

MUNICIPAL ENGINEERS, CONTRACTORS, AND MATERIALS.

APPARATUS FOR DETERMINING THE WEAR ON PAVING MATERIALS.

An apparatus is in use at the German Government testing station at Charlottenburg, Berlin, employed to test the wear on paving and flooring materials, which as described in the "Zeitschrift fuer Transportwesen und Strassenbau," consists in substance of a horizontal cast iron disk of about 31 ins. diameter, which, driven by a bevel gear, makes 22 revolutions per minute. Then 1/4 oz. of Naxos powdered pumice is spread on the disk immediately in front of the testing piece in such a way that the whole amount of powder must pass the sample. This is pressed against the disk by a one-armed lever weighted with 66 lbs., so that a smooth surface of nearly 8 sq. ins. is exposed to the grinding process. After 110 revolutions are completed, motion is suspended and the previously weighted testing piece, after being carefully dusted with a brush is weighed over again. This process is repeated four times. Then the sum of the different losses by wear, divided by the specific weight of the respective material, will give the amount of wear in cubic centimeters. *Engineering News.*

PERSONAL.

Mr. John Sutherland, for many years town clerk of Cobourg, died in that town on the 2nd of May, aged 79 years.

Established 1841.

THOROLD CEMENT

OVER

10,000 BARRELS

USED IN

BUILDING

THE GREAT

ST. CLAIR TUNNEL

MANUFACTURED BY

ESTATE OF JOHN BATTLE,

Thorold, Ontario.

ASPHALT PAVING

We are prepared to do first-class work on WALKS, FLOORS, CELLAR BOTTOMS, &c., with ROYAL ASPHALT, which is conceded to be the best for this class of work.

H. WILLIAMS & CO.,

Roofers and Paviers,

4 Adelaide Street East, - TORONTO.

DIRECT IMPORTERS AND DEALERS IN

SCOTCH FIRE CLAY BRICK,



DRAIN AND WATER PIPES,

Double Strength for railway culverts, etc.

Select Bottoms or Invert Blocks, Cement. NOTE.—Only pure SCOTCH unglazed Fire Clay Linings will be kept in stock; any other quality is worthless for resisting heat. Correspondence invited. Quotations promptly furnished. Office: 31 Wellington St., Montreal.

ISAAC USHER & SON, THOROLD, ONT.

Manufacturers of

QUEENSTON CEMENT

Proved by Government tests to be the best Canadian natural cement. Write for prices, &c.

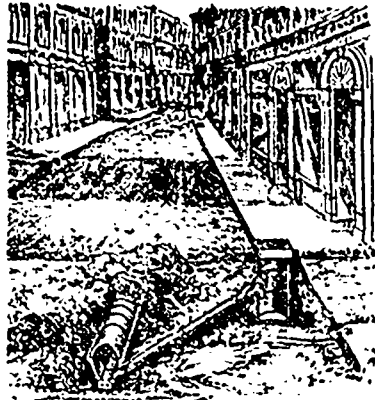
St. George's Patent Sectional

VITRIFIED CLAY SEWER

— AND —

CAST IRON STREET GULLEY.

Over 5000 Gulleys are now in use in the following towns. Montreal, Toronto, Ottawa, Quebec, St. Cune, St. Henri, Peterboro, Owen Sound, Samia, Cote St. Antoine. A saving of \$22 on each gully over the brick gulleys.



LEWIS SKAIFE,

Engineer and Contractor,

New York Life Building, - MONTREAL. AGENT.

DEBENTURES WANTED.

Municipalities issuing debentures, no matter for what purpose, will find a ready purchaser by applying to G. A. STIMSON, 9 Toronto Street, Toronto. N.B.—Money to loan at lowest rates on first mortgage.

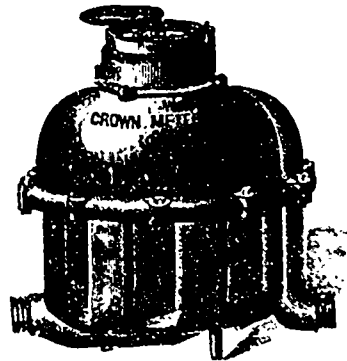
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National Meter Co.

GOWER & CO.,

AGENTS,

204 St. James Street, - MONTREAL.



94,000 Meters sold and in use to date.

GOWER & CO. will also quote for FILLERS, STAND PIPES, CAST PIPES, SPECIALS, HYDRANTS, VALVES, and all Waterworks and Municipal Supplies.

HAMILTON and TORONTO SEWER PIPE CO.

- FOR

SEWERS, CULVERTS,

AND

WATER PIPES.

INVERTS

For Brick Sewers

Write for Discount.



HEAD OFFICE AND FACTORY, HAMILTON, CANADA.

EUREKA CONCRETE SIDEWALKS

FOR CELLARS, FLOORS, STABLES, ETC.

