

Technical and Bibliographic Notes / Notes techniques et bibliographiques

The Institute has attempted to obtain the best original copy available for filming. Features of this copy which may be bibliographically unique, which may alter any of the images in the reproduction, or which may significantly change the usual method of filming, are checked below.

L'Institut a microfilmé le meilleur exemplaire qu'il lui a été possible de se procurer. Les détails de cet exemplaire qui sont peut-être uniques du point de vue bibliographique, qui peuvent modifier une image reproduite, ou qui peuvent exiger une modification dans la méthode normale de filmage sont indiqués ci-dessous.

Coloured covers/
Couverture de couleur

Coloured pages/
Pages de couleur

Covers damaged/
Couverture endommagée

Pages damaged/
Pages endommagées

Covers restored and/or laminated/
Couverture restaurée et/ou pelliculée

Pages restored and/or laminated/
Pages restaurées et/ou pelliculées

Cover title missing/
Le titre de couverture manque

Pages discoloured, stained or foxed/
Pages décolorées, tachetées ou piquées

Coloured maps/
Cartes géographiques en couleur

Pages detached/
Pages détachées

Coloured ink (i.e. other than blue or black)/
Encre de couleur (i.e. autre que bleue ou noire)

Showthrough/
Transparence

Coloured plates and/or illustrations/
Planches et/ou illustrations en couleur

Quality of print varies/
Qualité inégale de l'impression

Bound with other material/
Relié avec d'autres documents

Continuous pagination/
Pagination continue

Tight binding may cause shadows or distortion along interior margin/
La reliure serrée peut causer de l'ombre ou de la distorsion le long de la marge intérieure

Includes index(es)/
Comprend un (des) index

Title on header taken from: /
Le titre de l'en-tête provient:

Blank leaves added during restoration may appear within the text. Whenever possible, these have been omitted from filming/
Il se peut que certaines pages blanches ajoutées lors d'une restauration apparaissent dans le texte, mais, lorsque cela était possible, ces pages n'ont pas été filmées.

Title page of issue/
Page de titre de la livraison

Caption of issue/
Titre de départ de la livraison

Masthead/
Générique (périodiques) de la livraison

Additional comments: /
Commentaires supplémentaires:

This item is filmed at the reduction ratio checked below /
Ce document est filmé au taux de réduction indiqué ci-dessous.

10X	14X	18X	22X	26X	30X
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
12X	16X	20X	24X	28X	32X

CANADIAN CONTRACT RECORD

A WEEKLY JOURNAL OF THE PUBLIC WORKS AND MUNICIPAL PROGRESS

EVERY WEDNESDAY

This paper reaches every week the Town and City Clerks, Town and City Engineers, County Clerks and County Engineers Purchasers of Municipal Debentures and leading Contractors in all lines throughout Canada.

VOL. 11. NOVEMBER 7, 1900 No. 40

THE CANADIAN CONTRACT RECORD, PUBLISHED EVERY WEDNESDAY

As an Intermediate Edition of the "Canadian Architect and Builder."

Subscription price of "Canadian Architect and Builder" (including "Canadian Contract Record"), \$2 per annum, payable in advance

C. H. MORTIMER PUBLISHING COMPANY
of Toronto, Limited,
Publishers.

CONFEDERATION LIFE BUILDING, TORONTO.
Telephone 2362.

Branch Office:
Imperial Building, Montreal.
Telephone Main 2399.

Advertising Rates on application.

Information solicited from any part of the Dominion regarding contracts open to tender.

Subscribers who may change their address should give prompt notice of same. In doing so, give both old and new address. Notify the publishers of any irregularity in delivery of paper.



SEALED TENDERS, addressed to the undersigned, and endorsed "Tender for Lamington Wharf," will be received at this office until FRIDAY, 16TH DAY OF NOVEMBER, 1900, for the construction of a wharf at Lamington, County of Essex, Ontario, according to a plan and a specification to be seen at the office of H. A. Gray, Engineer in charge of Harbor Works, Ontario, Confederation Life Building, Toronto, on application to W. C. Coulson, Town Clerk, Leamington, and at the Department of Public Works, Ottawa.

Tenders will not be considered unless made on the form supplied, and signed with the actual signatures of tenderers.

An accepted bank cheque, payable to the order of the Honourable the Minister of Public Works, for three thousand dollars (\$3,000.00), must accompany each tender. The cheque will be forfeited if the party decline the contract or fail to complete the work contracted for, and will be returned in case of non-acceptance of tender.

The Department does not bind itself to accept the lowest or any tender.

By order,
JOS. R. ROY,
Acting Secretary.

Department of Public Works,
Ottawa, 25th October, 1900.

Newspapers inserting this advertisement without authority from the Department will not be paid for it.

CONTRACTS OPEN.

ISLAND BROOK, QUE.—D. McKeag is preparing to build a residence.

RAT PORTAGE, ONT.—The rink destroyed by fire last week will be rebuilt.

APPIN, ONT.—It is probable that John Cramp will erect a residence next year.

ST. ANDREWS, N.B.—Wm. Hope purposes building a fine summer residence.

MILFORD STATION, N.S.—The railway authorities will enlarge their yards here.

BEAVER MILLS, ONT.—It is expected that a saw mill will be built here shortly.

ST. MARY'S, ONT.—A new residence will be built on Wellington street by James Clyde.

VANCOUVER, B.C.—Extensions to the waterworks system in Mount Pleasant will be made.

MERRICKVILLE, ONT.—Frank Tallman, of Kilmarnock, is preparing to build a dwelling house.

TRURO, N.S.—The authorities of the Truro academy are considering the erection of a new building.

MIDLAND, ONT.—Mr. Fraser, engineer of the steamer Lee field, is building a residence on Hugel avenue.

VICTORIA, B.C.—M. Lawless has purchased a site on Chamber street on which he will erect a residence.

CALGARY, N.W.T.—The Calgary Clothing Company have taken tenders for an addition to their store.

LUNENBURG, N.S.—The question of building a summer hotel here will likely be taken up at an early date.

WEYMOUTH, N.S.—An effort is being made to form a company of leading citizens to install an electric light plant.

AMULREE, ONT.—The council of North Easthope will issue debentures for \$1,300 for erection of new school house.

BRADFORD, ONT.—Plans have been prepared for a brick veneer residence to be built on Holland street by Geo. Stoddart.

VICTORIA HARBOR, ONT.—It is understood that the Victoria Harbor Lumber Co. intend erecting several residences next spring.

PELEE ISLAND, ONT.—Wm. Stewart, township clerk, invites offers up to November 17th for purchase of \$4,955 drainage debentures.

OWEN SOUND, ONT.—Mr. McLaughlan, promoter of the McLaughlan Park, states that about forty cottages will be erected there next year.

NORTH SYDNEY, N.S.—The Union Bank of Halifax has purchased a lot here on which to erect a brick building for banking purposes.

HARRISON HOT SPRINGS, B.C.—Wm. Blackmore & Sons, architects, are taking tenders for an addition to the St. Alice hotel at this place.

BROCKVILLE, ONT.—An expert will be employed by the city council to report on the needed improvements to the gas and electric light plants.

VALLEYFIELD, QUE.—As a result of recent labor troubles, the Montreal Cotton Co. may not build their proposed new cotton mill in this town.

SAULT STE MARIE, ONT.—The Provincial Board of Health have recommended that the town extend the waterworks and sewerage systems.

LITTLE CURRENT, ONT.—A movement is on foot to build a hospital here.—The council may take steps in the near future to provide better sewerage facilities.

GRAND FORKS, B.C.—Jas. McGregor, of Vancouver, is making a tour of the Boundary country for the purpose of selecting a site for a pyritic smelter.

NIAGARA FALLS, ONT.—The corporation has been granted permission by the government to generate 100 horse power for the purpose of lighting the town.

THOROLD, ONT.—The Niagara, St. Catharines and Toronto Railway Co. are arranging to have their swing bridge across the canal operated by electric power.

FORT WILLIAM, ONT.—E. W. Folger, president of the Mattawin Iron Works, states that the erection of a copper smelter will likely be commenced next spring.

ST. LOUIS, QUE.—The corporation has taken tenders this week for the supply of a hook and ladder truck and 100 feet of fire hose. Particulars from A. F. Vincent, secretary-treasurer.

