CANADIAN **Contract Record**

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

This Paper Reaches Every Week the Town and City Clerks, Town and City Engineers, County Clerks and County Engineers, Purchasers of Municipal Debentures and Leading Contractors in All Lines Throughout Canada

TORONTO, MONTREAL AND WINNIPEG, OCTOBER 5, 1904

THE CANADIAN CONTRACT RECORD PUBLISHED EVERY WEDNESDAY

VOL. 15.

As an Intermediate Edition of the Canadian Architect and Builder. Subscription Price, \$2 per annum, payable in advance.

THE C. H. MORTIMER PUBLISHING COMPANY of Toronto, Limited, CONFEDERATION LIPE BUILDING, TORONTO. Telephone Main 2352.

Branch Offices :

3β Alliance Building, Montreal, Telephone Main 2299.

310 McIntyre Block, Winnipeg. ar Great St. Helen's, London, England.

Subscribers who may change their address sheald give prompt notice of same. In doing so give both old and sev address. Notify the pub-lishers of any irregularity in delivery of papers.

TENDERS FOR Heating System

Beated Tenders will be received by the under-signed, up to OCTOBER torH, at 5 p.m. for the installing of a hot water heating system in the West Ward School, in the Town of Midland. Plana and specifications may be seen at the office of the secretary. A marked check equation office of the secretary. A marked check equation office of the secretary. A marked check equation of the secretary and the secretary of the company each of the the secretary and the not necessarily accepted. THOS, I. TRUEMAN, Secy. P. 8. Board.



TENDERS FOR STEEL ROOF NEW ENGINE HOUSE, MAIN PUMPING STATION

4

Tenders will be received, by registered post onty, addressed to the Chairman of the Board of Control,CityHall, Toronto, up to OCTOBER ITH, jopa, for the construction and crection of the keek Bood Frincipals and Purlins over the New Xagine House at the Main Pumping Station of the Toronto Waterworks. Bravelopes containing tenders must be plainly marked on the outside as to contents. "Inta and specifications may be seen and forms of tender obtained at the office of the City ingineer on and after the present date." The usaal conditions relating to the city of the usaal conditions relating to the strictly of the the tot by leave number to the constant accept. THOMAS URQUHART (Mayor).

THOMAS URQUHART (Mayor), Chairman Board of Control. City Hall, Toronto, Sept. 24th, 1904.

BRICK CLAY FOR SALE

Twelve miles west of Toronto, on C.P.R. Tested and proven A1; 50 acres. Apply HAINES ESTATE Dixie, Ont.

CAPABLE YOUNG ARCHITECT

ith good backing can obtain managing part ership in good Toronto practice, on very rea mable terms. Box 21, CONTRACT RECORD

TENDERS **Collegiate** Institute Building GALT, ONTARIO

Separate or lump tenders for the various trades addressed to Thomas Caracidden, Secre-tary Collegiate Institute Board, Galt, Ont., will be received until 6 o'clock p. m. of MONDAY, OCTOBER, ITTR, 1996, for the erection and com-pletion of a proposed Collegiate Institute Iulid-ing at Galt, Ontario, to be erected on the site of the present Collegiate Institute Building, for-merity the Byr, Tassie School. Drawings and specifications can be seen, and Hamilton Contario, at the offices of the Archi-tects, Stewart & Witton. The lowest or any tender not necessarily accepted.

CONTRACTS OPEN.

ATHENS, ONT.-A new residence will be built by E. Taylor.

KNOWLTON, QUE.-L. G. Green will build a large addition to his hotel.

KENSINGTON, P.E.I. - Plans are being prepared for a new station here.

MEAFORD, ONT .- Knight & Son are considering the extension of their factory.

PERTH, ONT .- James Reid has decided to rebuild his foundry on a larger scale

CRANBROOK, B.C. — Plans have been prepared for a new fire hall, two storie

LEAMINGTON, ONT. - George Fox will build a grocery store on Erie street.

