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

VOL. 12.

#### NOVEMBER 20, 1901

No. 42

## THE CANADIAN CONTRACT RECORD,

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

# PUMPS AND WATER WHEELS FOR SALE

1 right and 1 left hand 48 inch Leffel Water Wheels.

Wheels.

2 No. 6 Rotary Pumps with large air chamber shafting, genring and boxes complete.

I large Escape Valve and connecting pipes, &c. The above are in good condition and will be sold cheap. For further particulars apply to

J. W. SANDERS,

own Clerk.

Port Hope, 25th Sept., 1901.

## BITUMINOUS MACADAM PAVEMENT.

Tenders for the construction of a Bituminous Maca-dam Pavement on King stieft from Adelaider street to Wellington street will be received at my office up to 5 o'clock on Thursday, 23th, noon.

Specifications and form of tender on application.

ORMSBY GRAYDON.

City Engineer,

# MUNICIPAL DEBI

FOR SALE.

Debentures of the Town of Harriston are offered for sale by tender. Amount Sigono, payable in twenty equal annual nutsliments of \$3,000 each, payable on October 1st in each year, at Standard Bank, Harriston, first instalment on October 1st, 1902. As instalments include interest from Octobor 1st, 1901, successful tenderer must pay in addition to mount of tender interest on \$10,000, at 4 per cent, from October 1st, 1901, to day of payment of purchase money. Amo nt of tender and above mentioned added interest payable at Standard Bank, Harriston, where debentures will be delivered No tender necessarily accepted Tenders received up to evening of December 5th, 1901. Must be addressed to the Budersigned. of December 3to, -, -, undersigned.

W. D. EBBELS, Town Treasurer.

Harriston, Ont.

Dated November 18th, 19 1.

# NOTICE

# TO PLUMBING, HEATING AND VENTILATING CONTRACTORS.

Sented tenders will be received at the offices of the undersigned up to noon of Wednesday the 17th November, 1701, for the plumbing, heating and ventilation of a building for the Bank of Montreal, Montreal, P.O.

Each tender must be accompanied by an accepted eleque made payable to the Bank of Montreal for not less than 5 per cent of amount of tender, which will be returned to unsuccessful tenderers, but that of the accepted tenderer will be retained until the satisfactory completion of the work, and will be forfeited in case of failure on the part of accepted contractor to enter into a contract with approved surelies.

Flans and specifications can be seen and all particulars obtained at the offices of

ANDREW T TAYLOR,

(Taylor & Gordon)

ARCHITECT,

43 St. Francols Xavier St., Montreal.

It is not guaranteed that the lowest or any tender will be accepted.

#### TO ARCHITECTS.

Architectural Student wants position to practice and complete studies; strictly temperate: furnish reference. Address, HOTEL GERMANIA. R. M., Berlin Ontatio.



C "ALED TENDERS addressed to the undersigned, and endorsed "Tender for Observatory, Ottawa, Ont.," will be received at this office until Wednesday, November 17th, inclusively for the erection of an Observatory building at the Central Experimental Farm, Ottawa, Ont., according to plans and specification to be seen 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 in a chartered bank, payable to the order of the Minister of Public Works, equal to ten per tent (top c) of the amount of tender, must accompany each tender. This cheque will be forfeited if the party decline the contract or fail to comp? I the work contracted for, and will be retribed in case of non-acceptance of tender.

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

FRED GELINAS,

FRED GELINAS, Secretary.

Department of Public Works, Oltawa, 6th Nov., 1901.

Newspapers inserting this advertisement without notherity from the Department will not be

# Notice to Contractors

Combined Traffic and Railway Bridge for Fraser River, at New Westminster, British Columbia, Canada.

Columbia, Canada.

Shaled, Separate or Whole, Tender for Substructure, Fraser River Bridge," "Tender for Substructure, Fraser River Bridge," "Tender for Substructure, Fraser River Bridge," "Tender for Praser River Bridge," will be received by the undersigned up to and including 8th day of January, 1902, for the manufacture, erection and completion of the bridge in accordance with the drawings and specificaliens to be seen on application at the Lands and Works Department, Victoria, B. C., at the Gevernment Office, New Westminster, B. C., and at the office of Messrs. Waddell and Hedrick, Consulting Engineers, New Nelson Building, Kansas City, Mo., on and after the 5th day of December, 1901.

Intending tenderers upon application at any of the above named offices may obtain, upon payment of ten (\$10) dollars, copies of drawings and specifications for either substructure or superstructure, or twenty (\$20) dollars for both. Each tender mast be made out on the form supplied, and must be accompanied by an accepted bank cheque or certificate of deposit on a chautered bank of Canada or National Bank of the United States, made payable to the undersigned, or by gold, in the sum of five (\$500) dollars, which will be forfeited if the party tendering decline to enter into contract when called upon to do 80.

The cheques or cash deposit, as the case may be, of unsuccessful tenderers will be returned when contract is awarded

The greement on the form of tender to furnish a hond for \$50,000, or equivalent satisfactory security, for the due fulfilment of the work, must be signed by the tenderer and his sureties

The Department is not bound to accept the lowest or any tender.

