

CANADIAN CONTRACT RECORD

*A Weekly Journal of Engineering, Public Works,
Tenders, Advance Information and Municipal Progress*

This Paper Reaches Every Week the Town and City Clerks, Town and City Engineers, County Clerks and County Engineers, Leading Civil Engineers and Contractors throughout Canada, and Purchasers of Municipal Debentures.

VOL. 18.

TORONTO, MONTREAL — OCTOBER 9, 1907 — WINNIPEG, VANCOUVER

No. 32

THE CANADIAN CONTRACT RECORD

PUBLISHED EVERY WEDNESDAY

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in advance,

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should give prompt notice of same. In doing so
give both old and new address. Notify the sub-
scribers of any irregularity in delivery of papers.

**Classified Index
of Advertisers,
Page 15.**

The Board of Education TORONTO

Tenders Wanted

Sealed tenders addressed to the Secretary-Treasurer of the Board will be received until

MONDAY NOON, OCTOBER 14TH, 1907,

For the several works required in the erection of
**KENT SCHOOL, DUFFERIN STREET,
HOWARD SCHOOL, HOWARD AVENUE,**

and for

**FENCING, GRADING AND SODDING
the playground at
RIVERDALE HIGH SCHOOL.**

Specifications may be seen and all information
obtained at the offices of the Board, City Hall.
Each tender must be accompanied by the deposit
mentioned in the said specifications and forms of
tender.

The lowest or any tender will not necessarily be
accepted.

**HERBERT A. E. KENT, W. C. WILKINSON,
Chairman of Board. Sec.-Treas.**

Debentures for Sale

TOWN OF UXBRIDGE

Sealed tenders will be received by the undersigned
up to 8 o'clock p.m. on **FRIDAY THE 25TH DAY
OF OCTOBER, 1907,** for the purchase of \$25,000.00
3 per cent. debentures, payable in twenty years, re-
loan to the Palmer Piano Company, Limited.
Particulars from the undersigned.
No tender necessarily accepted.
J. W. GOULD, Clerk.

CALGARY, ALTA.

STREET RAILWAY SYSTEM

Sealed tenders addressed to S. J. Clarke, Esq.,
Chairman of Public Works Committee, Calgary,
Alta., will be received until 12 o'clock at noon on
FRIDAY THE 1ST DAY OF NOVEMBER next.

(a) For the construction of about 12 miles of
St. Car track and overhead trolley work in the
City of Calgary.

(b) For building a steel bridge with concrete
abutments over the Elbow River in the City of
Calgary.

(c) For 6 semi convertible cars with electrical
equipment &c.

Separate tenders will be received for each of the
above.

An accepted bank cheque, payable to the City
Treasurer for 5% of the amount of the bid, must
accompany each tender.

Plans, specifications and forms of tender can be
obtained upon application at the City Engineer's
Office, Calgary.

The lowest of any tender not necessarily accepted.

R. E. SPEAKMAN, C. E.,
City Engineer.

City Engineer's Office,
Calgary, Alta., Sept. 24th, 1907.

FOR SALE

1 Merriman Screw Gang Stone Saw, 5' x 5 1/2'
x 10', nearly new.

1 Miles Concrete Block Machine, nearly new,
with 240 wooden pallettes.

M. BEATTY & SONS, Limited,
Welland, Ont.

DEBENTURES FOR SALE

VILLAGE OF GRAND VALLEY LOCAL IMPROVEMENTS

Sealed tenders will be received by the undersigned
up to 8 o'clock p.m. on **FRIDAY THE 1ST DAY
OF NOVEMBER, 1907,** for the purchase of
\$3,772.60 Debentures, at 5 per cent., payable in
twenty equal annual payments of \$208.81.
Further particulars from undersigned.
No tender necessarily accepted.

WM. MCINTYRE,
Clerk, Grand Valley.

TENDERS FOR

15 Miles of Water Pipe

Sealed tenders addressed to the Chairman of the
Board of Control for supply of approximately 15
miles of assorted water pipe, delivery of same to
commence about May 15th, 1908 or as soon as
navigation opens, will be received at the office of
the undersigned up to noon on **FRIDAY, NOVEM-
BER 15TH, 1907.** Specifications and forms of
tender may be obtained at the office of H. N.
Ruttan, City Engineer, Winnipeg. Each tender
must be accompanied by an accepted cheque payable
to the order of the City Treasurer or cash deposit for
the sum called for in the form of tender supplied,
which will be subject to forfeiture in case of failure
on the part of the successful tenderer to enter into a
written contract with approved sureties if called upon
to do so. The lowest or any tender not necessarily
accepted.

Board of Control Office,
Winnipeg, Sept. 25th, 1907.

M. PETERSON,
Secretary.

FOR SALE

2 Cableways, 750
feet span, and 20 three-
yard Steel Skips, all
practically as good as
new. Apply

M. L. QUILLINAN,
Imperial Bank Chambers,
Niagara Falls, Ont.

CONTRACTS OPEN.

UXBRIDGE, ONT.—The ratepayers
have approved of a by-law to loan \$25,-
000 to the Palmer Piano Company.

CANORA, SASK.—J. D. Robertson,
Secretary Treasurer, is asking for ten-
ders for \$1,500 school debentures.

LETHBRIDGE, ALTA.—On Octo-
ber 28th, the ratepayers will vote on a
by-law to raise \$12,000 for extensions to
water works.

EDMONTON, ALTA.—It is report-
ed that the Grand Trunk Pacific will
shortly award a contract for 200 miles of
the main line west of this city.

HULL, QUE.—A by-law to borrow
\$68,000 for extensions to the waterworks
and for other local improvements has
been defeated.

QU'APPELLE, SASK.—The rate-
payers have approved of a by-law to

raise \$10,000 by debentures for public improvements.

NORTH AUGUSTA, ONT.—Inspector Craig has condemned the old school house and tenders for a new building will likely be taken at an early date.

WYCHWOOD, ONT.—The Church Extension Committee have donated a site upon which a school house will shortly be built. The erection of a new church is contemplated.

RAPID CITY, MAN.—The trustees of the Robinville school district are taking tenders this week for the erection of a school house. Plan at "Reporter" office.

ARCOLA, SASK.—The town has secured a loan of \$50,000 from the F. H. Cook Mortgage Company for the completion of the waterworks system and other purposes.

GUELPH, ONT.—The Board of Education have just taken tenders for the erection of a brick school house in St. Patrick's ward, according to plans prepared by architect Mahoney.

NELSON, B.C.—Extensive improvements to the Nelson Opera House are contemplated by the Directors. A new heating system will be installed and the building redecorated. Total cost, \$2,500.

AMHERST, N.S.—The property of the Maritime Heating Company, Limited, is offered for sale by tender up to October 15th, the real estate, foundry buildings and machinery of the plant are included.

PETERBOROUGH, ONT.—Only two bids were submitted for building a new Baptist church, and the amounts of these were so high that they were both rejected. Fresh tenders will shortly be taken.

MARKHAM, ONT.—Votes of the ratepayers will be taken on October 22, upon a by-law to raise \$6,000 by debentures for sidewalk construction and building approaches to the Rouge river bridge.

PETERBORO, ONT.—County Clerk Elliott wants tenders up to October 11th, for the concrete abutments of a bridge over the Ouse River, Asphodel Township. Specifications at office of County Engineer, J. E. Belcher, C. E.

PORT ARTHUR, ONT.—Tenders are invited by Fred Gelinus, Secretary, Department of Public Works, Ottawa, up to October 24th, for alterations to the Post Office building. Plans of local postmaster and at the department.

PORTAGE LA PRAIRIE, MAN.—Information has reached us to the effect that plans are being prepared for a new reformatory to be erected on the Government farm site at a cost of \$150,000. Tenders will be taken early in the winter.

FORT WILLIAM, ONT.—H. S. Holt, president of the Kaministikwia Power Company has promised to find the necessary financial aid for the establishment of a steel plate mill in this city provided a sound proposition is submitted.

SHELL RIVER, MAN.—Charles Brydon, Secretary-Treasurer, wants tenders up to October 12th for construction of a bridge across the Shell River, near Roblin. Plans at municipal office, Roblin, or at the Department of Public Works, Winnipeg.

KINCARDINE, ONT.—Fred Gelinus, Secretary, Department of Public Works, Ottawa, will receive tenders up to October 22nd for the construction of a public building in this town. Specifications on application to the Postmaster, and at the Department.

