

NEW BOOKS, ETC.

ON TYBEE KNOLL. A STORY OF THE GEORGIA COAST. By James B. Connolly. New York: A. S. Barnes & Co., 1905. 12mo.; pp. 285. Price, \$1.25.

This little story of the Georgia coast, by the author of "The Seiners," will be found interesting reading for a hot vacation day. It is a stirring story of the men who clear the channels for the ships and whose lives are filled with considerable adventure and picturesque incident. It is illustrated with four half-tone plates from original drawings.

MODERN ASPHALT PAVEMENT. By Clifford Richardson. New York: John Wiley & Sons, 1905. 8vo.; pp. 580; 32 figures. Price, \$3.

The object of this work is to describe the nature of asphalt pavements and show the causes of defects in them, in order to bring about improvement in the methods of their construction and to show, if possible, how this can be done. The author has had an extended experience in the asphalt paving industry, as well as in the inspection and construction of pavements for large cities, and he has found that the best results are frequently not obtained because of the lack of knowledge of the engineers in charge as to the proper tests of material and methods of laying the same. In this work, therefore, he describes the forms of construction which have been shown by experience to be the most satisfactory, the character of the materials employed in the composition of asphalt pavements, the most refined methods used in the industry to-day, and the reasons which have led to their adoption. The book also contains specifications for asphalt pavements for various conditions and use, and considerable data as to their maintenance and cause of deterioration. It will be found extremely valuable to all interested in this industry.

THE RADFORD AMERICAN HOMES. New York: Industrial Publication Company, 1905. 8vo.; pp. 255. Price, \$1.

This book contains floor plans and perspective views of 100 different designs of low and medium-priced houses. Complete plans and specifications of the houses shown in the book will be furnished by the Radford Architectural Company, Riverside, Ill., for \$5 each. The houses shown are a very good selection of modern American types, and the book will doubtless aid materially anyone intending to build a house, in selecting a design which pleases.

MANUAL OF CHEMICAL ANALYSIS AS APPLIED TO THE ASSAY OF FUELS, ORES, METALS, ALLOYS, SALTS, AND OTHER MINERAL PRODUCTS. By Eugene Prost, D.Sc., of the University of Liège. Translated from the original by J. Cruickshank Smith, B.Sc., F.C.S. New York: D. Van Nostrand Company, 1904. 8vo.; pp. 300. Price, \$4.50.

This work by Prof. Prost is an extremely valuable volume which treats, in a clear, succinct, and practical manner, of the various ores, minerals, mineral salts, metals, and alloys commonly met with in chemical practice, of an industrial and technical character. The author has succeeded in compressing within a limited space, a large mass of useful information and helpful suggestion by avoiding repetition and referring constantly to other parts of the book. Prof. Prost has been extremely careful to give details of manipulation, and to indicate precautions which should be observed in connection with the various processes described—points in laboratory experience that are too often left to be picked up in a haphazard way. Throughout the work temperatures are expressed in terms of the Centigrade scale and the metric system of weights and measures is used, except in special cases, which are indicated. The book contains a selection of methods for analyzing the chief mineral products, both native and manufactured, which the industrial chemist, and more particularly the metallurgical chemist, most frequently comes in contact with in the course of his practice. Only such processes have been described as the author has found from his own experience to lead to satisfactory results, or the details of which have been obtained from specialists in charge of important laboratories and having large experience in industrial analysis. The book will no doubt prove extremely useful to technical chemists, analysts, assayers, engineers, and others interested in the analysis and valuation of industrial products of mineral origin. The translator has succeeded very well in reproducing not only the substance and spirit of the original but also in preserving the form of expression as well.

RUSTLESS COATINGS. By M. P. Wood. New York: John Wiley & Sons, 1904. 8vo.; pp. 432; 85 illustrations. Price, \$4.

This book deals in a very complete manner with the corrosion and electrolysis of steel and the best paints and other substances to be used for their prevention. The characteristics of oils, pigments, and paints that form the principal protective coatings for ferric and other structures, are given at length under their respective chapters. The collected data are a reliable source of information of the composition of these paints and of what may be expected of

them. The book is illustrated with a considerable number of photographs and is completed with an index. Most of the analyses and tests of the commercial pigments and paints have been repeated many times without any material discrepancy from the data given. The results from the use of many of these paints are apparent from the incessant and continual corrosion of important iron structures everywhere. Not only is the subject of paints dealt with, but also coating by galvanizing and by electrolysis is described in detail.

THE BEGINNER'S GUIDE TO THE LATHE. By Percival Marshall, A.I.M.E. London: Percival Marshall & Company, 1905. 16mo.; pp. 76. Price, 25 cents.

This pamphlet, which forms No. 25 of the "Model Engineer" series, is an elementary instruction book on turning in wood and metal. Besides the clear, concise text, it is illustrated with some 75 figures, specially drawn for the purpose. It will be found a useful handbook for the beginner.

DESCRIPTIVE GEOMETRY FOR STUDENTS OF ENGINEERING. By James A. Moyer, S.B., A.M. New York: John Wiley & Sons, 1905. 8vo.; pp. 198. Price, \$2.

As experience has shown that most students in technical schools have difficulty in applying their knowledge of geometry to their work in structural and machine design, two things have been attempted in the present volume in order to overcome this failure. In the first place the notation is essentially the same as that used in mechanical drawing, and in the second, the exercises have been carefully graded so as to encourage the student to think for himself. There are many concrete exercises showing practical applications. The data used in the exercises are stated by the system of co-ordinates employed in analytical geometry. An unusually large number of perspective and orthographic drawings have been inserted. As this work has now reached its second edition, it can be seen that the methods employed in it for the instruction of students have been found valuable.

THE CREDIT MAN AND HIS WORK. By E. St. Elmo Lewis. Detroit: The Book-Keeper Publishing Company, Ltd., 1904. Small 8vo.; pp. 308. Price, \$2.

The author of this book has dealt with the subject in hand in a comprehensive manner. Starting with a history of credit, he follows it step by step until he comes to modern commercial credit. In a chapter entitled "What is Credit?" he gives some new and striking suggestions, especially as to the basis of normal commercial credit, i. e., it is based on the demand for marketable goods. Proceeding in the development of the scheme, he shows what influence "The Character of the Business," "The Character of the Management," "The System of Organization," "Competition," "Business and Accounting Methods," have upon the value of a risk, in compromising the value of marketable commodities. Other chapters of the book are devoted to the "Balance Sheet," "Capital and Resources," "Credit Indemnity Insurance" (which is discussed by the foremost experts), "Cost of Production," as applied to determining valuations and profits. Other chapters are devoted to "Systems for Collections and Credit Information" and the legal side of the credit man's work. A discussion of the value of information bureaus and agencies is also gone into. The book is one which should be in every business man's library.

HOW TO GET SPEED IN SHORTHAND. By Frederick Pitman. London: Guilbert Pitman, 1905. Price, 25 cents.

This pamphlet contains a series of exercises, reprinted from the Shorthand World, and intended to give the student facility in speed in reporting with the Pitman system.

INDEX OF INVENTIONS

For which Letters Patent of the United States were Issued for the Week Ending August 29, 1905

AND EACH BEARING THAT DATE

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

Table of inventions with columns for description and date (798,100 to 798,096).

Table of inventions with columns for description and date (798,523 to 798,080).

Table of inventions with columns for description and date (798,514 to 798,576).