W. S. GORE.

The Department is not bound to accept the lowest or any tender.

st or any tenuer.

W S. GORE,
Deputy Commissioner of Lands and Works. Lands and Works Department, Victoria, B. C., and November, 1901.

#### CONTRACTS OPEN.

LINDSAY, ONT .- A site has been selected for the proposed fire hall:

GOWRIE, ONT.-L. Goodwin is pre-paring to build a large residence next spring.

DIGBY, N. S.-G. H. Vye has purchased a lot on which to build a residence next spring.

ST. THOMAS, ONT.—It is said that a labor temple will be erected on Talbot street next year.

CHICOUTIMI, QUE - The Chicoutimi Pulp Co. are preparing to considerably enlarge their mill.

DAUPHIN, MAN .- The Northern Lumber Co. are arranging to rebuild their saw-mill at Garland.

SEAFORTH, ONT. - A by-law to raise \$8,900 for drainage purposes has

been given a first reading in council.

REVELSTOKE, B. C.—A by-law to provide funds for sidewalk improvements has been rejected by the ratepayers.

ALEXANDRIA, ONT.—Bids are invited by A. L. Smith, municipal clerk, for the purchase of \$8,500 debentures.

OSKWEKEN, ONT. - The Six Nations Indian council has decided to build a new school house here, at a cost of \$4,000.

FIELD, B. C-It is said that the C. P. R. hotel here will next year be enlarged by an addition of forty rooms.

LAMBTON, ONT. - The Suburban Electric Railway Company will like'y extend their line to this place next spring.

KNOWLTON, QUE.—Nelson Rob-inson intends making improvements to the Railroad Housel, at a cost of \$2,000.

GODERICH, ONT. -Mr. Smith expects to commence work next week on the superstructure of his proposed summer hotel.

RAT PORTAGE, ONT.—A director of the Keewatin Power Co. states that the erection of a pulp mill has been postponed.

WHITBY, ONT.—It is probable that a sum will be granted by the council towards the cost of drilling for water near King's tannery.

PERTH, ONT.—The council has decided to submit a by-law to the ratepayers providing for the construction of proper sewerage outlets.

RIDGETOWN, ON T .- A scheme is in contemplation to construct a system of waterworks, the supply to be derived from artesian wells.

GEO. GETOWN, ONT. -G.S. Good willie, town reasurer, invites offers up to November 26th for purchase of \$10,000 debentures.—Mr. Arnold, glove manufacturer, has purchased a site on which to build a new factory.

ATHENS, ONT.—The plans of W'R. McDowald, architect, of Amprior

have been accepted for the Methodist church to be built here.

KINGSTON, ONT. — The Kingston Hosiery Co. are asking certain concessions from the city to enable them to enlarge heir works.

LONDON, ONT.—Bids are invited by A. M. McEvoy, county treasurer, up to Thursday, December 5th, for the purchase of \$20,000 debentures.

BOWMANVILLE, ONT.—A by-law was carried here last week granting a bonus of \$10,000 for the establishment of a foundry and machine shop.

SHERBROOKE, QUE.—The question of a site for the new court house has been settled, and it is understood that tenders for erection will be invited atonce.

MOUNT FOREST, ONT.—Tenders are asked by G. J. Reid, treasurer, up to November 30th, for purchase of \$12,000 thirty-year 4 per cent. debentures.

HINTONBURG, ONT.—The official board of the Methodist church has decided to build an addition and put in a new furnace, at a cost of about \$2,000.

POINT ST. CHARLES, QUE.—A petition will be presented to the Dominion government asking for the erection of a post-office in this district.

SMITH'S FALLS, ONT.—The town is in need of a hospital, and it is proposed to use the present high school for the purpose and erect a new school building.

COLLINGWOOD, ONT. — The Cramp Steel Co. are ready to commence work on proposed docks as soon as the settlement of the water front is effected.

BERLIN, ONT. - The ratepayers have approved of a by law to grant a bonus of \$25,000 to the Ontario Beet Sugar Co. for the establishment of a factory here.

KINCARDINE, ONT. — Mr. Malcolm, M. P. P., is asking certain concessions from the town, in return for which he offers to elect buildings to cost \$15,000.

SUSSEX, N. B.—Mr. Holt, C. E., of St. John, was here last week taking levels and surveying the Dobson Brook in connection with the preparation of plans for a water supply.

DUNDAS, ONT.—The town council has submitted a by-law to the ratepayers to raise \$15,000 by the issue of debentures to assist a company in establishing a boot and shoe factory here.

PORT ARTHUR, ONT. — Tenders class 22nd inst. for purchase of \$30,000 Current River water-power debentures and \$15,000 public school debentures. Particulars from J. McTigue, town treasurer.

CALGARY, N. W. T.—T. F. Johnstone, who intends establishing an oat meal mill here, has asked for a free site and exemption from taxation.—The council are about to select a site for a city hall and fire station.