WOODSTOCK, N.B.—The Woodstock Electric Railway, Light & Power Co., having changed their plant from direct current to alternating, are anxious

to dispose of two Ide engines, 125 horse power each; two tubular boilers; 10 direct current dynamos; one 500 volt generator, and two small motors.

PORTGUEUSE COVE, N. S.—Fred Gelinus, Secretary, Department of Public Works, Ottawa, wants tenders up to Oct. 25th, for the construction of a breakwater. Specifications at offices of C. E. W. Dodwell, Resident Engineer, Halifax; E. G. Millidge, Resident Engineer, Antigonish, N.S.; on application to the local postmaster and at the department.

SALMON RIVER, N.B.—Tenders are invited by Fred Gelinus, Secretary, Department of Public Works, Ottawa, for the construction of an extension to the breakwater at this place. Specifications at offices of E.T.P. Shewen, Resident Engineer, St. John, N.B.; Geoffrey Stead, Resident Engineer, Chatham, N.B.; on application to the postmaster and at the department.

VICTORIA, B.C.—It has been finally decided to have new plans prepared for the Victoria West school. The appropriation amounts to \$30,000 and the lowest tender of those recently submitted was \$8,000 in excess of this sum.—F. S. H. Matson is taking tenders this week for additions to Victoria Transfer livery stables, corner of Broughton and Borden streets. Plans at offices of F. M. Battenbury, architect, Five Sisters Block.

ST. ALPHONSE, QUE.—Tenders are invited by Fred Gelinus, Secretary, Department of Public Works, Ottawa, up to October 26th for the construction of an extension to the wharf at this place. Specifications at offices of J. L. Michaud, Resident Engineer, Merchants Bank Building, St. James street, Montreal; J. C. Tache, Resident Engineer, Chicoutimi, Que.; A. R. Decary, Resident Engineer, Post Office Building, Quebec, and at the Department.

BERLIN, ONT.—Favorable propositions have been submitted to the town by the representatives of three large manufacturing concerns of South Bend, Ind., and there is every probability of their locating here. The industries are represented by F. M. Hoffman, H. S. LaGrange and N. Roos, and are respectively the manufacturers of go-carts, concrete machinery and washing machines. It is proposed to erect factories to the value of \$100,000.

LONDON, ONT.—Negotiations are under way with a view to the location in this city of the Canadian factory of the Hamilton-Brown Shoe Company of St. Louis.—At a recent meeting of the committee, plans for the new isolation hospital as prepared by Victor Mitchell, were approved, the engineer was instructed to prepare specifications preliminary to taking tenders.—The manufacturer's committee have been asked to give inducements to a company who wish to engage in the manufacture of engines and boilers in this city.

WINNIPEG, MAN.—A permit has been granted to the Ideal Fence Co. for the erection of a \$2,000 building on Catharine street.—A by-law calling for the expenditure of \$100,000 for the establishment of a public abattoir and cattle market has been approved by the board of control and recommended to the city council.—The authorities are considering the matter of converting the old police station into civic offices by day labor or under the supervision of a reliable contractor.—Tenders will be received up to October 17th for the construction of a gallery at the engine house, high pressure pumping station. Plans at office of City Engineer.

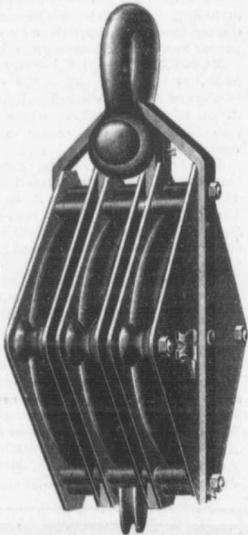
OTTAWA, ONT.—Tenders are invited by Fred Gelinus, Secretary, De-

partment of Public Works, for the construction of the following works: Up to October 28th, for the erection of a public building at Kincardine, Ont.; up to October 26th, for the construction of an extension to the wharf at St. Alphonse, Chicoutimi County, Que.; up to October 25th, for construction of breakwater at Portuguese Cove, N. S.; up to October 26 for building an extension to the breakwater at Salmon River, N.B., plans at the Department up to October 24th for alterations and additions to the post office building at Port Arthur, Ont. Specifications at Port Arthur post office and at the Department.—The civic finance committee have recommended a fixed assessment on the new central station, but have vetoed the proposition to fix the assessment of the proposed G.T.R. hotel at \$500,000. It is expected that this will cause considerable delay in building operations.—The W. C. Edwards Co., whose premises were recently destroyed by fire, have taken out permits for an office and factory, to cost respectively \$12,000 and \$20,000. The office will be built with concrete floor and will be erected on the site of the former office, corner of Stanley avenue and Sussex street. The factory will be built at the corner of Sussex and John street, two stories high, 70 ft. by 299 ft. and constructed entirely of reinforced concrete, the whole being absolutely fire proof. It is intended to operate the factory by electricity and to put in an electric generating plant.

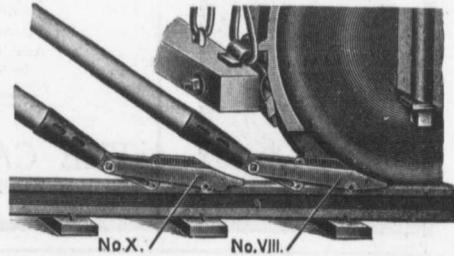
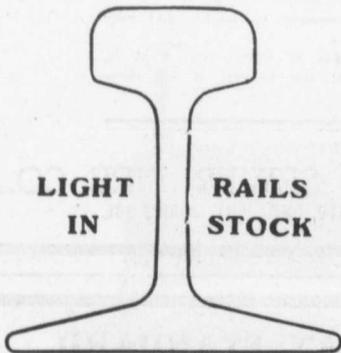
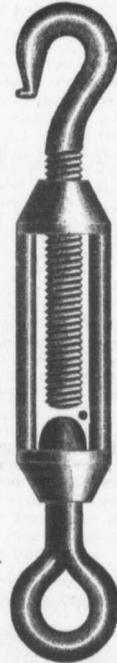
VANCOUVER, B.C.—Efforts are being made by the Pilotage Association to secure the assistance of the Government in carrying out extensive improvements to the harbour.—J. L. Low, a prominent cloth manufacturer of Dundee, Scotland, is looking for a factory site in this city.—An acre of land on Capilano road, North Vancouver, has been donated to the Council, by J. C. Keith as a site for the erection of a school building.—Senator Cox, of the Canada Life Assurance Company, has purchased the old Leland Hotel site, upon which it is reported he will put up a four or five storey block next spring.—The following building permits have recently been issued: F. Blackwell, frame dwelling, Barclay street, cost \$3,500; Edwin West, frame cottage, Eighth avenue, cost \$1,100; Thos. Crawford, frame cottage, Princess street, cost \$1,500; W. J. Harrington, frame dwelling, Homer street, cost \$3,000; F. E. Latta, frame dwelling, Bismarck street, cost \$2,600; J. G. Ranch, frame dwelling, Oxford street, \$1,800; A. Bryan, frame dwelling, Davie street, \$2,500; H. A. Burton, frame dwelling, Third avenue, \$2,000; J. Churchill, frame dwelling, Second avenue, \$1,500; J. Wakefield, frame dwelling, Tenth avenue, \$2,500; F. Graham, frame house, Bridge street, \$1,000; H. R. King, frame dwelling, Eleventh avenue, \$2,000; S. B. Sawyer, frame dwelling, McLean drive, \$1,200; H. W. Walsh, frame dwelling, Ninth avenue, \$2,500; J. W. Wallace, frame dwelling, Seaton street, \$4,150; H. B. Gilmour, alterations, Robson street, \$1,400; Nagayama, frame stores and rooming house, Powell street, \$12,000; Angus Clark, frame dwelling, Tenth avenue, \$3,000; W. T. Capeman, frame dwelling, York street, \$4,500; R. J. Wilson, dwelling house, Fourth avenue, \$1,600; Geo. Calder, frame dwelling, Pacific street, \$2,000; McRae & McLennan, frame dwelling, Seventh avenue, \$4,000.

