

nature will prove invaluable in municipal and engineering bookshelves as a work of general reference. There are times when we require just some special information at some particular moment, and it may require no end of hunting up through files or catalogues to obtain it. It is here where the use of an encyclopædia comes in.

The municipal engineer is supposed to be a man who can answer any municipal engineering question at any moment. There are, no doubt, many who would desire to have a complete list of all municipal engineering problems right at their elbow, with the information terse, concise, and complete, ready to be served up at any moment.

We have carefully gone over this new encyclopædia with reference to subjects upon which we have some knowledge, and have concluded that it is well up to date in its information, and will form a valuable and ready reference in the municipal engineer's library.

**Sewage Disposal.**—By Messrs. L. P. Kennicutt (Director Department of Chemistry, Worcester Polytechnic Institute), C. E. A. Winslow (Professor of Biology, Massachusetts Institute of Technology), and R. Winthrop Pratt (Engineer of the Ohio State Board of Health). Published by John Wiley & Sons, of New York. Price, \$3.00 net.

This valuable work to the engineer and student was commenced in collaboration by the above well-known experts before the publication of either H. P. Raikes' "Design, Construction and Maintenance of Sewage Disposal Works" or the English edition of Dunbar's "Principles of Sewage Treatment."

The chief value of the work consists in the fact that we have the views of the chemist, the biologist and the engineer combined in a unity. It forms also the most up-to-date and comprehensive treatise on American practice.

Many of the features, especially those dealing with the problems of sedimentation and the chemistry of sewage, are anticipated in Dunbar's valuable work and others of recent production. On the other hand, there is a quantity of original investigation and deduction which could only have been produced by the happy combination found in the joint authorship.

There is a distinct desire on the part of the engineer to know something of the inner science of sewage purification apart from the mere constructive features incident to installations. Many works on sewage disposal are simply a hash-up of catalogue illustrations, with references to particular installations when such are in vogue. The particular volume in question is calculated, on the other hand, to add an interest to the subject not usually found in most works.

Without doubt or hesitation, every student interested in sanitary engineering must at once make himself acquainted with this new classic on a subject which is becoming of more and more importance throughout Canada.

**Sewage Disposal Works: Their Design and Construction.**—By W. C. Easdale, M.S.E., M.R., San. I. Published by Spon & Chamberlain, New York. Price, \$2.50.

This volume consists almost exclusively of descriptions, illustrated with drawings and photographs, of the various tanks, chambers, filters, beds and other details of sewage works, including the numerous types of appliances required in connection therewith.

The author has had many years' special experience in the use and application of all manner of sewage disposal apparatus, and is well qualified to edit a descriptive work of this character. The work is purely practical in nature, and is designed with the view of supplying in a small compass a ready reference to practically all the constructive parts in modern sewage disposal work.

The volume is entirely up to date, and contains some valuable notes with reference to special appliances designed for the introduction of disinfectants to both potable waters and sewage effluents.

In Canada, where sewage disposal is practically a new feature in engineering, such a work as above described will prove of great value to municipal engineers and others who are called upon to prepare plans and specifications for the installation of modern effective works of sewage purification.

**Sewerage: The Designing, Construction and Maintenance of Sewerage Systems.**—By A. Prescott Folwell. Sixth edition, revised and enlarged. Published by John Wiley & Sons, New York. Price, \$3.00.

This well-known practical treatise on sewer construction has now reached a new edition, enlarged to take in also construction features in sewage disposal plants and notes on methods of treatment.

The contents and illustrations of the book are invaluable to the sanitary constructing engineer. Such chapters as those which deal with Designing, The System, Amount of Sewage, Flushing and Ventilation, Collecting the Data, Detail Plans, Specifications, Methods of Assessment, etc., are all of such practical importance that they should form ready reference in the drawing office.

During the past this work has been recognized as a standard text book in engineering schools, and its enlarged and revised edition will form a welcome addition to technical educational literature, as well as to the engineer's library.

**General Specifications for Structural Work of Buildings;** C. C. Schneider, M. Am. Soc. C.E., paper, 68 pp., 6" x 9". The Engineering News Publishing Company, 75c. net.

This edition is a revision of that published in the Transactions of the American Society of Civil Engineers in 1905, with much additional matter, chiefly as regards concrete. The arrangement of the subjects, etc., calls for no comment since practice is now fairly standard in this regard, so much so, in fact, that a general index is apparently regarded as unnecessary. Individual opinions would make of a work of this nature an endless source of debate. We have agreed with one clause and condemned another and doubt not that the comments on this work could be expanded into a volume many times the size of the original.

The live loads on floors are specified in three ways: (a) Uniform load per sq. ft., (b) Concentrated load at any point, (c) Uniform load per lin. ft. of girders. The maximum result is to be used. A table of the three values to be used in different classes of buildings is given. This is a radical departure from the usual practice but would appear logical and, on acquaintance, involves but slightly more calculation.

The strength of connections shall be sufficient to develop the full strength of the member. This clause is sometimes amplified to accentuate a fundamental absurdity. If the minimum sizes of sections available compel a designer to use an amount of metal in a member in excess of that required by the maximum combination of stresses, it would appear a palpable waste to still further load down the structure with details in the same proportion. In pointing out the fallacy at the root of this clause we are not in any way minimizing the necessity for adequate detailing.

European, and chiefly German, practice has been followed in the specifications for reinforced concrete which are prefaced by some words of comment which are interesting chiefly as indicating that, in the opinion of an eminent engineer, the condition of the concrete industry still warrants warnings concerning the applicability of concrete; and the fact that he calls them tentative affords an interesting point in comparison with the standard practice in steel design.