LEVIS, QUE.—Chas. Lionais, C.E., of Montreal, has sold an iron mine at Garthby, on the Quebec Central rail-



Sealed tenders, addressed to the undersigned, and endorsed "Tender for Pier at Lancaster," will be received at this office until FRIDAY, THE 7TH OF NOVEMBER, inclusively, for the construction of a Landing Pier at Lancaster, County of Glengarry, Ont., according to a plan and a specification to be seen at the office of Henry A. Gray, Resident Engineer, Confederation Life Building, Toronto, on application to the Postmaster at Lancaster, Ont., at the Resident Engineer's office, Room 411 Merchant's Bank Building, Montreal, and at the Department of Public Works, Ottawa.

Tenders will not be considered unless made on the form supplied, and signed with the actual signatures of tenderers.

An accepted cheque on a chartered bank payable to the order of the Minister of Public Works, for Four Thousand Dollars (\$4,000), must accompany each tender. The cheque will be forfeited if the party decline the contract or fail to complete the work contracted for, and will be returned in case of non-acceptance of tender.

The Department does not bind itself to accept the lowest or any tender.

By order,
JOS. R. ROY,
Acting Secretary.

Department of Public Works,
Ottawa, October 17th, 1900.

Newspapers inserting this advertisement without authority from the Department will not be paid for it.

W. J. Cook, plasterer, Montreal, is reported to have assigned.

Mention the CONTRACT RECORD when figuring on municipal works advertised in this paper.

way, to a New York syndicate whose purpose it is to erect a sulphur factory at this place.

HARROWSMITH, ONT.—A new grist mill will be built here to replace the one recently destroyed by fire.

LEAMINGTON, ONT.—Arthur Brown will likely build a new residence.—A. Maycock is preparing plans for a new building to be built by W. T. Gregory.

MONTREAL, QUE.—The sum of \$35,000 has been subscribed towards the proposed Maternity hospital, but the management will not commence building operations until \$50,000 is assured.

ST. THOMAS, ONT.—Surveys have been completed for the bridge to be built by the Detroit and Lake Erie Railway across the ravine south of this city. The structure will be 1,236 feet in length, the abutments to be built this fall.

JOLIETTE, QUE.—The Great Northern Railway management have decided to build the Joliette branch, which will include a double track bridge at Bout de l'Île. It is reported that Ross, Barry & McRae will build the road.

ST. CATHARINES, ONT.—John Kyles, solicitor, of Toronto, has given notice that he will apply to Parliament for the incorporation of a company to construct a street railway from Niagara to Port Dalhousie, St. Catharines and Kingston.

SARNIA, ONT.—The Sarnia Street Railway Company offer for sale debentures to the amount of \$16,000. Tenders received by H. W. Mills up to 9th inst.—Work has commenced on the conversion of the street railway into an electric system.

INGERSOLL, ONT.—An agreement has been reached between the town council and the Ingersoll Water Works Co. under which the latter agree to put down 4,000 feet of mains in the residential part of the town, together with nine hydrants.

SYDNEY, N. S.—Mr. Shaw, of Massachusetts, has purchased property on Ferry street on which to build a large hotel, plans for which are now being prepared. The building will be frame, three stories, containing fifty rooms, with provision for an addition thereto.

DRUMMONDVILLE, QUE.—The Dominion government wants tenders by Monday, 12th inst., for erection of post office at this place. Plans at the Drummondville excise office, at the post office at Arthabaskaville, and at the Department of Public Works, Ottawa.

MONCTON, N. B.—D. Pottinger, manager Intercolonial Railway, invites tenders up to November 12th for construction of 3,000 feet of cribwork protection walls on Sydney and Point Tupper division, and 500 feet near Tatamagouche, on the Oxford and New Glasgow division.

GUELPH, ONT.—It is probable that next year the government will enlarge the Ontario Agricultural College in this city.—The J. B. Armstrong Manufacturing Co. purpose making a two-storey addition to their central building, and a three-storey addition to their building on Quebec street.

SELKIRK, MAN.—A Dominion government engineer has been locating the site of the proposed government wharf at this place, which will be 100 feet in width and 600 feet long.—Manager Whyte, of the C. P. R., states that a large dock will be built at the terminus of the line at Whyteswold.

PENETANGUISHENE, ONT.—The project to build an electric railway between Penetanguishene and Midland is again being considered. A company was incorporated for this purpose some time ago, C. Beck being president.—A. B. Thompson and N. Payette purpose building several residences on Main street.

BRACEBRIDGE, ONT.—The new bank building to be built here will cost about

\$5,000.—The sum of \$20,000 has been subscribed towards the capital stock of the Bracebridge & Trading Lake Railway Company. The Dominion government has granted a subsidy of \$48,000 towards this road. Angus McLeod and S. H. Armstrong are interested.

LONDON, ONT.—The ratepayers of West London have asked the council to extend the breakwater 150 feet.—Sewers will likely be built on Wellington and Piccadilly streets.—Hellmuth & Ivey have applied for a charter for the Sanitary Dairy Co., of London, Limited, with capital of \$100,000. The company will erect buildings suitable for the carrying on of a general dairying business.

QUEBEC, QUE.—The friends of the Jeffrey Hale hospital will hold a meeting this week to consider plans for furnishing and equipping the new hospital. Some \$5,000 will be required.—Building permits have been granted as below: Mr. Cantin, three storey frame building on Notre Dame des Anges street, cost \$4,000; Mrs. Valier, repairs to building, corner Church and St. Francis streets, cost \$1,000.

NEW WESTMINSTER, B.C.—The work of building the new Fraser river dredge is about to be commenced.—It is reported that the Great Northern Railway Co. has under contemplation a scheme for extending its New Westminster branch to Steveston.—The city council are about to ask for competitive plans for a new city hall, to be of stone and to contain city offices and police stations; approximate cost, \$35,000.

DARTMOUTH, N.S.—The Dartmouth Dry Dock & Marine Construction Co., with capital of \$500,000, has been registered under the laws of the state of New Hampshire. It is thought that this company purposes building a large marine railway in this town.—American capitalists have purchased the ship-repairing plant and boiler works of M. Evans & Son, and are about to construct a large dry dock and steel ship building plant. The company purpose spending over a million dollars.

BRANTFORD, ONT.—An agreement has been reached between the city council and the Brantford Electric & Operating Co. by which the latter will make improvements to the head gates, to cost upwards of \$7,000.—The Waterous Engine Works Co. will probably build an addition to their works, to permit of the manufacture of pulp machinery.—H. B. Adams is building a double brick residence on Murray street, to cost \$2,000.—Geo. Wedlake, jr., will build a residence on Cayuga street, to cost \$1,400.

AYLMER, ONT.—The town council will submit two by-laws to the ratepayers on December 17th next, one for the sum of \$38,000 for the purpose of obtaining a domestic water supply from artesian wells, extension of present system of mains and alterations to pumping station, a new stand pipe being included. The other for the sum of \$18,000 for the purpose of purchasing the electric light plant now operated by the Aylmer Electric & Mfg. Co., Ltd., and making required alterations to power house plant, the intention being to operate the whole under one management.

HAMILTON, ONT.—The city engineer has estimated the cost of proposed sewage works in the west end at \$32,000 for a chemical process and \$26,000 for the bacterial system.—W. W. LaChance, architect, is preparing plans for alterations to the Alhambra hotel.—Building permits have been granted to Donaldson & Patterson for a brick dwelling on Bay st., between King and Market streets, cost \$1,400, and for a brick dwelling on Herkimer street, between King and Kent streets, for J. G. Thompson, cost \$1,800; Geo. H. Milne, two brick dwellings on Mary street, between Rebecca and Wilson streets, cost

\$2,400.—An engineer of the Carnegie Iron Works, of Pittsburg, last week went over the proposed extension of the Hamilton, Grimsby & Beamsville road with a view to preparing an estimate of the cost of necessary bridges.

COLLINGWOOD, ONT.—Dr. J. R. Arthur intends erecting large office building and residence on Hurontario street; building 30x65 feet, 3 floors and full basement, pressed brick and brown stone front; interior finished in quartered oak and other hardwoods. The doctor's suite will be situated on the ground floor, and will consist of large waiting room and hall, consulting room, laboratory, operating room, etc., and will be the most complete of its kind in Ontario. The upper floors will have all modern improvements for an up-to-date dwelling. The contract for foundation walls has been let to Mr. A. C. Mason, the rest of building to be finished in the spring. Plans and superintendence by Philip C. Palin, architect.—W. Bryan, of the Bryan Manufacturing Co., intends erecting a large dwelling near their works this coming spring, plans for which are being prepared by P. C. Palin, architect.

