copy a may be of the signific	stitute has at vailable for fe bibliograph images in the cantly change de below.	ilming. For ically unically un	eatures (que, whi stion, or	of this ich may which	copy wi alter a may	hich ny		ti e b r	ui a ét xempl sibliog eprod	é poss laire q raphic uite, c méth	microfil sible de jui sont que, qui pu qui p ode noi	se pro peut-i i peuve peuver	ecurer être u ent m nt exiç	. Les nique odifie ger un	détai s du (er une ne mo	ils de co point d image dificati	et le vue ion
	Coloured cov Couverture d								1		ed page le coule						
1	Covers dama Couverture e	=	ée						3	•	iamageo endomn		i				
	Covers restor Couverture re								1/1	•	estored estauré						
1 1	Cover title m Le titre de co		man qu e						, ,	_	discolou décoloré						
	Coloured ma Cartes géogra		n coule	ur					- 1	_	detache détaché						
	Coloured ink Encre de cou					re)			1 /		hrough, parence	/					
	Coloured pla Planches et/c				r				3 <i>/</i> !		y of pri é inégal			ssion			
1 4 / 1	Bound with (Refié avec d'								1		uous pa	-					
V	Tight binding along interio	r margin/									es inde rend un		index	:			
	distorsion le	long de la	marge i	intérieu	re				-		n heade e de l'e		_	-			
	within the te	xt. When	ever pos ning/	ssible, t	hese ha	ve			- 1	•	age of i		vraiso	ก			
	ll se peut qu lors d'une re mais, lorsque	stauration e cela était	apparai	issent d	ans le te	exte,			1	•	n of iss le dépa		a livra	ison			
	pas été filmé	es.							ı	Masth Généri	ead/ ique (pá	ériodic	dnez) (de la l	livrais	ion	
	Additional c Commentair			es:													
	tem is filmed cument est fi																
10X	T	14X	, ,	·	18X	γ	 	22X	Ţ	T		26X	- T	- ,	₁	30 X	
	12X		1	6X			20X			24X			7	28X			32>

THIS PAPER REACHES EVERY WEEK THE TOWN AND CITY CLERKS, TOWN AND CITY ENGINEERS, COUNTY CLERKS AND COUNTY ENGINEERS THROUGHOUT CANADA.

Vol. 4.

AUGUST 10, 1893

No. 25

THE CANADIAN CONTRACT RECORD.

PUBLISHED EVERY THURSDAY
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, Publisher,

CONFEDERATION LIFE BUILDING, TORONTO.
Telephone 2362.
64 Temple Building Montreal.
Bell Telephone 2209.

Information solicited from any part of the Dominton regarding contracts open to

ADVERTISING RATES ON APPLICATION.

At its Convention held in Toronto, Nov. 20 and 21, 1889, the Ontario Association of Architects signified its approval of the CANADIAN CONTRACT HECORD, and pledgod its members to use this journal as their medium of communication with contractors with respect to advertisements for Tenders.

Tenders.

The following resolution was unanimously adopted at the First Annual Meeting of the Province of Quebec Association of Architects, held in Montreal, Oct. 10th and 11th, 1890: Moved by M. Perrault, seconded by A. F. Dunlop, that we the Architects of the Province of Quebec nove assembled in Convention being satisfied that the CANADIAN CONTRACT RECURD affords us a direct communication with the Contractors,—Resolved, that we pledge our support to it by using its columns when calling for Tenders."

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

BARTER AND EXCHANGE.

This department has been opened for the speedy barrer and exchange of second-hand plant or material, or small lots of new or second-hand materials by builders and others not regularly engaged in the sale of such articles. Advertisements other than those of the above description will not be inserted.

RATES—12 words and under, 15 cents; each additional word, 1 cent (three figures count one word); on two or more subsequent insertions a discount of to per cent. will be allowed. Not more than four insertions of an adventisement can be granted.

Replies to advertisements may be addressed to a box at this office, in which case necessary stamps must be sent for re-mailing replies. Advertisements for this department must be prepaid.

TO ARCHITECTS.—About 1½ quires of Whatman's Drawing Paper for sale (Imperial size), only \$3.50 for the lot. Box 151 at this office.

Notice to Contractors

CANADIAN CONTRACTORS' HAND-BOOK

A new and thoroughly revised edition of the Ganadian Contractors' Hand-Book, consisting of 150 pages of the most carefully selected material, is now ready, and will be sent post-paid to any address in Canada on receipt of price. This book should be in the hands of every architect, builder and contractor who desires to have readily accessable and properly authenticated information on a wide variety of subjects adapted to his daily requirements.

Price, \$7.50; to subscribers of the Canadian Architect and Builders, \$1.00. Address

O. H. MORTIMER, Publisher,

Confederation Life Building, TORONTO. Mantreal Office: 64 Temple Building.

MONDAY, AUGUST 14TH, 1893,

For the excavations and the stonework required for the foundations and the cellar walls of the proposed new

PROPOSALS

WILL BE RECEIVED UNTIL

CARMELITE HOSPICE BUILDING

Falls View, Ontario.

Plans and specifications may be seen at the old Monastery building.

The right is reserved to reject any or all bids. The successful bidder will be required to furnish bond to the amount of \$3000.

For particulars address

REV. A. J. KREIDT, O.C.C., Falls View, Ont.

to whom the proposals are to be directed

LEGAL DECISIONS.

In the case of Casement v. Brown, the Supreme Court of the United States decided that contractors who agree to furnish suitable material and to construct certain specified and described piers, subject to the daily approval of the engineers of the companies for whom the piers are to be are independent contractors and built, are independent contractors and liable for injuries to third persons resulting from their own negligence. Contractors who have contracted to furnish the material and do the entire work of constructing piers in a river and to keep buoys over them while submerged to warn boats of danger, and who have omitted to replace a buoy after it has been carried away by high water after ample time to do so and knowledge of its necessity, or otherwise to warn of the danger, are guilty of negligence and responsible for all injuries resulting therefrom. Where a barge being towed by a steamboat in a river ran upon a partly constructed and submerged pier during very high water and was injured, errors of judgment of the pilots in charge of the steamboat, their dependence on the appearance of the river and their reliance upon the duty of defendants, who were constructing the pier, to place a suitable buoy on it or give other warning, is not such contributory negligence as relieves defendants from liability for such injury which resulted from their negligence in omitting to place such buov or other warning, although the pilots knew where the pier in process of construction was.

Mr. Wm. White, builder, Toronto, has made an assignmentito Mr. E. P. Lane.

CONTRACTS OPEN.

SPRINGHILL, N. S.—The Methodist congregation have decided to build a new church.

WALKERTO.; ONT,—Mr. Oppenheiser will erect a new fruit evaporating factory in this town. PORT COLBORNE, ONT.—The Port Colborne Smelting Works are going to build a new fur-

BROCKVILLE, ONT,—Mr. G. A. Allan, architect, is preparing plans for Mr. J. S. Tphain's new factory.

BRANTFORD, ONT.—The Baptists of this city have purchased a site for the erection of a new Mission church in Eagle Place.

NEW WESTMINSTER, B. C.—A vote of the ratepayers will be taken to provide the sum of \$10 000 for market buildings

ARNPRIOR, ONT A site has been selected on Tierney street for the proposed station for the Ottawa and Parry Sound Railway.

HULL, Que.—The City Council has passed a by-law to borrow the sum of \$40,000 for water-works extension and other civic improvements.

PORTAGE LA PRAIRIE, MAN.—Joseph W. Williams, representing London, Ont., capitalists, is said to have decided to build a tannery here.

SEAFORTH, ONT.—It is altogether likely that the Trustees of the Clinton Public School will

place furnaces in the Cinton Prubic School will place furnaces in the building before next winter. STRATFORD, ONT.—Mr. H. J. Powell, architect, has just finished plans for a \$20,000 opera house in Guelph and a \$22,000 church in Chat-

ham.
VICTORIA, B. C.—The citizens are agitating for a new water supply. There is some talk of bringing it from Thetis lake, a distance of 17

BURFORD, ONT.—Tenders will be received by Mr. A. Foster, Clerk, until the 21st inst., for the construction of the standing drun in the township of Burford.

AVONTON, ONT.—The Presbyterian congregation propose building a new church on the site of the present one. The cost will be between

JOLLIETTE, QUE. — The Town Council has granted the sum of \$25,000 towards the construction of a line of railway between this town and the city of Quebec.

Mission City, B. C.—Negotiations are being carried on with a Scotch manufacturing company with a view to securing the erection of extensive woollen mills in this town.

GALT, ONY.—Tenders for the new building to be erected by the Gore Mutual Insurance Company will be asked for at an early date. Mr. Mellish, architect is preparing the plans.

COBOURG, ONT.—Mr. P. J. Lightburne has prepared plans for a new skating and curling rink to be creeted west of the market square. The building will be 200 x 200 feet in size

CHATHAM, ONT.—The Council has decided to issue debentures to the extent of \$17,000 to provide funds for the Queen street drain, the paving of Queen street and a portion of Thames

OWEN SOUND, ONT.—The Council of Keppel township has decided to issue debentures to the amount of \$5,000 to cover the cost of draining Shallow Lake, in accordance with plans prepared by Mr. R. McDowall, C. E.

NEWMARKET, ONT. - The Town Council has decided to construct two steel bridges, one over the Holland river on Queen street and the other over the same river on Water street. Debentures will be issued to cover the cost of the work.

