

Vol. VIII. deals with the terms and phrases in reinforced concrete, both in sub and superstructures. It is a valuable addition to the work and will be of use to engineers desirous of studying foreign articles and manuals on the subject.

The terms and phrases defined in these books are given in six languages—English, French, German, Italian, Spanish and Russian. The term or phrase is defined or illustrated by means of clear cuts of drawings which illustrate the object or the operation referred to. These cuts or illustrations are placed in the centre part of the sheets forming the leaves of the book, on each side of which in vertical columns is placed the terms and phrases in the six languages, these on each side explaining the cut or operation to be described. The cuts are excellent and leave no doubt as to the meaning of the phrase or term. For terms and operations, which are readily understood, the illustrations or drawings have been omitted.

The subject dealt with in each of the books is divided into sections in order of importance, taking up the elementary principles and terms, which are followed by elements of machines, and material, complete machines and operation of plant, use of materials, etc., concluding with terms and phrases on various combinations of plant machinery, and their operation. The arrangement ensures a comprehensive survey of the subject covering a large field, and very little has been omitted. A large number of collaborations were used in its compilation and the checking of technical terms in all languages, many of which are high authorities on the respective subjects and eminent engineers. The technical terms have been carefully checked by these leading experts and may be regarded as accurate and comprehensive.

The work has been carefully indexed alphabetically, terms and works in all languages, being placed in one index, with the exception of the Russian, which is indexed separately at the end of the volume.

This most excellent work is elaborate, and is the most comprehensive translating technical dictionary on the market, and covers a field attempted by none. The careful checking by the large number of experts tends to eliminate errors and omissions so prominent in dictionaries of this character. This book can be employed with confidence, and will be found to be a valuable dictionary to those engaged in translation.

The books are indispensable to the engineer and technical translator.—F. A. G.

**The Design of the Static Transformer**, by H. M. Hobart, M. Inst. of C.E. Published by Constable & Company of London; p.p., 174; illustrated, 101; tables, 17. Price net, \$2.

The book deals with the practical design and construction of the transformer, and supplies a much-needed manual filling the gap between theory and manufacture. It will be of material assistance to the student in showing him how to proceed with the commercial design of the transformer and use his theory.

The introductory chapter is historical of the development of the transformer and reminiscent of the author's experience in its early design. For further study of the transformer a bibliography of a large number of papers and articles is given after the introduction. The fundamental principles of practical design are taken up in the first few chapters, fully illustrated by cuts and curves, followed by chapters on the constructional details, with a study of the core losses, annual efficiency, no load current, power factor, efficiency, frequency, regulation and heating, and their influence on the design. To illustrate and explain the principles

of design, calculations have been made for a small capacity transformer, each step in the design being fully described, special characteristics and variations in design, the adaptability and value of material, are fully discussed. The various data curves and rules introduced to aid in carrying on the design where it is necessary to make assumptions are based upon the author's experience. The reader is supposed to be familiar with the underlying theory of the transformer. The treatise may be regarded as an introductory to the practical design of the transformer.—F. A. G.

## PUBLICATIONS RECEIVED.

**The Eleventh Annual Report Canadian Association for the Prevention of Tuberculosis.** This report includes transactions of the annual meeting held in London, Ont., May 17-18, 1911. Secretary Geo. D. Porter, Esq., Ottawa.

**Directions for Laying Vitrified Brick Street Pavements.** No. 1, specification endorsed and recommended by the National Paving Brick Manufacturing Association. Copies of this specification may be secured from Will P. Blair, Secretary, 824 B. of L. E. Bldg., Cleveland, O.

**Victorian Institute of Engineers.** Proceedings for 1910. Published by the Institute, Melbourne, Australia.

**The Prevention of Sap Stain in Lumber.** Circular No. 192. Forest Service, U.S. Department of Agriculture, Washington.

**Interstate Commerce Commission.** Bulletin of revenues and expenses of steam roads in the United States for the month of July, 1911. Prepared by the Division of Statistics, Washington.

**Reinforced Concrete Patents.** Their scope or monopoly value and the consequences of infringement. Legal questions to the owner, engineer, architect and builder. Copies may be secured on payment of fifty cents to the author, Charles Day Williamson, McLachlen Bldg., 700 10th Street, Washington.

**Gypsum Deposits of the Maritime Provinces.** A report by William F. Jennison, The Mines Branch, Dept. of Mines, Canada.

**Water Powers of Canada.** A report by the Commission of Conservation, Canada.

**Experimental Farms.** Appendix to the Report of the Minister of Agriculture for the year ending March 31st, 1911.

**Department of Mines and Fisheries.** 44th Annual Report.

**Report of the Minister of Agriculture** for the year ending March 31st, 1911.

**Report of the Secretary of State** for the year ending March 31st, 1911.

**Report of the Minister of Public Works** for the year ending March 31st, 1911.

**National Association of Cement Users.** Proceedings of the seventh annual convention held at New York, December 12th to 20th, 1910, containing summary of the proceedings with the different papers given before the association.

**Composition and Strength of Mortar.** The report on the results of the experimental investigation conducted for the Science Standing Committee of the Royal Institute of British Architects, by W. J. Dibdin, F.I.C. Published by the Royal Institute of British Architects, No. 9, Conduit Street, Regent St., London. Price, five shillings.