OTTAWA, ONT.—The C.P.R. will cover their coal sheds with tin.—The School Board has not yet reached a decision regarding a site for the new school for Dalhousie and Victoria wards.—The plans for the new contagious diseases hospital have been approved by the Provincial Board of Health. The building will likely be located on the hill of the rifle range park.—Wm. Kennedy, C.E., will shortly present to council his report on the condition of the waterworks plant. He will likely recommend alterations to the foundation and tail race.—The following building permits were issued last week: Mrs. Violetta Kerr, brick veneered house, Eccles street, cost \$1,600; Thos. Lawson, stone addition to machine shop and foundry, Wellington street, cost \$1,000; Geo. Banister, double brick veneered dwelling, Wellington street, cost \$1,200; James Usher, frame dwelling, O'Connor street, cost \$800; Alfred Provost, brick veneered dwelling, Primrose avenue, cost \$1,000.—A deputation from the city council last week held a conference with the Canadian Underwriters' Association regarding insurance rates. The Underwriters pointed out that before any reduction could be made it would be necessary to purchase one or more fire engines and increase the size of the mains leading to the centre of the city.

TORONTO, ONT.—Mr. A. F. Wickson, architect, is preparing plans for a residence for Mr. Albert Horton, to be erected in Rosedale.—The city engineer, in his fortnightly report presented to council last week, gives further particulars of the proposed sewage system for that portion of the city lying west of Roncesvalles avenue. He estimates the cost of extending Jarvis street sewer down to the end of the slip at \$4,000. The following local improvement works are recommended: Concrete sidewalks—Clinton street, east side, from College to Harbord streets, cost \$2,092; Oxford street, south side, from Spadina to Augusta avenues, cost \$1,482; Elm Grove avenue, both sides, from King to Queen, cost \$1,947 each; Melbourne avenue, both sides, Dufferin street to Cowan avenue, cost \$2,044 and \$2,062 for south and north sides respectively; Gerrard street, north side, Berkeley to Ontario streets, cost \$509; Selby street, north side, from Sherbourne to Huntley streets, cost \$947; cedar block pavement on Alma avenue, from Gladstone avenue to Dufferin street, cost \$947; macadam roadway on St. Joseph street, 698½ feet west of St. Vincent, cost \$4,382; asphalt pavement on Wyndham street, Brock to St. Clare's avenue, cost \$4,645; sewer on Summerhill avenue, 73y feet west of Yonge street,

cost \$947.—A building permit has been granted to Godfrey Hamley for three two storey brick and rough cast dwellings on Lewis street, cost \$2,700.

FIRES.

Review Printing Co.'s plant at Windsor, Ont., damaged to extent of \$3,500.—Saw mill of H. F. Eaton & Sons at Milltown, N.B., totally destroyed; loss \$8,000, partially covered by insurance.—Building at Smith's Falls, Ont., owned by John Williscraft.—Stave and heading mill of Geo. McAllister at Bloomingdale, Ont., loss \$5,000.—Dwelling at Rothesay, N.B., owned by Fred Seeley.—Skating rink at Rat Portage, Ont., loss \$1,500.—Saw mill of P. Barnhill at Pleasant Point, near St. John, N.B., insurance \$20,000.—Richardson's cheese factory, one mile east of Gananoque, Ont., totally destroyed; loss \$3,000, insured.

CONTRACTS AWARDED.

MIDLAND, ONT.—Residence for J. Rowe: D. A. Patchell, contractor.

BERLIN, ONT.—Two-story brick house for Peter Hymen: Adam Denges, contractor.

ST. ANDREWS, N.B.—Residence for Donald McMaster: Robert Stevenson, contractor.

KAMLOOPS, B.C.—The contract for post-office and custom house building has been let to Robert McKay.

ROBSON, B.C.—The new bridge about to be built by the C.P.R. at this place will consist of two spans of 200 feet each.

MONTREAL, QUE.—J. & B. Grier and the Shearer & Brown Co. are supplying the piles required in connection with the Connors elevator.

SUMMERSIDE, P. E. I.—Rogers & Rogers have been awarded the contract for heating with hot water the brick store of Sinclair & Stewart. A Dusy boiler and a Hamilton radiator will be used.

BRANTFORD, ONT.—Havil & Whitham have secured the contract for building the proposed Isolation hospital; Chas Taylor for plumbing and heating, and the Lyon Electric Company for electric lighting.

HAMILTON, ONT.—A. W. Peene, architect, has accepted the following tenders for a two-story brick dwelling at foot of Sherman ave. for the Hamilton Steel Company: Brickwork, Wm. Lane; carpenter work, Peter Paterson; painting, S. Easter.

SAULT STE MARIE, ONT.—Blast furnaces, smelting works and a steel rail mill are to be erected here. There will be two buildings, 600 feet each in length, and one of 1,000 feet. Contracts have been let as follows: Excavation, Peter Nelson; stone work, Talbot & Co.; carpenter work, Mr. Drayer.

BIDS.

PORT HOPE, ONT.—The following tenders were received by the town council for purchase of \$20,000 of debentures for the extension of the waterworks system: G. A. Stimson & Co., Toronto, \$18,866; The Central Canada Loan & Savings Co., Toronto, \$19,251; H. O'Hara & Co., Toronto, \$19,700.

MONTREAL, QUE.—For the supply of two electric pumps for the high level reservoir, tenders were received by the city council as follows. The Dean Stamp Pump Co., Holyoke, Mass., \$19,900; Babcock & Wilcox, four tenders, ranging from \$29,900 to \$37,400, Caledonian Iron Works, half a dozen tenders, ranging from \$37,394 to \$43,788; P. H. & F. M. Roots, of Indiana, tenders varying from \$32,087 to \$37,172.

COMPETITION FOR PLANS.

Last year the corporation of the town of Levis, Province of Quebec, advertised for competitive plans to be submitted by civil engineers for the best system of water works and sewage for the town of Levis. Recently the judgment has been given in an elaborate report which indicates a careful and conscientious study of the different plans submitted. The judges were Charles Baillarge, ex-engineer of the city of Quebec; Chas. E. Gauvin, C. E., Quebec, and Jeremiah Gallagher, C. E., Director of Water Works, City of Quebec, who have awarded the first prize, \$1,000, to Robert Surtees, C. E., Ottawa, and the second prize of \$500 to Messrs. Berlinguet & Lemay, civil engineers, Quebec.

PAINT FOR ROUGH CAST SURFACES.

Answering a correspondent on the above subject, "The Painters Magazine" says:

"If the walls have stood for some time, say at least one year, and first cost is no obstacle to its use, we would recommend a pure lead and linseed oil paint, white or tinted to suit, the first coat to be quite thin and oily, the second coat as stout as it is used for finish on woodwork. Should this be too expensive to suit your patron you might use either of the following: Take fine sand that has been washed and dried and mix the same with a similar quantity of Portland cement (best grade) in water to a fairly thick consistency, then add for a red tint enough Venetian red for a yellow tinge pale French ochre, for a greenish tint terra verte, for a gray tint lamp black, for a bluish tint ultramarine blue, and strain through an ordinary sieve to break up any lumps that may have formed. Finally thin the mixture down with water to the consistency of thin oil paint and apply cold with large wall brushes. The wash must be kept well stirred while being used. Should the color be too dark add some slaked lime or ordinary whiting, but be careful to use mineral colors only for tinting, because of the probable causticity of cement and lime.

If it is in any way convenient for you to apply a warm paint, we would suggest the following wash, which has been tried by the writer with excellent results: Take a 50 gallon barrel and place therein one-half bushel of builders' lime, fresh burnt, over which pour hot water, say about ten gallons, and cover tightly to keep in the steam, while slaking. Let stand covered over night, then strain the liquid through a fine sieve into another barrel and add seven pounds of common salt, previously dissolved in hot water. In the meantime cook three pounds of rice flour in hot water to a creamy paste and add this while hot, always stirring well. Five pounds of bolted whiting are also mixed with soft water to a thin paste and added to the liquid. Finally one pound of pale glue that has been soaked in water over night is boiled as usual in a water bath and thinned with boiling hot water to make five gallons of liquid glue, which is put in with the other. Stir well, and if the total does not amount to thirty gallons add enough hot water to

make that quantity. Let the barrel stand covered for several days more, when the wash is ready for use. The wash must be applied fairly warm, therefore it is necessary to have the pots from which the paint is used standing in hot water during the operation. Two coats of this wash will stand out white on any surface, and it may be tinted with mineral colors, as in the case of the cement wash. It is the most durable and economical coating for brick or rough cast walls that we know of, and has been in use for 100 years or more on light houses and other buildings in the United States.

