

• First Glances at New Books •

Psychology

TWINS: HEREDITY AND ENVIRONMENT—Nathaniel D. Mittron Hirsch—*Harvard University Press*, 159 p., \$2. In weighing the comparative importance of heredity and environment, scientists have looked to twins for aid, since twins provide two humans starting out in the race from practically the same start. Dr. Hirsch concludes that both heredity and environment contribute to intelligence and anthropomorphic qualities of the individual, but that the contribution of heredity is several times as important as that of environment. The book is considerably more than a report of an experiment, for there are other chapters on general facts about twins and monstrosities and on other experimental studies.

Science News Letter, October 18, 1930

Physics

MATTER AND RADIATION—John Buckingham—*Oxford University Press*, 139 p., \$3. As the author says in his preface, this book sets down "an outline of the theory of radiation, and, particularly, of the properties and uses of that group of invisible rays which are known as the Infra-Red." This purpose has been ably carried out, and a most interesting and informative book is the result. It is simply written and contains descriptions and illustrations of many experiments. However, its usefulness is greatly limited by the lack of an index and it is rather surprising that so distinguished a publishing firm should commit this unpardonable sin of book-making.

Science News Letter, October 18, 1930

Archaeology

A SUMERIAN PALACE AND THE "A" CEMETERY AT KISH, MESOPOTAMIA, Part II—Ernest Mackay—*Field Museum*, \$3.50. The first publication describing the architectural discoveries and rare Sumerian relics unearthed at Kish by the Field Museum-Oxford University Joint Expedition. Descriptions are given in detail and there are many illustrations.

Science News Letter, October 18, 1930

Mathematics

THE ARYABHATIYA OF ARYABHATA—Translated by Walter Eugene Clark—*University of Chicago Press*, 90 p., \$2.50. Aryabhata's work, which was composed in 499 A. D., is probably the oldest preserved text from the third or

scientific period of Indian astronomy, and is the earliest preserved Indian mathematical text. It is therefore of considerable importance in the history of astronomy and mathematics. This is the first attempt at a complete translation.

Science News Letter, October 18, 1930

Philosophy of Biology

THE SCEPTICAL BIOLOGIST—Joseph Needham—*Norton*, 270 p., \$3. In his chapter on "The Limitations of Optick Glasses" the author quotes Henry More to the effect that man has "no pair of spectacles made of the crystalline heaven, or of the *coelum empyreum*, to hang upon his nose for him to look through. And he adds his own comment, "He must never forget that he is wearing glasses of an inferior quality." Mental modesty of this kind justifies this British scholar in titling his book after Boyle, and safeguards him from the dogmatism that is the bane of too many scientists when they wander in the paths where their field borders on those of philosophy and religion. Readers will find the book like a dish of cool meats on a sultry day—nourishing without being heating.

Science News Letter, October 18, 1930

Physics

AN INTRODUCTION TO THE STUDY OF WAVE MECHANICS—Louis de Broglie, translated by H. T. Flint, *Dutton*, 249 p., \$4.25. When Prince de Broglie was awarded the Nobel Prize in physics last year, recognition was given to the author of one of the most important physical concepts in years, a concept that has necessitated considerable revision in our ideas of the atom and how it is put together. In this book, necessarily rather technical, the prince develops the subject from the ideas upon which it is based. The principle of indeterminateness as well as recent experiments on diffraction of electrons is also discussed. It is likely that this book will rank as a classic in physical science.

Science News Letter, October 18, 1930

Aviation

PLAYING AIRPLANE—J. F. McNamara—*Macmillan*, 128 p., \$2.50. Youngsters not yet ten will be thrilled when this book is read to them. The author is an ex-aviator who wrote it to answer the questions of his own six and eight-year-old sons and their friends.

Science News Letter, October 18, 1930

Astronomy

ASTRONOMY—Robert H. Baker—*Van Nostrand*, 521 p., \$3.75. In this recent text book of astronomy the professor of astronomy at Illinois has produced an excellent introduction to the latest knowledge of this important subject. It is one of the first astronomical texts to include an account of Pluto, the trans-Neptunian planet, though there has not been time to include the name or the latest orbit computations, made possible by the discovery of photographs of the object made as far back as 1919. Other recent work, such as the newest knowledge of the extragalactic nebulae and work on stellar atmospheres, is fully covered, but not with any sacrifice of the fundamentals. In short, it is a book that can be recommended to both the teacher of astronomy and the lay reader who wishes a complete account of the subject.

Science News Letter, October 18, 1930

General Science

PROBLEMS IN GENERAL SCIENCE—George W. Hunter and Walter G. Whitman, *American Book Co.*, 688 p., \$1.72. A new general science text by two teachers of wide experience. By the use of such modern developments as television, transatlantic flights, talking movies, etc., an effort is made to arouse the student's interest, and the numerous and well-selected illustrations help materially. It is a book that should make the student think for himself.

Science News Letter, October 18, 1930

Public Health

INDUSTRIAL HYGIENE FOR SCHOOLS—Jesse F. Williams, M. D., and Delbert Oberteuffer, Ph. D.—*McGraw-Hill*, 280 p., \$2. This text-book might well be read by employers and industrial managers. Essential information on medicine, sanitation and accident-prevention is given in compact form.

Science News Letter, October 18, 1930

Psychology

STATISTICAL RESUME OF THE SPEARMAN TWO-FACTOR THEORY—Karl J. Holzinger—*University of Chicago Press*, 43 p., 75c. This publication supplements Spearman's own analysis of his theory that mental abilities may be resolved into two factors, as given in "The Abilities of Man." The resume is more detailed and brings in some of the related work of Garnett and Kelley.