HUNTSVILLE, ONT.—Tenders are invited up to 26th inst. for erection of stone and brick store on Main street in this town. Plans by M. L. Buffy, architect, and tenders to be addressed to Mrs. R. Walsh, London.

STRATFORD, ONT. — G. G. Mc-Pherson, K. C., has informed the city council that a number of capitalists with whom he is associated intend building an electric railway between this city and the town of Mitchell, 12 miles distant.

COLLINGWOOD, ONT.—W. Fryer has had plans prepared for a double brick residence to be built at the corner of Pine and Third streets.—The council has decided to rebuild the crib work on the west side of the town dock, at a cost of \$3,000.

NE.W WESTMINSTER, B. C.—Mr. Bunts en, of the Vancouver Power Company, states that the company have \$700,000 ready to spand on the development of the Coquitlam water power and are willing to start work at once on a tunnel that will cost over \$200,000.

WINNIPEG, MAN. — S. Frank Peters, architect, is this week taking tenders for carpenter work of warehouse for Joseph Maw & Co.—Voting on the by-law-to-raise \$50,000 for fire stations, etc., will take place on December 10th.

BRANTFORD, ONT.—The Slingsby Mig Co. intend to make alterations to their plant and erect a new picker building.—A sub-committee of the Soldiers' Memorial Fund Committee has been appointed to secure designs for a memorial to cost about \$5,000.

ST. MARYS, ONT. — A committee has presented to the city council a report on the construction of permanent roads. The work recommended includes 6 miles, estimated to cost \$30,000. A by-law to provide the necessary funds will likely be submitted to the ratepayers.

FORT WILLIAM, ONT.—The plans for the new coal docks here have been sent to Montreal of approval. The docks will be 1,500 feet in length and will be equipped with a new plant for handling hard coal. The improvements are estimated to cost about \$200,000.

FORT FRANCIS, ONT.—The Deputy Commissioner for Public Works for Ontario will submit to the Government a scheme for reclaiming hundreds of acres of muskeg lands in this vicinity by means of trunk sewers. A separate appropriation would have to be made by the Government for the work.

NEPIGON, ONT. — The Nepigon Pulp & Paper Co. have recently leased the waterpower known as Cameron's Pool, on the Nepigon river, adjoining the proposed mill site. The company bind themselves to develop 3,000 horse power within two years and not less than 6,000 horse power-within four years.

GWEN SOUND, ONT.— J. Parker and A. D. Cresor have purchased vacant property on Front street.—It is probable that the Y. M. C. A. will erect a new building at an early date.—The Marine Department are taking tenders for erection of residence and lighthouse at Cape Croker. Tenders close 22ad inst.

PETERBOROUGH, ONT.—A contract has been made between the Government and the Otonabee Power Co., of Peterborough, under which the latter is granted a lease of the power available at No. 5 dam on the Otonabee river. In order to develop the power that company will have to expend about \$100,000.

VICTORIA, B C. — The provincial government has invited new tenders for substructure and superstructure of a bridge across the Fraser river at New Westminster. A cheque for \$5,000 is to accompany each tender.—The E. & N.

Railway Co. invite tenders up to 25th inst. for supply of 15,000 railway ties.

ST. JOHN, N. B.—E. G. Evans, John Kilburn, James Barnes, M. P. P., and others, have been incorporated as the McAdamite Metal Co. of Canada, with a capital of \$800,000.—The Young Men's Christian Association has decided to inaugurate a movement looking to the erection of a new building. It is estimated that a suitable building will cost about \$60,000.

OTTAWA. ONT. — Mr. Brodeur, architect, of Montreal, is preparing plans for a block to be erected on the corner of Dalhousie and Murray streets by S. J. Major.—The French Committee of the Separate School Board have announced their intention of rebuilding Guiges school, at a cost of \$10,000.—The city council has decided to purchase Regan's Hill, on the old rifle range, as a site for proposed contagious diseases hospital.

HAMILTON, ONT.— E. B. Patterson has taken out a permit for a brick dwelling on Gibson avenue, between Barton and Princess street, for John Burns, to cost \$1,400.—Another by-law may be submitted to the people to raise \$150,000 more for road improvements.—Richard Tope has been granted a permit for a brick dwelling on Hannah street, between Queen and Kent streets, to cost \$1,200.

HULL, QUE.—It is probable that a registry office will not be built here, as many ratepayers are opposed to the increased taxation.—The material is being secured for the new Catholic church, and building operations will be started next spring.—The E. B Eddy Co. intend rebuilding their indurated fibre ware and pail and tub factories.—P. H. Durocher wil build the proposed brewery on Laurier avenue.

OSHAWA, ONT.—The county council has ordered that steps be taken to repair the Cannington bridge until a new structure can be built next spring.—Building permits have been granted as follows: James Walker, brick veneer dwelling, Elgin street, cost \$4,000; Hugh Gilmour, brick dwelling, Dufferin street, cost \$3,500; S. J. Davis, brick veneer dwelling, Jane street cost \$1,500. He states that an English syndicate will build a large flour mill on Tunnel Island, work to be commenced next spring.

