

The Engineer's Library

Any book reviewed in these columns may be obtained through the Book Department of
The Canadian Engineer, 62 Church Street, Toronto.

CONTENTS.

Book Reviews:

Surveying and Field Work. By James Williamson	313
Water Purification Plants and Their Operation. By Milton F. Stein	313
Publications Received	313
Catalogues Received	314

BOOK REVIEWS.

Surveying and Field Work. By James Williamson, A.M.I.C.E. Published by Constable & Company, London. First edition, 1915. 363 pp.; 271 figures; size, 6 x 9 ins.; cloth.

This work is prepared for the guidance of the student of surveying. It is principally a record of problems which have arisen in the author's experience and are of a type similar to those met with by every surveyor. For the beginner, however, his work covers a wide range; he first develops a conception of the subject generally, following with the more elementary surveying problems, the use of hand instruments, and the location of buildings and boundaries by tape alone, such as might be attempted by the student in the early stages of his career. Proceeding to the preliminary operations of a more advanced survey, he calls attention to the importance of fixing a general outline of the work in land, before commencing a survey, so that the result may be obtained in the easiest and most efficient manner, and with the least liability to error.

The author then takes up surveying instruments, the sextant, the compass and the transit, their construction and limitations, followed by a discussion on their use in problems in field work. Levelling occupies several chapters of both field work and note keeping. His chapter on contours, and their application to design, contains some very practical ideas. He uses a sewerage project to illustrate his argument. The chapter is well worth the attention of both the graduate and student. The closing chapters on the layout of curves, and mensuration tables are to be found in any field book in more convenient forms.

The arrangement of the work is open to improvement, and there is some repetition which might have been avoided and would add to the clearness. The solution of some problems are begun in one chapter and completed in a succeeding. On the whole, the book contains little information not already found in text books on this subject.

Water Purification Plants and Their Operation. By Milton F. Stein, Assistant Engineer of Design, Cleveland Filtration Plant. Published by John Wiley & Sons, New York. 250 pp.; size, 6 x 9 ins.; illustrated. Price, \$2.50 net.

Mr. Stein, who is assistant engineer in charge of the Cleveland filtration plant, gives in a simple and concise manner instructions for the operation of water purification

plants. The author has succeeded in treating the subject in a manner that will appeal to the non-technical operator, although certain phases of the subject have been treated very elaborately and these chapters will be of especial value to the chemist in charge of such plants.

For the operator of a purification plant the author gives full information and data on such subjects as standard solutions; making bacterial and chemical tests of water; handling coagulants; washing filters; keeping records.

In Chapter I., Water and Its Impurities, the author deals with the various types of purification that are common to domestic water supplies.

Chapter II., Types of Purification Plants, there is a very complete description of the various types of filters now in use in America. In several instances the author has dealt with the efficiency of the plant.

Chapters III. and IV. deal with the physical, chemical, and bacterial tests. These particular chapters will appeal especially to the chemists and the technical men responsible for the work of the plant.

Chapter V., Interpretation of Tests, is a chapter which is complete, yet not too full of detail.

Chapter VI., Coagulation and Sterilization. This is a very practical chapter and one very valuable to those in charge of the actual operation of the plant.

Chapter VII., Water Softening; Chapter VIII., Sedimentation; Chapter IX., Filtration and General Operation.

The book is well supplied with illustrations and diagrams and is altogether one of the most useful publications that has come to our notice in connection with the operation of filtration plants.

PUBLICATIONS RECEIVED.

Geology of Cranbrook District.—Memoir 76, No. 62, Geological Series of the publications of the Geological Survey, Ottawa, deals with the geology of Cranbrook map area, British Columbia. It is written by Stewart J Schofield.

Coal Fields of British Columbia.—Memoir 69, No. 57, Geological Series, published by the Geological Survey, Department of Mines, Ottawa, is a history and analysis of the coal fields of British Columbia, compiled by D. B. Dowling.

British Columbia's Mines.—Annual report of the Minister of Mines for the year ended December 31st, 1914, being an account of the mining operations for gold, coal, etc., in British Columbia; illustrated with charts and photographs.

Wind Stresses in Steel Frames.—Bulletin No. 80 of the Engineering Experiment Station, University of Illinois. It deals with wind stresses in the steel frames of office buildings and is written by W. M. Wilson and G. A. Maney, and published by the University of Illinois, Urbana, Ill.