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Physics

THE PHYSICAL PRINCIPLES OF THE QUANTUM THEORY—Werner Heisenberg, translated by Carl Eckart and Frank C. Hoyt—*University of Chicago Press*, 186 p., \$2. In 1929 Dr. Heisenberg, who is one of the leaders in the recent revolution in physics, gave a series of lectures on the quantum theory at the University of Chicago. These have now been translated into English and published so as to be available to a larger group than could hear them originally. In the words of Dr. Arthur H. Compton, Dr. Heisenberg here "discusses primarily the physical significance of the new theory, emphasizing the equal applicability of the corpuscular and wave concepts and the need for his uncertainty principle to reconcile the two points of view."

Science News Letter, October 18, 1930

General Science

GENERAL SCIENCE—Richard W. Sharpe—*Oxford Book Co.*, 230 p., 72c. Another volume in the Oxford Review Series, useful for teacher and student alike who wants a complete but concise summary of the subject. A number of questions, some taken from examinations set by the University of the State of New York, will give the teacher some good ideas.

Science News Letter, October 18, 1930

Physics

SPECTRA—R. C. Johnson—*Dutton*, 104 p., \$1.15. In this new volume in the series of Monographs on Physical Subjects the student of physics will find a concise summary of the contributions spectroscopy has made to modern physics. The chapter headings give an idea of the scope of the book, viz., the quantum theory, line spectra, band spectra and spectroscopy.

Science News Letter, October 18, 1930

Archaeology

THE TECHNICAL ARTS AND SCIENCES OF THE ANCIENTS—Alfred Neuburger—*Macmillan*, 518 p., \$10. The author has collected from a vast and scattered literature a solid compendium of information about the technology of the ancients, much of which was of a very high order at early dates. Metallurgy, wood and leather work, agriculture and the elaboration of agricultural products, glass, textiles and pottery all receive extensive treatment. There are chapters also on towns, fortifications, water systems, sewers, irrigation and drainage, roads and bridges, ships and shipbuilding.

Science News Letter, October 18, 1930

Education-Sociology

THOSE IN THE DARK SILENCE—Corinne Rocheleau and Rebecca Mack—*Volta Bureau, Washington, D. C.*, 169 p., \$2. The plight of the rank and file of deaf-blind people—the most neglected class in our world today—is set forth in this book, for the information of the public and for the guidance of teachers and others who have the personal problem of dealing with these doubly handicapped individuals. The first part of the book contains a general, but practical, discussion of home and school education, vocational training, social interests and other problems, and recommends as one specific aid a central institution to be a clearing house of advice and information. The second part contains biographies of deaf-blind individuals.

Science News Letter, October 18, 1930

Public Health

HISTORY OF HAITIAN MEDICINE—Robert P. Parsons—*Hoeber*, 196 p., \$2.25. The book is interesting from many viewpoints, but to the public health worker it will be particularly inspiring, because it is largely a dramatic story of how 15 years of public health measures and preventive medicine have successfully supplanted centuries of superstition and indifference. The student of social and political science will be interested in Dr. Parsons' view of the results of retirement of the American Occupation in Haiti, as relating to health conditions in the island.

Science News Letter, October 18, 1930

Chemistry

ENZYME CATALYSTS—E. F. Armstrong and T. P. Hilditch—*National Research Council*, 25c. The report of the committee on contact catalysts, reprinted from the *Journal of Physical Chemistry*.

Science News Letter, October 18, 1930

Mechanics

APPLIED MECHANICS—Frederic N. Weaver—*Ronald*, 322 p., \$3.25. A text book for engineering colleges that starts with statistics and friction and continues without a break through the subject of motion, the sections on center of gravity and moment of inertia being placed in an appendix. It is the author's belief that these should be covered in a course in mathematics rather than in mechanics. He assumes an elementary knowledge of the calculus but not of physics.

Science News Letter, October 18, 1930

Dietetics

EAT AND KEEP FIT—Lyman F. Kebler, with an introduction by Harvey W. Wiley—*Author*, 302 p., \$3. To quote Dr. Wiley: "The author has followed strictly scientific principles in showing how a reasonable degree of food can be consumed without any unnecessary increase in weight . . . how to decrease without threat to health, any superabundance of adipose tissue." In addition, the book is entertainingly written and full of all sorts of useful facts.

Science News Letter, October 18, 1930

Archaeology

THE EXCAVATION AND REPAIR OF BETATAKIN—Neil Merton Judd—*Smithsonian Institution*, 77 p., 46 plates, free. This Pueblo ruin, now a part of the Navajo National Monument, was discovered in 1909. Mr. Judd was with that discovery party. Eight years later he was given the task of preserving and repairing the ruin, and good progress was being made when the World War interrupted the work. Unfortunately, the chance to complete the preservation of these much-visited ruins has not come, and Mr. Judd decided to delay no longer in presenting a record of his unfinished project.

Science News Letter, October 18, 1930

Physics

THE THEORY OF THE POTENTIAL—William Duncan MacMillan—*McGraw-Hill*, 469 p., \$5. In this new work the professor of astronomy at the University of Chicago has produced a summary of this interesting field of mechanics. Though necessarily involving the use of the calculus, the author does not assume knowledge of integral equations. The book should be useful both to students of mathematics and of mathematical physics.

Science News Letter, October 18, 1930

Education

DOCTORATES CONFERRED IN THE SCIENCES BY AMERICAN UNIVERSITIES, 1928-1929—Callie Hull and Clarence J. West—*National Research Council*, 50c. Of special interest to research investigators and to educators will be this report compiled for the research information service of the National Research Council.

Science News Letter, October 18, 1930

Physiology

HERZ, PULSATION UND BLUTBEWEGUNG—Georg Hauffe—*Lehmann, Munich*, 246 p., RM 16. A solid summary of the latest information regarding the circulatory system.

Science News Letter, October 18, 1930