

and valves. Steam exhaust, water and gas systems are covered in Chapters VIII. to XIV. To erection, insulating pipe covering, drawings and specifications is allotted a chapter each.

In general, the text and tables are very good and the illustrations well drawn. A few specific faults may be mentioned. Although the plates in the chapter on "Specifications" are valuable as examples of high-class engineering, the tables need to be corrected so as to cover the later work of the committee on pipe standards of the American Society of Mechanical Engineers. Going back to page 3, a serious error may be noted. Here the author advises the use of extra-heavy pipes for pressure above 125 lbs. per square inch. He also says that standard pipes are sometimes used up to about 200 lbs. per square inch, but that this is not advisable. As a matter of fact, full-weight pipe is in nearly universal use for pressures up to 225 lbs. per square inch, while extra heavy pipe is rarely used except in small sizes or for special reasons.

It is unfortunate that the author does not use the term "Van Stone" as applied to pipe joints until he reaches Chapter VIII. and then not again until Chapter XVIII., although he has illustrated the type, on p. 83, as the "Walmanco" and "Cranclap," both trade names for variations of the nearly universal Van Stone joint. The welded joint and nozzle (pp. 75-76) are somewhat cavalierly treated, although they have been known for 20 years at least and at the present are undergoing considerable change while their use is widening. The reviewer fails to find any mention of the use of the Van Stone joint with welded edges on high-pressure work (350 pounds).

Fig. 152 appears to be a violation of the American Society of Mechanical Engineers' boiler code (now the official standard of many states) in that a steam connection is made to the safety valve nozzle. Machine banded wood-stave pipe, so common at the present time, is not mentioned and continuous-stave wood pipe might well have received more space.

Some of these criticisms relate to what may be considered relatively minor points, but they will serve to illustrate opportunities for improvement in the next edition. It is to be hoped that when a revision is made the errors of omission and commission, which smack of the study and the classroom, rather than of the engineering office, the power house and the field, will be eliminated. The volume would then become more useful not only in the classroom but also in engineering practice.

PUBLICATIONS RECEIVED

Temiskaming County, Quebec, Memoir 103.—Issued by the Geological Survey, Ottawa. Illustrated. By M. E. Wilson. 200 pages.

Weights of Various Coals, by S. B. Flagg. Technical Paper 184 issued by the Bureau of Mines, Department of the Interior, Washington, D.C.

Onaping Map Area.—By W. H. Collins. Memoir No. 77 of the Geological Series. Issued by the Department of Mines, Ottawa. Contains 162 pages.

Tarvia A.—An illustrated booklet describing the character and use of this road preservative. Published by the Barrett Co., Ltd., Toronto, Montreal, etc.

Tarvia K.P.—A handy vest-pocket reference booklet showing each step in patching a road with Tarvia K.P. Issued by the Barrett Co., Ltd., Montreal, Toronto, etc.

Johnson Well Screens.—Bulletin No. 18, describing Johnson brass well screens and Johnson pipe base well screens. Eight pages, 6 x 9 ins., coated paper, illustrated.

Cutters.—Catalogue "A" issued by The Cleveland Milling Machine Co., Cleveland, Ohio, being a reference book of milling cutters, etc. Contains 223 pages and is well illustrated.

Polyphase Induction Motors.—Bulletin in which is described this type of motor, which has a very wide field of application. Issued by the Canadian General Electric Co., Ltd., Toronto.

Gardner Duplex Pumps.—Forty-eight-page catalogue in two colors on coated paper, 6" x 9", issued by the Gardner Governor Company, Quincy, Ill. Canadian representatives, O. W. Meissner, Ltd.

Lillie Evaporators.—Describes the Lillie evaporators for waste for use in connection with tank waters, run-away waters, distillery slop, etc. Issued by the Wheeler Condenser and Engineering Co., Carteret, N.J.

Museum Bulletin No. 27.—Issued by the Department of Mines, Ottawa. Contains information concerning the mineralogy of Black Lake Area, Quebec. By Eugene Poitevin and R. P. D. Graham. Illustrated; 108 pages.

Centrifugal Boiler Feed Pump.—Bulletin N, published by the De Laval Steam Turbine Co. Describes the De Laval combined steam turbine and centrifugal boiler feed pump. Issued by the De Laval Steam Turbine Co.

Air Compressors.—This is a 32-page bulletin printed on coated paper and illustrated. It describes Ingersoll-Rogler air compressors and points out their special features. Issued by Canadian Ingersoll-Rand Co., Ltd., general offices, Montreal.

Coaling Towers.—A 28-page pamphlet devoted to the description of Wheeler-Balcke coaling towers. Various designs of these towers are shown with capacities varying from a few thousand gallons per hour to nearly a million gallons per hour. Issued by the Wheeler Condenser and Engineering Co., Carteret, N.J.

Direct Lift Vertical Air Hoists.—The Canadian Ingersoll-Rand Co. have just issued a new catalogue of their direct lift vertical air hoists. The booklet is well illustrated, and gives complete details of the different types of valves used for various classes of work up to five tons capacity—the dust-proof single acting, the dust-proof air balance, the dust-proof double acting. Complete tables are given, including a useful table of the free air consumption of the hoists.

Petroleum, Asphalt and Natural Gas.—This is a 210-page handbook issued by the Kansas City Testing Laboratory, Kansas City, Mo., and contains a great deal of useful information to all who are interested in the production, refining, selling, uses and technology of petroleum, asphalt and natural gas. Some exceedingly valuable statistics, intelligently arranged and carefully classified, are included, as well as many useful tables and data, making a compact handbook on the subject.

Empire Municipal Directory and Year Book, 1918.—Contains among other matter specially contributed articles on highway engineering, sewage disposal, public lighting, water supply and purification. An interesting section of the book is the list of municipal officials in the various British colonies. The list of names of municipal officials in Canada takes up twenty-two pages and covers every province. The book contains 260 pages exclusive of diary pages for 1918 and memoranda pages at end of book. This is the 36th year of publication. Published by "Municipal Engineering and The Sanitary Record," 8 Breems Buildings, London, England. Price, 5s. 6d.