VANCOUVER, B. C. — William Blackmore, architect, is preparing plans for a large warehouse to be built on Powell street by the McDonald Co., Limited, of Winnipeg.—A by-law is to be submitted to the ratepayers to provide for the erection of a new hospital building. — Several well-known citizens are forming a company to build a large hotel in this city.—William Blackmore & Son, architects, have invited tenders for the erection of a wholesale block on Powell street.

SYDNEY, N. S.—The manager of the Dominion Coal Co. states that his company will erect a large passenger depot

# FOREIGN and DOMESTIC PORTLAND CEMENTS

Pure refined Coal Tar for Tar Macadam Roadways and Pavements.

Sanitary Building Papers and Patent Wire Edged Ready Roofing for Municipal and other Buildings. ECONOMICAL DURABLE FIREPROOF

THE PATERSON MANE'S CO., LIMITED TORONTO MONTREAL ST. JOHN HALIFAX

here next year. - W. T. Jennings, C. E., of Toronto, has submitted to the council a report on the water supply. He recommends the pumping of the supply from Middle Lake to a reservoir of 54,000,000 gallons capacity, thence by gravity through an 18-inch pipe to the town. The total cost is estimated at \$200,000.-The survey of the proposed Cape Breton electric railroal is about completed. power house will be located at this place.

Plans are being prepared for a fire and police station to be built on Victoria road. A committee appointed by the council to estimate the cost of establishing a pumping station has reported that it would cost about \$25,000. - Mr. Chappell, architect, has prepared plans for a new block for Prowse Bros. & Crowell, to be three storeys, 41x140 feet, equipped with elevator, prismatic glass, etc.

MONTREAL, QUE.—The Sisters of Charity have purchased a large piece of property bounded by Lever, Magdalen and Chairon streets. - Mr. Kennedy, harbor engineer, has reported that the cost of completing the commissioners' part of the harbor work will be about \$430,000. This does not include freight sheds or permanent paving. — The Dominion Tobacco Co., whose factory was burned last week, have decided to rebuild immediately —Building purmits have been granted as follows: F. Allairs, two twostorey houses, corner Stadacona and Prefontaine streets, cost \$5,600 (C. A. Reeves, architect, A. Tetrault, contractor); E. N. Cusson & Cie, factory on Ontario street, cost \$5,000 (Lambert & Education Street) Ontatio street, cost \$5,000 (Lambert & Fils, contractors); Montreal Street Railway Co., addition to power house, cost \$32,000; Narcisse Papineau, two storey house and store, corner St. Lawrence street and Pine avenue, cost \$10,500 (J. A. Godin, architect, A. L. Payette, con-

TORONTO, ONT.—The authorities of the church of St. Mary Magdalene have decided to proceed with the erection of permanent walls and a roof, at a cost of \$8,000.—Excavating is in progress for a large residence on the east side of Jarvis street, just north of Wilton avenue. At a meeting of the University College Residence Association last week, the report presented showed that the women's residence is an assured fact.—The plans for the new science building in connection with Toronto University are making satisfactory progress. The building will likely be three storeys high, with basement and attic, and of grey stone. - It is rumored that a large new office building is to be erected on the south-east corner of Yonge and King streets. A couple of monetary institutions and the Canadian Pacific Railway Company are reported to be interested. The property is owned to be interested. by the Burrett Estate. -Mr. Gillespie, of the Toionto Furnace Co., intends building nine residences on Ann street and three on McGill street .-- The city engineer has reported that the cost of extending Bloor street eastward to Danforth avenue would be \$350,000. This would include 1,200 feet of steel trestle over Rosedale ravine, 1,432 feet of bridge and trestle over the Don valley, and 2,368 feet of grading and filling. The following local improvement works are recommended by the city engineer. Six inch water mains on Jefferson avenue, between King and Liberty streets, and on Liberty street, between Fraser and Atlantic avenue, cost \$1,500; brick pavement on Avenue Road, from Dupont street to north city limits, cost \$1,795; asphalt pavement on St. Clarens avenue, from College to Bloor, cost \$19,125; tar macadam pave-

ment on Allan avenue, from Broadway to Bolton, cost \$3,010; on Draper street, from Front to Wellington place, cost \$2,230; on St. Paul street, from King to Queen, cost \$2,385; concrete sidewalks Queen, cost \$2,365; concrete sidewalks on Wellesley-street, north side, Ontario to Rose avenue, cost \$218; Carlawavenue, west side, Eastern avenue to point 1057 feet south, cost \$1658; George street, east side, Wilton avenue to Gerrard, \$188; Phoebe street, north side, Spadina avenue to point 291 feet east of Huron street, \$536; Dunn avenue, west side, King to Queen, \$1650; Dunn avenue, east side, King to Queen, \$1744; George street, east side, Queen street to Britain, \$150, Wilcocks street, south side, Spadina to Robert, \$422, Balinuto street, west side, Czar to Bloor, \$511; Balmuto street, east side, Czar to Bloor, \$521; Front street, north side, Simcoe to John street, \$664; Wellesley street, south side, Jaivis to point 333 teet east, \$333 -A movement is on foot in Parkdale form a company to erect a central public hall. - A project is on foot to erect a new church on the site of the p esent Baptist church on Sheridan avenue. Plans have been prepared, and it is hoped to commence work next spring. to commence work next spring.