TORONTO, ONT.—Simpson & Young, architects, 17 Toronto street, are taking tenders this week from all trades for an addition to Bradshaw's factory on Atlantic avenue.—Tenders are invited from all trades by A. R. Denison, architect, Star Building, King street, up to

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October 11, for the construction of a 3-storey stone and brick building for the Bank of Hamilton, to be erected on the corner of College street and Ossington avenue.—T. Brett has acquired property on the north-east corner of St. George street and Admiral road where he will shortly start building.—A site has been purchased by J. Rutherford on St. George street, above Bernard avenue, upon which he intends to erect a new residence. The selling price of the latter plot was \$75 per foot.—It is reported that plans have been submitted at Ottawa for the new Union Station. The designs for the proposed depot do not include viaducts but are identical with those which evoked such opposition last year.—The sale has been effected by Fred H. Ross & Co., Real Estate Agents, of 76 and 78 Richmond street East to the W. E. Dillon Co. for warehouse and factory purposes.—A new office building is to be erected by the Canadian Birbeck Investment & Savings Co. on Adelaide St. east, to cost \$120,000.—It is reported that a \$65,000 factory for the manufacture of chewing gum is to be established in this city.—W.C. Wilkinson, Secretary Treasurer, Board of Education, invites tenders up to October 14th, for the erection of the Kent and Howard schools on Dufferin street and Howard avenue. Specifications at offices of the Board, City Hall.—Recent building permits include: E. J. Evans, 3-storey brick hotel, Victoria street, \$18,000; F. W. Matthews, alterations to dwelling, Spadina avenue, \$3,000; John Pelsky, two detached 2-storey roughcast dwellings, Brooklyn avenue, \$3,500; H. Needham, 2-storey and attic brick dwelling, Crawford street, \$3,800; H. J. Wight, 2-storey and attic brick dwelling, corner Cluny avenue and Chestnut Park road, \$10,000; S. B. Coon, two pair semi-detached 2-storey brick dwellings, Macpherson avenue, \$10,000; Mrs. D. Ruthvan, 2-storey brick store and dwelling, corner Huron and Dupont streets, \$3,500; Mrs. Old, 2-storey and attic brick dwelling,

Rowanwood avenue, \$4,400; W. Binnie, 2-storey brick store and dwelling, corner Bartlett avenue and Hallam street, \$2,500; James Robinson, alterations to dwelling, 218 Palmerston avenue, \$2,000; S. Reid, 2-storey brick dwelling, Pears avenue, \$2,000; Fred. S. Duff, pair semi-detached 2½-storey brick dwellings, Beatrice street, \$5,500; Chas. Baxter, 2-storey brick dwelling, Gladstone avenue, \$2,000; J.D. Willson, 2-storey and attic brick dwelling, St. Clarens avenue, \$3,500; T. P. Whillam & Son, pair 1½-storey brick front roughcast dwellings, Queen street east, \$2,000; H. H. Halls, brick dwelling, Howard Park avenue, \$2,500; C. A. Cryslar, 2-storey brick dwelling, Bedford road, \$3,200; Fred Elliott, 2-storey and attic brick dwelling, Geoffrey street \$3,000; J. W. Dodds, 2½-storey brick dwelling, Sinclair avenue, \$3,000; H. H. Snyder, 2-storey and attic brick dwelling, Admiral road, \$4,800; E.E. Ratherford, 2½-storey brick dwelling, St. George street, \$6,500; R. T. Brown, 2 detached 2½-storey brick dwellings, Admiral road, \$8,000; C. L. Gray & Sons, pair semi-detached 2½-storey brick dwellings, Geoffrey street, \$6,000.

ties have awarded the contract for the wharf at this place to J. J. Fallon, of Cornwall, at \$6,000.

TANCOOK ISLAND, N.S.—The contract for building a breakwater at this place has been given to Girroir & Sweet, of Antigonish, at \$20,000.

LACHUTE, QUE.—O. B. Lafleur & Sons, Ltd., of this town, have secured the contract for the erection of the new Dominion building at \$15,000.

OTTAWA, ONT.—The Department of Public Works have awarded the contract for the standardization building at the Observatory, to Maurice J. Whelan, of this city, at \$14,000.

HAMILTON ONT.—The contract for the large addition to the Eagle Knitting Co's. premises has been awarded to the Provincial Construction Co., of Toronto, estimated cost, \$50,000.

VERNON, B.C.—The city council have just installed an additional pumping plant, including a Fairbank-Morse duplex double booster pump, driven by a 20-horse power Fairbanks-Morse gasoline engine.

MONTREAL, QUE.—Peter Lyall & Sons, of this city, were the successful tenderers for the work of building an addition to the post-office, which is to be erected in rear of the present edifice at a cost of \$500,000.

LONDON, ONT.—The contract for the new building to be erected on Crystal Hill site has been let to A. E. Drew, of Chatham, Ont., at a sum approximating \$18,400. The steel work will be carried out by the Western Bridge and Equipment Company, also of Chatham.

TORONTO, ONT.—In connection with the proposed 2-storey stone building to be erected at King and Sherbourne streets for the Imperial Bank, the architects, Darling & Pearson, of 2 Leader Lane, have awarded following contracts: Masonry, Dancy Bros.; Carpen'ry, J. C. Scott Co.; plastering, W. H. Little; painting, Jos. McCausland & Son; roofing, A. R. Ormsby; plumbing and heating, Armstrong Co. Ltd.; electric wiring, Armstrong Co.; steel work, McGregor & McIntyre; roman stone, Roman Stone Co.

CONTRACTS AWARDED.

COLD CREEK, B.C.—Campbell & Gray have obtained the contract for erecting the new Methodist church.

BRANDON, MAN.—Erection of new freight sheds for G.N.R.: R. N. Wiloughby, approximate cost \$12,000.

DALHOUSIE, N.B.—J. & A. Culligan, of Kacquet River, have obtained the contract for the ferry wharf, at \$10,000.

AGNES, QUE.—A. L. Lapointe, of Agnes, has obtained the contract from the Department of Public works for the new wharf, at \$4,000.

BOBCAYGEON, ONT.—The contract for the building of a new concrete dam has been awarded to McCoy & Wilfred, of Lindsay, estimated cost \$40,000.

SAND POINT, ONT.—The authori-



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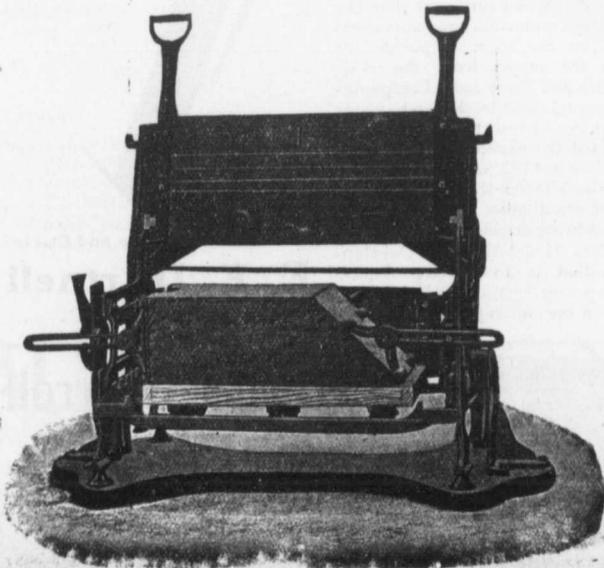
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Makes 40 Different Sizes of Stone in Any Design, as well as the Specials, viz.:

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This Machine makes all blocks face down—"the only practical way"—allowing of a richer and finer facing, producing blocks that are perfect in appearance and impervious to moisture.

Let us tell you how the "Miles" will pay for itself over any other machine in three months' operation.

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MONTREAL.

WINNIPEG, MAN.—In connection with the sewer construction and installation of plumbing to certain properties in this city, for which tenders were taken a short time ago the following contracts have been awarded: Sewer construction: Specification No. 15, Jos. Lenius, \$508; Specification No. 16, Jos. Lenius, \$461; plumbing: specification No. 15 G. L. Stephenson, \$936; specification No. 16 G. L. Stephenson, \$978.—The City Engineer was instructed to proceed with the following work by day labor no tenders having been submitted: Asphalt paving: Buell avenue, Main street to Wood street, \$10,547; Wood street, Bell avenue to River avenue, \$1,474, and Portage avenue, Post Office to Fort street, \$62.50.

BIDS.

WINNIPEG, MAN.—Although the awards will probably not be made for some little time it is of interest to note that the following firms have sent in tenders for the construction of the Pointe du Bois power plant: Dick, Kerr & Co., London, generators and transformers; Canadian General Electric Co., for all electrical work; Canadian Westinghouse Co., for all electrical work; Allis, Chalmers, Bullock & Co., for all electrical and hydraulic work; Vulcan Iron Co., Winnipeg, for steel towers; Gas and Electric Power Co. Toronto, for electrical work; Robinson, Pratt and Wrightman, for general work; S. Morgan Smith, for turbines; Workman & Co., for terminal station.—Many of the leading European firms have competed for the civic power contract, among them being the General Electric Company, of Sweden, who tendered for the electrical machinery; Siemens Bros. Dynamo Works, of London, England, who submitted figures for the electrical work; the Anglo-Canadian Engineering Co., of London, who tendered for the whole of the work, and last, but not least, the Posellanfabrik Kahlsjillale Hermsdorf Klosterhausnitz, who tendered on high tension insulators.

