

NEW BOOKS, ETC.

ECONOMIC GEOLOGY OF THE UNITED STATES. By Heinrich Ries, A.M., Ph.D. New York: The Macmillan Company, Ltd., 1905. 12mo.; pp. 435. Price, \$4.60 net.

The present work is designed as a text book for use in colleges. In the preparation of the manuscript, all available sources of information have been freely drawn upon. The mode of arrangement is markedly different from that found in other books on the same subject, in that the non-metallic minerals are discussed first, and the metallic minerals last. The maps, sections, and illustrations are numerous and well-executed.

THE OYSTER. A Popular Summary of a Scientific Study. By William K. Brooks, Ph.D., LL.D. Baltimore: Johns Hopkins Press, 1905. 12mo.; pp. 225. Price, \$1 net.

This book was written for the information of all who care for oysters—no matter whether their point of view be that of providers or consumers—for the oyster man, the money-maker, the housekeeper, the editor, or the student of natural history. So well is the book written that many parts of it are as fascinating as a story. The author of this volume is well known in all scientific circles as an accurate, clear-sighted, and trustworthy observer.

RADIO-ACTIVITY. By E. Rutherford, D.Sc., F.R.S., F.R.Sc. Cambridge (England) University Press, 1905. 8vo.; pp. 580. Price, \$3.50.

The author has endeavored in this work to give a complete and connected account from a physical standpoint of the properties possessed by the natural radio-active bodies. Although the subject is comparatively a new one, our knowledge of the properties of radio-active substance has advanced with great rapidity and there is now a very large amount of information on the subject scattered through the various scientific journals. The phenomena exhibited by the radio-active bodies are extremely complicated, and some form of theory is essential in order to connect, in an intelligible manner, the mass of experimental facts which have now been gathered. Prof. Rutherford has advanced the theory that the atoms of the radio-active bodies are undergoing spontaneous disintegration.

So rapid has been the advance in the literature on radio-activity that a second edition of this work has been called for. The book is a serious discussion of a most interesting physical phenomenon.

CHIMICA DELLE SOSTANZE COLORANTI. Teoria ed Applicazione alla Tintura delle Fibre Tessili. Dal Dott. Arturo Pellizza. Milan: Ulrico Hoepli, 1905. 32mo.; pp. 480.

SUBJECT LIST OF WORKS ON AGRICULTURE, RURAL ECONOMY, AND ALLIED SCIENCES. In the Library of the Patent Office. London: Published at the Patent Office, 1905. 16mo.; pp. 424.

ELECTROMAGNET THEORY OF LIGHT. Part I. By C. E. Curry, Ph.D. London: The Macmillan Company, 1905. 12mo.; pp. 400. Price, \$4.

In the present work Prof. Curry treats of the more familiar phenomena explained by Maxwell's theory, and has reserved for Part II those phenomena which this theory fails to satisfactorily explain. Particular stress is laid on the development of the fundamental laws of optics, rather than on the many secondary laws derived therefrom, which have little to do with our conception of the nature of light. The beginning of each chapter presents a brief historical sketch of the subject-matter treated, and as far as possible each chapter is developed independently of the preceding ones. To the end of each chapter examples pertaining to matter treated in the text have been added, and should be found very useful to the reader.

THREE-COLOR PHOTOGRAPHY. By Arthur Freiherrn von Hübl. Translated by Henry Oscar Klein. London: A. W. Penrose & Co., 1904. 8vo.; pp. 144. Price, \$3.50.

This book was originally published in German, in 1897, and represented the first work which entered into all details concerning three-color photography. The English edition, translated by Mr. Henry O. Klein, has been completely revised and brought up to date. Special attention is given to photographic color decomposition, and the color scale which is attached will enable anyone to adjust his own filters. Part II of the book is devoted to the theory and practice of three-color printing, its several chapters thoroughly explaining the art of three-color printing, the sensitizing of photographic plates, use of light filters, selection of printing inks, etc. The book contains much valuable information.

THE BRITISH JOURNAL PHOTOGRAPHIC ALMANAC AND PHOTOGRAPHERS' DAILY COMPANION. Edited by George E. Browne, F.I.C. London: Henry Greenwood & Co.; New York, G. Genert. 1906. 16mo.; pp. 1,134.

The British Journal Photographic Almanac comes to us this year if anything a little more portly than usual. The old established arrangement has been revised so far as seemed necessary to make every bit of the text more easy of reference. The contents include a calen-

dar, directory of photographic societies, obituary notices, and contributed articles. Under the heading "Epitome of Progress" appear chapters on apparatus and equipment, photographing various subjects, negative processes, printing processes and color photography. The formulæ for the principal photographic processes are features to be found in most photographic almanacs, but in the case of the volume before us they are particularly noteworthy because of their excellent arrangement. In the end of the book will be found a very good set of tables for the use of photographers.

THE PRACTICAL ENGINEER ELECTRICAL POCKETBOOK FOR 1906. Manchester, England: Technical Publishing Company, Ltd. No date. 24mo.; pp. 440. Price, 60 cents.

The Practical Engineer Electrical Pocket-book is always a welcome visitor. It is very compact, far more so than American pocket-books, which are apt to be just too large to go in the pocket. There is little utility in this form of book unless it can be readily carried in the pocket, and we always have the dual penalty of both fine type and bulkiness. The present issue contains all the valuable matter of the preceding issues with additional tables and formulæ as well. It is an excellent book.

LABORATORY EXPERIMENTS TO ACCOMPANY OUTLINES OF INORGANIC CHEMISTRY. By Frank Austin Gooch and Claude Frederic Walker. New York: The Macmillan Company, 1905. 8vo.; pp. 104. Price, 50 cents.

AIR AND GAS COMPRESSING MACHINERY. London: Worthington Pump Company, Ltd., 1905. 12mo.; pp. 175.

It is seldom that we review a catalogue, but the one before us contains so much useful information, that we feel like departing from our general rule. It is illustrated with very clear diagrams, showing the actual operation of the mechanism employed. The subjects of air lifts, pneumatic hoists, etc., are also treated. There is published considerable information relative to compressed air.

RADIUM AND RADIO-ACTIVE SUBSTANCES. By Charles Baskerville, Ph.D. Philadelphia: Williams, Brown & Earle, 1905. 12mo.; pp. 164; 67 illustrations. Price, \$1.

This book is written to fill the demand for non-mathematical work on the subject of radium. Excellent treatises have recently appeared on radio-activity as viewed from the standpoint of the physicist, and other books as viewed from the standpoint of the chemist; but the present work relates particularly to the subject as applied to medicine, and aims to present a fairly clear conception of our present knowledge of these phenomena in a simple manner, such as will be valuable to physicians who have neither time nor opportunity to study larger works.

INDEX OF INVENTIONS

For which Letters Patent of the United States were Issued

for the Week Ending

March 6, 1906.

AND EACH BEARING THAT DATE

[See note at end of list about copies of these patents.]

Table listing inventions with patent numbers and dates. Includes items like 'Acids, making barbituric, O. Wolfes', 'Adjustable gage, J. E. Griffin', 'Advertising device, E. W. MacArthur', etc.

Table listing inventions with patent numbers and dates. Includes items like 'Buggy valance, C. W. Fisher', 'Building block mold, transformable, H. A. Low', 'Butter cutting device, H. Moyer', etc.

Table listing inventions with patent numbers and dates. Includes items like 'Feed mill, N. Burr', 'Feeder, boiler, F. Leadbeater', 'Fence post, M. E. Johnson', etc.