The new Roman Catholic church and separate school for South Parkdale are to be erected simultaneously next spring on the site of the old Parkdale skating rink.

-Building permits have been granted during the past week as follows:

Canadian Kodak Co., four storey stone and brick factory, south side King street, near Portland, cost \$30,000, (Chadwick & Beckett, architects); Trust & Loan Co., three storey apartment house, 210 Jarvis street, cost \$10,000; Trustees Olivet Baptist church, one storey church, Margueretta street, near College, cost Harris, ice house in old fort grounds, near Bathurst street, cost \$3,000; Rev. J. L. P. Roberts, two storey brick residence, north-east corner Roncesvalles ave. and High Park road, cost \$4,500 (E. Smith, architect); A. Nicholson, two storey and attic brick residence, corner Walmer road and Bernard avenue, cost \$7,000, (S. H. Townsend arc) ieci); Randolph MacDonald, two brick dwellings, Dowling avenue, near Queen street, cost \$6,000; George H. Hees, Son & Co., two storey brick stable

on Bedford road, near Davenport, cos \$1.500 (A. R. Denison, architect); Trus tees Grace Hospital, one storey addition cost \$5,000, Hobson Dunkley, residence on Macdonell avenue, near Pearso avenue, cost \$1,800.

#### FIRES.

Greenhouses of R. H. Wright a Aylmer, Que.; loss \$25,000, no insurance.—Brick residence of Thomas Hernan, near Pembroke, Ont., insuranc \$2,000.—Residence of Thomas Ryan o Qu Appelle ave., Winnipeg, damaged t extent of \$6,000.—Residence of Mr. Matilda J. Waugh at Five Islands, N. S. no insurance. Residence of Alexande McLean, near Carleton Place, On Oatmeal mill at St. Mary's, Ontowned by J. T. Moore; loss \$6,000, partially insured.—Brick residence at Pictor Ont., owned by A. W. Hepburn.—Builting of the Doherty Organ Co., at Clintor Ont., containing machine, case, key an finishing departments. Premises of the Greenhouses of R. H. Wright a

finishing departments. Premises of the Dominion Tobacco Co., 80 to 94 Papir can ave., Montreal, damaged to extent to \$50,000. The owners are A. & L. Goldstein.

#### CONTRACTS AWARDED.

SYDNEY, N. S .- The contract for th new exchange for the Eastern Telephon Company has been let to Falconer a

CHATHAM, ONT.—J. L. Wilson a Son, architects, have let the contract for improvements to Gordon's store to Robir son & McKie.

ELORA, ONT. — The tender of the Oddfellows Association has been accept ed for purchase of village debentures, a price of \$2,530.

COLLINGWOOD, ONT.—The Brya Mfg. Co. have the contract for a new res dence on Pine street for D. Williams, t cost about \$3,500.

BROCKVILLE, ONT. — B. Dillot architect, has awarded to I. J. Wilson, a Gananoque, the contract for carpents work of cottages at Jones Falls, for & Fennessy, of New York.

OTTAWA, ONT -Contracts for sev ers were awarded by the Board of Work last week as follows: Cambridge strei sewer, Thomas McLaughlin, \$2,284.70

# Good Roads Machinery Co. (Limited.)

JOHN CHALLEN, Manager, HAMILTON, ONT

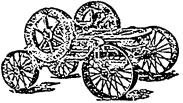
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We stock Bar Iron, Bar Steel, Steel Angles, Channels, Etc.



STONE Crushers, Stone Spread ing Wagons, Wheelers an Drag Scrapers, Plows, Stear and Horse Rollers, Road Grad ers, &c.

SAWYER & MASSEY COMPANY, Limited -Hamilton, Canad

# MUNICIPAL DEBENTURES BOUGHT

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

street sewer, ราทเ tenderer. 2921.75.

AYLMER, ONT. - Contracts for aterworks system have been awarded as llows: Pipe and pipe laying, Harding Leathorn, London; stand pipe, Can-la Supply Co., Windsor; foundation for and pipe, Hunter Bros., Kincardine.

SYDNEY MINES,N.S.-Hopson Bros., rchitects, have let a contract to Michael IcMullin for public academy to be built t this place. Building will be heated by our hot air furnaces and will be supplied ith a chemical laboratory, 35 x 20 feet, nd a museum 24 x 13 feet.

MONTREAL, QUE. — J. Venne, rehitect, has awarded the contract for ne marble monument and marble wainsotting for the Mile End church to T ochon & Fils.—McDuff & Lemieux, rchitects, have awarded the contract for market at Grand Mere to A. Alley, lontreal.

WINNIPEG, MAN - The tender of the Vulcan Iron Co., of it is city, has been eccepted for supplying thirty-eight 6-inch ydrants at \$11.50 each, and eight 8-inch ydrants at \$50 each.— It is announced ere that J. W. Stewart has been awarded 2 important contract by the C. P. R. to wer certain grades in the mountains at ield, B. C., and that the cost of the ork will be about \$1,000,000.

