

The lines along which an elementary text-book on the calculus should proceed are fairly definite, almost as much so as is the case with text-books on elementary algebra. Dr. Phillips' book will be found an excellent work for use in classes. There is great clearness of treatment, important parts of the subject are properly accentuated and parts of minor consequence are left where they should be. There is a great wealth of practical examples and problems for the student to work, with the result that the student who follows Dr. Phillips' treatment will realize how intimately the infinitesimal calculus is associated, one may almost say, with the affairs of everyday life. Very properly, a chapter on different equations has been introduced as a continuation of the work on integration.

### ELEMENTS OF SANITARY ENGINEERING

By Mansfield Merriman, M.Am.Soc.C.E. Published by John Wiley & Sons, Inc., New York, and Chapman & Hall, Limited, London; Canadian selling agents, Renouf Publishing Co., Montreal. Fourth edition, 1918. 250 pages, illustrated, 6 x 9 ins., cloth. Price, \$2 net.

This useful volume has been revised and brought up to date with the assistance of Richard M. Merriman, Assoc. Mem.Am.Soc.C.E. and assistant engineer of MacArthur Bros. Co., New York.

Like the previous editions of this work, it is primarily intended for the use of students, and at the end of each chapter are given exercises and problems which require that the student shall consult encyclopedias, books and engineering literature in order to obtain details of special topics.

Since the publication of the first edition of this book in 1898 many important advances in sewage disposal have been made. Accordingly, the chapter dealing with sewage disposal has been rewritten and expanded. The articles on the Imhoff tank and the article on the other methods of sewage purification are new matter. Fourteen new pages of text have been added and a number of new problems and exercises introduced and several sections have been entirely rewritten.

### PUBLICATIONS RECEIVED

**Estimates for the Fiscal Year Ending March 31, 1919.** Federal Government, Canada. Sessional paper 3. Price, 5 cents.

**Temiskaming and Northern Ontario Railway Commission.**—Annual report, 1917. Ontario Government Railway.

**Records of Scientific Literature.**—November to December, 1917. Published by D. Van Nostrand Company, 25 Park Place, New York City.

**Electrification of Railways.**—By S. T. Dodd, General Electric Company, Schenectady, N.Y. Issued by the Commission of Conservation, Canada.

**Nox-Aer-Leek.**—Pamphlet on the uses and application of this cement. Issued by the Barrett Company. Prepared by the Erickson Company, New York.

**The Niagara Power Shortage.**—By Arthur V. White, consulting engineer, Commission of Conservation. Issued by the Commission of Conservation, Canada.

**Power Possibilities on the St. Lawrence River.**—By Arthur V. White, consulting engineer, Commission of Conservation. Issued by Commission of Conservation, Canada.

**Tide Tables for Nelson, Hudson Bay.**—Also tidal data for Hudson Strait and James Bay for the season of 1918. Issued by the Tidal and Current Survey in the Department of the Naval Service of the Dominion of Canada.

**Navigation.**—By George L. Hosmer, Massachusetts Institute of Technology. Published by John Wiley & Sons, Inc., New York. First edition, 1918. 214 pages, 52 cuts, 4 $\frac{1}{8}$  x 6 $\frac{1}{8}$  ins., cloth. Price, \$1.25 net.

**Iron Ore Occurrences in Canada.**—Volume II. with magnetometric and geological maps. Compiled by E. Lindeman, M.E., and L. L. Bolton, M.A., B.Sc. Issued by Mines Branch, Department of Mines, Canada.

**Manitoba Hydrometric Survey.**—For the calendar year 1916. By M. C. Hendry, A.M.Can.Soc.C.E., chief engineer. Water Resources Paper No. 22. Dominion Water Power Branch, Department of the Interior, Canada.

**Comparative Tests of Six Sizes of Illinois Coal on a Mikado Locomotive.**—By Edward C. Schmidt, John M. Snodgrass and Otto S. Beyer, Jr. Bulletin No. 101, published by Engineering Experiment Station, University of Illinois, Urbana, Ill. Price, 50 cents.

**Annual Report (1917) of the Hydro-Electric Power Commission of the Province of Ontario.**—Vol. I. Legal proceedings. Transmission systems. Operation of the systems. Construction work of the commission. General activities of the commission.

**Interests Dependent on Winnipeg River Power.**—With special reference to the capital invested and the labor employed. By H. E. M. Kensit, M.Am.Inst.E.E., M.Can.Soc.C.E. Water Resources Paper No. 20, Dominion Water Power Branch, Department of the Interior, Canada.

**A Dictionary of Aircraft.**—By W. E. Dommett, A.F.Ae.S., M.I.Mar.E., A.M.I.A.E., author of "Aeroplanes and Airships," etc. Published by Electrical Press, Limited, Fisher Street, Southampton Row, London, W.C.I. New York agents, D. Van Nostrand Co., 23 Murray Street.

**Creosoted Wood Block Factory Floors.**—Causes and prevention of failure. Paper read by Lambert T. Ericson, contracting engineer, at convention of American Wood Preservers' Association, Chicago. Published by the Jennison-Wright Company and the Midland Creosoting Company, Toledo, Ohio.

**Proceedings of the Victorian Institute of Engineers, 1917.**—Containing papers and discussions on the subjects of "Training of an Engineer," "The Influence Line," "Road Construction to Stand Modern Traffic," "Gas Holder Construction," etc. Published by the Institute, 57-59 Swanston Street, Melbourne, Australia.

**Steam Tables for Condenser Work.**—A hand book of steam tables, with pressures below atmospheric expressed in inches of mercury referred to a 30-in. barometer; also including a discussion of the use of the mercury column, the errors in such measurements and constants for their correction. Published by Wheeler Condenser and Engineering Company, Carteret, N.J.

**McAvity Marine Specialties.**—Sixty-eight page catalogue, 8 $\frac{1}{2}$  x 10 $\frac{3}{4}$  inches, coated paper, well illustrated, describing McAvity marine specialties to pass British Admiralty, Lloyds and Imperial Munitions Board's specifications, including marine valves, fittings, hardware, etc., used on steamers and vessels both in building and maintenance. This firm also recently published a catalogue of similar size on "World" corporation specialties, including fire hydrants, gate valves, globe valves, indicator posts, hose nozzles, sewage pumps and ornamental lighting posts.