WALKERVILLE, ONT. —A new electric railway will be constructed from this town to Tecumseth this fall.—Messrs, Hiram, Walker & Co. have undertaken the work of piping natural gas from the south Essex fields to this town. The cost will be about the cost

will be about \$100,000.

CHARLOTTETOWN, P. E. I.—Mr. J. W. Motrison, Secretary of Public Works, invites tenders

until Tuesday the 15th inst., for the building of an extension to a wharf at Mount Stewart, also for furnishing and placing a boiler in the Hospital for the insane at Falconwood,

for the insane at Falconwood,
ORILLA, ONT.—The plans for the new market
building prepared by Mr. J. H. Tool, have been
examined by Mr. Langley, architect, of Toronto,
who will report to the Market Committee of the
Town Council.—The Tudhope Carriage Company will receive tenders until Tuesday, the 15th
inst., for the erection of a four-story brick carriage factory, with dry kiln, engine and boiler
house. Plans may be seen at the office of Mr.
W. H. Croker, architect.

W. H. Croker, architect.

LONDON, ONT.—At a special meeting of the Executive Committee Western Fair Association, it was decided to send Assistant Engineer Ironside to Saraia to secure information to be used in connection with the building of the proposed new breyele track—Messrs, Jones, McBride & Farncombe, architects, invite tenders this week for the erection of a brick factory. They also invite tenders until the tath inst., for erecting two brick residences on Hyman street.—It is proposed to enlarge and improve the city her fital, at an estimated cost of \$5,000.

WINDIPEG, MAN—Mr. T. C. Keenlyside.

mated cost of \$5,000.

WINNIFEG, MAN - Mr. T. C. Keenlyside, real estate agent, has completed the sale of seven tots on Yonge street south, four lots on Bell street, Fort Rouge, two lots on Mulligan avenue. On these lots dwelling houses of a superior class are to be erected, many with all modern conveniences and stone foundations.—A petition has been presented to Council, for an 18 foot block pavement on Foncesa street, from Main to Princess streets, estimated cost \$2,100.—Messrs. Richard & Houde will make improvements to the Winnipeg Wire Works.

WINDSOR, ONT.—The syndicate which has in

the Winnipeg Wire Works.

WINDSOR, ONT.—The syndicate which has in hand the project of connecting lakes St. Clair and Eric by a large canal has now definitely decided to construct the proposed canal through by way of the Two Creeks route. The right of way has been purchased, the route will be surveyed and everything put in readiness to begin excavating as soon as the company receives a charter from the Government. The company is already having plans prepared for dry docks, machines, ships and coal shutes. The distance from lake to lake across the isthmus through which the canal will be built is fourteen miles.—Mr. Louis Griesinger is having plans prepared for the extension of his brewery.

brewery.

OTIAWA, ONI.—Mr. Cunningham, president of the Central Counties Railway, says the Company is prepared to make direct railway connection between Cornwall and Ottawa if the two places will bonus the line. The sum of \$50,000 is asked from this city.—John H. Balderson, Secretary Department of Railways and Canals, will receive tenders until Monday, the 14th instifuter enoval of the superstructure of the east pier at Port Dalhousie, and for the renewal of the portion removed.—The Building Committee of the maternity Hospital have purchased the lot adjoining the Lady Stanley Institute as a site for the proposed new building, should the subscriptions come in readily it will be creeted this fall.

Montreal, Que.—A proposition is now be-

the proposed new boulding, should the subscriptions come in readily it will be creeted this fall.

MONTREAL, QUR,—A proposition is now before the City Council to erect an iron observation tower 150 feet high upon the mountain, with an elevator in the centre, at a cost of \$5,000.—The Superintendent of waterworks has recommended extensive repairs to the reservon. The Finance Committee will be asked to provide the sum of \$5,000 with which to purchase water meters.—Messrs, Keefer and Vanier, who were commissioned some time ago to examine the city s water supply, have presented a report recommending an expenditure of \$3,000,000 in order to farnish proper supply.—Fenders are invited at the office of the City Clerk until to-morrow, (Friday.) for the excavation and masonry for a retaining wall on Seigneurs street, \$1. Antoine ward.—The Street Railway Company has decided to issue bonds to the extent of \$700,000.—The municipality of \$ts. Cunegonde is negotiating with the Grand Trunk Railway Company to secure the

erection of a new depot.—A petition for an asphalt pavement on St. Etienne street, opposite the general offices of the Grand Trunk Railway Company, has been presented to Council.

Company, has been presented to Council. The cost is placed at \$5,000.

HAMILTON, ONT.—Charles Mills, architect, has prepared plans for the following buildings. A pair of dwellings on Hughson street north; detached dwellings on Market street; alterations to dwelling on King street west; detached house on Bay street north; alterations to dwelling on King street west; detached house on Bay street north; alterations to dwelling on King street west; detached house on Bay street north; alterations to residence on Park street south; boat house to be built at Hamilton Beach; detached dwellings on Yonge street, alterations to house on Augusta street; additions to residence on Robinson street; heating and ventilating the Burlington west public

Hamilton bach; thetached dwellings on Yonge street, alterations to house on Augusta street; additions to residence on Robinson street; heating and ventilating the Burlington west public school; power station and other buildings for the H. U. and B. electric railway, additions and alterations to dwelling on Bay street north. He has also been instructed to prepare plans for two hotels to be erected at Niagara Falls, to be equipped with all modern improvements for summer and winter travel. One will be situated neat the park, to cost about \$40,000, and the other near the G. T. R. Station, "Mr. W. A. Edwards, architect, will receive tenders until Saturday next for the erection of a brick hotel for James Barton, of Barton street.—Mr. R. Clohecy, architect, bas invited tenders for the erection of a Catholic church on Herkinger street.

Toronto, Ont.—C. F. Fraser, Commissioner of Public Works, for Ontario, will receive tenders until Tuesday, the 15th inst., for the following work: filter house, for Ontario, will receive tenders until Tuesday, the 25th inst., for the following work: filter house, for Ontario, will receive tenders until Tuesday, the 15th inst., for the following work: filter house, for Ontario, will receive tenders until Tuesday, the 25th inst., for the following work: filter house, for house, and for electric plant at Mimico Asylum; sewerage discharge pipe and additions to north building and bursar's house at London Asylum; sewerage discharge pipe and additions to north building and bursar's house at London Asylum; hot water apparatus and coal shed at Hamilton Asylum; carpenter work, etc., for new Infirmary and root house at Kingston Asylum; Hospital, barn and piggery at the Deaf and Dumb Institute, Belleville, addition, etc., for Convocation Hall and Dairy Building at Agricultural College, Guelph; two new steam boilers, etc., at School of Practical Science.

Toronto — The difficulty between the City Council and the Street Railway Company regarding the paving of certain streets on which an electric stre

FIRES.

Wilson & Co's, lead works at Hamilton, Ont., were destroyed by fire on Monday last. The loss will be from \$7,000 to \$10,000, and it is said there is no insurance on the building.—The planwere distroyed by the on blonday last. The loss will be from \$7,000 to \$10,000, and it is said there is no insurance on the building.—The planing mill of the Safety Lumber Company at Norman, Man., was destroyed by fire recently. The value of the mill and machinery was about \$7,000; insurance \$3,500.—Mr. George Holden's residence at Meaford, Ont., has been destroyed by fire.—The planing mill of Napoleon Martin, situated on St. Patrick street, Montreal, was guited by fire on Saturday last. Loss \$13,000.—Mr. A. Guertin's window and sash factory adjoining was damaged to the extent of \$3,000. A fine brick residence at Vallentyne, Ont., owned by Mr. John Miller, was burned last week. Loss \$1,500; insurance \$600.—Four residence at Winnipeg, Man., were destroyed by fire on Friday of last week. They were owned by Dr. Crawford and Mr. G. A. McCarthy.—The saw mill at Turner's Station, Ont., owned by Sewers & Thompson. of Teeswater, and leased by J. A. McArthur, was totally destroyed by fire recently. Loss \$4,000.—The village of Ste. Jerome, Que, was damaged by fire to the extent of \$30,000, recently. The losers are: E. Gibeau, \$20,000, insurance; Dame Trottier, \$1,500, insured.—The finx mill at \$5 Mary's, Ont., owned by Werr &Weir, was destroyed by fire on Tuesday last. The loss on building and machinery is about \$3,000. The electric light station, owned by Mr. L. H. Reesor, was also situated in the building and was partially destroyed.

CONTRACTS AWARDED.

PETERBORO. ONT.—The Wm. Hamilton Company, of this city, have been awarded the contract for the machinery for the new system of waterworks.

VANCOUVER, B. C.—Mr. McGillvray has vancouver, 15. C.—Mr. Medillivray has secured the contract for the construction of the Nakuspand Slocan railways.—Messrs. W. Bailey & Co., have been awarded the contract for building the new block for Capt. N. Thompson. The building will be of brick with dressed sand-

STRATFORD, ONT.-The directors of the

Stratford Park Co., have awarded the contract Stratford Park Co. have awarded the contractor draining the grounds and the construction of the horse and bicycle tracks to Messrs. McKay & Clark, of Woodstock, at the price of \$2,283.50.

—The contract for the construction of 30,000 feet of cement pavement, tenders for which were advertised for in this journal some few weeks ago has been awarded to Mr. James Dunn, at 16½ centered for the contract of the contra cents per foot.

has been awarded to Mr. James Dunn, at 10½ cents per foot.