#### REAL ESTATE TRANSFERS.

The following transfers of vacant prop-The following transfers of vacant prop-ty in Toronto are reported since last sue: Close ave., v. s., Jacob D. Tripp i Wm. B. Charlton, 30 x 149, being part f lot 3, plan 370, assessed at \$810. St. Claren's ave., e. s., Jas. Young to 7m. Smith, 50 x 128.10, being lot b, plan 888, assessed at \$350.

ALWAYS IN STOCK

'IG LEAD, PIG TIN AND SOLDER

rracuse Smelting Works, Montreal, P.Q.

Queen st. e., s. s., (in rear), Walter S. Lee to J. S. Simmons, 35 x 142, being part lot R., plr n 90, assessed at \$56.

Beau st., w. s., D. W. Jamieson to Philip Jamieson, 150 x 190.6, being lot 20, plan 433, assessed at \$3,300.

Landsdowne ave., w. s., Nettie Moore to Charles Coutts, 25 x 137, being north half lot 20, plan 453, assessed at \$550.

Centre ave., e. s., Toronto Mortgage Company to Hespice Miville, 40 x 119.9, being lot 27, plan 14D, assessed at \$979.

Smith st., 5. 5... James George to Hannah E. Crichton, 50 x 148, being lot 36 and east 10 feet lot 37, plan 373, assessed at

Shaw st., w. s., Robt. Wilkes estate to Theo. James Sowerby, 20 x 130, being south part lot 12, plan 50D, assessed at

Delaware ave., w. s., John Firth estate to Sarah A. C. Foe, 50 x 132, being north part lot 37 and south part lot 36; assessed at \$250.

Logan ave., e. s., F. W. Dowse to Thomas H. Peacock, 18 x 129, being north

part lot 107 and south part lot 106, assessed at \$180.

Lamport ave., s. s., W. M. Gray to James G. Ramsay, 106 x 160.3, being lots 1, 2, and part 49, plan 668, assessed at \$3,773.

Victoria st., w. s., Toronto General Trusts Corporation to John Porter, 23.3 x 61, being part lot 2, plan 192, assessed at \$245.

Pape ave., w. s., City of Toronto to the Dovercourt Land, Building & Saving Co., 48 x 120, being lots 30 and 38, plan 718, assessed at \$408.

Beau st., w. s., The Right Rev. Charles Hamilton, Bishop of Ottawa, to Edmund Bristol, 218 x 149.6, being lots 7, 8 and 9, plan 201E, assessed at \$3,100.

Crescent road, s. s., Henry Winnett to Charles T. Stark, 50 x 116 and 40 x 132, being lot 4 and west 40 feet, let 5, plan 150E, assessed at \$ ,200.

D'Arcy st., n. s., Eliza A. Walls to John D. Ellis, 25 x 160, being lot] 30, plan 168 D, assessed at \$ ,200, rough-cast cottage, assessed at \$ 200; total assessment \$ 1,45c.

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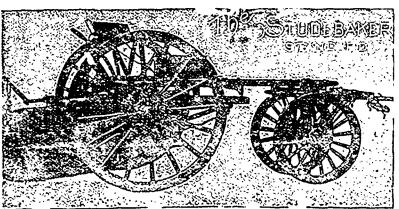
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Bottle green walls, accompanied by a frieze with Indian red prevailing; deep sienna cornice: ecru ceiling; upholsterings brown and Indian red, and sharp Indian red draperies.

Bottle green walls, accompanied by a maroon frieze, a leather-coloured cornice, deep eeru ceiling, with upholsterings of bottle green and maroon, and draperies of the orange order.

Fawn colour or antique oak woodwork may have dull drab wall with a frieze of Gobelin blue or red; dull drab, Gobelin blue or red cornice; light drab ceiling: upholsterings of drab, Gobelin blue ard Gobelin red, and draperies of blue and Nile green.

OLD OAK.

Gobelin blue walls, or drab, with a frieze of Gobelin blue, reds and drabs; a cornice of a light drab; drab and blue ceiling; upholsterings of russet yellow and blue, and russet yellow draperies.

Old red walls, with tones of old red tapestries on the frieze; cornice of old oak; ceiling of grey olive; upholsterings of old blues and old reds, and the draperies of antique gold.

OAK AND CHERRY.

Indian yellow walls, with a deep Indian

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yellow frieze: Indian yellow cornice; ceiling of light Indian yellow; the upholsterings of Indian yellow, cardinal red, olive or blue, and the draperies of helio-

LIGHT GOLDEN OAK.

Pale blue walls, with a frieze of dark golden tint; cornice of medium golden tint with some blue; light golden tint ceiling, upholsterings of blue, with some light yellow, and draperies of pale blue.

#### CREAM WOODWORK.

A soft warm blue wall, with a frieze of ivory tones, with blue tracery cornice or the frieze of old blue, the cornice of buff, the ceiling of a lighter shade, the uphoisterings of old gold, red and blue, and the draperies of grey.