A SINKING BRIDGE PIER.

An unyielding foundation is generally considered a prime essential to the successful operation of a swing bridge; but in a paper which has recently appeared in the "Proceedings of the Institution of Civil Engineers of Great Britain," John A. Saner, engineer of the Weaver Navigation, at Norwich, England, describes a swing-bridge design which seems to overcome successfully the usual difficulties attendant upon a yielding foundation. In the district surrounding the town of Norwich, where the bridges described are located, the ground is undermined by salt-mine workings, and is subject to a gradual subsidence due to causes which Mr. Saner describes in his paper. At the locality of the bridge this subsidence has averaged for a long period about four and one-half inches each year. It is plainly evident that, under these conditions, a swing-bridge with the usual pivot pier-construction would endure a material decrease in its clear headway above the water-level after a few years, even if *more serious troubles were not encountered*. In the two swing-bridges at Norwich, Mr. Saner decided to meet the problem of subsidence by doing away entirely with a masonry pivot-pier and substituting in place of it to support the swing-span a circular steel pontoon floating in the water. To steady the bridge, or to keep the pontoon upon an even keel, if we may properly so term it, and to maintain the turning point or pivot of the span in a constant position, a circular roller-girder carried by screw-piles sunk at intervals around the pontoon-chamber is provided. As this girder will, of course, settle with the screw-piles as the ground subsides, the piles were provided at their tops with an arrangement by which their length is increased as the ground settles. The whole arrangement is a very simple one, and so far as the evidence now in hand goes seems to be a very successful one for the purpose intended. Instances will occur in the practice of many bridge-engineers where the conditions of securing a stable pivot-pier foundation are very onerous, and it will repay them to make a mental note for future use of the structure described.—Engineering News.

Contractors will confer a favor upon the publishers by mentioning the CONTRACT RECORD when submitting tenders for works advertised in this paper.

BRICKLAYING.

As a rule a bricklayer, with a laborer to keep him supplied with materials, will in common house walls, lay on an average about 1,200 bricks in eight hours. In better class work, such as facing a front of a building, from 800 to 1,000 brick, properly laid, may be taken as a good day's work; for street front, where there are arches to cut and gauge, from 500 to 800, and on very fine work, where there are a number of angles, off-sets and skew-backs to be fitted to, a man will not be able to lay more than from 150 to 300 brick per day. In plain, massive engineering work a man would average about 1,800 brick per day. In making estimates for brick work the size and quality of the building should be considered.

FELLING OLD CHIMNEYS.

Of the method of felling old chimney stacks by burning out inserted props, devised by James Smith, of Rochdale, Eng., the Scientific American say: In felling a chimney the stack is first thoroughly examined and careful notes made as to its height, weight and condition. A survey of the surroundings is then made to ascertain which is the best direction in which to overthrow the structure, and so long as the available area which is to receive the mass is a little more than the length and breadth of the stack, it is sufficient. Having determined upon the direction of the fall and the available area to receive the stack, an incision is made in the center of the chimney at a height of 5 or 6 feet from the ground, facing the direction in which it is to fall, and corresponding cuts are made on each of the sides. As the bricks are removed, an underpinning of 6"x6" timber is inserted, the work being carried on until about two-thirds of the base of the stack has been so treated. By this time the stack usually is listing over slightly in the direction in which it is to fall, the list being an indication that the chimney is resting almost entirely upon the underpinning. At the same time on the reverse side of the chimney there will appear a slight crack in the masonry. The underpinning is carried on until this fracture appears, for unless the greater part of the structure rests upon the supporting posts, the direction of the fall can by no means be predicted with certainty. The gap made in the base of this stack must be of sufficient width to cause the structure to drop and telescope when falling. If only a narrow gap were made, the stack would simply pivot on its base and come down intact, measuring its length on the ground; but as it is desired to concentrate the debris, a sufficient gap is made at the base to insure that as the stack leans to its fall it will drop a few feet vertically en masse, the jar thus given to it causing the mass to crumble upon itself. As soon as the underpinning is complete, a fire of highly inflammable combustibles is built and the props are thoroughly saturated with oil and covered with pitch and tar. On the occasion of the felling of a stack at Preston, which was 250 feet in height and weighed over 3,500 tons, there was consumed in burning out the underpinning

6½ tons of coal, 4 tons of pitch, 40 sacks of shavings, 108 gallons of tar and 126 gallons of paraffin. The burning of the props has to be most carefully watched since it is necessary that they all collapse at the same time to insure that the chimney will fall in the desired direction.

CLEANING HARDWOOD FLOORS.

Floors that have been finished in shellac should be kept clean by thoroughly brushing off the dust with a soft hair or feather brush, or by wiping with a cloth of soft texture. If the cloth is slightly moist the dust will adhere to it more readily, but wipe with a dry cloth afterward. If any dirt that will not wipe off with a moist cloth should be deposited on the floor, wash it off thoroughly with clean (not hot) water, using soap if necessary, which also cleanse off with water as quickly as possible and wipe dry.

When the face of the floor begins to look worn and shabby, after cleansing off the dirt and wiping dry, if water has been used, rub the surface all over nicely with a mixture two-thirds turpentine and one-third raw linseed oil. To do this saturate a soft cloth of any kind with the mixture, wring it out half dry and rub the floor with it evenly. Do not use the oil so freely as to leave it standing on the surface to catch dust. To prevent this wipe off a clean, dry cloth. After the shellac is worn down to the surface of the wood sandpaper it all over evenly with a No. 1 sandpaper and give it another coat of shellac, after which continue to keep as before.

Floors finished in plain oil only should be kept in the same manner as above, more soap and water being required, and more frequent rubbing with the mixture of turpentine and linseed oil spoken of above.

Waxed floors can be cleansed by washing off thoroughly with turpentine and benzine, after which they can be rewaxed if desired.

Floors finished in "hard oil" should be kept like floors finished with shellac.

A maple floor for a kitchen that has not

CENTRAL CANADA LOAN AND SAVINGS COMPANY

Cor. King and Victoria Sts, TORONTO

Highest Market Prices paid for

Municipal Debentures

F. W. BAILLIE,
Secretary.

E. R. WOOD,
Managing Director.

been finished in wax or oil is best taken care of by being scrubbed or rubbed with any of the scouring preparations now in the market for that purpose.—National Builder.

DEBENTURES

Municipalities contemplating the issue of Debentures will find it to their advantage to communicate with

G. A. STIMSON & CO.
Investment Dealers

24 and 26 King St. W. - TORONTO

Paving Granite

Granite Sets for Street Paving. — CURBING cut to any shape ordered. — Fine Rich Colors for Building and Monumental Purposes.

Quarries, St. Philippe d'Argenteuil, P. Q.

Address all communications to

JOS. BRUNET - COTE DES NEIGES, MONTREAL

WATER WORKS PUMPING MACHINERY

We are prepared to equip Municipal or other Water-Works Plants with Pumping Machinery of the latest and most approved designs. We are the largest manufacturers of Steam and Power Pumps in Canada; they are built in all sizes and capacities, and can be implicitly relied upon wherever used. Several excellent second hand pumps in first class condition for water works service on hand at close prices.

SEND FOR CATALOGUE.

NORTHEY MFG. CO. LIMITED

1015 King Street, Subway,
TORONTO, CAN.

JOSSON CEMENT .. Manufactured at .. NIEL ON RUPELL

Is the Highest Grade Artificial Portland Cement and the Best for High Class Work. Has been used largely for Government and Municipal Works.

TO BE HAD FROM ALL CANADIAN DEALERS

C. I. de Sola, Manager in Canada :: 180 St. James Street, MONTREAL

THE GEORGIAN BAY PORTLAND CEMENT CO. LIMITED

OWEN SOUND, ONT.