WINNIPEG, MAN.—The Board of Works has accepted the tender of Thomas Sharp, for an artificial stone sidewalk on Main street, from Ryan to Graham streets, at \$3.15 per square yard. The tender of Jos. Williams for curbing was accepted, at \$1.05 per yard. The cost of the walk will be about \$10.395; approximate area, 3 300 square vards.—John Kerr has been awarded the contract for sewer construction on Lewis street. Fort Rouge and Edmonton streets, the amount of tender being \$1.095 80.

TORONTO, ONT.—A sub-committee of the Board of Works, at a meeting held on Monday last, recommended the acceptance of the following tenders Granolithic pavement—Sherbourne street, from Wilton ave. to Bloor street, west side. Gardiner & Co., \$1.12 per lineal foot, and 15 cents per toot re-setting curb. Asphalt javement—Czar street, from Yonge to North street, Trindad Company, \$4.479. Cedar block pavement—Mansfield avenue, from Manning avenue to Clinton street, Clark & Connolly, \$592; Euclid place, from Euclid avenue to eastern terminus, Construction & Paving Lompany, \$200; Water meters—Matthew Warnock, agent for Siemens meter. Prices, ro-inch meter, \$350 each, 8-inch, \$250 each, 6-inch, \$180. Five meters will be required.

METHODS BY WHICH OBELISKS WERE MOVED.

The obelisks of the Pharaohs are made of red granite called syenite. In quarries at Syene may yet be seen an unfinished obelisk, still adhering to the native rock, with traces of workmen's tools so clearly seen on its surface that one might suppose they had been suddenly called away and incended soon to return and finish their

This unfinished obelisk, says the Rev. J. King, in his "Cleopatra's Needle," shows the mode in which the ancients separated these immense monoliths from the native rock. In a sharply cut groove marking the boundary of the stone are holes evidently designed for wooden wedges. After these had been firmly driven into the holes, the groove was filled with water. The wedges gradually absorbing the water, swelled and cracked the granite throughout the length of the groove. The block, once detached from the rock, was pushed forward, upon rollers made of the stems of palm trees, from the quarries to the edge of the Nile, where it was surrounded by a large timber raft.

It lay by the river side until the next inundation of the Nile, when the rising waters floated the raft down the stream to the city where it was to be set up. Thousands of willing hands pushed it on rollers up an inclined plane to the front of the temple where it was designed to stand. The pedestal had previously been placed in position, and a firm causeway of sand covered with planks led to the top of it. Then by means of roolers, levers, and ropes made of the date palm, the obelisk was gradually hoisted into an upright

PREVENTION OF RUST.

The prevention of rust on iron and steel

may be accomplished in various ways.

(1) In the German army, oil of guttapercha is used for this purpose. It is applied with a flannel rag, and will stand for years. To take off this preventative, apply from twelve to twenty-four hours, when both the old and the new application can be wiped off.

(2) A solution of gutta-percha in benzine, of the consistency of cream, is a simple preservative against rust on metal. It can be applied with a brush, and as easily

removed by the application of benzine.
(3) Dissolve 30 grains of camphor with a pound of fat, take off the froth, and add graphite until it has attained the color of iron. Wipe the surface and then apply the mixture, and wipe off after twenty-four hours with a soft cloth. This will keep tools or polished iron or steel free from rust for many months.

(4) To preserve polished iron surfaces from rust, melt together seven parts of

tallow and one part of resin stirring the mixture until it cools. Apply in a half liquid state; if too stiff, thin with benzine or petroleum. It preserves the polish, and

can easily be removed.

(5) To make a preservative for iron or steel, it is best to use nothing but linseed oil, thickened with a pigment related to the metal itsself, and native oxide or roasted oxide of iron is the best for the purpose. Boiled linseed oil will form a skin through which no oxidation can take place.

(6) Slack a piece of fresh lime in a covered vessel with only water enough to make a crumble. While the lime is yet hot mix it with enough tallow to make a soft dough, and apply this mixture to pol-ished surfaces. As it does not dry to any extent or becomes hard, it is easily remov

(7) Olmstead varnish preparation has been in use for many years, and has proven itself perfect, especially for planed and ground surfaces and on Russian iron, which are very sensitive to rust. It is made by melting first 60 grains of resin and then one pound of fresh tallow or grease, when both are to be united. It from the applied while warm, and the sur face must be perfectly clean before application. This can be removed without much trouble.—Iron Trade Advertiser.

MUNIGIPAL DEPARTMENT.

SANITARY INSTITUTE.

an examination for inspectors of nuisances, held in London on April 14th and 15th, the following were the questions

1. On receipt of a public analyst's cer tificate of the adulteration of the cow's milk of which you have taken a sample, what is the evidence you will require to produce in court to secure a conviction?

2. What statutory powers are available for dealing with the sanitary evils of "sweating" in a work place

Explain the advantages and disadvantages of the different materials of which water-cisterns are made. How should water-closets be supplied?

4. To what classes of food exposed for

sale would you direct your attention in a time of threatened cholera. Describe the steps you would take upon the discovery of, and in dealing with, unsound food,

5. On receiving a notification certificate of a case of typhus in a cellar of a tenement house, how would you act? How would you protect yourself against infection?

6. Mention the articles usually found in

a bedroom recently occupied by a lever patient, and describe the methods to be employed for the disinfection of each of

Describe in detail the methods that should be adopted for the discharge of the waste and overflow from an ordinary bath and safe and from a lavatory basin, both in the same room. Illustrate your

answer by a sketch.

8. How should a house-drain be ventilated? Show this by a diagram.

9. Write (in official form) such a report

as you would make stating that a builder, Mr. ————, having laid a drain improperly, detail the defects, and the alterations you have called apon him to take.

ELECTRIC VENTILATION OF SEWERS.

The municipal authorities of an English town have accepted the offer of a local lighting company to provide electromotors for ventilating the up-take columns of sewers. The motors are to be continuously supplied with current for three months for \$25 each, tests being taken in the meantime of the amount of foul air extracted from the sewer. The introduction of electromotors for this purpose is by no means the first occasion on which mechanical power has been employed for removing dangerous gases. Large blowers and fans have been successfully used for carrying a supply of fresh air through the

workings at mines and collieries. Formerly the ventilation was effected by hot air currents, a furnace being kept up in the up-take for the purpose of heating the outgoing air and thus creating a draught. The superiority of electrical ventilation, however, has been so conclusively demonstrated for almost all ordinary conditions that it is being very largely used, and in an indefinite number of ways, of which the case just quoted is an example.

Philadelphia alleyways are to be hereafter paved with an improved patent pave-ment when declared defective in paving or drainage. The board of health has issued the following specifications for laying such pavements. All alleys 5 ft. or less in width shall be excavated to the depth of 18 ins. below the lines given by the surveyor of the district, the excavation thus made to be filled to the depth of 14 ins. with clean cinders, well rammed. Upon this shall be laid a concrete, to be composed of one part of imported Poilland cement (either of Hilton or Manheimer brand,) three parts of clean, sharp, coaise bar sand, thoroughly mixed dry and made into a mortar with the least quantity of water and thoroughly intermixed with broken stone or approved furnace slag, m such quantity that when tramped or rammed solidly in place free mortar will rise to the surface and exhibit a depth of 3 ins. of the said concrete. Upon this concrete foundation a surface shall be laid t in. in thickness, composed of one part of Portland cement (Dyckerhoff or Star Stettin brands) and two parts of crushed granite to pass through a 1½-in. sieve, free of dust, with just sufficient water to make mortar, to be thoroughly tramped could be the large and arrade up to the solid to the lines and grade given by the surveyor of the district, and dressed with a small quantity of dryer, composed of one-half pure cement and one-half flint sand, floated over the entire surface as a

DEBENTURES WANTED.

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

GRAND TRUNK RAILWAY, CANADIAN PACIFIC RAILWAY. CREDIT VALLEY RAILWAY, ONTARIO AND QUEBEC RAILWAY, WELLAND RAILWAY, GREAT WESTERN RAILWAY, NORTHERN PACIFIC JUNCTION RAILWAY. NIAGARA FALLS AND QUEENSTON ELECTRIC RAILWAY,

All Used

Thorold Cement

in construction.

ESTATE OF JOHN BATTLE. Thorold, Ontario.

Fire Bricks and Cement

DRAIN AND WATER PIPES SANITARY EARTHENWARE LONDON PORTLAND CEMENT GUARANTEED GENUINE.

Paving and Scoria Bricks for Stables, Sidewalks, Yards, etc. Large quantities on hand and to arrive. We handle only the best quality. Prices lower than ever.

F. HYDE & CO.

SI Wellington Street, - MONTREAL,
Sole Agents for

THE "CRAHTRYX" SMOKE TEST AND DISINFECTING MACHINE.

MUNICIPAL ENGINEERS, CONTRACTORS, AND MATERIALS.

ISAAC USHER & SON, THOROLD, ONT.
Manufacturers of

QUEENSTON CEMENT

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

WILLIS CHIPMAN, B. A. Sc., M. Can. Soc. C.E.; M. Am.; M. Am. W. W. Assi

CIVIL AND SANITARY ENGINEER
Water Works - Seicerage
Scienge Disposal
103 BAY STREET - TURUNTU.

J. McDOUGALL, C. E., ENGINEER COUNTY OF YORK

Consulting Engineer for Municipal Work.

Electric Railways and Bridges. COURT HOUSE, - TORONTO.

Municipal officers, contractors and others, are requested to mention the CONTRACT RECORD when corresponding with advertisers

JOHN GALT MEM. CAN. SOC. C. E.,

CONSULTING ENGINEER AND EXPERT

WATERWORKS, SEWERAGE, ETC. Twenty-five years' practical experience in Great Britain, United States and Canada.