FROCKINSVILLE, ONT .- George Bingham purposes building a new residence.

HILLSBORO, N.B. - A waterworks system for fire protection purposes may be installed.

CHATHAM, N.B.-The Undewriters have recommended that the town install a fire alarm system.

NEW WESTMINSTER, B. C.-It is reported that the Great Northern Railway Company intend e tablishing large car shops at this place.

STREE ISVILLE, ONT .- A by-la to raise \$3,000 to install an electric ligh plant was defeated by the ratepayers.

No. 34

MORDEN, MAN .- The Manitoba Cement Co. have decided to start work at once on their new mill.

RED DEER, N.W.T.-The citizens have voted in favor of the construction of a waterworks system.

PETERBORO, ONT.-- Improvements are to be made to the post office building here, at a cost of \$4,000.

CHICOUTIMI, QUE .- The Dominion Government have there for a new post office. selected a site

ST. GEORGE, N.B.—The construc-tion of a waterworks system bas been recommended by the Underwriters. ST. JOHNS, QUE.—The trustees of the Catholic charch have decided to build a residence for the caretaker.

MILLBANK, ONT. — The congre-gation of Grace church have decided to build a new edifice, at a cost of \$5,000.

STONY CREEK, ONT.—A concrete lock-up is to be built here from plans by Stewart McPhee, architect, Hamilton.

CENTREVILLE, N.B. — The con-struction of a 150,000 gallon stand pipe has been recommended by the Underwriters.

KASLO, B.C.—George Alexander has been granted exemption from taxation in consideration of his installing an electric light plant.

BERLIN, ONT.—The City Council are looking into the question of the ad-visability of constructing block asphalt pavements.

FALKENBURG, ONT. — William Naismith wants tenders for construction of a bridge on town line one mile from Bracebridge.

FORT WILLIAM, ONT. - The town engineer has been instructed to report on a sewerage system to cover the west end of the town.

HENSALL, ONT.—A by-law to loan \$5,000 to W. Kelehan to establish a machine shop here was carried by the ratepayers 1 st week.

OWEN SOUND, ONT .--- The Queen City Oil Company have been given permission to build an oil storehouse within the corporation limits.

STURGEON FALLS, ONT .- It understood that the Imperial Paper Mills Co. will erect a mill to make book paper

at Smoky Falls, 12 miles up the river from this place, and connect the two by a railway.

2

CHATHAM, ONT.—S. F. White has just taken tenders for a steel bridge to be built over Government drain No. 2, in Township of Raleigh.

CARBERRY, MAN. — Negotiations are being carried on with Mr. Boyce, of Portage la Prairie, for the establishment of an electric plant here.

DAUPHIN, MAN.—Bids desired by W. Smith Jackson, up to 8 p.m. of Thursday, 6th inst., for purchase of \$4,5005 per cent. school debentures.

TEESWATER, ONT. — The ratepayers will vote on a by-law on October 25 to grant a loan of \$2,000 to Arscott Bros. to extend their tannery.

TILSONBURG, ONT. — A. E. Baynes, Town Clerk, will receive bids up to October 15th for digging about 1,000 feet of trench for water pipes.

ATWOOD, ONT. - The Municipal Clerk of the Township of Elma has been instructed to invite tenders up to October 17th for improvement of the Wilson drain.

BRANDON, MAN.-John Fry is about to erect new livery stables 40x80 feet, frame and metal clad with cement foundations, from plans by Architect Marshall.

KINCARDINE, ONT. — The Board of Education will immediately engage an architect to prepare plans for enlarging the High school building; estimated cost \$7,500.

KINGSTON, ONT. — The City Council have given J. W. Campbell permission to build a transmission line from his power plant at Kingston Mills to his mill in this city.

his power plant at Kingston Mills to his mill in this city. RAINY RIVER, ONT.—A by-law to issue debentures for \$3,500 for erection of a town hall and fire hall station was unanimously carried by the ratepayers last week.

last week. REGINA, N. W. T.—J. K. Hunter, Secretary-Treasurer of the Corporation, is this week taking tenders for the construction of three water tanks for fire protection.