LIMITED

These works are furnished with the latest and best machinery. The raw materials are of first-class quality. The process of manufacture is well tried and successful, and operated by experienced experts. The product is the finest grade of PORTLAND CEMENT. For further information write

J. W. MAITLAND, Sec.-Treas.

MUNICIPAL ENGINEERS, CONTRACTORS AND MATERIALS

ARTIFICIAL STONE PAVEMENTS

SIDEWALKS A SPECIALTY

CORPORATIONS Will do well to consider our work and prices before letting contracts

The Silica Barutic Stone Company of Ontario, Limited.

WALTER MILLS, General Manager. Head office: INGERSOLL, ONT.

BULLOCK

DIRECT CURRENT APPARATUS

. . embodies . .

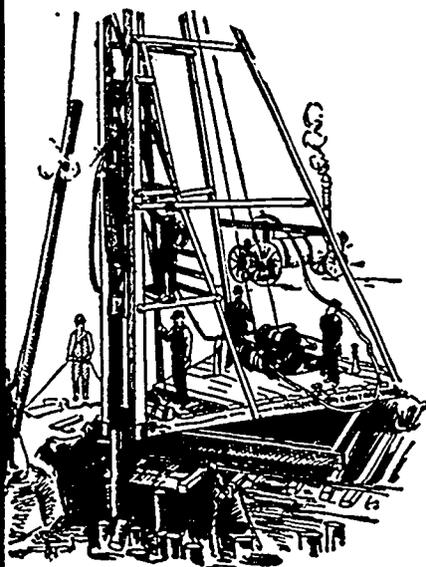
DURABILITY
HIGHEST EFFICIENCY
PERFECT REGULATION
NEAT APPEARANCE

and is

A PERFECT RUNNING MACHINE

Sold exclusively in Canada by . .

The Royal Electric Co.
MONTREAL HALIFAX TORONTO VANCOUVER.



PILE DRIVING

on land or water by Steam Pile Drivers or Drop Hammers.

Portable Boilers
Hoisting Engines
Pumping Machinery
TO LET

Bridge Building, Trestle Work, Wharves; Dams, Diving Submarine Work and General Contracting.

WM. HOOD & SON
10 Richmond Sq. - MONTREAL

OFFICE: Molson's Bank Building, Vancouver, B. C.

Tel. 646. P. O. Box 326

PORTLAND CEMENT

High Grade PORTLAND CEMENT, for Concrete Work of all descriptions, Heavy Masonry, Sidewalks, Etc. EXCLUSIVELY used by the CANADIAN PACIFIC RAILWAY CO. on all their works in British Columbia, also by the DOMINION GOVERNMENT, the MUNICIPAL AUTHORITIES of VANCOUVER and VICTORIA, and by all the leading Contractors in BRITISH COLUMBIA

Manufactured by

THE BRITISH COLUMBIA PORTLAND CEMENT CO.

Prices and Circulars on application.

VANCOUVER, B. C.

THE MANUFACTURERS AGENCIES AND SUPPLY COMPANY, Limited

36 East King Street - TORONTO

GENERAL AGENTS

Municipal Supplies a Specialty. Paving Material For Sale. Careful Attention to Business. Correspondence Solicited.

ALWAYS IN STOCK

PIG LEAD, PIG TIN AND SOLDER

Syracuse Smelting Works, Montreal, P.Q.

THE CADWELL SILEX STONE CO'Y
SILEX STONE WALKS CURBINGS } A SPECIALTY

TO CORPORATIONS.—Our 10 years' experience in Building Walks and Grading enables us to save the expense of an engineer in small towns where one is not regularly employed.

C. W. CADWELL, Manager WINDSOR, ONT.

PORTLAND CEMENT

Samson Brand

Magnet Brand

MADE AT SHALLOW LAKE, ONTARIO

Our celebrated SAMSON BRAND has been before the public for many years, and has made hosts of friends among Contractors and Municipal Corporations until it has become one of the leading Cements on the market today, being excelled by none. This year we have decided to place the MAGNET on the market, and respectfully ask consumers to give it a trial. It will, we think, do its own advertising.

Correspondence invited.

GEO. S. KILBOURN, Secretary-Treasurer.

WORKS: Shallow Lake, Ont.

HEAD OFFICE: Owen Sound, Ont.

MCGREGOR & MCINTRYE

STRUCTURAL IRON WORKS

Trolley Pole Brackets; Electric Light Arms; Prison and Jail Cells; Fire Escapes; Automatic Fire Shutters and Doors; Iron Sidewalk Doors, &c.

We Stock BAR IRON, BAR STEEL, STEEL ANGLES, CHANNELS, Etc.

65 to 71 Pearl St., TORONTO, ONT.

The KERR ENGINE COMPANY, Limited

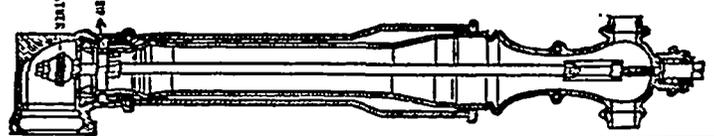
We Manufacture

WATERWORKS PUMPS

HYDRANTS AND WATER GATES

Write for Quotations.

WALKERVILLE, - ONTARIO



THE CANADIAN SEWER PIPE CO.

MANUFACTURERS OF . . .



- FOR -
SEWERS,
CULVERTS

AND
WATER PIPES.

INVERTS
For Brick Sewers

Write for Discount

ST. JOHNS, P.Q. HAMILTON, ONT. TORONTO, ONT.

MUNICIPAL DEPARTMENT

LEGAL DECISIONS AFFECTING MUNICIPALITIES.

HADLEY VS. TOWN OF ST. PAUL.—The plaintiff complained that the municipality had constructed drains in certain lots belonging to him, and asked for their removal. The plea was to the effect that defendant followed the indications given by the plaintiff himself, who had laid out the street and planted pickets from one end to the other. The court maintained the action in part, and condemned the defendant to demolish and take away from the plaintiff's lots the part of the drain which is now constructed in them, within six months from date of judgment, unless the defendant prefers to pay the plaintiff the sum of \$678.07, value of 11,965 feet of which plaintiff is deprived by the defendant's works.

SINCLAIR VS. CITY OF HAMILTON.—This case came before the Trial Court at Toronto. Judgment in action tried at Hamilton brought to recover damages for injuries sustained by plaintiff, who, while walking in a southerly direction on the side-walk on the west side of McNab street, stumbled over a hose which was being used by defendants to flush a sewer on premises adjoining the street. Held, that the work, being done by defendants, was convenient and necessary, that they had a right, as well as a duty to do it, and that it had not been shown that such duty could have been discharged in any other way than by placing the hose across the sidewalk. The time of doing the work—the morning—was also a convenient one, and under the circumstances it was not the duty of defendants to keep a man at the hose to call the attention of it to persons passing. Refer to *Atkins vs. Hamilton*, 24 A.R.; at p. 391, and *Keachie vs. City of Toronto*, 22, A.R., 371. Action dismissed with costs.

THOMAS BRENNAN VS. TOWN OF ST. LOUIS.—In this case, tried before the Superior Court in Montreal, judgment was delivered as follows: This is an action for damages for the flooding of a cellar. Plaintiff alleges that he is the proprietor of a house on the corner of Bernard and Waverly streets in the town of St. Louis; that in the spring of 1899 said property was repeatedly flooded in consequence of the fault of the defendant in not providing drains of sufficient capacity to carry off the water, and in not providing a gully at said corner to receive the surface water; and plaintiff claims damages in the sum of \$1,159. The defendant pleads non-responsibility; that the drains had been made in said Bernard and Waverly streets

at a time when they were not built at all, and were amply sufficient; that the plaintiff's house was built after the said drains; that neither of said streets had been graded; that as to the gullies they were supplied from time to time as they became necessary; that immediately after plaintiff's demand defendant did put a gully at the corner of said two streets; that the plaintiff's cellar was not flooded by surface water but by water under the surface. The proof shows that plaintiff's house was built after the drains were put in; that the corner where plaintiff's house is is about the lowest land in its vicinity; that when the drains were put in there were no houses in the vicinity and the plaintiff's house is still the only one in a considerable radius; that defendant did supply a gully at the corner of Bernard and Waverly streets promptly upon receipt of plaintiff's complaint; that there exists in that vicinity about 4 feet of earth over the solid rock, and that surface of the rock forms a sort of channel for the conveyance of water, which would naturally take its course towards the plaintiff's house, which is the lowest point in the neighborhood; that there is a wide sidewalk with, on one street, a strip of land 10 feet wide inside the sidewalk on two faces of the plaintiff's house; the inclination of the ground from the wall of the house is towards the street, thus throwing the water away from the house; the inundations were noticed, beginning in the month of March, at a time when the ground was still frozen, and would not permit surface water to pass through it; the damage to the house is

proved up the amount of \$25 only; costs of protest \$15, and loss of rent \$134. (This latter item is not very satisfactorily proved, as it is not certain that the building could have been let even if the cellar had not been flooded.) I am of opinion that the plaintiff has not made good his claim against the defendant.