Office: Rooms 99 and 100, CANADA LIFE BUILDING. TORONTO.

TAR FOR SALE.

A quantity of coal tar made from the best bituminous coal.

THE STRATFORD GAS CO.

To Corporations and Contractors

THE (ELERRATED



Double Stuffing Box,

Compound Wedge,

Double Disk,

made on the most modern princi-ples and of the best material,

MATTHEWS LUDLOW Hydrants,

Valve and Service Boxes at bottom prices,

oherty Mfg. Co.

SARNIA, ONT.

A & E LOIGNON,

CIVIL ENGINEERS.

Steel Beams kept in stock.

Plans, Estimates and Specifications.

WORKS: ST COLUMBAN ST. AND CANAL SIDE, MONTREAL.

OFFICE: 7 PLACE D'ARMES, Telephone 9277.

CORRUGATED SOIL PIPE AND FITTINGS (PATENTED)



Montreal.

UNICIPAL OFFICIALS

should see to it that in the erection of town and city PUBLIC BUILD-INGS, the installation of water works plant, etc., the advantages of . . .

MINERAL WOOL



are made use of for deadening sound in floors and partitions, insulation of heat and cold, fireproofing, etc., also SECTIONAL MINERAL WOOL COVERING for steam pipes, boilers, exposed water

CANADIAN MINERAL WOOL CO., Limited, 122 Bay Street, Toronto.

Montreal Agent: GEO. A. COWAN, Room 23, 204 St. James St.

GEO, R. THOMPSON & CO., Agents, Winnipeg, Man.



STEVENS & BURNS

London, Ont.

To Municipal Corporations and Contractors:

... WE MANUFACTURE.

Hydrants, Valves, Valva Boxes

and Water Works Supplies generally,

INCLUDID. .

Tools for tapping mains under pressure and Service Brass Work of all descriptions.

PORTLAND CLMEI

23,353 Barrels of Burham Brand were sold in extraord to two-thic best sold in amounting ales.

Nichols, Smythe & Co., 25 George St., Toronto. CEMENT CONTRACTORS TO THE CIL OF TORONTO. Telephone 1948 or call and see us.

HAMILTON AND TORONTO SEWER PIPE CO. - FOR -

SEWERS, CULVERTS,

WATER PIPES.

Fire Brick Sewers

Write for Discounts.

HEAD OFFICE AND FACTORY, HAMILTON, CANADA.

Drummond McCall Pipe Foundry

MONTREAL MANUFACTURERS OF

LK AND GAS PIPES

orks: Lachine, Que.

PRICES ON APPLICATION

Water Meter Co., Ltd. **Untario** MANUFACTURERS OF

Meter Supports, Dial Extensions, Fixture Locks, Water Cart Registers, Strainers, Coupling Scals and Reservoir Indicators.

Send for Price Lists and Testimonials. Our meters are adopted and in use in over 500 cities and towns in Canada and the United States. Highly endorsed by leading Engineers. A guarantee for five years given with all Meters. All information furnished on application to

A. C. WINTON, Secretary-Treas.

Office: No. 23 Toronto Street, Toronto, Ont.

ANADA PIPE AND FOUNDRY CO.

Cast Iron Pipes and Special Castings

Works: MONTREAL AND ST. HENRI, QUF. CORRESPONDENCE SOLICITED

OF ST. JOHNS, P, Q., (LIM.)



Manufacturers of

Salt-Glazed, **Vitrified**

SEWER PIPES

Double Strength Railway Culvert Pipes, Inverts, Vents,

AND ALL KINDS OF FIRE CLAY GOODS.

THE G. & J. BROWN MFG.

Railway and Contractors' Plant.

BELLEVILLE, ONT.

Toronto. Montreal.

CENTRAL BRIDGE AND - -- - ENGINEERING COMPANY.

(LIMITED) Peterborough, Ont.

WM. H. LAW, Manager and Engineer. MANUFACTURER OF

RAILWAY AND HIGHWAY BRIDGES

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

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

CAPACITY: 2,000 TONS PER ANNUM.

OUR SALES OF

Portland Cement..

for the past 8 months have been

25.499 GASKS.

"Butham" Brand outranks all others. Try it and be convinced.

Sole Consignees for Canada:

MCRAE & CO., OTTAWA

Canada Pipe Foundry,

HAMILTON, ONTARIO.

ALEX. GARTSHORE, - Proprietor.

Manufacturer of

CAST IRON WATER, GAS AND SEWER PIPES.

— ALSO —

Special Castings of every description.

CAPACITY: 50 TONS PER DAY.

In use from Vancouver to Sydney, Cape Breton. Correspondence solicited.

Prices of Building Materials.

LUMB	ER.			
CAR OR CAR	GQ 1.0	TS.		
1	ጥለዋስ	nto	Mont	FOOL
	•	.\$.	\$	\$
1 1 to 2 clear picks, Am ins	34 000		40 000	
zk to a three uppers, Am ins.		37 ∞		
11 to 2, pickings, Amins		27 00		
3 inch clear			52 50	6000
t x to and to dressing and				
better	20 00	22 00	18 ∞	20 00
z x 10 and 12 mill run		24 00		1000
I X 10 and 12 dressing		16 ∞	0	1800
I X 10 and 12 common		1300	8 00	10.00
1 x 10 and 12 spruce culls		11 00	10 00	11.00
r x roand rs maple cult	-0	900	•• ••	900
z inch dressing and better		30 00	33 ∞	35 00
z inch siding, mill run		30 00	18 00	20 00
		16 00	14 00	16 00
z inch siding, common		13 02	12 ∞	14 00
r inch siding, mill calls	200	12 00	1000	11 00
Cull scantling	800	9 00	8 co	900
x and thicker cutting up	٠	900	• 60	900
plank				
x inch strips, 4 in. to 8 in. mill	w	25 00	33 OO	25 ∞
400		25 00	*₹∞	15 00
z inch strips, common		1200		1200
z% inch flooring	15 00	1600	14 00	15 00
13% inch flooring		1600	14 00	1000
XXX shingles, sawn, per M	.,		14 04	1000
76 in	2 (0	260	50	2 70
XX shingles, sawn	1 (0	1 60	160	1 70
	-			• 70
YARD QUOT		42.		
Mill cull boards and scantling		10 00		10 00
Shipping call boards, pro-				
miscuouswidths		1300		13 00
Shipping cull boards, stocks		1600		16 ∞
Hemlock scantling and joist				
ap to 16 ft, Hemlock scantling and joist	11 00	12 00		1000
Hemlock scantling and joist		•		
up to 18 it	12 00	13 00	12 00	1300
Hemlock scantling and joist				
up to so ft	13 00	14 ∞	1300	14 00
Scantling and joist, up to 16 ft		15 CO		14 00
и и 1811		10 00		35 Oc
11 11 20 ft		17 00		1000
u n 22 ft		18 00		17 ∞
11 11 24 15		30 00		1900
		33 OO		21 00
u v 28@		23 00		23 Oc