GRAND FALLS, N.B.—The Underwriters have recommended a pumping station, arrangement for auxiliary service, and a 250,000 gallon stand pipe for fire protection.

ORILLIA, ONT.—An engineer's report on the installation of a sewerage system places the cost at \$100,000, which would provide 54,872 feet of tile pipe

sewers. RAT PORTAGE, ONT.—The directors of the Rat Portage Lumber Co. are said to have decided to rebuild their sash and door factory in Winnipeg instead of at this place.

BATHURST, N.B. — The Board of Underwriters have requested that the town obtain a water supply for fire protection by gravitation or by building nine tanks of 10,000 gallons each.

FREDERICTON, N. B. — Tenders are invited by the Commissioner of Public Works for substructure and superstructure of the New River Mills bridge, Restigouche County.

Restiguence County. TORONTO JUNCTION, ONT.-H. G. Brown will build a \$3,000 brick residence on Gothic ave.-Changes will be made in the specifications for plumbing at the Western avenue school.

WOODSTOCK, N. B.—The Department of Public Works, Ottawa, are asking for tenders up to Monday, October to, for the construction of an armory at this place. Plans at the office of F. B. Carvell, barrister, and at the Department, Ottawa. STRATFORD, ONT.—The Grand Trunk Railway have commenced the construction of their own waterworks system. The supply will be obtained from a small lake a few miles distant. Estimated cost, \$20,000.

GLADSTONE, MAN. — The municipal councils of Westbourne and Lansdowne will let the contract this week for the construction of a Warren steel truss bridge with concrete abutments over the White Mud river.

COLLINGWOOD,ONT.—The question of providing dock accommodation was considered at a meeting of the council last week, and it is probable that plans wil! be prepared and tenders asked for the work at once.

GEORGETOWN, ONT.—The Canada Coaung Mills Co., Ltd., of Toronto, have broken ground here for their new mill. The main building will be 200×80 feet, with a wing 56×30 feet. John R. Barber, M.P.P., is interested.

GALGARY, N.W.T.—Tenders have been invited for the erection of a six storey building for T. J. S. Skinner.— Application has been made for a charter for a railway to extend from Calgary to the Nee Hill coal mines, a distance of 70 miles.

CREEMORE, ONT.-None of the tenders for construction of proposed waterworks system have been accepted by the council. The contractors were unable to guarantee that they would complete the work this fall on account of the scarcity of pipe.

MONCTON, N.B. — D. Pottinger, manager Intercolonial Railway, desires tenders by Monday, toth inst., for erection of a station building, freight shed and out-buildings at Mitchell, Que., and a station building and freight shed at Aulac, N.B.

OCHRE RIVER, MAN. — Tenders will be received by Thomas S. Curtis, Secretary-Treasurer of the municipality, up to Monday, 8th inst., for the supply of one dozen slush scrapers, two wheel scrapers, two steel reversible road scrapers and one elevator grader.

ST. JOHN, N.B.—A committee of the City Council has unanimously recommended the adoption of the report of Mr. Barbour, of Boston, on the extension of the waterworks system. The proposal is to extend the service to Loch Lomond, at a cost of \$168,000.

VICTORIA, B.C.--R. Marpole, superintendent of the Canadian Pacific Railway, Vancouver, has just taken tenders for the construction of a warehouse on the company's wharf in this city.--S. Mc-Clure, architect, has prepared plans and taken tenders for a frame residence to be built on Belcher street.

ST. CATHARINES, ONT. - L. K-Jones, Secretary Department of Railways and Canals, will receive tenders up to 10th inst. for the substructure of a new bridge crossing the Welland canal at Niagara street, this city, Plans at the office of the Superintending Engineer.

ARCOLA, N.W.T. — J. J. Murison, Secretary-Treasurer, will receive tenders up to October 10 for building a town hall, 40×60 feet, solid brick, two stories, containing council chamber, fire engine room and stalls, lock-up and public ball. Plans by W. A. Elliott, architect, of Brandon.