CONSTRUCTING INTAKES.

An unusual method of constructing intakes is described in the last annual report of Mr. Wm. Murdoch, engineer of the St. John, N. B., water and sewerage works. The city obtained control of an old earth mill dam and pond for a new source of supply. A line of 36-inch pipe 50 feet long, built of 2-inch wood staves, was put together on the ice and then sunk. The outer end is in a timber crib, the water entering through a 3 x 4 foot cast-iron grid with bars 3 inches apart on centers. The pipe is covered by gravel. After it was in place, a temporary watertight cover was placed over the grid and the shore end of the pipe built into the dam against an old sluice-gate. This gate was removed and the water in the intake drained out through the opening. Meanwhile a 7 x 10-foot gate house was constructed below the dam, and a brick culvert 3 feet in diameter built back through the dam to the gate, which had been removed, together with all its fittings. The pipe and culvert were then joined.

Mr. A. Milne, late town engineer of Alymer, Ont., has been appointed superintendent of waterworks at St. Catharines, Ont.

PORTLAND CEMENT

HIGHEST GRADE

SOLE AGENTS—



Largest Makers in the World.

Bellhouse, Dillon & Co.

30 St. Francois Xavier Street

MONTREAL

BELLHOUSE, DILLON & CO., 30 St. Francois Xavier St., Montreal
Sole Agents for the Compagnie Generale des Asphaltes de France (Rock Asphalt).

PORTLAND CEMENT NORTH'S CONDOR

Paving and Fire Brick a Specialty

"DYCKERHOFF" and "WHITE CROSS" Brand

NORTH'S "CONDOR" BRAND AWARDED FIRST PRIZE AND GOLD MEDAL AT THE PAN-AMERICAN EXHIBITION

Portland Cements...

HIGH GRADE GERMAN BRANDS FOR GRANOLITHIC AND ARTIFICIAL STONE SIDEWALKS.

Sewer Pipes, Best English Cements. Best Belgian Cements.
Culvert Pipes, &c. W. McNALLY & CO., Montreal.

MUNICIPAL DEBENTURES BOUGHT

EMILIUS JARVIS & CO. (Toronto Stock Exchange) 19-21 King St. West, TORONTO

MUNICIPAL ENGINEERS, CONTRACTORS AND MATERIALS

WILLIS CHIPMAN

Hon. Grad. McGill University.
M. Can. Soc. C.E. M. Am. Soc. C.E.
Mem. Am. W.W. Ass'n.

WATERWORKS, SEWERAGE WORKS, GAS WORKS, ELECTRIC LIGHT AND POWER PLANTS
Reports, Surveys, Construction, Valuations
103 BAY STREET - TORONTO

RODERICK J. PARKE

A. M. American Institute E. E.
CONSULTING ENGINEER

Design and Superintendence of:—Electric Railroads, Steam and Hydraulic Plants, Long Distance Power Transmissions, Municipal Electric Lighting Systems, Welding and Electrolytic Processes.
Estimates Valuations Tests Reports for Financial Institutions
409-410 Temple Building, TORONTO, CANADA
Long Distance Telephone 8047.

W. T. ASHBRIDGE, C.E.

A. M. CAN. SOC. C.E.

609 Temple Building, - TORONTO
Special Attention given to

MUNICIPAL IMPROVEMENTS

Sewerage Works, Water Supply, Pavements. Concrete Construction, Etc.

Wm. Mahlon Davis

Graduate R. M. College.
M. Can. Soc. C. E. Ont. Land Surveyor.

CONSULTING ENGINEER

BERLIN, ONT.

Waterworks, Sewerage, Sewage Disposal, Drainage and Reclamation of Land, Roadways.

R. E. SPEAKMAN, C.E.

A. M. Inst. C. E., 1878.

CONSULTING ENGINEER

(LATE GALT & SPEAKMAN.)

Waterworks, Sewerage and Sewage Disposal. Municipal Improvements. Granolithic Pavements. Electric Light Plants. Drainage and Irrigation of Land. Coal Handling Plant and Machinery. Plans, Specifications and Estimates. Construction and Valuations.

Canada Life Building - TORONTO

THE PHOENIX BRIDGE & IRON WORKS

MANUFACTURERS OF STAY BOLTS AND ALL KINDS OF RIVETS

STEEL AND IRON STRUCTURAL AND ARCHITECTURAL WORK

Beams, Channels, Angles and Tees always in stock.

29 to 49 McGill Street,

P.O. Box 893.

MONTREAL

Prices on Application.

Dominion Bridge Co., Ltd.

P. O. Address, MONTREAL, P.Q.
Works at LACHINE LOCKS, P.Q.

STEEL BRIDGES

For Railways and Highways
Piers, Trestles, Water Towers
Tanks, Buildings, Roofs, Girders,
Beams and Columns

Toronto Agent: GEO. E. EVANS,
38 Canada Life Bldg., TORONTO, ONT

THE CANADIAN PORTLAND CEMENT CO., LIMITED

Works: STRATHCONA, ONT. MARLBANK, ONT.
ST. LAWRENCE PORTLAND CEMENT COMPANY MONTREAL

..... MANUFACTURE

"RATHBUN'S STAR" "BEAVER" "ENSIGN"
BRAND BRAND BRAND

For Prices Write THE RATHBUN COMPANY, Deseronto, Ont.
Sole Sales Agents

W. & F. P. CURRIE & CO.

MONTREAL

Importers of

SEWER PIPES,

CHIMNEY TOPS,

VENT LININGS,

FLUE COVERS,

FIRE BRICKS,

FIRE CLAY,

WHITING.



PORTLAND CEMENTS,

HIGH GRADE ENGLISH

B. S. & Co. "ANCHOR,"

ALSO OTHER BRANDS,

PLASTER OF PARIS,

BORAX,

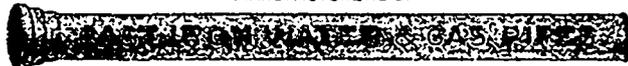
CHINA CLAY.

Montreal Pipe Foundry Co. Ltd.

SUCCESSORS TO

DRUMMOND, McCALL PIPE FOUNDRY CO. LTD

MANUFACTURERS OF



OFFICES

CANADA LIFE BUILDING

MONTREAL

Cast Iron Water and Gas Pipes, etc.

Londonderry, Nova Scotia

SPECIAL CASTINGS
FLANGE PIPE
BRANCHES
HYDRANTS
VALVES
VALVE BOXES

LUNDONDERRY PIPE FOUNDRY

ALEX. GARTSHORE, President. J. G. ALLAN, Secretary and Treasurer. JAS. THOMSON, Vice-President and General Manager.

THE GARTSHORE-THOMSON PIPE & FOUNDRY CO. LIMITED.

Manufacturers of:::

Flexible and Flange Pipe,
Special Castings and all kinds of
Waterworks Supplies.



3 inches to 60 inches diameter.