CHATHAM, ONT.—In connection with the construction of the new civic electric light station, the following tenders have been received and referred to a special committee:—Blonde Lumber Company, \$3,837; Hugh Gallaher & Son, \$3,777, and J. G. McKenzie, \$2,163.

DEBENTURES SOLD.

EDMONTON, ALTA.—It is rumored that half of the large block of debentures, for which the city recently called for tenders, has been sold, and that negotiations for the sale of the remainder have nearly been completed.

GODERICH, ONT.—An offer has been made by A. G. Gamble for the issue of \$11,355 town debentures at 91 with interest. The proposal, which will net the town \$10,718, has been accepted; also an offer by the Kensington Furniture Co. for \$25,000 worth of debentures at 93, netting the town \$24,350.

The assignation of the Lake Marion Lumber of Ottawa is reported, liabilities \$45,000.

NOTES.

Builders and Contractors—Lidstone & Co., and L. Morin & Co., of Montreal have registered; Ladouceur & Dessurault, same city, have dissolved, also Mitchell & Mitchell, of Pointe Claire, Que.

A new stone and brick building, four stories high, will shortly be erected on the Crystal Hall site at London, Ont., the scene of the great disaster in July last. According to the contract the work must be finished within sixty days on pain of a heavy fine. The ground floor of the new structure will be utilized for cigar stores and bowling alleys, and the upper floors for pool and billiard tables. In view of the tragic associations of the locality it is an open point as to whether the people of London will take very kindly to the purposes for which the proposed building has been assigned.

An interesting point has arisen in connection with a by-law of the town of Deseronto, Ont., guaranteeing \$10,000 of the bonds of an industrial company. A resident of Deseronto claims that the by-law is defective, and a doubt has arisen as to whether, as a consequence, the bonds could be floated. The municipality has asked the board to amend the by-law. The opinion of the board is that the by-law is all right. In the event, however, that this should be found not to be the case, they have no power to amend the by-law, not being vested with jurisdiction in respect to errors. If no other way can be found Deseronto will either have to vote on another by-law or get special legislation at the next session of the Legislature amending the one in dispute.

The future of Vancouver as a manufacturing centre was recently discussed in the most optimistic manner by William Kennedy, one of Canada's leading hydraulic engineers, who points out that the city need entertain no apprehensions on the score of power, for when the supply from the B.C. Electric and Slave Lake Companies is unequal to the demand, water power can be resorted to; and this, provided the expenses of development are not too heavy, is easily a negotiable factor within a radius of one hundred miles. Mr. Kennedy is consulting engineer to the Point du Bois Hydro-Electric Development that is to develop 60,000 horse power 80 miles from Winnipeg, on the Winnipeg river. The

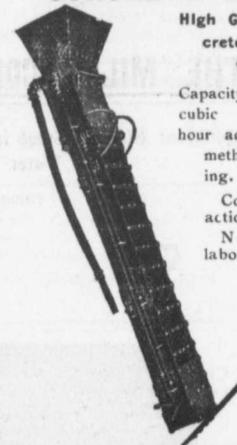
initial instalment will be 20,000 horse power. The city of Winnipeg is owner of the enterprise. Owing to the scarcity of coal on the prairies, Winnipeg is going into the power business for the indirect benefit that will accrue to the city from the establishment of manufactures. The project will cost more than three million dollars.

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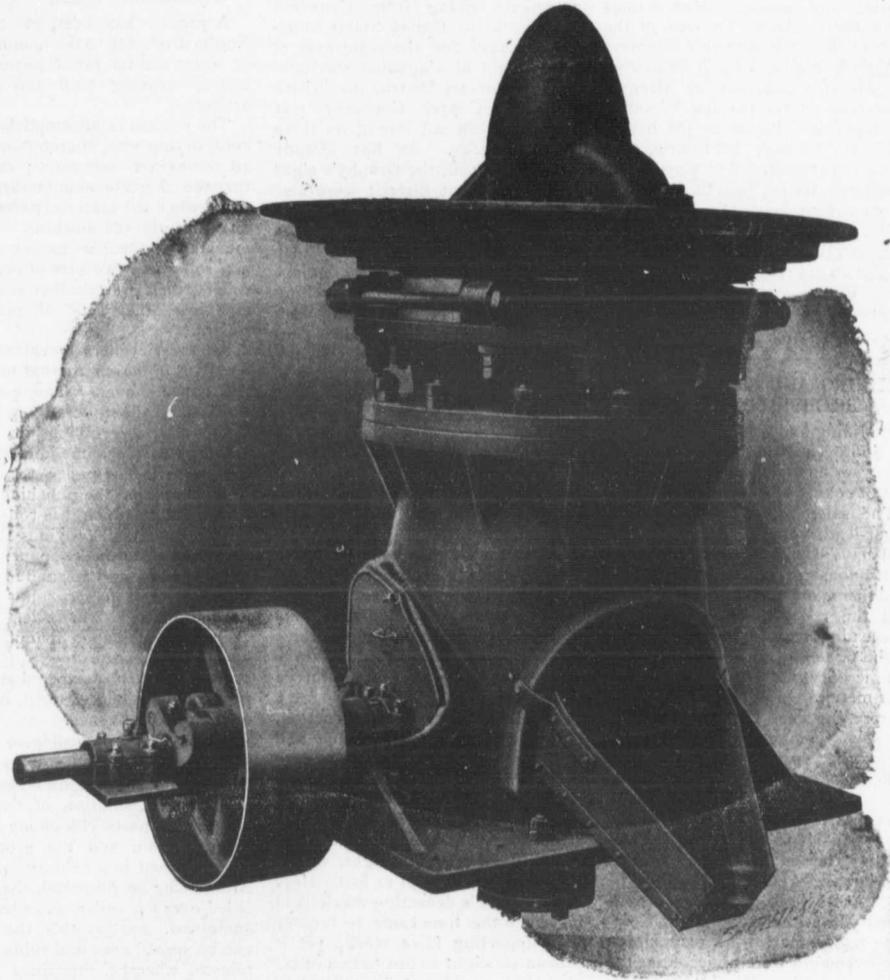
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WRITE FOR CATALOGUE

PHONE MAIN 2037

Rock Crushing Plants



The demand for crushed rock is increasing rapidly for railroad ballast, Portland cement, fluxing purposes in smelting plants, "Good Roads," etc. Bulletin 1411 describes the machinery and appliances, including the Gates "K" gyrotory breaker shown above, used in MODERN ROCK CRUSHING Plants. Included also are sectional plans of a large number of plants in active operation, from which intending purchasers may get valuable hints in preparing data for plans and specifications.

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NEW G.T.P. STATIONS IN MANITOBA.

Names have been selected for the G.T.P. stations and sidings from Portage west, a distance of 125 miles; below are the names and the mileage from Winnipeg of each station and siding. New names have been selected for each of the station sites through this country. Elk Park will henceforth be known as Firdale; Kerfoot as Gregg; Montrose as Harte, and Woodlea as Ingelow. Below is the list of stations: Portage la Prairie, 54; Arona, 59; Barr, 63; Caye, 70; Deer, 76; Exira, 84; Firdale, 91; Gregg, Formerly Dempsey, 99; Harte, Formerly Montrose, 106; Ingelow, Formerly Woodlea, 112; Justice, 121; Knox, 129; Levine, 136; Rivers, 142; Norman, 151; Oakner, 158; Pope, 164; Quix, 170; Rea, 176.

MINING AND SMELTING IN BRITISH COLUMBIA.