LONDON, ONT.—It is again reported that the Grand Trunk Railway contemplate the erection of a new station in this city.—A. O. Graydon, City Engineer, has just taken tenders on the construction of sewers on Colborne and Nelson streets and Queen's ave.—Matthews & Murray, architects, are preparing plans for an addition to a store on Dundas street for Geo. McCormick. NEWCASTLE, N. B. — The new building here for the Royal Bank of Canada will be commenced immediately and will be two stories, brick with stone trimmings.—The Council have been requested to increase the waterworks re-ervoir to 20,000 gallons by January 1st, 1905, in which case a reduction in insurance rates is promised.

SYDNEY, N.S.—William Owen, an expert engineer of London, Eng., is here in connection with the preparation of plans for extensive additions and improvements to the Dominion Iron & Steel Co.'s plant. It-is understood that the new additions will comprise rail and finishing mills and a new dam for the water supply at Sydney river.

SEAFORTH, ONT.—The Canadian Furniture Manufacturers, Limited, coatemplate the erection of a factory here for the manufacture of interior fittings, mantles, etc., to be brick, three stories, fox 150 feet.—George A. Sills will receive terders up to Friday, 7th inst., for erection of a skating and curling rink, frame on cement foundation.

INDIAN HEAD, N.W.T. — John Galt, C. E., of Toronto, has reported to the Council that the SquirrelH 11's spring, 8 miles west of the town, will furnish a daily supply of 150,000 gallons of water when properly developed. The cost, including an electric lighting plant, is placed at \$87,000.—The E.S. Harrison Co., of Winnipeg, are exploiting a scheme for establishing an electric plant for this place, and public sentiment appears in favor of accepting their proposition.

NIAGARA FALLS, ONT. — New tenders will be invited for Section 14 of the sewerage system.—A committee has been appointed to take steps looking to the erection of a hospital, H. E. Simpson being secretary. It is estimated that a suitable building can be erected and equipped for \$25,000.—F. McClive will erect a new building on Queen street.— John V. Eitle has sold his house on Walaut street and will build another.— John Xrnstrong is about to build two houses, one on Bridge street, the other on Victoria avenue, and Harry Symmes intends building a house.

intends building a house. HAMILTON, ONT. — An order-incouncil bas been passed at Ottawa approving of the purchase of certain properties to permit of the extension of the drill hall in this city.—Building permits have been granted as follows: Thomas Lovejoy, four brick houses, corner Wentworth and Cannon streets, cost \$6,400; William Johnson, four frame cottages, corner Hughson and Macauley streets, cost \$1,600; W. A. Noble & Co., three houses, corner Hannah and Caroline streets, cost \$4,500; John Shuart, brick house on Queen street, between Markland street and Aberdeen avenue, cost \$2,000, and another of same value on Stanley avenue, between Kent and Queen streets.—The Gurney-Tilden Co. purpose building an addition to their works

VANCOUVER. B. C.—The British Columbia Electric Railway Company, who have absorbed the Vancouver Gas Company, purpose making a large addition to the office buildings at the corner of Carrall and Hastings streets, work on which will be commenced early next spring. An extension of the gas plant is also proposed.—It is probable that the Council will construct vitrified brick pavements on some of the streets.—The Capilano Lumber Co. have decided to rebuild their saw mill burned last week. A large flume will also be constructed for floating the logs from the limits to the mill.—Harvey H idden, an Englishman, has purchased a lot on the north side of Hastings street, between Abbott and Cambridge street, on which he will erect October 5, 190



a modern two-s Tenders wil be construction of a

MONTREAI mond Pulp Co., city, are repor plans for the ere mills at St. Ra committee of the was held last we tion of a new b corner of St. La street is conside —The Protestan missioners will the erection of a Mount Royal The wing to t comprise from while a smaller the Lansdownt posed to buils i Catherine stree