For Water, Gas, Culvert and Sewer

~~~~~ HAMILTON ONT. ~~~~~

**Cements**  
 ENGLISH and BELGIAN  
**Whiting**  
**Plaster**  
**Firebricks**  
**Fire Clay**  
**J. WATTERSON & CO.**  
 49 Common Street, MONTREAL.

**ORE AND STONE**  
 CRUSHERS  
 HOISTING MACHINERY  
 RAILWAY SUPPLIES  
 BOILERS AND ENGINES  
 Prices furnished on application  
**MARSH & HENTHORN,**  
 BELLEVILLE, ONT.

**Prices of Building Materials.**

**PRESSED BRICK, Per M.**  
 TORONTO PRESSED BRICK and TERRA COTTA WORKS.  
 F.O.B. F.O.B.  
 Milton, Ont. Montreal.

|                      |         |         |
|----------------------|---------|---------|
| Red 1 <sup>o</sup> . | \$12 50 | \$18 00 |
| " 2.                 | 10 50   | 16 00   |
| " 3.                 | 8 50    | 14 00   |
| Buff No. 1.          | 14 50   | 20 00   |
| " 2.                 | 13 00   | 18 50   |
| Brown                | 20 00   | 25 50   |
| Roman Red.           | 28 00   | 30 50   |
| " Buff.              | 28 00   | 33 50   |
| " Brown              | 35 00   | 40 50   |
| Hard Building        | 6 50    | 12 00   |
| " Sewers.            | 6 50    | 12 00   |
| " Bick ng.           | 5 00    | 11 50   |

Moulded and Ornamental from \$2.00 to \$4.00 per 100.  
 Terra Cotta String Courses and Friezes, from 10c. to \$2.00 per ft. run.  
 Roofing Tiles, \$20.00 per 1,000, \$23.00 Montreal.

**BEAMSVILLE BRICK and TERRA COTTA CO.**  
 F.C.B. F.O.B.  
 Beamsville. Montreal.

|                        |         |         |
|------------------------|---------|---------|
| Red Peerless Facing.   | \$15 00 | \$20 50 |
| " No. 1                | 13 00   | 18 50   |
| " No. 2                | 17 00   | 16 50   |
| " No. 3                | 8 50    | 14 00   |
| Brown Peerless Facing. | 20 00   | 25 50   |
| " No. 1                | 16 00   | 23 50   |
| Buff Peerless          | 20 00   | 26 00   |
| " No. 1                | 14 00   | 23 50   |
| " No. 2                | 15 00   | 20 50   |

Moulded and Ornamental Brick from \$3.00 to \$4.00 per C.  
 Roman Red (Size 12 x 4 x 1 1/2 in.) 8 00 33 50  
 Buff " " " " 23 00 33 50  
 Brown " " " " 14 00 30 50  
 Vitrified Pavin, " No. 1 18 00 23 50  
 " " " " No. 2 15 00 20 50  
 Sewer " " " " 6 50 12 00  
 Roofing Tile 22 00 26 00

**COMMON BRICK, Per M.**  
 F.O.B. F.O.B.  
 Toronto. Montreal.

|                |           |           |
|----------------|-----------|-----------|
| Common Walling | 7 00 8 00 | 7 50 8 00 |
| Good Facing    | 8 00 9 00 | 8 50 8 50 |
| Sewer          | 8 00 9 00 | 50 9 00   |

**STONE.**

|                                                                                  |       |       |
|----------------------------------------------------------------------------------|-------|-------|
| Common Rubble, per toise, delivered                                              | 10 00 | 11 00 |
| Large flat Rubble, per toise, delivered                                          | 14 00 | 18 00 |
| Foundation Blocks, per c. ft.                                                    | 30    | 50    |
| Granite (Stanstead) Ashlar, 6 in. to 12 in., rise 0 in., per ft.                 |       | 21    |
| Amherst Red Sandstone, Amherst, N.S., per cu. ft.                                | 1 00  | 75    |
| Kent Free stone Quarries, Moncton, N.B., per cu. ft.                             | 1 00  | 95    |
| River John, N. S., brown Freestone, per cu ft                                    | 95    | 95    |
| Port Philip, N. S. Brown Sandstone                                               |       |       |
| " Scarce " Paving Blocks, 8" x 3 1/2" x 4"                                       | 55    |       |
| " Scarce " Paving Blocks, 8" x 3 1/2" x 4"                                       | 45 00 |       |
| Masilion " " " " " "                                                             | 30 00 |       |
| Quebec and Vermont rough granite for building purposes, per c. ft. f.o.b. quarry | 40    | 1 00  |
| For ornamental work, cu. ft.                                                     | 40    |       |
| Granite paving blocks, 8 in. to 12 in. x 6 in. x 4 in., per M.                   |       | 50 00 |
| Granite curbing stone, 6 in. x 20 in. per lineal foot                            |       | 70    |

**INDEX TO ADVERTISEMENTS**

In the "Canadian Architect and Builder."

|                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                        |                                                                                                                           |                                                                                                                                                                                                                                                       |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Architects.</b><br>Ontario Directory..... III<br>Quebec Directory..... ix                                                                                                                          | <b>Cements.</b><br>Bremner, Alex..... i<br>Owen Sound Portland Cement Co..... IV<br>The Rat-bu' Co. .. ix                                                                                                                                                                              | <b>Interior Decoration</b><br>Elliott & Son Co..... vi                                                                    | <b>Roofing Materials</b><br>Ormsby & Co., A. B. 1<br>Metallic Roofing Co. 1                                                                                                                                                                           |
| <b>Architectural Sculptors and Carvers.</b><br>Holbrook & Mollington..... i                                                                                                                           | <b>Creosote Stains</b><br>Cabot, Samuel..... IV<br>Canada Paint Co..... vi i                                                                                                                                                                                                           | <b>Limbo.</b><br>Ontario Lime Association ..... xi<br>Robertson & Co..... ii                                              | <b>Roofers</b><br>Campbell & Gilday xi<br>Duthie & Sons, G. .. xi<br>Forbes Roofing Co. .. x<br>Nicholson & Co., D. .. x<br>Ormsby & Co., A. B. 1<br>Rennie & Son, R. Jbt. xi<br>Stewart & Co., W. T. xi<br>Willams & Co., H. .. xi                   |
| <b>Architectural Iron Work.</b><br>Canada Foundry Co. vi<br>Dominion Bridge Co. i<br>H. Milton Bridge Works Co..... IV<br>Watson, John..... xii                                                       | <b>Chimney Tops</b><br>Morris, N. J. H. .... viii                                                                                                                                                                                                                                      | <b>Legal.</b><br>Quinn & Morrison.. III                                                                                   | <b>Stained and Decorative Glass</b><br>Bloomfield & Son, Henry..... i<br>Horwood & Sons, H. Leonard, B. Mackey Stained Glass Co..... i<br>McKenzie's Stained Glass Works..... i<br>The Robert McCausland Stained Glass Co..... i<br>Wood, S. F..... i |
| <b>Art Woodwork</b><br>Southampton Mfg. Co. II                                                                                                                                                        | <b>Drain Pipe</b><br>Bremner, Alex..... i<br>Canadian Sewer Pipe Co..... III                                                                                                                                                                                                           | <b>Matt Chutes.</b><br>The Cutler Mfg. Co. .. I                                                                           | <b>Shingles and Siding</b><br>Metallic Roofing Co. ix-ii<br>Ormsby & Co., A. B. 1<br>Pedlar Metal Roofing Co. .. 104<br>Roofers Supply Co. .. 1                                                                                                       |
| <b>Artists' Materials.</b><br>Hearn & Harrison... III<br>The Art Metropole... III                                                                                                                     | <b>Elevators</b><br>Fensom, John..... I<br>Leitch & Turnbull .. I<br>Miller Bros & Toms. vi<br>Turnbull & Russell ColV                                                                                                                                                                 | <b>Mortar Colors and Shingle Stains.</b><br>Cabot, Samuel..... IV<br>Canada Paint Co. .... viii<br>Muirhead, Andrew.... i | <b>Soil Pipe.</b><br>Toronto Foundry Co. III                                                                                                                                                                                                          |
| <b>Builders' Supplies.</b><br>Bremner, Alex..... i<br>Montreal Directory... xi<br>Ontario Lime Association..... xi<br>Robertson & Co. D. .. ii<br>Rice Lewis & Son..... IV<br>Toronto Directory... xi | <b>Embossed Moulding</b><br>Boynnton & Co.....                                                                                                                                                                                                                                         | <b>Ornamental Iron Work.</b><br>Dennis Wire & Iron Co. vi<br>Toronto Fence & Ornamental Iron Works. vi                    | <b>School and Church Furniture.</b><br>Can. Office & School Furniture Co..... viii                                                                                                                                                                    |
| <b>Building Stone Dealers.</b><br>Credit Forks Stone Co. ii<br>Broie Jas. .... ii<br>Hood & Son..... ii<br>Pika. C. .... ii<br>Robertson & Co., D. ii                                                 | <b>Engravers.</b><br>Can. Photo-Eng. Bureau ..... II                                                                                                                                                                                                                                   | <b>Painters.</b><br>Montreal Directory... xi<br>Toronto Directory... xi                                                   | <b>Ventilators</b><br>Boston Blower Co. .. x                                                                                                                                                                                                          |
