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PRACTICAL BRICKWORK. Edited by Paul N. Hasluck. Philadelphia: David McKay, 1906. 18mo.; pp. 160. Price, \$1.

English practice is described. The book can be read with profit by all those who are engaged in or are interested in masonry. The work is well illustrated.

REFERENCE BOOK FOR STATICAL CALCULATIONS. By Francis Ruff. New York: Spon & Chamberlain, 1905. 16mo.; pp. 136.

This work gives force diagrams for frame-works, instructions for statical calculations, etc., for all classes of engineering work. With its aid practical men can carry out any desired statical calculation with ease and rapidity. It is filled with illustrations and tables.

NEW METHODS OF TESTING EXPLOSIVES. By C. E. Bichel. Translated and Edited by Axel Larsen, M.I.M.E. London: Charles Griffin & Co., Ltd., Philadelphia, 1905. 8vo.; pp. 62. Price, \$2.

The literature on the subject is limited, owing to the fact that until fifteen years ago black powder and dynamite were almost the only explosives used in practical mining. New explosives require new research to test their safety and practical efficiency. The author has produced a most practical book for the mine engineer.

EXPERIMENTAL RESEARCHES ON THE CONSTITUTION OF HYDRAULIC MORTARS. By Henri le Chatelier. Translated by J. L. Mack. New York: McGraw Publishing Company, 1905. 16mo.; pp. 132. Price, \$7.

The author started his researches many years ago, and his thesis on the subject was the starting point of the studies of a number of writers. This classic is the most complete and beautiful piece of work done upon the chemistry of Portland cement. The translator has changed some of the chemical formulae.

EDUCATIONAL WOODWORK. By A. C. Horth. New York: Spon & Chamberlain, 1905. 18mo.; pp. 159. Price, \$1.

Of books on manual training there are no end, but there always seems to be a field for another work. The author has succeeded in illustrating his book with a number of very helpful photographs, showing the proper position of the hands. Manual training has certain elements in common, whether the instruction is given in England or the United States. Therefore, the book is not rendered useless by the difference in practice. The exercises are carefully chosen and are well illustrated.

MANNHEIM AND MULTIPLEX SLIDE RULES. By L. W. Rosenthal, E.E., A.A.I.E. Chicago: Eugene Dietzgen Company, 1905. 18mo.; pp. 59.

Slide rules are coming more and more into use among draftsmen, and the pamphlet before us describes two excellent slide rules.

INJECTORS: THEIR THEORY, CONSTRUCTION, AND WORKING. By W. W. F. Pullen. New York: D. Van Nostrand Company, 1906. 12mo.; pp. 208. Price, \$1.50.

The third edition of this excellent book needs little recommendation, as it has been before the engineering public for over a dozen years. The injector is described and illustrated in practice and theory, and its possible advantages and failings are discussed clearly and concisely. The author develops theoretical calculations on the subject of water injection to a limited extent, but not to such a degree that the book will prove of no value to the non-technical man.

MECHANICS FOR ENGINEERS. By Arthur Morley. New York: Longmans, Green & Co., 1905. 12mo.; pp. 282. Price, \$1.20.

Engineering students require a thorough knowledge of the principles of mechanics in a far more general manner than the students of the usual scientific courses. The present volume has been written for the use of engineering students, and with this object in view the gravitational system of units has been adopted in English measures. Graphical vector methods for the solution of problems have been inserted in certain of the chapters, and while such exercises often take up more time than the easy arithmetical ones, their solution will undoubtedly be found excellent practice by the student in leading up to more difficult problems. Calculus has not been used, although the author advises that the student should not try to avoid it.

WATER SOFTENING AND TREATMENT. By William H. Booth. New York: D. Van Nostrand Company, 1906. 8vo.; pp. 308. Price, \$2.50.

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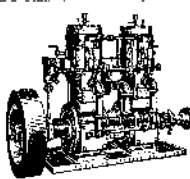
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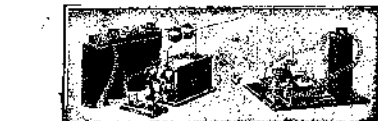
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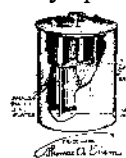
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KURZES REPETITORIUM DER ORGANISCHEN CHEMIE. Von Dr. Kurt Dammann. Freiburg im Breisgau: Herdersche Verlagshandlung, 1906. 14mo.; pp. 256. Price, \$1.25.

