

Imports Entered for Consumption.—The unrevised monthly statements compiled at the Customs Department, Ottawa.

The Report of the Chief Engineer of the City of New York.—This is a report of the Chief Engineer of the Board of Estimate and Apportionment delivered for the year 1910.

Proceedings of the American Institute of Architects, being the proceedings of the Forty-fourth Annual Convention held at San Francisco and Los Angeles, Cal.

The Fifth and Sixth Reports of the Bureau of Archives, issued by the Province of Ontario, and edited by Alexander Fraser, Provincial Archivist.

CATALOGUES RECEIVED.

Core Drills.—McKiernan-Terry Drill Co., 115 Broadway, New York. Catalogue; pp. 69; illustrated.

The McKiernan-Terry core drills to which this catalogue is devoted, are suitable for various classes of work, such as prospecting, testing, blasting, etc. The various classes of these drills are described and illustrated and instructions are given for operation. A large portion of the catalogue is devoted to reviews of the operations accomplished by the Mc-Kiernan-Terry core drills for the purpose of providing users and prospective users with such details as to facilitate intelligent purchasing. These drills will drill up to 45° from the vertical and give cores up to 30 inches in diameter.

Bitumens.—The Good Roads Improvement Company forward a four-page pamphlet entitled, "Applying Bitumens Hot or Cold," illustrating steel tank wagons equipped with heater. Copies may be obtained by writing the General Office, First National Bank Bldg., Cincinnati, Ohio.

Filters.—The Roberts Filter Manufacturing Company issued a small bulletin for distribution at the Dominion Exhibition held at Regina, Sask., August 1st to 12th, 1911, which shows different views of Saskatchewan Water Works System installed by Roberts Filter Company.

Structural Steel.—The Canada Steel Company, of Hamilton, Ont., have issued a booklet showing different bars and structural steel shapes manufactured by them.

Concrete Sidewalks.—The Berger Manufacturing Company, Canton, Ohio, forward catalogue illustrating their pressed steel forms for concrete sidewalks. This makes a very interesting booklet on sidewalk construction.

Hydraulic Turbines.—The S. Morgan Smith Company, York, Pa., have forwarded a pamphlet illustrating the different turbines manufactured by them and including directions for the construction of head and tail races, and setting of the wheels, with some valuable tables attached.

Hydraulic Cranes.—The Hydraulic Engineering Company, Ltd., Chester and London, have just issued the fourth edition of their catalogue illustrating different hydraulic machinery. It is a very well bound book of 182 pages, excellently printed and finely illustrated, showing hydraulic coal hoists, wagon hoists, cranes suspended, hydraulic lifts and pumping engines, and a variety of other hydraulic appliances.

Crude Oil Engines.—The Atlas Engine Works, of Indianapolis, have just issued their bulletin No. 201, illustrating Atlas Crude Oil Engines and the Diesel type, also a report on the test of one of these engines by the consulting engineer of Chicago.

The Mesta Machine Company.—A description of the plant of the Mesta Machine Company, with a schedule of trip to the works of this company, by the American Society of Mechanical Engineers. This little pamphlet is gotten

out as a souvenir for the members of the American Society of Mechanical Engineers, present on this trip. A number of fine illustrations of different parts of their works with some of the machines that they have completed, are given.

Pile Hammers.—The McKiernan-Terry Drill Company have sent out a 16-page pamphlet with many illustrations of the different types of their pile hammers being used on different classes of work. Copies of the pamphlet may be obtained from McKiernan-Terry Drill Co., 115 Broadway, New York.

Hydraulic Pumps.—Catalogue No. 81, is the title of a new 120-page 6x9 pamphlet descriptive of many standard and several new types of hydraulic pumps. This catalogue, issued and sent free by the Watson-Stillman Co., 50 Church Street, New York, contains valuable information for hydraulic engineers and users of hydraulic machinery.

Continuous Reading Calipers.—The Blanchard Machine Company, Cambridge, Mass., have just issued a pamphlet descriptive of the newly designed "Blanchard Continuous Reading Caliper" or "Excess Stock Indicator." The many advantages of the Blanchard method are made evident by the pamphlet, which will be sent on request to the company.

REINFORCING WOODEN POLES.

The overhead department of the Indiana Union Traction Company, Anderson, Ind., this year is reinforcing about 1,600 of its trolley poles. Last year about 700 poles were reinforced and during the late fall of 1909 similar work was done on 250 to 300 poles. The work is in charge of G. H. Kelsay, superintendent of power.

An excavation to a depth of 24 in. to 28 in. is first made around the pole. The rot around its base is then shaved off, and a thorough application of creosote is given the pole from the bottom up to a height of 3 ft. or 4 ft. above the ground. For installing the concrete reinforcement thirty-six forms, 48 in. long and ranging in diameter from 18 in. to 24 in., are used. These are constructed of black sheet iron and are made in semi-circular halves. Semi-circular bands are riveted to the iron to hold the forms in shape, the edges of the forms being hinged together, thus permitting easy handling and assuring that halves of the same size are kept together. With thirty-six forms four men can be kept busy concreting.

A form of the size most nearly conforming to the size of the pole is laid around it, and inside this form is placed wire reinforcement consisting of 46-in. twelve-bar heavy wire fence, with No. 7 top and bottom wires, No. 9 intermediate horizontal wires and No. 9 vertical wires spaced 3 in. apart. This fencing is cut in lengths sufficient to encircle the pole and be embedded in the concrete just inside the forms. The form is then filled with concrete consisting of one part cement to five parts gravel and sand. The top is sloped off slightly to assist in shedding water from the top of the concrete and around the pole. The form is removed from the pole after about twenty-four to thirty-six hours. After the forms have been removed the dirt is tamped in around the concrete and the pole is coated with a heavy paint or pitch compound around the top of the concrete to eliminate as nearly as possible the entrance of moisture between the concrete form and the pole.

The reinforcement is being applied to 30-ft. and 40-ft. poles, although the latter size poles are thought to be good for a considerable length of time. The 30-ft. poles, however, are believed to be near the maximum limit of their life without some form of protection and therefore reinforcement, as described, has been applied.