
BOOK NOTICES

Heat

This is a book suitable for use in a two-year course in physics such as is given at Massachusetts Institute of Technology, and to be taken simultaneously with a course in differential and integral calculus. The calculus is consequently used, at first in a small way, but gradually more and more, to treat the usual topics in statics, dynamics, and hydrodynamics.

The reviewer feels that the M. I. T. is to be congratulated that they find it possible to give a course in general physics where such a book may be applicable. This is, however, not generally the case in American colleges and universities, and it would seem that the book would have a rather limited field of application.

—HAROLD H. NEILSEN.

Introduction to Mechanics and Heat, by N. H. Frank; xiv + 339 pp. New York, the McGraw-Hill Book Co., 1934.

Abnormal Behavior and its Explanation

After a consideration of the question as to what constitutes abnormality, without a satisfactory answer, the authors discuss sensory and motor disorders, theories of a number of functions which they assemble under the head of the association mechanism, and finally desires, feelings and emotions, sleep, dreams and hypnosis. Thus the first two-thirds of the book is devoted to a discussion, often very sketchy, of common functions and the particular changes the physician often sees in them which follow trauma, shock, infection, etc. Two chapters treat the organic and functional psychoses and the remainder of the book consists of short chapters on the psychoneuroses, mental deficiency and superiority, and psychotherapy.

The authors have "written for advanced students in psychology, pre-medical and medical students who desire more psychological information." In a foreword Professor Knight Dunlap believes that this book "signalizes the beginning of the scientific era in abnormal psychology." There are indexes of subjects and authors and a bibliography of 313 titles.—S. RENSHAW.

Textbook of Abnormal Psychology, by R. M. Dorcus and G. W. Shaffer; xii + 389 pp. Baltimore, The Williams and Wilkins Co., 1934.

Features in the Architecture of Physiological Function

The author takes the stand of those who regard a phenomenon as more likely to have a significance than not. He is willing to help take the burden of discovering what the significance may be. He admits the possibility of accidents in nature, but prefers to avoid the responsibility of proving all phenomena to be accidental.

As to the manner of describing one set of conditions prerequisite to new developments in physiological function, the distinction between a purely teleological attitude and one leading through descriptive analysis is drawn on the quotation, "The stage is set before the play commences."

The book is built on the Dunham Lectures given at Harvard in 1929. An easy, fluent atmosphere characterizes the presentation of the many physiological facts on which the book is constructed. The physiological processes are discussed as following principles of function rather than proceeding from mere organ structure or chemical formulae. The stability of the internal environment compels the principle of storage of materials and of integration in adaption. This concept leads through the material of the chapters with the description of the parallel mechanisms that may function in integrative processes as well as in antagonistic responses.—R. G. SCHOTT.

The Architecture of Physiological Function, by Joseph Bancroft. x + 368 pp. New York: The MacMillan Company; Cambridge, England: at the University Press, 1934.

Entomological Equipment and Methods

In his new book, "A Manual of Entomological Equipment and Methods," Professor Peterson has done for the teacher and research worker what each has wanted to do for himself but for which he has had neither the time nor the necessary reference material. It is a most excellent collection of diagrams of experimental equipment and apparatus used by entomological workers in every phase of the subject. The diagrams are completely labelled and references are given to the sources. They are grouped in a system of classification based upon use such as: Insectaries; Cages; Collecting, Killing and Sampling; Traps; Behavior Equipment; Weather Recording Instruments; Thermocouples; Thermostats; Cabinets; Insecticide Testing; etc. The plates are a bit crowded, but very clear and complete.

The manual also contains brief discussions, convenient conversion tables for temperature, humidity, weights and measures, and author and subject indexes. It is a book that no entomologist can afford to be without, being full of suggestions for methods of research and apparatus construction which with the references will save many days of tedious labor.

The work is lithoprinted, contains 138 plates and is durably bound in cloth.
—D. F. MILLER.

A Manual of Entomological Equipment and Methods, by Alva Peterson. Ann Arbor, Michigan: Edwards Brothers, 1934. \$3.75.

Theoretical Physics

This book may unambiguously be termed one of the most enjoyable publications by McGraw-Hill in their International Series. It contains brief, yet complete accounts of the most important problems in theoretical physics, emphasizing those items in classical physics which lead directly to the modern quantum aspects. The first two chapters concern themselves about the mathematical equipment necessary to cope with physical problems; fifteen chapters are devoted to problems in analytical mechanics and hydrodynamics. Eleven chapters are given to discussions of heat flow, potential theory, electromagnetic phenomena and optics while the remaining fifteen chapters concern themselves with atomic and quantum phenomena.

In addition to a clear exposition of the subject matter, a set of problems supplements each chapter, a feature whose value cannot well be overestimated.

Like other books in this series, it is durably bound in green cloth, and printed in large clear type. It is a book sincerely to be recommended for use in college classes, and is an asset to any physicist's library.—HAROLD H. NIELSEN.

Introduction to Theoretical Physics, by J. C. Slater and N. H. Frank. New York, the McGraw-Hill Book Co., 1933.

Physics and Geology

This interesting manual, which follows Snyder's "Earth History," consists of 20 exercises, the first eleven covering Physical Geology, while the last nine cover Historical Geology. Each exercise is accompanied by suitable blank pages which are intended to be removed, and when "graded," returned to the manual and bound (suitable holes being provided). There are 91 exercise sheets and four cross-section sheets, all numbered and punched for replacing. The rest of the book is made up of explanatory text and assignments for completing the exercises.

It is refreshing to pick up a laboratory manual which uses the most recent, as well as the older, topographic and geologic maps, carefully selecting those which best exemplify the case to be studied. It is a pleasure to recommend this manual to teachers of geology. How widely used it will become remains to be seen. Many teachers have wisely tried to take advantage of local areas for these laboratory studies, but needless to say, good examples of the various areas are not available locally in most cases. To the student it is a convenient and satisfactory method of procedure. The authors have done a careful piece of work and the publishers have been equally careful. We hope it meets with success, but wish it could be sold for half the price.—WILLARD BERRY.

A Laboratory Manual of Physical and Historical Geology, by Kirtley F. Mather and C. J. Roy; xiv + 302 pp. New York, D. Appleton-Century Co., 1934.

Bone Infections

Here is a book of value not merely for the orthopedic surgeon but for the general practitioner and the student of pathology as well. After years of practical experience in clinical and laboratory work and much delving into contemporary and historical literature, Dr. Wilensky has prepared a general and thoroughgoing monograph upon the subject. No one interested in the field can afford to overlook this work.

Although the introduction is unnecessarily pedantic it is a part of a well planned historical approach. The early chapters build a broad background of normal anatomy and physiology upon which foundation the pathogenesis and symptomology of osteomyelitis are developed. Considerable space is devoted to treatment. In this respect the author has, without bias, quoted freely from many sources giving varied points of view in addition to his own and citing numerous case experiences to advantage.

The book is very comprehensive and written in a clear, scholarly style. It is adequately illustrated with diagrams, normal photographs, X-ray photographs and microphotographs and contains an abundance of tabulated data. Other outstanding features are the inclusion of an extensive bibliography covering all phases of the subject classified and distributed by chapters and author and subject indexes.—D. F. M.

Osteomyelitis—Its Pathogenesis, Symptomology and Treatment, by A. O. Wilensky. xxxii + 454 pages. New York, The Macmillan Company, 1934. \$9.00.