

advanced student, however, it should prove of considerable value.

Iron and Steel Constructional Work. By Karl Schindler. Translated from the German and adapted to English practice by Charles Salter. Publishers, Scott, Greenwood & Company, London, England. 140 pp.; 5 ins. x 7 ins.; 115 illustrations; cloth. Price, \$1.00 net.

The book is divided into five sections, the first of which is devoted to cast iron and mild steel columns, with reference to calculation for compression, eccentric loading, etc. Tables of inertia of various shapes are given for each. Section II. deals with girders and beams and the methods of loading, girder connections, rivetted girders, and contains an additional chapter on floor construction. The next section comprises four chapters on roof construction, dealing with loads, roof principals and trusses, together with their calculations and details. The construction of iron staircases is dealt with carefully by precept and example. The last section of the book is devoted to skylights of various types, floor lights and glazed roofing. At the end are five-place logarithmic tables, antilogarithms, trigonometrical functions, tables of squares, cubes, etc., and of metric equivalents.

The book is carefully written, and forms a compact little structural handbook, with examples suitable for practical application. The illustrations are clear and appropriate, and the notation used throughout conforms well with that in general use.

Resuscitation.—By Dr. Chas. A. Lauffer, Medical Director, Westinghouse Electric and Manufacturing Company, East Pittsburgh, Pa. Publishers, John Wiley & Sons, New York. 47 pp.; 4 in. x 7 in.; cloth bound. Price, 50 cents net.

This book includes a reprint of a paper on this subject delivered by the author before the Philadelphia section of the National Electric Light Association. The author, after explaining a number of successful results which have been obtained from employing resuscitation methods on men who were supposedly dead, gives a clear description of the mechanism of respiration, illustrating same by a number of views of the various parts of the anatomy.

The Prone Pressure, or Schafer, method of resuscitation which has been adopted by the National Electric Light Association, and a number of other engineering societies, is described in detail.

This book brings out in a clear, concise manner the necessity of people in general being versed in the principles of resuscitation, and clearly shows how they can become sufficiently learned to prove of valuable assistance in the ordinary walks of life.

Solution of Railroad Problems by the Slide Rule. By E. R. Cary, C.E., Professor of Railroad Engineering and Geodesy, Rensselaer Polytechnic Institute. Publishers, D. VanNostrand Company, New York. 136 pp.; 4 ins. x 6 ins.; cloth. Price, \$1.00 net.

This work is a compilation for the use of the civil engineer of the many ways in which his slide rule can be of extraordinary benefit. Numerous illustrations, examples and formula display methods whereby the instrument may be used with comparative accuracy, and a great saving of time, in the laying out of simple, compound, vertical or easement curves, and turnouts. A chapter is also devoted to its application in computing earthwork.

The first chapter deals with the slide rule alone, its description and method of operating in the solution of problems in general. Throughout the remainder of the text

and under headings stated above are forty problems accompanied by forty-three illustrations and numerous tables. The book closes with tables of contents and a series of 114 formulas bearing upon railway track work.

In the working of the decimal point the author departs slightly from the practice recommended by slide rule booklets of keeping track of it in each operation. He recommends a mental calculation to ascertain the position of the decimal point in the result. This is the practice of many slide rule users, its only disadvantage being liability to err owing to mental occupation upon other parts of the calculation. Again, the manufacturers' instructions are the quicker, and, on the whole, are to be recommended.

An engineer will find the book of great use to him in railway work.

A Text-Book on Trade Waste Waters—Their Nature and Disposal. By H. M. Wilson and H. T. Calvert. Publishers, Messrs. Charles Griffin & Co., Limited, London, W.C. 450 pp.; 74 illustrations; 6 in. by 9 in.; cloth. Price, \$4.50 net.

The book is written primarily from the standpoint of the sanitarian, and aims to show the means by which the waste liquids of industry can be disposed of so as to prevent pollution of streams or other sources of public water supply. However, with the characteristic thoroughness of English text-books the authors pay due attention to the commercial value of by-products, and fully discuss the various means that are adopted in order to recover materials of value from factory waste.

The book is technical, yet, owing to the many and various industries dealt with, peculiarly interesting. The plan throughout has been to describe the processes of manufacture which give rise to the waste water under discussion and to then describe the liquid and the treatment necessary. By this means the book becomes intelligible alike to layman and engineer.

"Trade Waste Waters" should prove valuable to all those who have the care of public water supplies, to the engineer who must advise them, and to the manufacturers, to whom it may mean not only the avoidance of a public nuisance but often a considerable economy of production. It brings into one volume the related matters of an extended literature, to which by copious bibliographies the reader is referred. The only exception that might be taken by a Canadian reader would be that the book relates almost wholly to English conditions and practice. English law in regard to stream pollution is the burden of practically two chapters. But even if in this regard it will not serve as a text-book of Canadian practice, that fact does not seriously detract from the value of the book.

Percentage Compass. For navigators, surveyors and travellers. By John C. Fergusson, M. Inst. C.E. Longmans, Green & Co., London, Eng. Unmounted, 75 cents; mounted, \$1.10.

This comes in the form of a chart which is calculated to simplify the use of the compass and to effect a great saving in all angular computations. By means of this chart the surveyor and the traveller or the navigator can find as he goes along: First, the difference of latitude and departure; second, the closure angle of a compound traverse; third, the length of the closure line; fourth, by the use of the circular scale C it is possible to solve any problem in plain trigonometry by simple arithmetic. The percentage compass is a practical application of Fergusson's percentage unit of angular measurement of the magnetic compass dial, which converts it into a simple and accurate range finder.