

# • First Glances at New Books

Additional Reviews  
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## Linguistics

LANGUAGE AND LANGUAGES—Willem L. Graff—*Appleton*, 487 p., \$4. This is a general introduction to linguistics, designed to reveal the fundamental concepts and organization of the science of language to the beginning student and general reader. It deals with language in its general significance as the primary means of human communication and does not treat any particular language or group of languages.

*Science News Letter, February 11, 1933*

## Physics

WAVE MECHANICS: ELEMENTARY THEORY—J. Frenkel—*Oxford*, 278 p., \$5. A competent and authoritative treatment of the elementary theory of wave mechanics written while the author, who is professor at the Physico-Technical Institute, Leningrad, was lecturing on the subject at the University of Minnesota. It is the first of a trilogy of volumes. Its six chapters are headed: Light, Matter, Wave Mechanics of the Motion of a Particle in a Field of Force, Wave Mechanics of a System of Particles, Statistical Mechanics, Application of the Quantum Statistics to the Electron Theory of Metals, Heat Motion, and Radiation. It thus covers the entire field of wave mechanics and the new quantum statistics connected with it.

*Science News Letter, February 11, 1933*

## Mechanical Engineering

FORGING—John Lord Bacon., revised by Carl Gunnard Johnson—*American Technical Society*, 110 p., \$1.25. Hand forging of wrought iron and steel, drop forging and heat treatment of steel are covered in this practical treatise.

*Science News Letter, February 11, 1933*

## Electrical Engineering

STORAGE BATTERIES—Francis B. Crocker, Morton Arendt and Ray F. Kuns—*American Technical Society*, 83 p., \$1.50. A practical handbook of useful facts and principles of lead and non-lead batteries.

*Science News Letter, February 11, 1933*

## Physics

AN INTRODUCTION TO PHYSICAL SCIENCE—Carl W. Miller—*John Wiley*, 403 p., \$3. A new text designed for a single year survey course and written by the associate professor of physics in Brown University. Says the author: "The contacts which physics makes with all other sciences and with the parapher-

alia of everyday life make it more than ever before a *sine qua non* of a well-rounded education, and this primary function is not performed if the instruction must stop at the threshold of the newer developments."

*Science News Letter, February 11, 1933*

## General Science-Literature

ESSAYS IN SCIENCE AND ENGINEERING—Compiled by Franz Montgomery—*Long & Smith*, 616 p., \$2. To aid in the teaching of English to scientific and engineering students (a great need to most of them) the instructor in engineering English at the University of Minnesota, has brought together essays worthy in style and content. The selections reprinted "explode the myth that science and literature are immiscible."

*Science News Letter, February 11, 1933*

## Engineering

A PLANNING MANUAL FOR COUNTY HIGHWAY IMPROVEMENT, *National County Roads Planning Commission*, 88 p., free. Even the county road building should be done according to as scientific a plan as that followed by the state or nation. This manual tells how to plan for a wealthy, thickly populated urban community such as Morris County, N. J., suburban to New York City or for isolated, sparsely settled and relatively poor rural communities such as Prince William county, Va., comprehensive studies having been made in both counties before the preparation of the manual.

*Science News Letter, February 11, 1933*

## Public Health

THE SANITATION OF WATER SUPPLIES—Murray P. Horwood—*Thomas*, 181 p., \$3. Designed as a text for students in municipal sanitation and public health, this book contains considerable material of general interest. The layman who takes an intelligent if unprofessional interest in such matters and wants to know the background of the water in his drinking glass will find it well worth reading.

*Science News Letter, February 11, 1933*

## Radio-Education

EDUCATIONAL BROADCASTING—Robert Lingel—*University of Chicago Press*, 162 p., \$1.50. A bibliography compiled for the National Advisory Council on Radio in Education.

*Science News Letter, February 11, 1933*

## Physics

WORKBOOK IN PHYSICS—Samuel Ralph Powers and H. Emmett Brown—*Allyn and Bacon*, 294 p., 80c. Designed to be used with any of the standard textbooks in high school physics, there are a hundred exercises which require that the student complete statements in the familiar psychological test manner. This, say the authors, results in the association of related concepts and the outcome is "an identifiable element of learning stated in concise declarative sentences."

*Science News Letter, February 11, 1933*

## Radio-Physics

THE RADIO ENGINEERING HANDBOOK—edited by Keith Henney—*McGraw-Hill*, 585 p., \$5. To take its place alongside the time-honored engineering handbooks used by civil, mechanical, electrical and other varieties of engineers, this volume has been compiled with the aid of twenty odd engineers and physicists. It is an evidence that radio has at last begun to end its adolescence.

*Science News Letter, February 11, 1933*

## Physics

PRACTICAL ELECTRICITY—Terrell Croft—*McGraw-Hill*, 674 p., \$3. This third edition of a successful book contains a new section on vacuum tubes while the section on matter and the electron theory has been revised.

*Science News Letter, February 11, 1933*

## Physics

ELEMENTARY INDUSTRIAL ELECTRICITY—L. Raymond Smith—*McGraw-Hill*, 287 p., \$2. The second edition of a textbook in the series published under the general title of Industrial Physics. Its first edition was under the title Direct-Current Electricity.

*Science News Letter, February 11, 1933*

## Mathematics

ARITHMETIC FOR TEACHERS—Harriet E. Glazier—*McGraw-Hill*, 291 p., \$2. While its title implies an exclusive audience, this book will undoubtedly interest many not teaching and beyond the reach of the teacher who wish to see what they missed in high school and college.