A. GARDNER & CO., - ROOM D, YONGE STREET ARCADE, TORONTO. TELEPHONE 2147.

Canadian Bridge & Iron Co.

MONTREAL.

Architectural Ironwork a Specialty. Pleased to furnish estimates.

THE J. G. EDWARDS

Vitrified Terra Metallic Paving Brick

— FOR —

STABLE, COACH HOUSE, BOILER HOUSE, BREWERY FLOORS AND YARDS, Also all places of heavy and light traffic.

The only Genuine Vitrified Brick. The best in the world for Sidewalks & Street Crossings

FRONT-PROOF, WATER-PROOF, TIME-PROOF

JOHN S. CUTHBERTSON, AGENT FOR CANADA. Room 64, Temple Building, Montreal. PRICES ON APPLICATION.

THE CENTRAL BRIDGE WORKS

Peterborough, Ont.

WM. H. LAW, Proprietor and Engineer.

MANUFACTURER OF

RAILWAY AND HIGHWAY BRIDGES

Viaducts, Piers, Roofs, Turntables and Girders in Steel and Iron.

Tension members forged without welds. Riveting done by hydraulic or compressed air machines. Specialties. Good workmanship and strict adherence to specifications and drawings.

CAPACITY 2,000 TONS PER ANNUM.

ALAN MACDOUGALL,

CIVIL AND SANITARY ENGINEER,

12 ADELAIDE STREET EAST

TORONTO.

R. E. H. BUCKNER,

32 Adelaide St. East, - TORONTO.

PATENT CAST IRON GULLIES,

Vitrified Clay Sewers - Dust Bins - Sewer Pipe Cement - Steam Road Rollers - Stone Breakers - Street Scrapers - Horse Brushes, etc.

THE STANDARD DRAIN PIPE CO.

OF ST. JOHNS, P. Q. (L.M.)



Manufacturers of

Salt-Glazed, Vitrified

SEWER

PIPES

Double Strength Railway Culvert Pipes, Inverts, Vents,

AND ALL KINDS OF FIRE CLAY GOODS.

Prices of Building Materials.

LUMBER.

CAR ON CARGO LOTS.

Toronto, Montreal.

| | \$ | \$ | \$ | \$ |
|--|-------|-------|-------|-------|
| 1 1/2 x 2 clear picks, Am. ins. | 20.00 | 22.00 | 24.00 | 26.00 |
| 1 1/2 x 2 three upper, Am. ins. | 17.00 | 19.00 | 21.00 | 23.00 |
| 1 1/2 x 2 pickings, Am. ins. | 17.00 | 19.00 | 21.00 | 23.00 |
| 3 inch clear | 18.00 | 20.00 | 22.00 | 24.00 |
| 1 x 10 and 12 dressing and better. | 13.00 | 14.00 | 15.00 | 16.00 |
| 1 x 10 and 12 mill run | 14.00 | 15.00 | 16.00 | 17.00 |
| 1 x 10 and 12 dressing | 12.00 | 13.00 | 14.00 | 15.00 |
| 1 x 10 and 12 common | 10.00 | 11.00 | 12.00 | 13.00 |
| 1 x 10 and 12 spruce culls | 9.00 | 10.00 | 11.00 | 12.00 |
| 1 x 10 and 12 maple culls | 28.00 | 30.00 | 32.00 | 34.00 |
| 1 inch clear and pick | 18.00 | 20.00 | 22.00 | 24.00 |
| 1 inch dressing and better | 14.00 | 16.00 | 18.00 | 20.00 |
| 1 inch siding, mill run | 12.00 | 13.00 | 14.00 | 15.00 |
| 1 inch siding, common | 11.00 | 12.00 | 13.00 | 14.00 |
| 1 inch siding, ship culls | 10.00 | 11.00 | 12.00 | 13.00 |
| 1 inch siding, mill culls | 8.00 | 9.00 | 10.00 | 11.00 |
| Cull scantling | 8.00 | 9.00 | 10.00 | 11.00 |
| 1 1/2 and thicker cutting up plank | 22.00 | 25.00 | 28.00 | 31.00 |
| 1 inch strips, 4 in. to 8 in. mill run | 14.00 | 15.00 | 16.00 | 17.00 |
| 1 inch strips, common | 13.00 | 14.00 | 15.00 | 16.00 |
| 1 1/2 inch flooring | 14.00 | 15.00 | 16.00 | 17.00 |
| 1 1/2 inch flooring | 14.00 | 15.00 | 16.00 | 17.00 |
| XXX shingles, sawn, per M | 2.30 | 2.35 | 2.40 | 2.45 |
| 16 in. | 1.30 | 1.35 | 1.40 | 1.45 |
| XX shingles, sawn | 1.30 | 1.35 | 1.40 | 1.45 |

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