, 1934*

## Political Science

ASPECTS OF ATHENIAN DEMOCRACY—Robert J. Bonner—*University of California*, 199 p., \$2.25. Of interest in this day of striking European examples of the conquest of dictatorship over democracy, the scientist misses in this volume a chapter on science comparable with those on literature and religion.

*Science News Letter, August 18, 1934*

## Library Science

A LIST OF AMERICAN PERIODICALS AND SERIAL PUBLICATIONS IN THE HUMANITIES AND SOCIAL SCIENCES—Leon F. Stock—*American Council of Learned Societies (Bull. No. 21)*, 130 p., 25c.

*Science News Letter, August 18, 1934*

## Archaeology

EXCAVATIONS AT GUALUPITA—Suzannah B. Vaillant and George C. Vaillant—*American Museum of Natural History*, 135 p., \$1.25. A technical account of excavations near Cuernavaca, Mexico, made in January, 1932. A comparison of figurines of Gualupita culture with those found in the Valley of Mexico dates this site as belonging to the "Archaic" period.

*Science News Letter, August 18, 1934*

## Science

THE WORLD IN MODERN SCIENCE—Leopold Infeld—*G. P. Putnam's Sons*, 287 p., \$2. Brief introduction by Albert Einstein. Translated from the Polish (the author is reader in theoretical physics at Lwów University) by Louis Infeld. Modern physics, particularly as it concerns the atoms and their composition, is the subject of this volume that also gives the historical development of physical theories that dominate today's scientific thought. It is intended to be read by those who have no previous specialized knowledge as well as by scientists themselves.

*Science News Letter, August 18, 1934*

## Geology

GEOLOGIC HISTORY AT A GLANCE—L. S. Richards and G. L. Richards, comp.—*Stanford Univ.*—Educational edition, 80c. This unique publication consists of two large folded charts, on which are synthesized, with astonishing cogency and ingenuity, diagrammatic cross sections, geologic outline maps, striking photographs and a brief text. It is all done so simply that he who looks at a stone may read.

*Science News Letter, August 18, 1934*

## Animal Pathology

WESTERN DUCK SICKNESS: A FORM OF BOTULISM—E. R. Kalmbach (with BACTERIOLOGICAL CONTRIBUTIONS—Millard F. Gunderson)—*Govt. Print. Off.*, 82 p., 10c. Science ends the chase of a wildfowl disease that has dismayed conservationists, sportsmen and friends of wild life generally, throughout the West. Methods of prevention and control are suggested; means to apply them must be found.

*Science News Letter, August 18, 1934*

## Aeronautics

THE ECONOMICS OF AIR MAIL TRANSPORTATION—Paul T. David—*Brookings Institution*, 235 p., \$2.

*Science News Letter, August 18, 1934*

## Photography

AN ELEMENTARY COURSE IN PHOTOGRAPHY—*Eastman Kodak Co.*, 45 p., free to teachers. Series of thirty lessons on photography in mimeographed form.

*Science News Letter, August 18, 1934*

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