Cutting up							
Inicker, ury			25 00	26 00	25 00	36	00
thicker, dry Cutting up t thicker, hos Cedar for blo	planks, I	M ADG	18 00	22 0:	18 00	22	00
Cedar for ble	ock pavi	ng, per		500			00
Cedar for K	erbing,	4 × 14,		_			
per M	• • • • • • •	В. М.		14 00		14	00
i in floorin	g, dresse	d, F M.: h. B M.	28 00 18 00	31 00	28 ∞ 18 ∞	31	00 00
1X "	dresse	d, F M.:	27 00	30 00	27 00	30	∞
134 11 t	qiesseq andressed	1, B ML	18 00	19 (0	18 00	19 22	
Beaded sheeti Clapboarding XXX sawn	undressè	J	12 00	15 00	1200	15	∞
Clapboarding	, dressed		22 00	35 00	22 ∞	35	∞ ∞
XXX sawn :	shingles,	per M	2 65	2 75		3	۲٥
Sawn lath			2 50	2 75 2 60	2 50	2	60
Pedach	• • • • • • • •	• • • • • • •	**	2 90	30 00	40	90 90
White			35 00	45 00		45	∞
Cherry, No.	and 2.	• • • • • • • •	70 00	70 00	7000	80	00
White	o. rand:	2	25 00 28 00	30 ∞	30 00	35 30	∞ ∞
Dressing stock	ks		16 ∞	32 00	16∞	22	00
Dressing stock Picks, Americ Three uppers,	Am. ins	pection.		40 00 50 00		50	
	72)	riok.	-¥ M				
Common Wal Good Facing,		• • • • • • •	_	750	_	8	50
		•••••	8 50 -	9 (0	8 50	9	00
Pressed 1	Brick,	Per M	r:				
Plain brick, f.	o. t. at nd qualit	Y		16 ' ₽ 14 ©			
Hard Building Moulded and	rd ''	• • • • • •		14 00 8 00			
Moulded and	Örnamen	tal, per		4 52			
roo Roof Tiles Diamond lock		• • • • • • •	3 ∞	10 00 24 00			
Diamond lock	ing tile.	• • • • • • •		16 ∞			
First quality,	f.o.b. at	Camp-		-0			
beliville and quality, f. ard	o.b	• • • • • • •		18 00 14 00		25	00
3rd " Omamental, p	"	• • • • •		· · · · · ·	300	17	œ ~
Tiles			, ~	24 00	300	36	∞
			ley	18 00		25	00
	B"	•••••	-	16 00		18	00
Trojan or Buf Ornamental,	Ŧ	· · · · · · • ·		24 00		30	00
Omamental,	per 100.		300		300	60 (90
Plain brick, f.	nd onalit			18 ∞ 13 ∞			
" " 3 Hard Buildin Ornamental,	rd "	•••••		10 00			
Ornamental.	per 100.	• • • • • • •	3∞	10 0			
		SANI	D.			_	
Per Load of 1		STON.	E.	1 25		1:	25
Common Rub	ble, per	toise.					
delivered Large flat Ru	bble, per	toise,		14 60		14	>0
delivered Foundation R	locke ne			18 00		18	
		rc. ft.					
Kent Freeste	one Qu	r c. ft. arries		50			50
delivered Foundation B. Kent Freeste Moneton, 1 ft., f.o.b	N. D., U	er eu					50
ft., f.o.b River John,	N.S.,	brown		50 t 00			, o
ft., f.o.b River John,	N.S.,	brown	80	50	6s	:	75
ft., f.o.b River John, Freestone, p Ballochmyle. New York Bli	N.S., per cu.ft.	brown , f.o.b.		50 1 00 95		•	75
ft., f.o.b River John, Freestone, p Ballochmyle. New York Bli Granite (Stans in. to 12 in.,	N. S., per cu. ft. ue Stone stead) As rise gin.	brown , f.o.b. hlar, 6 , per ft.	80	50 t 00 95 90	65	10	75 05
ft., f.o.b River John, Freestone, p Ballochmyle. New York Bli Granite (Stans in. to 12 in.,	N. S., per cu. ft. ue Stone stead) As rise gin.	brown , f.o.b. hlar, 6 , per ft.	80	50 t 00 95 90		1	75
ft., f.o.b River John, Freestone, p Ballochmyle. New York Bli Granite (Stans in. to 12 in.,	N. S., per cu. ft. ue Stone stead) As rise gin.	brown , f.o.b. hlar, 6 , per ft.	80	50 t 00 95 90	65 70	1	75 05 25 30
ft., f.o.b ft., f.o.b River John, Freestone, p Ballochmyle. New York Bli Granite (Stans in. to 12 in., Moat Freestor Thomson's Ga Credit Valley toise, delive Credit Valley	N. S., per cu. ft. ue Stone stead) As rise gin. ne. utelawbri y Rubbl red Brown	brown, f.o.b. hlar, 6, per ft. dge, cu. e, per	& €. 13.∞	50 t 00 95 90	65 70	1 (75 05 25 30 30
ft., fo.b ft.,	N. S., per cu. ft. ne Stone stead) As rise g in., ne. ttelawbrite Rubble red Brown perficial y	brown, f.o.b. hlar, 6, per ft. dge, cu. e, per	80	50 1 00 95 90 14 00 3 00	65 70	1	75 05 25 30 30
ft., fo.b ft.,	N. S., per cu. ft. ne Stone stead) As rise g in., ne. ttelawbrite Rubble red Brown perficial y	brown, f.o.b. hlar, 6, per ft. dge, cu. e, per	& €. 13.∞	50 t 00 95 90	65 70	1 6 8	75 05 25 30 30
ft., fo.b ft.,	N. S., per cu. ft. ne Stone stead) As rise g in., ne. ttelawbrite Rubble red Brown perficial y	brown, f.o.b. hlar, 6, per ft. dge, cu. e, per	& €. 13.∞	50 1 00 95 90 14 00 3 00	65 70	1 6 8	75 55 25 30 30 30
ft., fo.b ft.,	N. S., per cu. ft. ne Stone stead) As rise gin. ne. ttelawbri y Rubbl red Brown erficial	brown, f.o.b. hlar, 6, per ft. dge, cu. e, per	80 ft. 13 00 2 50	50 1 00 95 90 14 00 3 00 90	65 70	3 ; 3 ; 3 ; 3 ; 3 ; 3 ; 3 ; 3 ; 3 ; 3 ;	75 55 25 30 30 30
fin, f.o.b River John, Freesione, p Ballochmyle. New York Bli Granite (Stans in, to 12 in, Moat Freestor Thomson's Ga Credit Valley toise, delive Credit Valley ing, per superfic yer superfic Credit Valley per superfic Credit Valley sion, per cu Mador Ranbile Mador Ranbile	N. S., per cu. ft. ue Stone stead) As rise 9 in., net. ttelawbrity Rubbl red Brown erficial 3 bic foot Grey Cot ial yard Grey I shic foot delivery delivery delivery delivery delivery and control of the cot	brown, f.o.b. hlar, 6, per ft. dge, cu. e, per Cours- ard. Dimen-	80 ft. 13 00 2 50	50 t 00 95 90 24 00 3 00 90 2 00 75	65 70 75	2 4 4 5 5 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	75 55 36 36 36 99
fin, f.o.b River John, Freesione, p Ballochmyle. New York Bli Granite (Stans in, to 12 in, Moat Freestor Thomson's Ga Credit Valley toise, delive Credit Valley ing, per superfic yer superfic Credit Valley per superfic Credit Valley sion, per cu Mador Ranbile Mador Ranbile	N. S., per cu. ft. ue Stone stead) As rise 9 in., net. ttelawbrity Rubbl red Brown erficial 3 bic foot Grey Cot ial yard Grey I shic foot delivery delivery delivery delivery delivery and control of the cot	brown, f.o.b. hlar, 6, per ft. dge, cu. e, per Cours- ard. Dimen-	80 ft. 13 00 2 50 1 50	\$0 \$00 95 90 14 00 3 00 90 2 00 75 14 50	65 70	2 4 4 5 5 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	75 55 36 36 36 99
fin, f.o.b River John, Freesione, p Ballochmyle. New York Bli Granite (Stans in, to 12 in, Moat Freestor Thomson's Ga Credit Valley toise, delive Credit Valley ing, per superfic yer superfic Credit Valley per superfic Credit Valley sion, per cu Mador Ranbile Mador Ranbile	N. S., per cu. ft. ue Stone stead) As rise 9 in., net. ttelawbrity Rubbl red Brown erficial 3 bic foot Grey Cot ial yard Grey I shic foot delivery delivery delivery delivery delivery and control of the cot	brown, f.o.b. hlar, 6, per ft. dge, cu. e, per Cours- ard. Dimen-	80 ft. 13 00 2 50	\$0 \$0 95 90 14 00 3 00 90 2 00 75 14 50 32	65 70 75	2 4 4 5 5 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	75 55 36 36 36 99
fin, f.o.b River John, Freesione, p Ballochmyle. New York Bli Granite (Stans in, to 12 in, Moat Freestor Thomson's Ga Crodit Valley toise, delive Credit Valley sion, per superfic Credit Valley per superfic C	N. S., per cu. ft. ue Stone stead) As riseg in ne. ttelawbridy Rubblerd Store Country Rubblerd Store Country Brown is Brown in the country Brown in the co	brown, f.o.b. hlar, 6, per ft. ddge, cu. e, per Cours- ard. Dimen- arsing, Dimen- ing, f. ibic ft. Blue	80 ft. 13 00 2 50 1 50	50 100 95 90 14 00 3 00 90 2 00 75 14 50 32 60	65 70 75	2 4 4 5 5 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	75 55 36 36 36 99
fit, f.o.b River John, Freestone, p Ballochmyle. New York Bli Granite (Stans in. to 12 in., Moat Freestor Thomson's Gle Credit Valley toise, delive Credit Valley ston, per sup Credit Valley per superfit Credit Valley per superfit Credit Valley Madoc Rubble toise Madoc dimens o. b. Toreat Ohio Freeston Promiscoon No. z Buef Dr No. z Buff Pr	N. S., per cut of the state of	brown, f.o.b. hlar, 6, per ft. dge, cu. e, per Cours- arding Dimen- d, per ling, f. shic ft. Blue	80 ft. 13 00 2 50 1 50	50 1 00 95 90 14 00 3 00 90 2 00 75 14 50 32 60 65 80	65 70 75	2 4 4 5 5 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	75 55 36 36 36 99
fin, f.o.b River John, Freesione, p Ballochmyle. New York Bill Granite (Stans in. to 12 in, Moat Freestor Thomson's Gle credit Valley toise, delive Credit Valley ing, per sup Credit Valley ing, per sup Credit Valley per super per super per super Credit Valley ing, per sup	N. S., beer cu. fit. use Stone stead) As riseg in network of the stead	brown, f.o.b. hlar, 6 per ft. dge, cu. e, per ard. Dimen- ursing, ling, f. blue Blue	80 ft. 13 00 2 50 1 50	50 t 00 95 90 200 75 14 50 32 60 65	65 70 75	2 4 4 5 5 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	75 55 36 36 36 99
River John, River John, Freestone, p Ballochmyle . Moew York Ballochmyle . Moew York Bill Granite (Stans in. to 12 in, Moat Freestor Thomson's Gar Credit Valley toise, deliver toise, del	N. S., per cut of the control of the	brown, f.o.b. hlar, 6, per ft. dge, cu. c, per Cours- ard. Dimen- straing, Dimen- straing, Elie Blue Blue Blue	80 ft. 13 00 2 50 1 50	50 1 00 95 90 14 00 3 00 90 2 00 75 14 50 32 60 65 80 85	65 70 75	2 4 4 5 5 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	75 55 36 36 36 99
River John, River John, Freestone, p Ballochmyle . Moew York Ballochmyle . Moew York Bill Granite (Stans in. to 12 in, Moat Freestor Thomson's Gar Credit Valley toise, deliver toise, del	N. S., per cut of the stand of	brown, f.o.b.,	80 ft. 13 00 2 50 1 50	50 1 00 95 90 14 00 3 00 90 2 00 75 14 50 32 60 65 80 85	65 70 75	2 4 4 5 5 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	75 55 36 36 36 99
River John, River John, Freestone, p Ballochmyle . Moew York Ballochmyle . Moew York Bill Granite (Stans in. to 12 in, Moat Freestor Thomson's Gar Credit Valley toise, deliver toise, del	N. S., we Stone stead) As rise gun, net clawbrity Rubbli (red	brown, f.o.b.,	80 ft. 13 00 2 50 1 50	50 1400 95 90 1400 300 90 200 75 1450 31 65 85 85 81 111 122 22	65 70 75	2 4 4 5 5 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	75 55 36 36 36 99
noncion, in the first form of	N. S., beer cu. ft. in the street of the str	brown, f.o.b. hlar, 6, per ft. dge, cu. e, per Cours- ard. Dimen- dy, per libg, ft. blue Blue means rsq.ft	80 ft. 13 00 2 50 1 50	50 100 95 90 1400 300 90 200 75 1450 655 85 85 113/4 121/4	65 70 75	2 4 4 5 5 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	75 55 36 36 36 99
noticion, and in the first factor of the factor of the first factor of the first factor of the first facto	N. S., per cu. fi. c.	brown, f.o.b. hlar, 6, per ft. dge, cu. c, per ft. limen- arsing, limen- arsing, limen- bine ft. Blue means rsq.ft " " " " " " " " " " " " " " " " " " "	80 ft. 13 00 2 50 1 50	50 1400 95 90 1400 300 90 200 75 1450 31 65 85 85 81 111 122 22	65 70 75	2 4 4 5 5 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	75 55 36 36 36 99
River John, River John, Freestone, p Ballochmyle. New York Bli Granite (Stans in. to 12 in., Moat Freestor Thomson's Gle credit Valley toise, delive Credit Valley stone, per superfice Credit Valley stone, per superfice Credit Valley stone, per cu Madoc Rubble toise Madoc dimens o. b. Torent Ohio Freestor No. 1 Bluf Di The above freight and du a in. tawe dia a in. tawe dia a in. tawe di b iii b	N. S., per cut. in the law bit in th	brown, f.o.b., f.o.b., per ft., dge, cu. c., per ft., dge, cu. c., per ft., dimensing, per ft., dimensing, ft., dimension, per ft., dimension, per ft., dimension, ft., dimens	80 ft. 13 00 2 50 1 50	50 100 95 90 1400 300 90 200 75 1450 655 85 85 113/4 121/4	65 70 75	2 4 4 5 5 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	75 55 36 36 36 99
River John, Freesione, p Ballochmyle. New York Bli Granite (Stans in. to 12 in., Moat Freestor Thomson's Ga Credit Valley toise, delive Credit Valley ing, per superfic Credit Valley sion, per cc Credit Valley sion, per cc Madoc Rubble toise Madoc dimens o, b, Toreat Ohio Freestor Promiscon No. I Buff Di The above freight and du a in. sawed fla 2 in in Juny to be prices. Uncless and Universe	N. S., beer cu. ft. in the stread) As rise g in least and a stread a stread and a stread a st	brown, f.o.b. hlar, 6 , per ft. dge, cu. e, per Cours- ard. Dimen- Jimen- Jimen	80 ft. 13 00 2 50 1 53 1 53	50 100 95 90 1400 300 200 75 1450 65 85 85 11 13/1/10/10/20/20/20/20/20/20/20/20/20/20/20/20/20	65 70 75	2 4 4 5 5 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	75 55 36 36 36 99