Salmon red or pale green grey walls, a frieze of cream, green grey or pink, having a cornice of cream, salmon, copper and greenish grey; ceiling of light cream; with the upholsteriogs and draperies of greenish grey.

Cream of light salmon walls, with a frieze of salmon pink, a cornice of cream, salmon, chamois and gold; an almost white ceiling, and the uphoisterings and draperies of salmon pink, chamois and

IVORY LELLOW WOODWORK.

Cream walls, with a light robin's egg blue frieze, a cornice of cream, light robin's egg, silver and gold; cream, gold and silver constitute the ceiling; ivory

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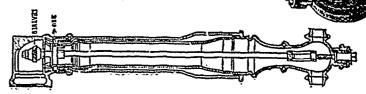
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and blue upholsterings and blue draperies. IVORY ENAMEL WCODWORK.

Warm ecru walls, with a frieze of old rose; chocolate ecru and old rose cornice; light warm ceiling should be used, and the upholsterings should be of old ivory ecru and chocolate, the draperies of capote blue.

#### OLD IVORY.

Light old ivory walls, with a frieze of ecru; deeper ecru and Indian yellow cornice; ceilings of very light ivory; upholsterings of ivory with Indian yellow, and the draperies of blue and ivory.

#### WHITE ENAMEL WOODWORK.

Sea-green walls, with old gold frieze, old rose and sea-green cornice; pale seagreen ceiling; upholsterings of grey and rose, and draperies of quiet grey.

#### OLIVE WOODWORK.

Pompenan red walls, frieze of deeper and more red, and cornice of olive and old gold; ceiling of light office; upholsterings and draperies of old red.

Indian red or Indian yellow walls, the frieze of dark blue and the cornice of pale olive; the ceiling should be in ochre; the upholsterings may be treated in prevailing red, or Indian yellow, and the draperies copper brown.

#### DULL OLIVE WOODWORK.

Dull blue walls, a frieze of dark Pompeiian red; olive cornice and cream ceiling; olive and red upholsterings, and draperies of the Pompelian red tones.

#### GREEN GREY WOODWORK.

Medium robin's egg blue walls, with a frieze of deeper blue; a cornice of bluish green, greys and silver; a ceiling of light bluish and green grey, and the upholsierings and draperies of citron yellow.

#### OLIVE GREEN WOODWORK.

Deep green walls, a greenish grey with silver on the frieze, a cornice of grey and silver, and the ceiling of the same. The

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upholsterings should have similar colours, relieved by old rose, and the draperies should be of gray.

#### APPLE GREEN WOODWORK.

Salmon pink or silver grey with pale pink walls, with a pink and green frieze; pink and green grey mouldings; ceiling of cream or pale buff; the upholsterings and draperies of pink.

#### BRONZE WOODWORK.

Old gold walls, with a citron frieze; a light gold, citron and old gold cornice; a light gold ceiling; the upholsterings being of old gold, red and citron, and the draperies of Empire blue.

#### HOLLY GREEN WOODWORK.

Robin's egg blue walls, with a frieze of deep robin's egg blue, rornice of greens and yellows; a light green grey and silver ceiling, grey rohin's egg blue and silver go 'ato the ipholsterings, and the draperer 's should be of pale blue and cream.

#### DULL BLUE WOODWORK.

Deep ivory yellow or ecru walls, with a frieze of same tones blending into blue; ivory cornice; ceiling of ivory yellow with blue, with the draperie of ivory yellow.

#### LAVENDER WOODWORK.

Walls of a similar colour, with frieze of deep lavender or light blue; lavenders and creams for the cornice; a very light cream ceiling; upholsterings of lavender, silver, buff, gold, blue, and salmon pinks, and draperies of yellow.

#### MAHOGANY WOODWORK.

Pompeiian red walls, with buff ceiling, and Oriental colours for upholsterings and draperies.

Self-tones of old gold and yellow walls, with a similar frieze; a pale old red cornice; a citron yellow ceiling; the upholsterings of warm olive green, and the draperies of a deep wall colour.

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WHITE MAHOGANV.

Yellow striped paper for the walls, with a painted frieze, a cornice of different tones of yellow; the ceiling of light yellow; the upholsterings of yellow self-tones and rose, and the draperies of red and ivory.

CHERRY.

Ochre walls, a Pompeiian frieze, and sage green ochre cornice; a light sage green ceiling; Pompeiian red, dull blue, olive and sage upholsterings, and the draperies of Pompenan red, Nile or sage.

ASH WOODWOPK.

Ochre walls, with a bright olive frieze; a cornice of othre and light dull orange; a pale othre ceiling; upholsterings of olive yellow and orange, the draperies having two tones of olive.

#### SILVER BIRCH.

Dark chamois and silver walls, with a sea-green frieze; chamois, sea-green and silver cornice; chamois, ceiling, chamois, ochres, silver and green upholsterings, and draperies of pale green with pink.