| <b>Builders' Hardware.</b><br>Rice Lewis & Son..... IV<br>Wheeler & Bain..... x                                                                                                                       | <b>Folding Partitions.</b><br>Springer, O. T..... ic                                                                                                                                                                                                                                   | <b>Prisms.</b><br>Lyon, NT, Glass Co. 205                                                                                 | <b>Wall Plaster</b><br>Albert Mfg. Co..... ii<br>Bremner, Alex..... i                                                                                                                                                                                 |
| <b>Boiler Covering.</b><br>Mca Boiler Covering Co..... xi                                                                                                                                             | <b>Grilles and Railings.</b><br>Dennis Wire & Iron Co. vi<br>Toronto Fence & Ornamental Iron Works. vi<br>Southampton Mfg. Co. II                                                                                                                                                      | <b>Paints &amp; Varnishes</b><br>Muirhead, Andrew ... i                                                                   | <b>Wire Lathing</b><br>The B. Greening Wire Company..... xi                                                                                                                                                                                           |
| <b>Bricks.</b><br>Beamsville Brick & Terra Cotta Co. .... III<br>Toronto Pressed Brick & Terra Cotta Co. .... ix                                                                                      | <b>Granite</b><br>Brunet, Jos ..... ii                                                                                                                                                                                                                                                 | <b>Parquetry Floors</b><br>Elliott & Son Co..... vi                                                                       |                                                                                                                                                                                                                                                       |
| <b>Conductors.</b><br>Wire & Cable Co. .... vi                                                                                                                                                        | <b>Heating.</b><br>Canada Radiator Company ..... iv<br>Clare Bros & Co. .... xii<br>Dominion Radiator Mfg. Co..... i-iii<br>Gurney Foundry Co. v<br>Leonard & Sors, E. .. xi<br>Ormsby & Co., A. B. 1<br>Pease Furnace Co. .... vii<br>Smart Mfg Co, Jas. .. x<br>Red & Co., Geo. W. x | <b>Plate Glass</b><br>The Consolidated Plate Glass Co ..... III<br>Toronto Plate Glass Co..... vi                         |                                                                                                                                                                                                                                                       |
| <b>Contractors' Plant and Machinery</b><br>Rice Lewis & Son..... IV                                                                                                                                   | <b>Drawing Inks</b><br>Stueber, Harry..... III                                                                                                                                                                                                                                         | <b>Plumbers</b><br>Montreal Directory... xi<br>Toronto Directory... xi                                                    |                                                                                                                                                                                                                                                       |
|                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                        | <b>Reflectors</b><br>Frink, I. P..... III                                                                                 |                                                                                                                                                                                                                                                       |

**CREDIT VALLEY STONE. F.O.B. Quarries.**

|                                                  |              |
|--------------------------------------------------|--------------|
| Rubble, per car of 15 tons...                    | 7 00         |
| Brown Coursing, up to 10 in., per sup. yard..... | 1 50 to 1 75 |
| Brown Dimension, per cub. ft                     | 60           |
| Grey Coursing, per sup. yard                     | 1 00         |
| Grey Dimension, per cub. ft.                     | 45           |

**LANGFORD STONE.**

|                             |      |
|-----------------------------|------|
| Rubble, per 30 M. car       | 5 50 |
| Ashlar, per cub. yd.....    | 2 00 |
| Dimension, per cub. ft..... | 18   |

**SLATE.** Toronto. Montreal.

|                                |       |           |
|--------------------------------|-------|-----------|
| Roofing (8 square).            |       |           |
| " red.....                     | 17 50 | 20 00     |
| " purple.....                  | 8 50  | 10 00     |
| " ding green.....              | 8 50  | 7 00 8 00 |
| " olack.....                   | 7 50  | 6 50      |
| Terra Cotta Tile, per sq.....  | 20 00 | 25 00     |
| Ornamental Black Slate Roofing | 8 50  | 6 50      |

**TCTONK, Montreal.**

**CUT NAILS, FENCE AND CUT SPIKES.**

|                                |      |      |
|--------------------------------|------|------|
| 40d, hot cut, per 100 lbs .... | 2 45 | 2 85 |
| 10 to 12d, hot cut.....        | 2 55 | 2 95 |
| 8d, 9d, " " .....              | 2 60 | 3 00 |
| 6d, 7d, " " .....              | 2 75 | 3 15 |
| 4d to 5d, " " .....            | 2 85 | 3 25 |
| 3d, " " .....                  | 3 10 | 3 50 |
| 2d, " " .....                  | 3 45 | 3 85 |

Cut spikes, 10 cents per keg advance.  
 Steel Nails, 10c. per keg extra.  
 Wire nails, 2.85 base price.

**Iron Pipe:**

|                                       |        |
|---------------------------------------|--------|
| ron pipe, 3/4 inch, per 100 feet..... | \$2.35 |
| " " 1/2 " " " .....                   | 3.15   |
| " " 3/4 " " " .....                   | 3.60   |
| " " 1 " " " .....                     | 4.20   |
| " " 1 1/2 " " " .....                 | 7.00   |
| " " 2 " " " .....                     | 7.50   |
| " " 2 1/2 " " " .....                 | 1 00   |

**Lead Pipe:**

|                         |          |            |
|-------------------------|----------|------------|
| Lead pipe, per lb.....  | 7c.      | 15 per ds. |
| Waste pipe, per lb..... | 7 1/2 c. | cent. ds.  |

**Galvanized Iron:**

|                                                |          |          |
|------------------------------------------------|----------|----------|
| Adam's—Mar's Best and Queen's Head and Opollar |          |          |
| 16 to 24 gauge, per lb.....                    | 4 1/2 c. | 4 1/2 c. |
| 26 gauge, " " .....                            | 4 1/2 c. | 4 1/2 c. |
| 28 " " .....                                   | 5 c.     | 5 1/2 c. |

Gordon Crown—  
 16 to 24 gauge, per lb..... 4 1/2 c. 4 1/2 c.  
 26 gauge, " " .....

**Structural Iron:**

|                                  |      |      |
|----------------------------------|------|------|
| Steel Beams, per 100 lbs.....    | 2 75 | 2 85 |
| " channels, " .....              | 2 85 | 2 95 |
| " angles, " .....                | 2 50 | 2 60 |
| " tees, " .....                  | 2 80 | 2 90 |
| " plates, " .....                | 2    | 2 10 |
| Sheared steel bridge plates..... |      | 3 0  |

**ARCHITECTURAL VARNISHES.**

THE IMPERIAL VARNISH AND COLOR CO, LIMITED.  
 (Highest grade)

|                             |                 |                   |                   |                   |                    |
|-----------------------------|-----------------|-------------------|-------------------|-------------------|--------------------|
| (Cans free.)                |                 |                   |                   |                   |                    |
| In 5 gal. cans.             | In 1 gal. cans. | In 1/2 gal. cans. | In 1/4 gal. cans. | In 1/8 gal. cans. | In 1/16 gal. cans. |
| Exterior weating body. .... | \$5 50          | \$5 75            | \$5 85            | \$5 95            | \$5 60             |
| Exterior rubbing. ....      | 3 50            | 3 75              | 3 85              | 4 00              | 4 60               |
| El sto ia.....              | 3 50            | 3 75              | 3 85              | 4 00              | 4 60               |
| Ivory F ame line.....       | 5 00            | 5 25              | 5 35              | 5 50              | 6 10               |
| Cryst li c.....             | 4 50            | 4 75              | 4 85              | 5 00              | 5 60               |
| Yachino.....                | 3 00            | 3 25              | 3 35              | 3 50              | 4 10               |
| Archit curial Crach.....    | 3 50            | 3 75              | 3 85              | 4 00              | 4 60               |
| Archit - floor finish.....  | 2 50            | 2 75              | 2 85              | 3 00              | 3 60               |
| Architectural flattng.....  | 2 00            | 2 25              | 2 35              | 2 50              | 3 10               |

**HARDWARE.**  
 The following are the quotations to builders for nails at Toronto and Montreal:  
 Cut nails, 50d & 60d, per keg 2 85 2 85  
 teal " " " " " " 2 95 2 99