River John, River John, Freestone, p Ballochmyle . New York Bli Granite (Stans in. to 12 in.) Moat Freeston Thomson's Gle Credit Valley ing, per superfice redit Valley per superfice Credit Valley per superfice Credit Valley per superfice Madoc Rubble toise	N. S., per cu. fi. c.	brown, f.o.b. hlar, 6 per ft. dge, cu. c, per Cours- ard. Jimen- Jimen	80 ft. 13 00 2 50 1 50	50 100 95 90 1400 300 90 200 75 1450 655 85 85 113/4 121/4	65 70 75	2 4 4 5 5 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	75 55 36 36 36 99
River John, River John, Freestone, p Ballochmyle. New York Bli Granite (Stans in. to 12 in., Moat Freestor Thomson's Gac Credit Valley toise, delive Credit Valley ston, per sup Credit Valley ston, per sup Credit Valley ston, per cu Madoc Rubble toise Madoc dimens on, per cu Madoc Rubble toise Madoc dimens No. 1 Blue Di The above freight and du a in. tawe di a in. tawe	N. S., per cu. fi. c.	brown, f.o.b., f.o.b., f.o.b., per ft., dge, cu., c., per ft., dge, cu., c., per ft., dimensirsing, per ft., dimensirsing, per ft., dimensirsing, ft., dimensirsing, ft., dimensirsing, per ft., dimensirsing, ft., dimensirsing, ft., dimensirsing, ft., dimensirsing, per ft., dimensirsing, ft., dimens	80 ft. 13 00 2 50 1 53 14 00 30	50 100 95 90 1400 320 75 1450 32 60 85 80 85 1113//2123 27//23 33 1150	65 70 75	2 4 4 5 5 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	75 55 36 36 36 99
nonciou, in the first form of the first form. In the first form of	N. S., beer cu. ft. in the stread) As rise g in least and a stread a stread and a stread a stread and a stread a strea	brown, f.o.b. brown, f.o.b. hlar, 6, per ft. dge, cu. 6, per ft. cours- ard. jimen- insing, iing, f. ibhic ft. Blue rough r pur- guarry cu. ft. Bin. to per M 6 in. to fin. to f	80 ft. 13 00 2 50 1 53 14 00 30	50 100 95 90 1400 300 90 200 75 1450 655 805 1131/4 1131/	65 70 75	2 4 4 5 5 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	75 55 36 36 36 99
River John, River John, Freestone, p Ballochmyle. New York Bli Granite (Stans in. to 12 in., Moat Freestor Thomson's Gac Credit Valley toise, delive Credit Valley ston, per superfice Credit Valley ston, per superfice Credit Valley ston, per cu Madoc Ruble toise Mado dimens o. b. Torent Ohio Freestor Madoc Ruble toise No. I Buff Di The above freight and du a in. tawed fla a in. tawed f	N. S., beer cu. ft. in the law brilly and the law brill and	brown, f.o.b. brown, f.o.b. hlar, 6, per ft. dge, cu. 6, per ft. cours- ard. jimen- insing, iing, f. ibhic ft. Blue rough r pur- guarry cu. ft. Bin. to per M 6 in. to fin. to f	80 ft. 13 00 2 50 1 53 14 00 30	50 100 95 90 1400 300 00 200 75 1450 32 60 85 85 111111111111111111111111111111	65 70 75	2 4 4 5 5 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	75 55 36 36 36 99
River John, River John, Freestone, p Ballochmyle. Reserver John, Freestone, p Ballochmyle. Reserver John Granite (Stans in. to 12 in., Moat Freestor Thomson's Ga Credit Valley toise, delive Credit Valley per superfice redit Valley per superfice Credit Valley per superfice Credit Valley per superfice Madoc Rubble toise Madoc dimens Madoc Rubble toise Madoc dimens Mo. p Buff Di The above freight and du a in. sawed fla a in. sawed fl	N. S., beer cu. ft. cues stead) As rise gin, net clawbridy Rubbil pred Brown I white foot of Grey I white foot is all yard of Grey I white foot is delivered delivered to be consistent of the constant of the con	brown, f.o.b.,	80 ft. 13 00 2 50 1 53 14 00 30	50 100 95 90 1400 320 75 1450 32 605 805 111111111111111111111111111111111111	65 70 75 14 ∞		755 555 225 330 330 330 330 330 330 330 330 330 33
nontrol, in the first first for first for first first for first fi	N. S., beer cu. ft. in control of the control of th	brown, f.o.b. hlar, 6, per ft. dge, cu. 6, per ft. ling, f. ling, f. hlin, 6, per ft. ling, f. hlin, 6, per ft. ling, f. hlin, ft. Blue these rough rough rough guarry cu. ft. Bin. to per M 6 in.x SLAT	80 ft. 13 00 2 50 1 53 14 00 30	50 95 95 90 14 00 3 20 75 14 50 32 65 85 11 13 12 12 12 12 12 12 12 12 12 12 12 12 12	65 70 75 75	2 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	755 555 366 366 366 367 367 368 368 368 368 368 368 368 368 368 368
River John, River John, Freestone, p Ballochmyle. Reserver John, Freestone, p Ballochmyle. Reserver John, Moat Freestor Thomson's Ga Credit Valley toise, delive Credit Valley gray per superfice redit Valley per superfice Credit Valley per superfice Credit Valley per superfice Madoc Rubble toise Madoc dimens Madoc Rubble toise Madoc dimens Madoc Rubble toise Madoc Buff Pn Madoc Buff Promiscoon No. I Blue Di The above freight and du a m. sawed fla a m. s	N. S., beer cu. ft. in the law bilding per full file foot of the law bilding per foot of the law bilding ft. fo.b. c. the law bilding f	brown, f.o.b. hlar, 6, per ft. dge, cu. c, per ft. limen- drsing, f. bibic ft. Blue means rsq.ft " " these rough rough guarry cu. ft. Bin. to per M. SLAT	80 ft. 13 00 2 50 1 53 14 00 30 33 35	50 95 90 1400 320 75 1450 32 60 80 80 81 131/21 220 200 75 1450 80 80 80 80 80 80 80 80 80 8	65 70 75 75	2000	755
River John, River John, Freestone, p Ballochmyle. Reserver John, Freestone, p Ballochmyle. Reserver John, Moat Freestor Thomson's Ga Credit Valley toise, delive Credit Valley gray per superfice redit Valley per superfice Credit Valley per superfice Credit Valley per superfice Madoc Rubble toise Madoc dimens Madoc Rubble toise Madoc dimens Madoc Rubble toise Madoc Buff Pn Madoc Buff Promiscoon No. I Blue Di The above freight and du a m. sawed fla a m. s	N. S., beer cu. ft. in the law bilding per full file foot of the law bilding per foot of the law bilding ft. fo.b. c. the law bilding f	brown, f.o.b. hlar, 6, per ft. dge, cu. c, per ft. limen- drsing, f. bibic ft. Blue means rsq.ft " " these rough rough guarry cu. ft. Bin. to per M. SLAT	80 ft. 13 00 2 50 1 53 14 00 30 33 35	50 95 95 90 14 00 3 20 75 14 50 32 65 85 11 13 12 12 12 12 12 12 12 12 12 12 12 12 12	65 70 75 75	2 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	755
River John, River John, Freestone, p Ballochmyle. Boar Freeston Hosson's Gale toise, delive toise	N. S., we stead) As rise gun, net clawbrid, Rubbil fred Brown in the control of t	brown, f.o.b.,	80 ft. 13 00 2 50 1 53 14 00 30 33 35	50 95 92 14 00 3 20 75 14 50 32 60 50 85 11 13 12 12 12 12 12 12 12 12 12 12 12 12 12	65 70 75 75	2000	755
River John, River John, Freestone, p Ballochmyle. New York Bli Granite (Stans in. to 12 in., Moat Freestor Thomson's Ga Credit Valley toise, delive Credit Valley ston, per superfice Credit Valley ston, per cu Madoc Ruble toise Mado dimens No. 1 Blue Di Madoc Ruble Tromiscoom No. 1 Blue Di The above freight and du a in. tawe di	N. S., we stone stead) As rise gun, necessite and provide a straight and state and a straight and state and a straight and state and sta	brown, f.o.b., f.o.b., f.o.b., f.o.b., per ft., dge, cu., c., per ft., dge, cu., c., per ft., dimensirsing, per ft., dimensirsing, ft., dimensirsing, ft., dimensirsing, per ft., dimensirsing, ft., dimensirsing, ft., dimensirsing, per ft., dimensirsing, ft., di	80 ft. 13 00 2 50 1 53 1 53 30 33 35	50 95 92 14 00 3 20 75 14 50 85 11 13 12 12 12 12 12 12 12 12 12 12 12 12 12	65 70 75	29 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	755
River John, River John, Freestone, p Ballochmyle. New York Bli Granite (Stans in. to 12 in., Moat Freestor Thomson's Ga Credit Valley toise, delive Credit Valley ston, per superfice Credit Valley ston, per cu Madoc Ruble toise Mado dimens No. 1 Blue Di Madoc Ruble Tromiscoom No. 1 Blue Di The above freight and du a in. tawe di	N. S., we stone stead) As rise gun, necessite and provide a straight and state and a straight and state and a straight and state and sta	brown, f.o.b., f.o.b., f.o.b., f.o.b., per ft., dge, cu., c., per ft., dge, cu., c., per ft., dimensirsing, per ft., dimensirsing, ft., dimensirsing, ft., dimensirsing, per ft., dimensirsing, ft., dimensirsing, ft., dimensirsing, per ft., dimensirsing, ft., di	80 ft. 13 00 2 50 1 53 1 53 30 33 35	50 95 92 14 00 95 90 14 50 32 65 85 11 13 12 13 12 13 13 13 13 13 13 13 13 13 13 13 13 13	65 70 75 14 ∞	2000	755 255 330 330 330 330 330 330 330 330 330 3
River John, River John, Freestone, p Ballochmyle. Row York Ballochmyle. Moat Freestone, p Ballochmyle. Moat Freestone, p Ballochmyle. Moat Freestone, p Ballochmyle. Moat Freestone, p Granite (Stans in. to 12 in., Moat Freestor Thomson's Gale tosie, delive Credit Valley sion, per sup credit Valley sion, per sup credit Valley per super per super per super Madoc Rubble tosie Madoc dimens o. b. Torcat Granite con Thom The Buff D The The More Torcat Tornamental Mall Tornamental Bl Ing """ Ferra Cotta T Drammental Bl Ing """ Ferra Cotta T Drammental Bl Ing "" Tornamental Bl Ing """ Tornamental Bl	N. S., we stead) As rise gun, net clawbrity Rubbi I Brown I White I I I I I I I I I I I I I I I I I I I	brown, f.o.b.,	80 ft. 13 00 2 50 1 53 1 53 30 33 35	50 95 90 14 00 3 00 90 14 50 65 85 85 11 36 12 20 90 90 90 90 90 90 90 90 90 9	65 70 75 14 00	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	755 255 260 260 260 260 260 260 260 260 260 260
River John, River John, Freestone, p Ballochmyle. Row York Ballochmyle. Moat Freestone, p Ballochmyle. Moat Freestone, p Ballochmyle. Moat Freestone, p Ballochmyle. Moat Freestone, p Granite (Stans in. to 12 in., Moat Freestor Thomson's Gale tosie, delive Credit Valley sion, per sup credit Valley sion, per sup credit Valley per super per super per super Madoc Rubble tosie Madoc dimens o. b. Torcat Granite con Thom The Buff D The The More Torcat Tornamental Mall Tornamental Bl Ing """ Ferra Cotta T Drammental Bl Ing """ Ferra Cotta T Drammental Bl Ing "" Tornamental Bl Ing """ Tornamental Bl	N. S., we stead) As rise gun, net clawbrity Rubbi I Brown I White I I I I I I I I I I I I I I I I I I I	brown, f.o.b.,	80 ft. 13 00 2 50 1 53 14 00 30 33 35 6 55 6 55 6 55 2 60 9 90	50 95 92 14 00 95 90 14 50 32 65 85 11 13 1/2 12 22 17 1/3 18 20 90 90 90 90 90 90 90 90 90 9	6 00 75 14 00	225 62 86 62 86 86 86 87 75	7555 2530 300 300 300 300 300 300 300 300 300
River John, River John, Freestone, p Ballochmyle. New York Bit Granite (Stans in. to 12 in., Moat Freestor Thomson's Gae Credit Valley toise, delive Credit Valley sion, per sup Credit Valley sion, per sup Credit Valley per super Gradit Valley per super Super sup Radoc Rubble toise Madoc dimens o. b. Torcato Ohio Freestor Madoc dimens o. b. Torcato Ohio Freestor No. 1 Buef Di No. 1 Buef Di No. 1 Buef Di The above freight and du and the super	N. S., we stone stead) As rise gun, net lawbriv, Rubbi le de la dela de	brown, f. o.b., f.o.b., f.o.b., f.o.b., f.o.b., f.o.b., f.o.b., per ft., f.o.b., f.o.b., f.o.b., f.o.b., f.o.b., f.o.b., f.o.b., per ft., f.o.b., f.o.	80 ft. 13 00 2 50 1 50 1 50 33 35 6 25 6 50 5 1 60 90 10	50 95 95 90 14 00 3 00 2 00 7 14 50 8 8 5 11 13 12 12 12 12 12 12 12 12 12 12 12 12 12	65 70 75 75 1400	25	7555 25530 300 300 300 300 300 300 300 300 300
River John, River John, Freestone, p. Ballochmyle. Boat Freestor Hostorial Stored Valley Stored Valley Freestor Madoc dimens On Doront Madoc dimens On E Buff Pr No. 12 Buff Pr No. 12 Buff Pr No. 12 Buff Pr No. 12 Buff Pr No. 13 Buff Pr No. 13 Buff Pr No. 14 Buff Pr Stored Toront Stored Toront Stored Toront Stored Toront Stored Toront Granite for romanenta Str. Stored Toront Granite Store Granite Store Granite Store Granite Store Granite	N. S., we stead) As rise gun, net clawbrid, Rubbil fred Brown in the control of t	brown, f.o.b.,	80 ft. 13 00 2 50 1 50 1 50 33 35 6 50 5 50 5 1 60 9 10 5 15	50 95 90 14 00 3 00 90 14 50 65 58 85 11 36 33 12 50 90 00 16 00 00 00 00 00 00 00 00 00 00 00 00 00	65 70 75 14 00	23 23 23 25 25 25 25 25 25 25 25 25 25 25 25 25	755 255 250 250 250 250 250 250 250 250 2
River John, River John, Freestone, p. Ballochmyle. Boot Freestor Thomson's Galive Credit Valley toise, delive toise	N. S., we stead) As rise gun, net clawbrid, Rubbil fred Brown in the control of t	brown, f.o.b.,	80 ft. 13 00 2 50 1 53 14 00 33 35 15 6 25 5 26 6 25 5 26 7 20 10 10 10 10 10 10 10 10 10 10 10 10 10	50 95 95 92 14 00 3 20 75 14 50 32 655 85 11 13 12 12 12 12 12 12 12 12 12 12 12 12 12	6 00 75 14 00 14 00 14 00 14 00 14 00 14 00 15 00 16 0	22	75 5 5 2 5 3 3 3 3 5 5 5 5 5 5 5 5 5 5 5