"Mining and smelting operations in Southern British Columbia are being seriously checked by a shortage of coke," says the "Iron Age." "The smelters are engaged upon silver-lead, copper and gold ores, and have been so employed almost continuously from the time of the establishment of the lead bounty and the renewal of operations in the leading gold mines. The rise in the price of copper also stimulated activity at the mines yielding that metal. Up to the beginning of the present week the ore receipts at the several smelters since the opening of the year amounted to nearly 1,000,000 tons. By way of adjustment to the growth of their business the chief smelting companies were considering schemes for enlarging their capacity when restriction in the coke supply began to be felt. At its Trail plant the Consolidated Mining and Smelting Company was preparing for extensions; improvements were projected at the Ganby Smelting Works; the Dominion Copper Company was putting in a blister copper process; the Hall Mine was cleaning up its plant, intending to make some changes in its equipment. In some cases the improvements will be accelerated by the compulsory closing down on account of the coke shortage. Three of the furnaces at Trail are out of operation, and three are still going. At Northport, Le Roi smelter is idle, and the Granby's eight furnaces at Grand Forks were all blown out by the end of last week. Various opinions are expressed as to the causes of the decline in coke supply. The blame is variously apportioned among the coke companies, the scarcity of labour and insufficiency of transportation facilities. So far as Rossland is concerned, it is said that there is no lack of cars. It is held that there is a shortage of hands in

the coal mines and at the coke ovens of the Crow's Nest Pass, and that this shortage is likely to continue until higher wages are paid. The managing director of the Consolidated Mining and Smelting Company favors the opinion that large shipments going from Canadian coke works to United States smelters account for the scantiness of fuel supply at Canadian smelters. In the Boundary District the British Columbia Copper Company was forced to blow out one of its three large furnaces. As has already been mentioned, the Granby's eight furnaces in that district were also obliged to close down. The Dominion Copper Company's plant has an adequate supply of coke to keep its three reduction works going. These three Boundary smelting companies all get their coke from the Crow's Nest field. They consume nearly 1,000 tons of coke per day when their fourteen furnaces are working to full capacity."

A TRIUMPH OF CONCRETE CONSTRUCTION.

According to the New York Commercial, one of the most remarkable concrete structures put up in America during the concrete building activity still in progress, is the Auditorium building recently opened in Los Angeles. In addition to its immense size this building is notable in several respects. It has three features that are new in reinforced concrete construction. These are a complete concrete roof construction, an immense balcony overhang and cement girders constructed to support extraordinary loads.

The overhang of the balcony is 31 feet. In the concrete roof construction are placed enormous trusses, 112 feet in height, with a depth in the centre of 11 feet. Here a considerable deflection was looked for when the time came to remove the supporting false work, yet it proved so slight as not to be noticeable and could not be accurately measured. This must be regarded as very remarkable and will go far toward encouraging this form of roof construction. Under an applied load of 100 pounds to the square foot the deflection amounted to a mere trifle, only one-eighth of an inch. Making a span of 42 feet the girders, which are 63 inches in depth, carry an enormous concentrated load, amounting to 100 pounds to the square foot. The center consists of a concrete column which runs through five stories and an attic.

Another noteworthy and distinctly encouraging feature of this great auditorium structure is the remarkable acoustic properties that it possesses. It is said to excel in this regard all the large opera houses in the world, a circumstance that is accounted for from the fact that the entire building is of concrete con-

struction. From the farthest seat in the upper balcony, which is located 130 feet from the curtain fly, it is possible to hear the prompter on the stage.

WASHABLE WALL PAPER.

A process has been patented in England relating to the manufacture of water and fat proof paper, card board, weaving stuff and similar articles.

The process is accomplished in a cold, drying way, therefore no heated rooms are necessary; and further the complete manufacture takes place when the material passes only once through the machine. In this machine the paper passes over a size roller and two sets of polishing rollers, then over another size roller and two other sets of polishing rollers.

All these rollers revolve in an opposite direction to that in which the paper moves. The paper is pressed on the rollers by means of light rollers revolving in forked bearings in the same direction as the paper. The paper then dries on its way from the polishing roller to the roll on which it is rolled up.

The invention provides both a preparation to make paper proof against water and fat, and to render pictures, wall papers and similar printed matters washable. It is claimed that paper manufactured and prepared according to the new process is much cheaper than other products, free of any smell, or taste or injurious influence.

The paper is moved over rollers of a specially constructed, automatic machine, and on its way moistened with a solution of 60 parts benzine, 05 parts colophony and 40 parts paraffin and the process is accomplished in a cold drying way. After being so prepared, the paper is led over felt rollers in order to be smoothed, and by this the paper can be spread over and rubbed with talcum, whereby the shine of the paper is increased and the drying process accelerated.

J. A. Hurtle, a prominent contractor of Winnipeg, has transferred his business to Fort William.

The City of Brandon has just disposed of \$50,000 worth of debentures to the Royal Trust Co. of Montreal.

Building permits were issued in Montreal during September to the amount of \$449,776. The total for the corresponding period of last year was \$725,505.

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CONSULTING ENGINEER
Hydraulics, Dams
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RECENT BRIDGE CONSTRUCTION.

A ferro-concrete bridge now under construction at Pontypridd, Wales, is interesting as furnishing an example of the most modern practice side by side with the old stone arch bridge erected in 1750, and also the second bridge across the river Taff erected in 1857. The latest bridge comprises a centre span of 116ft., and two end spans of 25ft. each, with a width of 25ft. between parapets. When completed the bridge will constitute the longest span ferro-concrete arch hitherto constructed in the United Kingdom. Another ferro-concrete bridge is at present under construction over the river Wansbeck, near the North Seaton Station on the North-Eastern Railway. This bridge has a total length of 264ft. between abutments, and comprises six girder spans 44ft. 4in. from centre to centre of the piers, by 20ft. 4in. wide. It is stated that the adoption of ferro-concrete construction has in this case resulted in a saving of \$25,000.

A statistical report recently issued in England figures London's municipal indebtedness at \$534,000,000; Manchester owes \$109,000,000, and the debts of each of four other cities exceed \$50,000,000.

JOHN S. FIELDING
 Mem. Soc. C.E. West Penn. '87
 Mem. Engineer's Club, Toronto
CONSULTING ENGINEER
 Expert on Bridges and Machinery
 Room 2, 15 Toronto Street, TORONTO, ONT.

GLASS TELEGRAPH POLES.

Reinforced glass telegraph poles are being exploited by a company operating a factory at Grossalmerode, near Cassel, Germany, according to the U. S. Consular reports. The poles are patented by an architect of Cassel. The glass is reinforced with interlaced and intertwined wire. The selling price is not definitely fixed, but it is stated that the concern is accepting \$6 for a pole about 23 feet long. One of the principal claims for the poles is their value in tropical coun-

tries, where the ravages of insects and effects of climate cause a short life of wooden poles. The German Imperial Post Department, controlling the telegraph and telephone lines, has ordered the trial of glass poles in one district.

It is estimated that the debentures now being offered for sale by the smaller municipalities of Ontario total upwards of a million and a half dollars.

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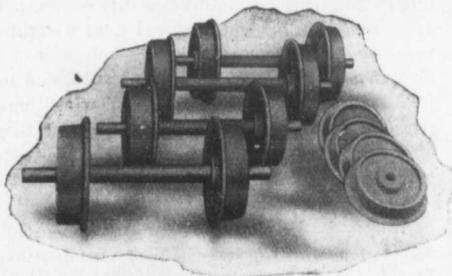


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HISTORY AND DEVELOPMENT OF WATERPROOFING.

The early history of waterproofing is clouded very much in mystery, for the reason there is little or no literature on the subject, and it must therefore be taken very much on faith and information. The early history of waterproofing is very much like the question which was asked of a schoolboy: "Which is the largest city in the United States?" and to which he answered "Chicago." The questioner thereupon said to the boy, "Who told you so?" and the boy answered, "A gentleman from Chicago."

The first successful waterproofers were the Romans, as they were the first successful manufacturers of cement, and waterproofing consisted primarily in building foundation walls which were so thick it was difficult for water to penetrate. At the time Caesar invaded Gaul, about 2,000 years ago, the Romans found a mineral which is known as cerusite, and this they melted and from it they obtained lead. The metal was too soft, however, for technical use, but they soon discovered on rolling it into thin sheets that it corroded only on the surface, and corrosion went no further and this sheet lead is still found today as a waterproofing material in the foundations of many of the ancient structures.

The use of sheet lead for conveying water has been found to be more suitable than other materials, for the reason that the white scum which forms does not go any further, and this is an oxide which seems to protect the lead underneath it. Where iron pipes are used for conveying water they in time rust out completely. So we have to thank the Romans for the real introduction of waterproofing on foundation walls. During the feudal times the method of protection that was practised by the ancients was to build castles, and around these castles were built moats. These moats were huge dugouts filled with water and a drawbridge across. When the enemy approached them they drew up the bridge, and in that way isolated themselves and were invulnerable. To this day the expression exists in England "that a man's home is his castle," and it is traced to this construction.