Dr. Dammann's excellent work is in nowise intended for a textbook, but is designed to be used in connection with the regular course of instruction in organic chemistry. The work is exceedingly thorough, and includes the very latest phases of the science on which it treats. It will be found of great value in instances where time is lacking for extended investigations of standard text or reference books, and the student will find it splendid for purposes of review. The arrangement into divisions and subdivisions with a great number of formulas is good.

SCIENCE AND THE MANUFACTURER. By Keith Quinton. London: Guilbert Pitman, 1906. 14mo.; pp. 86. Price, 80 cents.

The close relation and intimate association of science and industry to-day is so universally admitted, that the statement of the fact needs little proof. In "Science and the Manufacturer" is given an interesting account in a brief manner of how science is necessary in certain industries, and in fact, how to-day it is indispensable for the proper development of manufacturing or other work. The book is interestingly illustrated from photographs, and while rather limited in scope, will undoubtedly be found interesting by the reader.

OCEAN AND INLAND TRANSPORTATION. By Emory R. Johnson, Ph.D. New York: D. Appleton & Co., 1906. 12mo.; pp. 395. Price, \$1.50.

The reader will find this discussion an interesting treatise on the economics of transportation by water and an excellent complement to "American Railway Transportation," by the same author. The book is based largely on information secured from government and other official sources, as well as from private individuals in commercial and transportation enterprises. As the volume of water transportation is greatly in excess of the inland water commerce, about four-fifths of the book is taken up with a discussion of the former. The historic development of the various lines of transportation and communication, as well as the growth of the commerce between the various countries, is interestingly discussed.

ENGINEERING MATHEMATICS SIMPLY EXPLAINED. By H. H. Harrison. London: Percival Marshall & Co., 1906. 12mo.; pp. 165. Price, 75 cents.

This book is designed for the use of the young engineer apprentice who is beginning the study of mathematics, or for the artisan whose knowledge of the subject is limited. It is intended to take the place of the orthodox textbooks, which are usually crammed with academic exercises which are difficult of comprehension, and merely tend to give the student a certain amount of dexterity in the manipulation of symbols, while a clear comprehension of the principles is seldom imparted thereby. The instruction given by the author in this book has at least one excellent quality—it accustoms the student to think for himself.

TURNING FOR BEGINNERS. By J. Lukin, B.A. London: Guilbert Pitman, 1906. 16mo.; pp. 128. Price, 60 cents.

During the author's long life he has given to the world a number of books on amateur mechanics. This book will undoubtedly prove of interest to any amateur, although the practice and designs are English.

AN INTRODUCTION TO THE STUDY OF COLOR PHENOMENA. By Joseph W. Lovibond. New York: Spon & Chamberlain, 1905. 8vo.; pp. 48. Price, \$2.

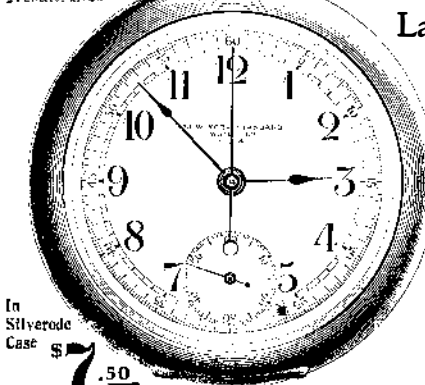
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THE BATTLES OF LABOR. By Carroll D. Wright, Ph.D., LL.D. Philadelphia: George W. Jacobs & Co., 1906. 12mo.; pp. 220.

This very interesting volume is based upon four lectures, each of which is well worth reading. The last of the four, however, is of special value, as therein the author expounds his personal views and opinions based on long

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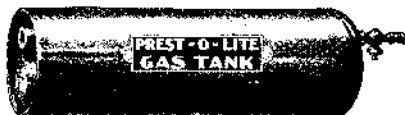
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and intimate acquaintance with the labor problems of the country. The labor troubles, defeats, and victories of ancient times are interestingly recounted in the first and second of these lectures. The third reviews great modern labor battles, beginning about 1877 with the B. & O. and Pennsylvania strikes, and including the anthracite strikes of 1900 and 1902.

METALLURGICAL CALCULATIONS. By Joseph W. Richards, A.C., Ph.D. Part I. New York: McGraw Publishing Company, 1906. 8vo.; pp. 208. Price, \$2.

Prof. Richards' book forms one of the most important steps in the application of science to metallurgy. It is a reprint of the serial running in "Electrochemical and Metallurgical Industries," which, however, has been largely elaborated and brought up to date. A serial which is now appearing will be published as Part II. and a later serial as Part III., thus completing the work. The treatment of the subject is logical and clear, though, unfortunately, the book is lacking in reference to other literature on the subject.