Toronto. Mon	real.	· Tor	onto.	Montreal.
Black, lamp 15 25 12	25 13	ad to ad cold cut not polished		
Blue, ultramarine 15 20 12		or blued, per 100 lbs	90	90
Oil, linseed, raw, 16 Imp. Lul. 65 68 63 boiled 68 71 66		FINE BLUED NA	ILS.	
		3d, per 1 e lbs	1 50	1 50
" refined, " 78 85 75 Putty 21/4 22/4 22/4	275	ad, " "	2 00	2 (0
Whiting, dry, pet 100 lbs 75 too 60		CASING AND BUY, PLOORING, SHO	OK AND	LOBYCCO ROX
Paris white, Eng., dry 90 1 25 9	1 10	RAILS.		
	⅓ B	12d to 3od, per 100 lbs	50	50
Sienna, burnt 15 20 12		10d, " "	60 75	(o 75
Umber, " 83/ 12 12	15	6d and 7d, " "	90	/3 90
Coment Postley on 111 LIME, etc.		ad to sd. " "	1 10	1 10
Cement, Portland, per bbl. 250		3d, " "	1 50	1 50
" Belgium " . 275		FINISHING NAI	LS.	
" Thorold, "		3 inch, per 100 lbs	85	85
" Oueenston, " 22.		2½ to 2½ " " "	100	100
1. Napanee, 11 133		2 to 216 " " "	11"	1 15
" Hull, " . I 5"	_	13/2 to 13/4 " " "	1 35	1 35
11 German 2 bs		174	1 75	I 75
Name of the state	2 90 2 50	SLATING NAIL	2 25	2 25
" Belgian " 235	2 40	sdi per 100 lbs	». 85	85
ıı Caradian '' 220	2 30	4d,	85	85
II KOMAN " 275	•	3d, " "	1 25	1 7
Parian 4 to	4 75	2d, " "	2 75	15
" Superfine " 6 50	700	COMMON BARREL N	AILS.	
Keene's Coarse "Whites" 4 50	4 75	r inch, per 10. lbs	1 50	1 50
Calcined pluster, per barrel 1 55 Fire Bricks, Newcastle, per M 20 00	1 70 24 00	74 " "	1 75	75
	35 CO	* " "	2 25	2 25
Lime, Per Barrel, Grey 40	35 00	CLINCH NAILS		_
" White se		inch, per 10, lbs.	85	85
Plaster, Calcined, N. B 2 00		275 and 274	1 00	100
" N. S 200		2 and 2½ " " " " " " " " " " " " " " " " " "	1 15	1 15 1 35
Hair, Plasterers', per bag 80 100		11/2 11	2 00	200
IIARDWARE.		- 	2 50	2 50
Cut nails, 5cd & 6cd, per keg 240 Steel 11 11 11 11 250	2 25	SHARP AND PLAT PRESS	-	_
Steel " " 250 CUT NAILS, FENCE AND CUT SPIKES.	2 35	3 inch, per 100 lbs.	1 35	ł 35
40d, hot cut, per 10. lbs 5	5	21/2 and 21/4 " " "	1 50	1 50
30d, " " " 10	10	2 and 21/4 " " "	1 65	1 65
20d, 16d and 12d, hot cut, per		172 400 174	1 85	2 85
100 lbs 15	15	124	2 50	3 20
iod, hoi cut, per ioo lbs 20	20	•	3 ∞	310
00, 94, 11 11 25	25	Structural Ir		
	40 60	Stee, beam4, per 100 lbs	2 75 2 85	2 50 2 60
4d to 5d, " " " 60 3d, " " " 1 co	100	" angles, "	250	2 30
ad, " " " … 150	1 50	" tees, "	2 80	215
4d to 5d cold cut, not polished	•	" plates, "	2 55	2 35
or blued, per ico lbs 50	50	Sheared steel bridge plate	2 25	2 35
INDEX TO A		VERTISEMEN	ITS	