The ancient Britons and Normans soon found that the water penetrated into the cellars or dungeons of the castles, and where these dungeons were used for prison purposes they cared not whether they were damp or dry, but they found later on that the seepage undermined the foundations, and so they were compelled to keep the water out, which in some cases they did with sheet lead, but more often with huge stones filled in with cement, and so no progress was made.

Coal tar pitch and coal tar liquid are materials which must be applied in a hot condition, and their value as waterproofing materials is in conjunction with fabric of various thicknesses running from three to ten. Bitumen is of undoubted value, but wherever there is a leaky gas main, a mixture of illuminating gas and seepage water always destroys coal tar waterproofing. It so happened that some of the stations of the subway in New York City were found to leak after they had been completed, and the water which came through the waterproofing was impregnated with illuminating gas; in order to overcome this the speaker invented a new waterproofing fabric known under the name of Benzol Proof Cloth.

Quite a number of years ago, I think it was in 1879, when the Obelisk was first brought to Central Park, New York, it was found that in a very few months it began to show signs of disintegration, and Prof. R. Ogden Doremus, who was at that time a well-known chemical expert, was consulted as to the application of the material to the Obelisk for its preservation. This illustrated the remarkable difference in climate, for the Obelisk had stood perfectly for 3,000 years in Egypt, and within six months after its arrival in New York the temperature changes had begun to affect it. You, gentlemen, are probably aware that on the east coast of the United States, in the vicinity of New York, there is a temperature change of 130 degrees, and during the year our thermometer frequently goes as low as 10 degrees below zero, and in the summer season mounts to as high as 120 degrees. Out here I believe the temperature variation is about 145 degrees, and this explains why some building materials, particularly cement, are not suited for this climate.

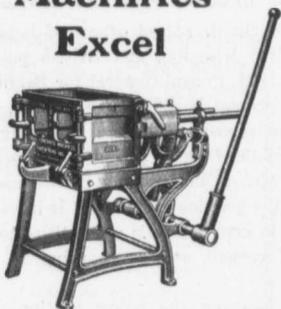
I do not wish you to infer that a large body of cement or concrete will withstand the temperature variations, but I do know that in Belgium the manufacture of cement tiles has existed successfully for over 300 years, and these tiles are not more than one inch thick, and that the manufacture of the same tiles made in this country of the same material have not withstood our climate for one year.

And so it was when Prof. Doremus was consulted on this subject of waterproofing of the Obelisk against the ravages of the elements, he concluded that the application of hot paraffine would be the proper method. This was done, and, although this was over 25 years ago, no second application of hot paraffine has ever been applied to the Obelisk, and I know that the monolith has been perfectly preserved since then. This hot paraffine method is the outcome of what is known as the "Caffall Process," and I understand it is excellent, excepting for the lighter stones, on which it unfortunately acts as a dust and dirt collector. There are a number of other cement and stone waterproofing materials on the market which are solutions of paraffine, some of which were examined and found to contain a very small percentage of low-melting-point paraffine, and these are to be avoided, for they are only temporary materials, worth but a few cents per gallon, and sold at prices beyond their real value.

Another material which has been successfully used in Europe is the invention of Prof. Hanenschield, in conjunction with Kessler, and these chemists invented Fluosilicate of magnesia, known technically under the name of Fluuate. The Paris Opero House, the Kaiser's Palace in Potsdam, and a great many other buildings in Europe were all treated with this material, and it serves an excellent purpose, for it hardens stone and makes it rainproof at the same time, but this beneficial effect is not instantaneous, for it takes more than a year to demonstrate itself.

About 16 years ago, when fireproof construction became quite prominent in New York City, and the question of taking away the air space had to be solved, my firm invented a material which when applied to the inside of outside walls, either over brick construction or hollow brick, would retain the plaster, do away with the air space and prevent moisture from coming through. A material of this kind could not, of course,

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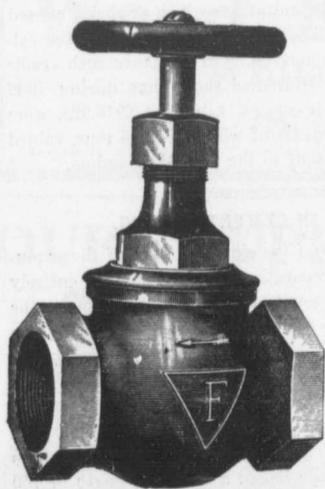
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contain any tar, for the reason any tar material would stain the plaster on the inner surface of the room. It had to be alkali proof, so that the lime in the cement and in the brown coat should not affect it, and yet I have the most remarkable story to tell in connection with this—that it took our concern over five years to educate the architects and builders to the use of it against most insurmountable odds. To-day no prominent building is erected without the use of some of this material somewhere, and one of the largest buildings I know of in New York, which has cost up to \$10,000,000, has this Damp-Resisting Paint applied on the walls, back on the ceilings, and under the floors. It took so long to educate the public in the use of this material that the time for its patent had elapsed, and now it is unfortunate that similar materials have imitated it, and to my knowledge no less than 12 substitutes appeared on the market, and then gradually disappeared as the material failed.

Its use as a waterproofing material and insulating material in cold storage building has made it many friends, for the immovable air in the air space and absolute freedom of odor and taint of the material has much to do with the success of the cold storage plant.—From an address before the Chicago Architects' Association.

THE GERMAN CEMENT TRADE.

The present position of the German cement industry is described by Sir William Ward, British Consul at Hamburg, as being upon the whole satisfactory. At the end of last year the works existing in Germany were employed to the utmost of their capacity, and the firms at Hamburg and elsewhere who were engaged in the cement trade are said to have done a fairly profitable business. Very considerable quantities of German cement were last year again exported for the account of Hamburg firms, though a large portion of the amount shipped from that port is merely transit trade for the account of the German factories situated in the interior. The total number of larger cement works at present existing in Germany is stated to be about eighty, while there are besides a very large number of works of less importance. Of the various groups of German cement works formed many years ago, according to their geographical position, some had recently been dissolved, but they have now all become reunited. The conditions under which the works forming these different groups have combined together are not in all cases the same, for whilst several bear the character of a trust for the sale of the products of the works belonging to each group, being left to a syndicate, the factories belonging to other groups attend themselves to the sale of their products, and are merely obliged to keep to the sale prices agreed upon between all the various groups of German cement works. The exact extent of the total German cement production in 1905 is not at present ascertainable; it may, however, be roughly estimated at 15,000,000 casks (of 170 kilos. each) and it may be regarded as probable that the production in 1906 has been still greater. Considering that the number of cement works now existing not only in Germany, but also in the United Kingdom, France, and Belgium, without mentioning other European countries, is such a large one,

and that the total cement production in all parts of Europe has been increasing from year to year, the necessity of finding fresh markets for this constantly expanding output is naturally felt also by the German cement industry to be a question of urgent importance.

THE METHODS OF BELGIAN CEMENT MAKERS.

Commenting upon the decreased export of Belgian cement to the United Kingdom and British possessions, Sir Cecil Hertslet, Consul-General for Belgium, observes that the decrease is difficult to explain, unless it is that colonial consumers are beginning to realize that much of the Belgian production, described as "Portland" cement and bearing British marks and brands, is not the genuine article, but is in every sense inferior, and in many cases is not entitled to be called "Portland" cement at all according to the accepted standard.

Belgian cement, however, the report continues, is sent to the British Isles, the colonies, and foreign countries in enormous quantities—the exports to Egypt during 1906 and the first half of 1907 amounted to 37,487 tons (£41,985)—and it is manifestly unfair to the maker in the United Kingdom that it should thus be sent bearing descriptions and labels in English, the obvious intention of which is to encourage the supposition that the article sold is British-made. The blame cannot be put so much upon the manufacturers themselves as upon the commission agents and dealers of that class, who furnish to the makers any labels that they require to attach to the barrels or casks, many of which labels are without doubt infringements of trade marks of makers in the United Kingdom. Persons who purchase Belgian cement and dispose of it to credulous buyers with British labels attached are also open to criticism. Many Belgian commission agents, Sir Cecil Hertslet adds, are aware of the risks they run in shipping Belgian cement bearing labels which are registered trade marks of British firms. Though it is difficult for the British manufacturer to trace the fraudulent imitations which are being passed off under his particular brand, especially in the colonies and foreign countries, with vigilance such traffic can be arrested. Statistics show that during 1906 813,329 tons of this cement, valued at £910,928, were exported from Belgium, of which 151,274 tons, valued at £169,426, were sent to the United Kingdom.

CARE IN CEMENT MIXING.