OTTAWA,

M.P.P., H. K. ganizing the B Co. It is prop this city in wh notes .- An ass the Ottawa Lo ium Associatio a few days age erect a free ho connection wit near Gravenh offered 'o prep 'he building, v about \$3,500. to construct a Daly ave., fro at a cost of walks on a understood th is taking tend system to be Montreal.-T the Departme up to Tuesday leak through Jalops cana Iroquois sec Department Superintende burg, Ont.-Board of V Wednesday ion of a bitul street, betwe streets, and stone setts Nicholas str Wilbrod stre

October 5, 1904

October 5, 1904

t new ink of diately stone een rei re-er-'y Ist, insur-

ven, an is here tion of id im-& Steel iat the il and for the

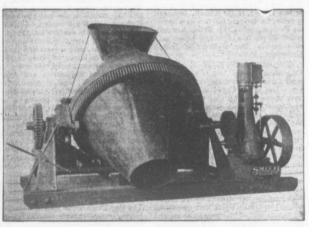
inadian d, cony here fittings, stories, will renst., for g rink,

- John spring, irnish a of water ost, in s placed Co., of eme for for this ears in n. - New a 14 of ttee has sking to 7. Simp ated that ted and live will street.louse on other.uild two he other Symmes

order-in-Ottawa f certain nsion of follows : ises, coreets, cost frame ar frame Macauley le & Co., nd Caron Shuart, between avenue. me value Kent and to their

British Company, uver Gas he corner , work or early next as plant is that the ied brick -The tets. decided to last week tructed for its to the nglishman, rth side of bbott e will erect

CANADIAN CONTRACT RECORD



SMITH CONCRETE MIXER

The cut shows our No. 5 Smith Mixer on skids with engine connected-dumping position--This is the popular outfit with contractors mixing concrete in large quantities — Capacity 300 yards per day.

We furnish mixers in sizes and styles to suit all classes of concrete work.

W.H.C. MUSSEN & CO. MONTREAL, QUE.

a modern two-storey brick building.-Tenders wil be invited at once for the construction of a septic tank.

construction of a septic tank. MONTREAL, QUE.—The St. Raymond Pulp Co., with bea' offices in this city, are reported to have completed plans for the erection of pulp and paper mills at St. Raymond, Que.—A special committee of the Chambre de Commerce was held last week to consider the erection of a new building. The south-west corner of St. Lambert hill and St. James street is considered the most suitable site. —The Protes: ant Board of School Commissioners will commence immediately the erection of additions to the Aberdeen, Mount Royal and Lansdowne schools. The wing to the first two schools will comprise from eight to twelve rooms, while a smaller addition will be made to the Lansdowne school. It is also proposed to buil 1 a new Senior school on St. Catherine street.

OTTAWA, ONT. – Denis Murphy, M.P.P., H. K. Egan and others are organizing the Bruish Canadian Bank Note Co. It is proposed to erect a building in this city in which to manufacture bank notes. – An association to be known as the Ottawa Local of the National Sanitarium Association, was formed in this city a few days age, the object of which is to erect a free hospital for consumptives in connerton with the Muskoka Sanitarium near Gravenhuist. J. W. H. Watts has offered to prepare the necessary plans for the building, which is expected to cost about \$5,500. – The City Council intends to construct a tar macradam payement on Day ave., from King to Nicholson street, at a cost of \$8,308, and concrete sidewalks on a number of streets. – It is understood that the Postmaster General is taking tenders for the pneumatic tube yop the Department of Rai ways and Canals up to Tuesday, 11th inst., for stopping leak through the south bank of the froquois section. Plans at the above Department and at the office of the Supernitendent of Operation, Morrisburg, Ont. – James Davidson, Chairman Board of Works, de ires tenders by Wednesday, October 12th, for construction of a biulithic payement on C'Connor street, between Wellington and Queen streets in the track allowance on Nicholas street, between Rideau and Wilbrod streets. **Portland Cements**

Highest Grade Ganadian, German, English and Belgian DRAIN PIPES and Connections of all kinds. PAVING BRICKS, ENAMELLED BRICKS, FIRE BRICKS, FIRE CLAY, Etc., Etc. 4

F. HYDE & CO., 31 Wellington Street - MONTREAL STEEL MOULDS Latest muroved Making 4' to .6"

> CONCRETE TILE All kinds of ROAD MAKING MACHINERY and CONTRACTORS' SUPPLIES.