*Science News Letter, February 11, 1933*

## General Science

REPORT OF THE UNITED STATES NATIONAL MUSEUM, 1932—*Government Printing Office*, 181 p., 25c.

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## Engineering

**THE QUEST FOR POWER**—Hugh P. and Margaret W. Vowles—*Chapman and Hall, London*, 354 p., 15s. After reading this book one might well say that the so-called "technocracy" was conceived when prehistoric man first fashioned tools from stone, so well does it tell the story of the coming of the machine age from the very beginning and describe its present state. For the intelligent general reader this well illustrated volume will be entertaining and informative and will well background any thoughts on proposed changes in the economic order suggested by the influence of technological development of civilization.

*Science News Letter, February 11, 1933*

## Science-Philosophy

**MAN COMES OF AGE**—John Langdon-Davies—*Harper*, 265 p., \$3.50. The author of "Man and His Universe" answers the average man's question, "How does modern science influence my morals, my conduct, my happiness?". The two parts of the book are titled: The World of Reality and the World of Make-Believe.

*Science News Letter, February 11, 1933*

## Physics-General Science

**WHERE IS SCIENCE GOING?**—Max Planck—*Norton*, 221 p., \$2.75. Interesting physics and philosophy by the originator of the quantum theory, and one of the makers of modern physics. Such questions as the reality of the external world, causation and free will, the difference between reversible and irreversible processes are considered. There is a prologue by Prof. Albert Einstein and a Socratic epilogue between Planck, Einstein and James Murphy, Planck's biographer.

*Science News Letter, February 11, 1933*

## Chemistry

**THE CATALYTIC OXIDATION OF ORGANIC COMPOUNDS IN THE VAPOR PHASE**—L. F. Marek and Dorothy A. Hahn—*Chemical Catalogue*, 486 p., \$9. Says the preface of this American Chemical Society monograph: "Although oxidation is one of the commonest reactions known and is widely used as a source of energy, it is only within the past fifty or sixty decades that concerted efforts have been made to study individual reactions systematically and to apply them in the formulation of useful processes. It is only natural that the effect of catalysts should have re-

ceived early attention, and it is worthy of note that some of the earliest observations of catalytic effects had to do with oxidation reactions. In some cases development has been rapid and industrial processes have been worked out; in other cases, troublesome obstacles have been encountered and development delayed." Facts regarding both developed and undeveloped processes are reviewed critically.

*Science News Letter, February 11, 1933*

## Psychology-Philosophy

**MIND AND MATTER**—G. F. Stout—*Macmillan*, 325 p., \$3.75. The professor of logic and metaphysics in the University of St. Andrews examines the aspects of ordinary experience, those involved in the knowledge of the physical world, of the self and of minds other than our own. The contents are in three general divisions under the headings: The Animism of Common Sense, The Psycho-Physical Problem and Knowledge of Physical Existence.

*Science News Letter, February 11, 1933*

## Health-Psychology

**WHY WE DO IT**—Arthur R. Daviau—*Meador*, 231 p., \$2. A discussion of facts and theories about welfare work, health and heredity, sleep, and life in general, written by the health officer of a city of 15,000 population.

*Science News Letter, February 11, 1933*

## General Science

**AND THAT'S WHY . . .**—W. Maxwell Reed—*Harcourt, Brace*, 104 p., \$1.25. Why clouds are in the sky, why lightning flashes, why lamps shine, are a few of the endless whys of small children answered connectedly and understandably to young minds, so as to make a palatable and painless beginning for the study of what will later on be the physical sciences. Decidedly a book to be recommended for children who really want to know.

*Science News Letter, February 11, 1933*

## Aeronautics

**HEROES OF THE AIR**—Chelsea Fraser—*Thomas Y. Crowell*, 672 p., \$2.50. The revised edition of a readable record of the achievements of aviation.

*Science News Letter, February 11, 1933*

## Geology

**EARTH HISTORY**—Luther C. Snider—*Century*, 683 p., \$4.50. It is unfortunate that more books having the particular merits possessed by this one are not written, for the production of such writing as this is truly the best way to spread knowledge of science. One of Century's Earth Science Series, this volume fully bears out the announcement of the publishers in being authoritative, scholarly, clear, concise and readable. Illustrations are abundant and are better than those usually found in geology texts.

*Science News Letter, February 11, 1933*

## Radio-Education

**RADIO AND EDUCATION 1932**—Edited by Levering Tyson—*University of Chicago Press*, 306 p., \$3. The contemporary aspects of the place of radio in education both in schools and in the field known as "adult education" is summarized by these proceedings of the second assembly of the National Advisory Council on Radio in Education.

*Science News Letter, February 11, 1933*

## Astronomy-Archaeology

**THE SOLAR YEAR OF THE MAYAS AT QUIRIGUA, GUATEMALA**—J. Eric Thompson—*Field Museum of Natural History*, 56 p., 35c. Here are traced progressive changes in the calendar system of the Mayas as shown in inscriptions at a single city. Improving in their efforts to keep step with the solar year, astronomers at Quirigua advanced from a 24-day a century correction to an approximately Gregorian reckoning, and at one time their calculations were actually superior to Gregorian.

*Science News Letter, February 11, 1933*

## Zoology

**FURTHER STUDIES ON THE FAUNA OF NORTH AMERICAN HOT SPRINGS**—Charles T. Brues—*Am. Acad. Arts and Sciences*, 118 p., \$1.85. Published originally in the Proceedings of the American Academy of Arts and Sciences, this study adds substantially to Prof. Brues' earlier data on the inhabitants of hot springs, mostly in Yellowstone National Park.

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