Often the whole of the skill and care of the manufacturer in the preparation of his cement is entirely thrown away on account of its wilful misuse by, or the culpable ignorance of the user. What is the use of a standard specification when the average jerry-builder regards concrete as a means of using up all the rubbish which he has on hand? A flagrant case of this kind came before the writer's notice some time ago. A complaint was made that the cement was "no good," when actually it had a tensile strength of 750 pounds per square inch in seven days, and was absolutely sound. An examination of a sample of the concrete showed it to be made up with soft chalk, half-burnt coal, and a small proportion of clayey sand as aggregate. The impudence of such complaints is as-

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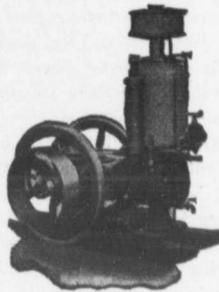
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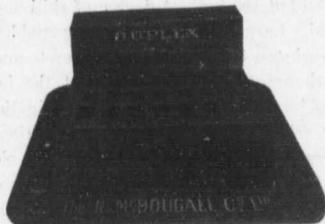
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tounding, yet they are not infrequent. Even when supplied with a suitable aggregate the workman often fails to mix the material to a sufficient extent, or in some way or another succeeds in getting the greater portion of the cement at the bottom and nearly all the aggregate at the top. This was the cause of another complaint. It was a floor, and it was found that the surface rubbed off. A sample taken right through showed the use of a correct proportion of cement, but at the top there was practically all sand. Of course the complaint was against the cement. Perhaps one day an enterprising manufacturer will take the user in hand and teach him how to employ the material, for it is usually the workman and not the cement that is "no good." Great stress should be laid upon the proper proportioning of the various sized particles to obtain a mass almost free from voids. The necessity is apparent to the most limited intelligence, and yet even in constructions that have to withstand great strains no attention is paid to this matter. Not that we would advocate the use of washed and graded aggregates, far from it; they are usually deficient in the finer particles, as this portion, sold alone, is of considerable value. A rough determination of the voids is usually made by filling into a box of known size the aggregate to be tested, and then pouring in water until level with the top. The ratio of the quantity of water to aggregate gives the proportion of the voids and the amount of cement used should be rather more than enough to fill these empty spaces. An occasional test of this kind, together with thorough, and preferably mechanical, mixing, would go a long way toward the production of good work and effecting economy. We are very pleased to find that some of the leading firms of ferro-concrete constructors insist upon the determination of the voids in the aggregate.

PREVENTING FAILURES IN CONCRETE CONSTRUCTION.

There is no doubt but that many of the failures of reinforced concrete structures can be traced directly either to mistakes made by careless workmen or to negligence in carrying out the orders issued by the superintendent. This fact was made particularly apparent by the first statement issued by the committee investigating the recent failure of the Bridgman Building in Philadelphia—to wit, "that the shores had been removed too quickly through a misunderstanding of orders." It appears that while the superintendent had instructed the laborers to remove some of the shores from the concrete work, this order is said to have been misconstrued, and all of the shores were removed, causing the partially green concrete work to fall, carrying the under floor with it, and resulting in the death of several workmen.

We long ago realized the possibility of and the causes leading up to just such disasters, and in order to guard against them have had in force for several years a rule governing all of our work, according to which the shores supporting any reinforced concrete work shall not be removed until an order to that effect has been issued from our executive office, says Engineer H. Q. Kennedy in a recent issue of the "Cement Age." Headquarters is kept constantly in touch with the progress of the work by means of daily

reports, which show just what has been done each day, and being enabled thereby to determine the proper span of time which should be allowed to elapse before the shores are removed.

We believe that another one of our rules, that when concrete work is stripped of its forms absolutely no patching shall be done on it until the work has been passed by our inspectors could be easily followed by any one and would eliminate many of the causes of failure in concrete work, and at the same time tend to secure better and more careful work, even from the irresponsible ordinary laborers employed in this connection.

It is customary to have all defective spots in beams, girders, slabs, columns, etc., patched as soon as the forms are removed in order to cover up those defects caused by careless workmen or by chance, which it seems almost impossible to eliminate where exposed surfaces are concerned and a very smooth job is required.

But it has happened too many times that when, upon the removal of forms, the under side of beams showed spots where the concrete failed to surround the reinforcing rods, they were patched immediately, thus making it impossible to tell just how bad the defect was, as the exterior showed only the surface of the patched spot.

If every superintendent, foreman and other workmen realized that no patching could be done until the spots needing it had been thoroughly examined and inspected, the result would be more careful work and the elimination of a most fruitful source of failure.

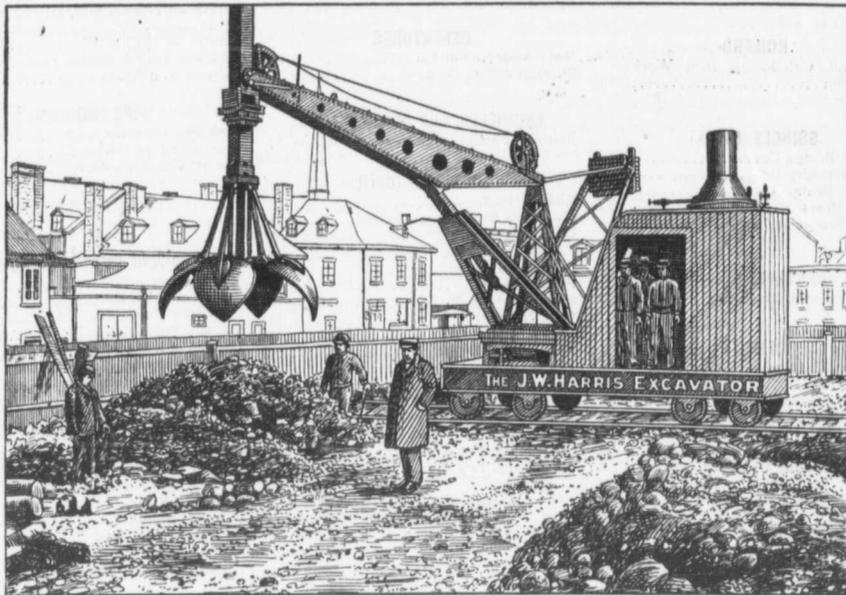
We believe that a rule to the effect that no patching be done until the work has been inspected by a duly authorized city inspector ought to be embodied in municipal building codes.

WATER IN CONCRETE.

The effect of water used in making concrete aroused an animated discussion among German concrete specialists in 1901, and to settle it about 99 tons of test pieces were made up by various parties and sent to Prof. C. Bach, of Stuttgart, for test. This work lasted about four years, and the results have recently been published in the "Zeitschrift" of the Society of German Engineers. The records of the methods of preparing the test pieces and the amounts of water used in mixing the materials were forwarded with the samples. Tests of samples made by the same men under uniform conditions in Professor Bach's laboratory showed that the smallest amount of water which produced a mixture suitable for ramming gave the strongest concrete, but the highest degree of skill and care was required. Larger amounts of water enabled less competent workmen to produce good concrete and in practical work are an insurance against the injurious effects of varying degrees of moisture in the sand and stone, changeable atmospheric conditions and other factors. These statements, it will be observed, are the same as those made by concrete specialists in the United States and indicate the extreme care necessary in basing field methods on the results of laboratory experiments by trained workmen. The tests represented work done under a great variety of conditions and the specimens were representative of good German practice.—"Engineering Record."