SAWYER & MASSEY CO., Limited Hamilton, Canada.

Portland Cement... HIGH GRADE GERMAN BRANDS FOR GRANOLITHIC AND ARTIFICIAL STONE SIDEWALKS.

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



ALEXANDER SUTHERLAND, D.D., President, H. N. BATE W. S. DINNICK, Vice-Presidents.

Moulds and the Tile they make.

A. G. C. DINNICK, Managing Director A M. WICKENS, Chief Engineer

1904

WINNIPEG, MAN.-J. J. Rby, of the Department of Public Works, Ottawa, was here last week looking over the route of the canal which it is proposed to construct between the Assiniboine river and lake Mantoba. The canal will be 15 miles long.-It is understood that the Canadian Pacific Railway Company are considering a scheme for improving the grade over the Selkirk mountains at Rogers Pass. The plan is to construct a tunnel about three miles in length through the mountain between Glacier and Bear Creek.-The Department of Public Works, Ottawa, are asking for tenders by Friday, 14th inst., for the construction of a magazine in this city. Plans on application to James Chisholm, architect., John Woodman, architect, has been commissioned to prepare plans for a commercial building to be tuilt on the south-east corner of Portage ave. and Donald street, 132 x30 feet, six stories.-James Chisholm, architect, is this week taking tenders on a residence on Colony street for F. Jakeway.-A. & W. Melville, architects, have just taken tenders on additions and alterations to the Bethel Methodist church, Alexandria avenue.-C. J. Brown, City Clerk, desires tenders by Monday, October 10, for the supply of 686 tons of water pipe of different sizes.-Tenders are invited for alterations to the Central fire hall. Plans by A. & W. Melville, architects.-S. F. & W. A. Peters, architects, have in hand a stone and brick warehouse to be built on Market street east for Pilkington Bros.-The Board of Young church have unanimousily decided to double the seating capacity of the church at once. - It is understood that Darling, Pearson & Over, architects, have completed the plans for new post office to be built in this city. The foundation will be put in this fall.—J. H. G. Russell, architect, is calling for tenders for two new stores on Portage ave.—C. O. Kelley has postponed the erection of his new house until next spring. The architect is Joseph Greenfield.

TORONTO, ONT.—A. E. Rae & Co., manufacturers and importers, will erect a five-storey building at 07 Spadina ave.—The Royal Canadian Yacht Club have applied to the City Council for a new lease of certain water lots for the. purpose of rebuilding their club house.—Mr. Cawthra Mulock has offered to donate the sum of \$too,ooo to build and equip a separate building for an outpatient department at the General Hosputal. The offer has been accepted by the Board of Trustees and the preliminary matters pertaining to the erection of the building will likely be considered at an early date.—The Board of Control are taking tenders up to noon to-day (Wednesday) for certain piling and concreting for foundations of buildings to be erected south of Lake street.—Information has been accepted and that tenders will be called for in a few days.—The Fire and Light Committee last week for warded to the Board of Control a detailed statement of the proposed fire protection expenditures. The items are a follows: Fire boat, \$50,000; three 750 steam fire engines for high level district, \$16,500; central office for fire alarm telegraph system, \$35,000; renewing and chunging present alarm boxes to succession boxes,

We Stock EVERYTHING

THAT A CONTRACTOR REQUIRES

AT RIGHT PRICES

Wheel and Drag Scrapers, Wells Lights,

Concrete Mixers, Wheelbarrows, Shovels, Picks, Mattocks, Lorries, Trucks, Push

Cars, Crowbars, Light and Heavy Rails, Jack Screws and Derrick Fittings.