in the "Canadian Architect and Builder."

Architects.	Church and School
Ontario DirectoryIII	Furniture.
Quebec Directory vi	Bostwick, Geo. F xili Can. Office & School
Architectural Sculp.	Furniture Co ix
tors and Carvers.	Office Specialty Co
Carnovsky, B. H IV Hicks, W. StivensIII	Cements.
Holbrook & Molling-	Adamant Mfg. Coviii Bremner, Alex vii
Wagner, Zeidler & Co., xii	Currie&Co, W.&F P xiv
Architectural Iron- Work.	Estate of John Battle x McNally & Co., Wm. ix Maguire Br s i
Bostwick, Geo. F xiii B. Greening Wire Co. III	Morris, E. Dviii
B. Greening Wire Co.III	Rathbun Co viii
Dennis, R	Usher & Son, Isaac. x
Dominion Bridge Co. I	Webster Bros. & Parkes i
Lea, Joseph vii Meadows, Geo.B x	Contractors and Builders.

Architects' Supplies

Hearn & Harrison ... vi Art Woodwork. Carnovsky, B H.... IV Knechtel, S........ Ransom & Co., C. S., xiv Wagner, Zeid er & Co., xii

Bricks (Pressed).

Turner & Co., G. W v	'n
Contractors' Plant and Machinery	•
Copland & Co. I Rice Lewis & Son I' Rowe, Geo I	I V I
Cut Stone Con- tractors.	
	_

Davidson & Kelly II

Bricks (Pressed).	tractors
Beamsville Pressed Brick Co ii Don Valley Pressed Brick Works ix	Curtis & Rowe Isaac Bros Oakley & Holme
Morris, E. Dviii Toronto Pressed Brick & Terra Cotta Coiii	Chimney Top Bremner, Alex. Currie&Co., W &
Butlders' Supplies. Adamant Mfg Co viii Bremner, Alex. vii Copland & Co	Bremer, Alex. Cutrie & Co., W& Hamilton and To Sewer Pipe Co., MeNally & Co., Maguire Bros The Colman H ton Co Webster Bros. & F Dumb Wat
Mensier Diogra Laiker 1	King & Son, Was

Taller Committee	King & Son, Warde
Boller Corering. Can.Mineral Wool Co ix	Elevators Fensom, John
Building Stone Dealers.	Miller Bros. & Tom Otis Brothers & Co
	Laitab C. Tumbull

Builders' Hard-ware.

Rice Lewis & Son.... IV Vokes, M. & J. L...xiv Creosote Stains
Cabot Samuel....x

Curis & Rowe.... II Isaac Bros.... II Oakley & Holmes. II Chimney Topping. F.P. xiv

ípe &F.P.xiv orontoxiii .W...ix smil. . 111 Parkes i Dumb Waiters

den xiii Fensom, John...... 11
Miller Bros. & Toms.. vii
Otis Brothers & Co... 1
Leitch & Turnbull.... 1

Elevator Motors
Ball Electric Co.....IV Engre ers.

Can. Photo-..ng Bu-reau..... ii Fire Brick and Clay Bremner, Alex....vii
Colman-Hamilton Co.. iii
Curric& Co, W & F P... ziv
McNaily & Co., W... ix
Morris, E. D....viii
Webster Bros.& Parkes i

Galranized Iron Workers. Tucker & Dillon..... xiv

Grates and Tiles.
Bostwick, G. F. ... xiii
Holbrook&Mollington i
Webster Bros. & Parkes i
Rice Lewis & Son ... IV

Rice Lewis & Son... IV

Heating.
Barroughes & Co. W J ix
Clare Bros & Co....
Manny & Co., E. A... xii
McDougail & Co., R... ix
Ivs & Co., H. R... xiv
King & Son, Warden... xii
McClary Mfg. Co... xi
Miller Bros. & Toms... vi
McBros. & Toms... vi
Robb Engineering Co ix
Toronto Radiator Mfg
Co...... iv

Iron Pipe. King & Son, Warden..xiii Laundry Tuba Forsyth, Robt..... vii

Legal.
Denton & Dods..... IV Lumbor.
Richardson, Walker &
Co....xiv

Mantels Webster Bros. & Parkes i Mortar Colors and Shingle Stains.

Cabot Samuel,xiv
Maguire Bros.....i
Murhead, Andrew...v
Toronto Pressed Brick
Co.....iii Ornamental Plas-

forers.
Alluisi & Son, D.... vi
Baker, J. D.... II
Hynes, W J..... I Paints & Varnishes. Muirhead, Andrew.... v Muirhead, Andrew... v

Painters.

Delage, Theo... vi
Gilmor & Casey... II
Tourville, Chas vi

Paving.

The Guelich Silica
Barytic Stone Co... vii
Forsyth, Robert... i

Plasterers
Hynes, W. J. I

Plate Glass
Hobbs Mfg. Co. . . ix
McCausland & Son . v
Pilkington Brothers . ix Plumbors McCrae & Watson... vi

Pipe Covering Can. Mineral Wool Co ix

Shingle Stains Cabot, Samuel. . . . x Sliding Blinds
Lea & Seaman ix
Stained and Decora,
tive Glass

Torona Cotta
Toronto Pressed Brick
& Terra Cotta Co... jii
The Raritan Hollow &
Porous Brick Co....viii

Terra Cotta Fire-proofing Rathbun Co.....viii
The Raritan Hollow & Porous Brick Co....vi

Wall Paper and Colling Decorations Elliott & Son..... II Faircloth Bros..... v Staunton & Co.,.... ix

McCrae & Watson... vi
Parquetry Floors
Elliott & Son..... I
Johnson, S. C...... II
Nowell & Co., B.L...