STEAM TURBINE ENGINEERING. By T. Stevens and H. M. Hobart. New York: The Macmillan Company, 1906. 8vo.; pp. 814; 516 illustrations. Price, \$6.50.

Messrs. Stevens and Hobart's book is undoubtedly the outcome of a vast amount of patient and extensive research and investigation. It contains a remarkable collection of data with reference to steam turbines gathered from all sources in Europe and America. A large part of this information, in addition to being tabulated, has been plotted in curves. Besides the extraordinarily complete collection of statistics given, the authors have also provided many illustrations showing the destructive characteristics of the different leading types of turbines. The whole is elaborated by clearly-written and comprehensive text.

A SCHEME FOR THE PROMOTION OF SCIENTIFIC RESEARCH. By Walter B. Priest. London: Stevens & Sons, Ltd., 1905. 8vo.; pp. 62.

It is the object of the author to submit for consideration proposed legislative provisions, incorporating means whereby incentives may be made operative by the agency of law in those directions wherein the prosecution of such research may lead to results of general utility. The plan is quite an elaborate one.

MODERN LOCOMOTIVE ENGINEERING WITH QUESTIONS AND ANSWERS. By Calvin F. Swingle, M.E. Chicago: Frederick J. Drake & Co., 1905. 16mo.; pp. 630. Price, \$3.

This handsomely gotten-up pocket-book is a plain, practical treatise on the construction, care, and management of modern locomotives. Boiler construction as applied to locomotives is dealt with in detail. All the leading types of valves and valve gear are fully described. Valve setting is illustrated in all its details. An entire chapter is devoted to the study of the indicator and its application to the locomotive. Compound locomotives receive special attention. Locomotive equipments, including electric headlights and mechanical stokers, are not forgotten. Particular attention is given to the important subject of breakdowns and what to do in case of emergency. The air brake is fully described. The book is admirably illustrated, and is a distinct contribution to the subject.

PRACTICAL GILDING, BRONZING, AND LACQUERING. By Frederick Scott-Mitchell. London: The Trade Papers Publishing Company, Ltd., 1905. 12mo.; pp. 175.

While there is a number of works in which the subject of gilding, bronzing, and lacquering is treated, there has up to the present time been no convenient and concise book treating this branch of the decorative art exclusively. The book here discussed is largely based on writings in various publications, and is excellently edited by an expert on the subject, Frederick Scott-Mitchell, who has been associated with the painting and decorating trades for over a quarter of a century.

THE PHANTOM OF THE POLES. By William Reed. New York: Walter S. Rockey Company, 1906. 12mo.; pp. 283. Price, \$1.50.

NAVAL POCKETBOOK. Founded by Sir W. Laird Clowes. Edited by Geoffrey S. Thacker & Co., 1907. Pocket edition. Pp. 965. Price, \$3.

LES TREMBLEMENTS DE TERRE. Leur Origine Electrique Possible. Les Tremblements de Terre au Pérou. Par Emile Guarini. Paris: H. Dunod et E. Pinat, 1906. Pp. 26. Price, 50 cents.

POOR'S RAILROAD MANUAL APPENDIX AND DIARY. Special Edition, 1906. 12mo.; pp. 284.

THE INFINITY OF THE STARRY UNIVERSE. By John Lowry Adams. Sydney: Turner & Henderson, 1906. 8vo.; pp. 39, 4 plates, 2 diagrams.

THE MILKY WAY. The Solution of the Problem of the Milky Way, Showing it to be a Special Shadow Effect. By John Lowry Adams. Sydney: Turner & Henderson, 1906. 8vo.; pp. 44, 12 figures.

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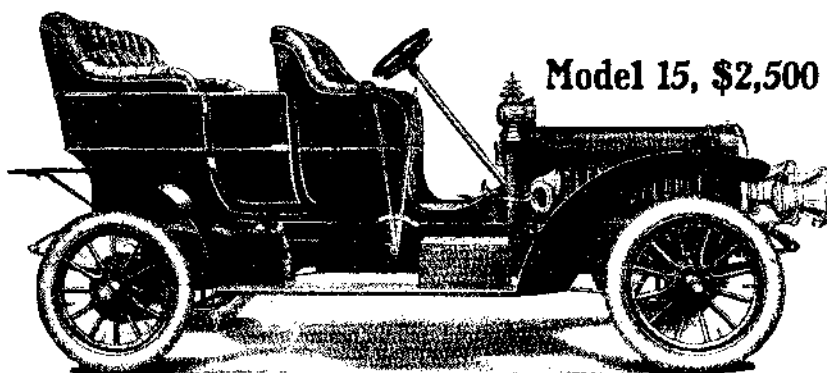
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