

in that Branch; and the evidence of Miss Wileman on the establishment of a free labor bureau system in Canada. The book includes maps and a fine list of illustrations.

**Report of the Building and Ornamental Stones of Canada, Vol. II.**—This report, which is published by Wm. A. Parks, B.A., Ph.D., under the Mines Branch, Department of Mines, Ottawa, forms the third part of the Monograph on the Building and Ornamental Stones of Canada, of which Part I. constitutes a general introduction and Part II. deals with the stones of the Province of Ontario. The work consists of 264 pages,  $6\frac{1}{2} \times 9\frac{1}{2}$  inches, including appendices and illustrations. The field work upon which the report is based was done during the summer of 1911, when, within a period of two and a half months, sixty quarries were visited, as well as a considerable number of abandoned quarries and prospects. But, though this report is by no means confined to quarries in actual operation, it does not pretend to include every opening that has been made for the production of building stone. The object was to represent by a typical example every important district and to give due consideration to every stone commercially available at the present time. The sketch maps accompanying the report were prepared by Mr. R. R. Rose, and are designed to show the general geology of the region, and more particularly to point out the location of the important quarries; only a few quarries not in actual operation being indicated, and no attempt being made to show the numerous small pits that have been opened for the obtaining of limestone for flux or for lime-burning.

### CATALOGUES RECEIVED.

**Gurley Automatic Water Stage Registers.**—A 31-pp. pamphlet showing and illustrating the use of water stage registers manufactured by W. & L. E. Gurley, Troy, N.Y.

**Railway Motor Gears and Pinions, Bulletin "A" 4199.**—A small booklet showing the various grades of gears and pinions handled by the Canadian General Electric Co., Limited, Toronto.

**Evidence of Toncan Metal.**—A small booklet of illustrations issued with a view to giving visual evidence of Toncan Metal in actual use. Published by the Stark Rolling Mill Co., Canton, Ohio.

**Clyde Land-Clearing Machinery.**—An attractive 16-page catalogue, finely illustrated to show the logging, hoisting, excavating, stump-pulling, and land-clearing machinery manufactured by the Clyde Iron Works, Duluth, Minn.

**Industrial Buildings, Limited,** designing and supervising engineers and contractors of building construction and equipment, Toronto, has issued a small booklet showing the company's method of construction in modern industrial buildings.

**The Cement-Gun, the Apparatus, Process and Product.**—A well illustrated 106-pp. booklet, being a compilation of the record of the development of the cement-gun since its inception as a commercial enterprise three years ago. Edited by Arthur E. Lee, and published by the Cement-Gun Co., Inc., New York, N.Y.

**The "Badger" Catalog, No. 13.**—A 32-page booklet issued by the Canadian Allis-Chalmers, Limited, and descriptive of badger engines for gas, gasoline, or kerosene, built by the Christensen Engineering Co., Milwaukee, Wis., and dealing with those which are specially adapted for the operation of grain elevators and grist mills.

**Drinking Water Systems.**—A 45-pp. booklet, illustrated, to show the value of Nonpareil Cork Covering for drinking water systems in mills, factories, hotels, office buildings,

hospitals, public buildings, etc. Issued by the Armstrong Cork and Insulation Co., Pittsburgh, Pa., for which firm the Kent Co., Limited, 705 Lumsden Bldg., Toronto, are the Canadian distributors.

**Ice-Handling Equipment.**—A 64-page booklet, fully illustrated, and containing general information for purchasers of ice elevators, conveyors, lowering machines, ice tools, and icing station equipment, manufactured by the Gifford-Wood Co., with New England headquarters at Nos. 51-52 North Market St., Boston, Mass., and western headquarters at No. 103 North Jefferson St., Chicago, Ill.

**Power, Its Economical Distribution.**—A well finished and well illustrated booklet issued by the British Aluminium Co., Limited, 109 Queen Victoria St., E.C., London, England, being No. 108 publication on aluminium insulated cables. The object is to show the economy of the product, the easy solution of working and jointing problems in the use of the metal, and the low scrap value of these cables.

**General Catalogue of the Dominion Equipment & Supply Co., Limited, Winnipeg.**—A 414-page book, illustrated and indexed, describing in a brief and comprehensive manner the various lines of machinery, equipment, and general supplies manufactured and handled for the use of steam and electric railroad contractors, general contractors, bridge builders and structural steel erectors, coal mines, stone quarries, blacksmiths, factories, mills, municipalities, electric light plants, waterworks plants, etc., etc. The descriptions are carefully prepared and cover the essential points in representing the goods clearly and concisely. The lists and tables are the latest up to the time of going to press. The catalogue is issued for the year 1914.

### BREAKING UP PAVEMENT BETWEEN CAR TRACKS.

An unusual and efficient method of breaking up old block pavement between the rails of a street railway track in preparation for replacing the track has been devised and is being used in Cleveland. To a car with a heavy steel framework and wooden sides about 2 feet high is attached a plow consisting of a heavy steel casting of suitable shape for lifting the paving blocks, and at the same time cutting the tie rods which hold the two rails of the track together. A counterweight is placed in the car to hold the plow in the desired position when the car is pulled along. The plow car with its counterweight weighs about 11 tons.

The plow is pulled by a service motor car equipped with four Westinghouse motors. This car is of steel, of the hopper type, behind the motorman's cab and the motor mechanism, and is loaded with blocks, then weighing about 50 tons. Three men and the crew of the motor car are all that are necessary to operate the plow.

With this apparatus it has been found that 1,300 square feet of pavement can be removed in one minute. On one occasion the pavement in a stretch of track 2,600 feet long was removed in 35 minutes. The only difficulties experienced have been breakages of the cable, which have not occurred often. The plow is used only one or twice a week, since an hour's work with it gives enough track to work on for about ten days. The plow has been in use for several months. It is described in a recent number of the Electric Railway Journal by its designer, Charles H. Clark, engineer of maintenance of way for the Cleveland electric railways.

On August 16 the Canal zone celebrated the opening of the Panama Canal. The official celebration of international significance has been set for next spring. The steamship Ancon, owned by the United States War Department, and leased to the Panama Railroad for service in the New York-Colon trade, was chosen as the first big boat to be put through, signaling the opening of the canal to all ships up to 10,000 tons register.