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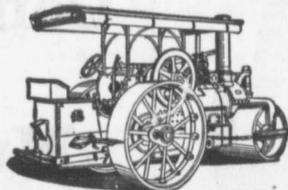
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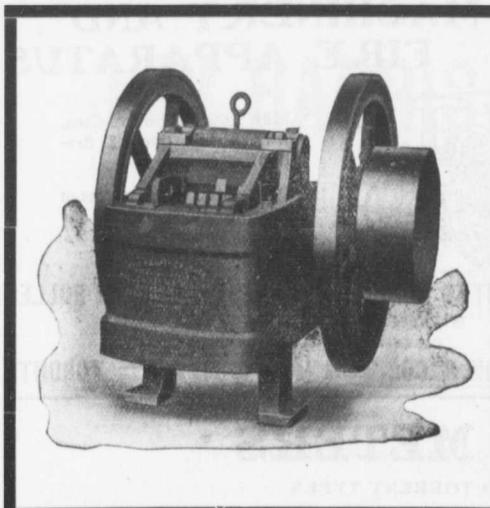
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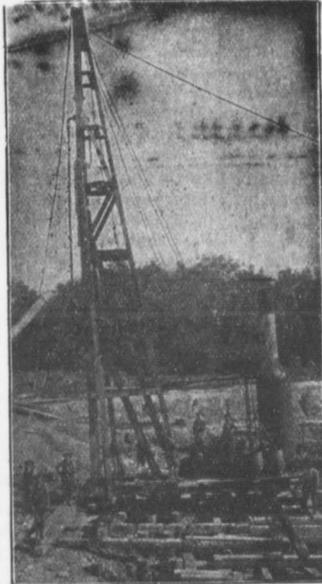
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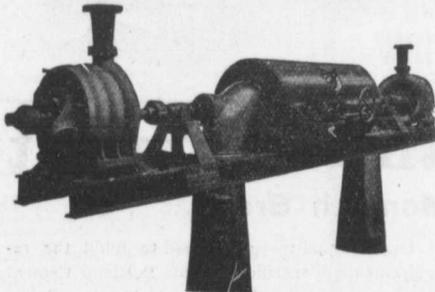
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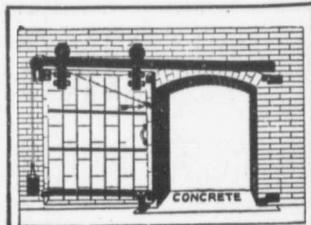
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NOTES.

The Don Paper Mills, Toronto, were recently sold for \$20,000. Robert Davies, of the Don Brick Works, is reported to be the actual purchaser.

The Windsor Foundry was recently sold by public auction at Windsor N.B., to Captain George Mounce, of Avondale, who will continue the business of the concern.

The building permits issued in Toronto for the current year up to the end of September, total \$12,204,080, against a total for the same period last year of \$9,566,328.



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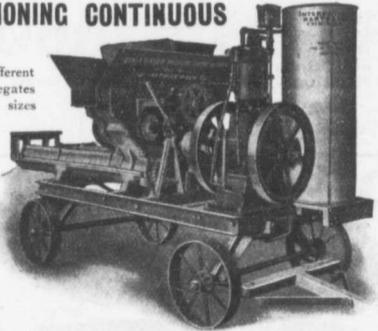
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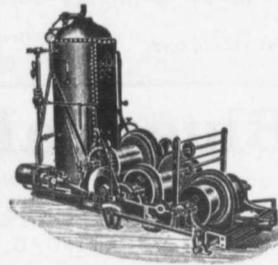
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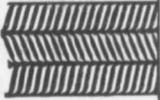
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NOTES.

At a recent meeting of the shareholders of the Raven Lake Portland Cement Co., the re-organization of the concern was finally decided upon. The statement submitted showed a loss of \$52,000 in three years, exclusive of \$21,000 allowed for depreciation. It was shown that an expenditure of \$60,000 would be necessary to establish the company on a sound basis and the shareholders decided that it was to their interest to raise this money themselves. One of the plans of campaign is to secure a charter for a \$1,000,000 company.

At a recent meeting at London, Ont., of the special committee appointed to draw up a by-law for the inspection of buildings, it was decided to embody in the proposed measure a considerable portion of the Toronto by-law. The London authorities think that the new by-law will be the most effective in the province.

The total recorded for the month of September in the civic building department of Vancouver was \$365,695, bringing the total for the nine months of the year up to \$4,272,930. For the whole of 1906 the figures were \$4,233,910, and this amount constituted a record.

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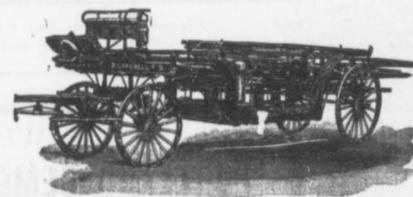
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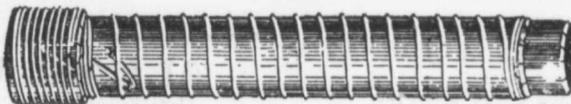
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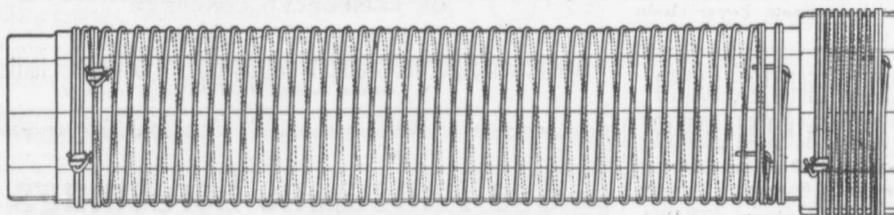
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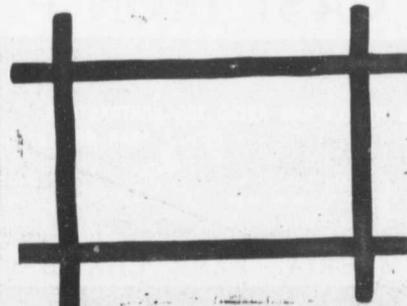
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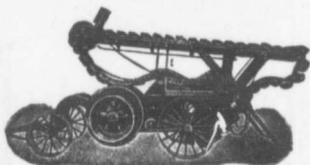
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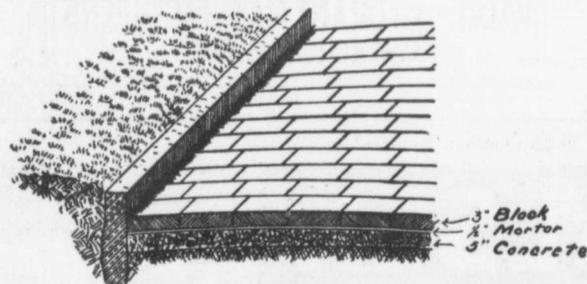
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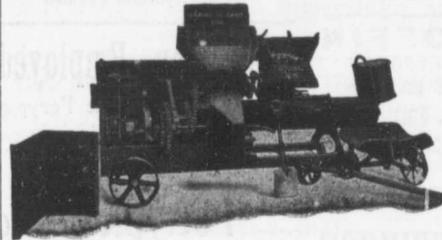
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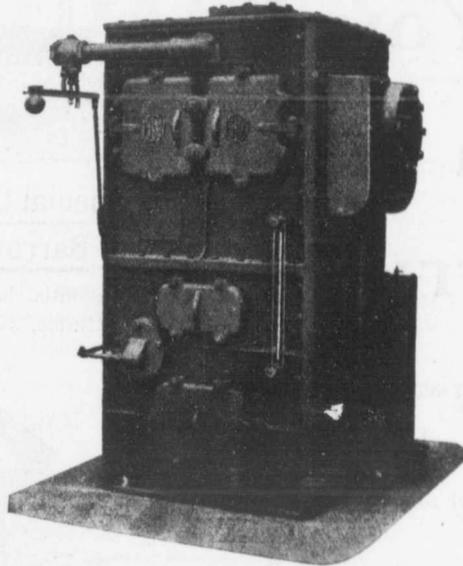
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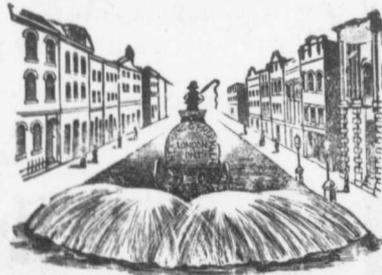
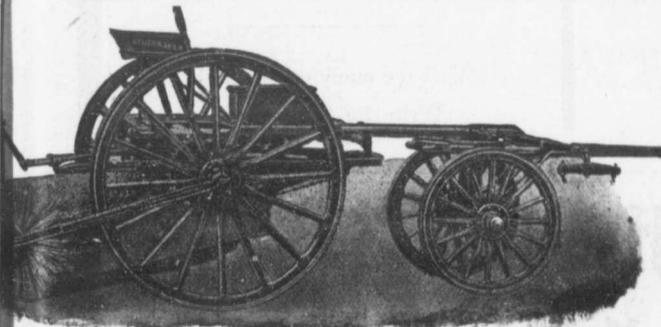
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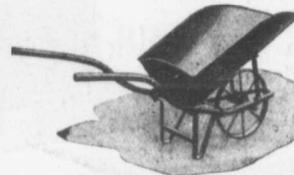
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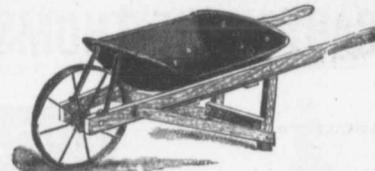
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