

of disposal plants, an idea of the scope of this portion of the work being obtained from the chapter headings which are as follows: Sewage Disposal by Dilution; Grit Chambers; Racks, Cages and Screens; Sedimentation, Straining and Aeration; Tanks for Sludge Digestion; Chemical Precipitation; Sludge; Contact Beds; Trickling Filters; Intermittent Sand Filtration; Irrigation and the Agricultural Utilization of Sewage and Sludge; Automatic Apparatus for Dosing; Disinfection of Sewage and Sewage Effluents; and Disposal of Residential and Institutional Sewage.

Although the title confines the scope of the book to sewerage practice on this side of the Atlantic, the authors have provided a great deal of useful and important information from European engineers as well. The book is quite up-to-date in its information. In fact, the authors lay claim to extensive revision and rewriting with this aim in view. The duty of the engineer with respect to sewage and sewerage work is clearly indicated to involve the careful safeguarding of public health. Wise limits of expenditure are advised, this being accomplished most effectually by insisting that each undertaking shall be considered upon its own conditions and that the trained specialist in this branch of engineering shall be the judge of the significance and applicability of experience gained with sewage disposal works elsewhere. The danger of failure resulting from copying plans is pointed out.

In addition to finding the book to be one of great practical value for the subject matter contained therein, the reader will note its completeness in the matter of the selection and arrangement of illustrations. These comprise views of works and of apparatus. The line drawings of plant arrangements, etc., conform, as do the other physical features of the work, with those in the previous volumes. Taken altogether, the engineer will not readily find a more complete compendium of information regarding sewerage practice in America than the three volumes which the above authors have presented.

PUBLICATIONS RECEIVED.

Heat Transmission Through Boiler Tubes.—Technical paper No. 114, U.S. Bureau of Mines; 35 pages.

Ontario Bureau of Mines.—Twenty-fourth annual report, containing 74 pages of information on the Porcupine gold area. Illustrated and containing maps.

Tide Tables for Nelson, Hudson Bay.—An 8-page pamphlet containing tidal data for Hudson Strait and James Bay. Issued by the Tidal and Current Survey, Department of Local Service, Ottawa.

University of Illinois.—Bulletin No. 83 of the engineering experiment station, dealing with magnetic and other properties of iron-silicon alloys melted in vacuo. Seventy pages, illustrated. Price, 35 cents.

Shot Firing in Coal Mines by Electricity Controlled from Outside.—Technical paper No. 108, issued by the U.S. Bureau of Mines; giving a description of systems in use and suggesting certain improvements; 36 pages.

Mine Ventilation Stoppings.—Bulletin No. 99 U.S. Bureau of Mines. A 30-page illustrated pamphlet very completely describing the types of mine stoppings in use in Illinois, giving costs of erecting and maintaining.

Water Power Branch.—Annual report, Part 8, 1914, of the superintendent of water powers. Three hundred pages, profusely illustrated, and with numerous maps inset. Published by the Department of the Interior, Ottawa.

Copper Deposits in Quebec.—A 290-page illustrated report of the Department of Colonization, Mines and Fisheries, Quebec, prepared by J. A. Bancroft and relating to the copper deposits in the eastern townships of the province.

Motors.—A paper on the single-phase, squirrel-cage motor with large starting-torque and phase compensation. By W. A. Fynn, Consulting Engineer, Wagner Electric Manufacturing Co. Reprinted from the proceedings of the A.I.E.E.

Hazards in Handling Gasoline.—Technical paper prepared by Geo. A. Burrell, of U.S. Department of Mines, outlining relation of properties of gasoline and vapor to inflammability and presenting directions for extinguishing burning fluids.

Gasoline Mine Locomotives.—Bulletin No. 74, U.S. Bureau of Mines. A pamphlet describing the use of gasoline locomotives in mines and methods of diluting the noxious gases, from the standpoint of safety and health. Eighty-three pages, illustrated.

Production of Metals in Canada, 1914.—Advanced chapter of annual report on mineral production of Canada, 1914, issued by Mines Branch, Department of Mines. Relates to 1914 production of copper, gold, lead, nickel, silver, zinc and other metals.

Mexpet Record.—A 16-page illustrated publication describing the oil fields of the company in Mexico and the various uses to which the oil may be put. Also containing a diagram showing the comparative costs of coal and fuel oil. Published by the Mexican Petroleum Corporation, 52 Broadway, New York.

Discovery of Phosphate of Lime in the Rocky Mountains.—A 36-page illustrated Commission of Conservation report, prepared by Frank D. Adams, D.S.C., and W. J. Dick, M.S.C., relating to the geology of these phosphate deposits and illustrated by maps, diagrams and microphotographs.

Petroleum and Its Products.—Bulletin No. 9 of the Kansas City Testing Laboratory. A 20-page pamphlet summarizing the production and uses of petroleum, and containing tables and other useful information for both the refiner and consumer. Issued by the Kansas City Testing Laboratory, 1013 Grand Avenue, Kansas City, Missouri. Price, 25 cents.

CATALOGUES RECEIVED.

Johns-Manville Products.—An 80-page illustrated catalogue describing the varied products of this company. The H. W. Johns-Manville Co., Limited, Toronto.

Bosch & Lomb Optical Instruments.—This is an interesting catalogue of 36 pages, describing various optical applications for the microscopic examination and testing of materials.

The Cement-Gun on the Elephant Butte Dam.—Reprint of article by E. H. Baldwin, assistant chief of construction in U.S. Reclamation Service, Denver, Col., on waterproofing the upstream face of the Elephant Butte Dam, New Mexico, by use of the Cement-Gun. Issued gratuitously by The Cement-Gun Co., Inc., 30 Church Street, New York.

Tiffin Flushers.—This is a twelve-page pamphlet containing illustrated descriptions of the Tiffin flushers, showing their new models of 1,000, 1,200, 1,400 and 1,500 gallons capacity. It gives specifications of the flushers and also some data concerning the sprinkler portion of them and should be of great interest to all those who have to do with the maintenance of roads and pavements.