#### PEARL GREY WOODWORK.

Light blue or pink walls, with a deeper blue or pink frieze, having a cornice of grey and light blue, or pink and silver; a light pearl grey ceiling; grey, buff, silver and light pink or blue upholsterings, the draperies being of old rose and old blue.

(To be continued.)

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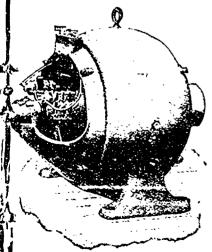
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# DEPARTMENT

THE VENTILATING AND FLUSHING OF SEWERS.

By JOHN BRY B, M. I. C. E , BURGH ENGINEER,

The staggering thing about this subject is the conflicting statements of sanitary engineers and medical officers. One set would have us shut up street manway ventilators, trap all gullies, close all open ings, and depend entirely on a series of vertical pipes carried to the roof tops Sometimes it is proposed to abolish entirely the intercepting trap between the houses and the sewer, and ventilate the sewers by the house pipes. Others suggest the closing of all openings, and connecting with factory chimneys and house chimneys; while another set, who have abandoned the idea of shafts altogether, consider that the true solution of the matter lies in the deodorization and chemical treatment within the manways. The only comfort one can take from many of these vagaries is that they belong more or less to the other side of the border. In this, as in many other sanitary matters, experience is to be gained by experience, and while in Scotland we have not the same impulse to try coatly experiments, we are reaping to a large extent from some of the expensive experiments, and, shall I say, failures of our English brethren. The local conditions of a drainage district have the effect of determining to what extent the sewers should be ventilated. The question of levels will make a difference; then it will make a difference where there is a number of narrow streets, and also whether the general lie of a sewer is open to prevailing winds. Another element to be considered is the question of the water supply, and whether the everage consumption per head will be sufficient to give a good run to the sewers. It cannot be laid down as an absolute rule that all classes of sewers should be ventitated alike. Pipe sewers with smooth surfaces are not to be classed with brick sewers having a more or less rough face, and, therefore, more liable to arrest deposit and slime.

Again, in the case of a large outfall sewer which receives the flow from several intercepting sewers, and where the minimum discharge will probably be about half full, the necessity for frequent ventilation does not exist to the same extent, the average velocity of such a carefully designed sewer being probably from 3ft. to 4ft. per second, and, therefore, selfcleansing. The scare created by the proposal to ventilate the outfall sewers of the Glasgow main drainage, now in progress, with open gratings at the surface of the street is to a large degree without With the exception of a justification. short length of the sewer near pumping stations, where, after the churning in the pump well, the sewage will probably throw off disagreeable emanations, the

cutfall sewers, throughout their whole length, will be found to be entirely free from nuisance by the open gratings in the streets. The recurring action of the tide in locking up the mouths of sewers in certain localities has an important bearing on this question. Where there happens to be the coincidence of a high spring tide and a heavy rainstorm, as has been experienced in the burgh of Partick to the extent of a rise of 8ft. 6in. above mean high water, or equal to a level of about 14ft, above Ordnance datum, it can easily be understood that the pressure within the sewers is very much increased; and it is absolutely necessary to provide more than the usual number of ventilators near the limits of the high-tide levels in the sewers, otherwise the traps on the house drains would be unsealed by the extra pressure, and sewer gas would probably find its way into the dwellings. In some of our main sewers the ordinary high tides extend for a distance of 200 yards from the sewer outlet, and in special high tides at léast double that distance. Within the near future, however, the laying down of the Partick intercepting sewer, which is to be from 21/2ft. to 81/2ft. below high water level, will make the cessive pressure due to tide-locking disappear, a double tide valve chamber being provided clear of the actual connection between the two sewers to keep the tide from flowing back in the bunch sewers or down into the intercepting sewer. The beneficial effects of such an arrangement to Partick sewers will be threefold-viz. the relief of pressure, the prevention o'

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damming back, and the constant venti-lation of the sewer down to the junction

with the intercepting sewer.

The methors and the patents for venti lation of sewers existing at the presen moment are too numerous to mention. will suffice for our purpose to-day to simply introduce certain of these with shippy introduce Certain of these wift? few remarks in order to provoke a free discussion on the question. The city of Bristol stands ont as the great exception to sewer ventilation, no provision having been made either by manways or shafts to ventilate the main sewers. The striking thing about Bristol is that the health state istics compare fayorably with other place having an elaborate system of ventilation Mr. Reid, city engineer of Cloucester, in: criticism on the case of Bristol, says tha although there is no official attempt to ventilate the sewers, nevertheless they ven tilate themselves, because being an ol-city there are a great many drains tha have no intercepting traps at all and in such case the rain-water pipes and soi pipes act as ventilators. Although Bristo stands out as almost the only exception to the rule, no sanitary engineer would think for a moment of laying down new sewer without providing ample means for ventilating them.

(To be continued.)

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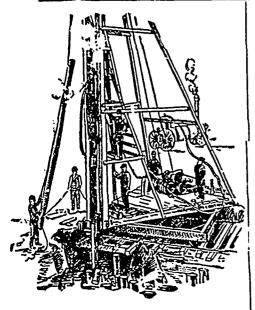
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