> ALSO Wire Ropes for All Purposes.

Blocks, Thimbles, Etc., Etc.

Successors Late James Cooper NEW IMPERIAL BANK BLDC., MONTREAL

HOPKINS &

October 5, 1904

\$ro,000 ; site and building station on Weilington street, \$100,000 ; site and builting statuon in the neighborhood of Bathurst and Bioor streets, \$25,000 ; addition to Rose ave fire hall, \$10,000 ; cost of mains, valves, hydrants and comnections, \$261,000 ; engines and pumps, \$145,000 ; building, including foundations and suction supply, \$60,000 ; gas nain, \$5,000 ; engineering and contingencies, \$5,000 ; engineering and contingencies, \$5,000 ; total, \$77,4,000, --John Poucher, 44 Yonge Street Arcade, desires tenders for plumbing, plastering and painting of house. --J. Davis, 77 Adelaide street east, wains tenders for plumbing and heating of a ten-roomed house.-The Robert Simpson Co have purchased the Knox church property on Queen street, just west of Yonge, which they will utuize for the extension of their departmental store. The congregation will retain possession of the church until 1908, and in the meantime a site will be acquired in a more northery part of the city and a new edifice built thereon.-The Cty Engineer, in his 1st fortinghtly report, recommends the construction of a 12 inch water main on Spadina ave, from Front to College streets, at a cost of \$13,008, also the following cement concrete sidewalks : Lisyar street, from Queen to Argyle : West Market street, from King to a point 76 feet 8 inches south; Walmer road, from a point 25 feet north of Bernard ave. to Dupont street ; Brunswick ave., from Ulster to Bloor ; Baldwin street, from Spadina ave. to Augusta ave.; Birton ave., The Huiltin Department at Otiawa have approved of the plans for new birracks to be built in this city, to cost \$250,000.-Mr. Finney, 20 Victoria street, wants

NELLS LIGHT 'S

PORTABLE SELF CONTAINED EASILY CLEARED

NO SPARY

Tools

October 5, 1904

tenders for all tra for two houses.—T will receive tenders the construction of and purlins over the the main waterwoi Plans at the office c The following bi

been granted : two and a half ing, 24 McPh. \$3,000 ; Very Re storey brick boiler near St. Mary, cos pair two-storey bri 68 Dewson street, Johnston, two-stor vaniged and corrug

Esplanade, near \$6,000 ; Trustees sion, one-storey sto 381 and 383 Yong Northrop, Lyman brick warehouse Richmond street Jessop & Sons, fiv stone warehouse, \$23,000; W. Litti roughcast dwellin Boultbee street, Pinel, 21 storey b foundation, east s Harbord street, cc pair 21/2 storey bri ley street, cost \$3 one-storey brick Bellwoods ave., cost \$3,200 ; Can storey brick and street west, near Mrs. Annie Gre stone and brick d ave., cost \$2,500 two-storey brick Providence, sto stor street, near Queen Hutchison, 21/2 s Crescent road, co Co., two-storey I Niagara street, \$1,800; Gale Ma storey brick wa outhwest corner lington street, co ter, two pair two dwellings, Have bourne, cost \$7, storey brick and dale road, near W. O. McTagga roughcast dwellin urt road, nea \$6,000, also pa dwellings, brick i near Hallam sti

near Hallam sti Einor, two-store Euclid ave., cos pair 1½ store Melville ave., ni 33,000 : Merris ing, brick basem JOHNS Mem Soc

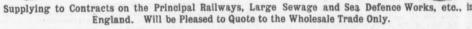
CONSULT Dams, Mills, Room Al Ni

Room 41. Ns 20 King Street Teleph

J. A. L. WADDELI Mem. Can Soc. (Mem. Iust C E. Mem. Am. Soc. (Wadde

in GONSULTING KANS Canadian Head Off Manning Cha

Montreal Office



PORTLAND CEMENT, HYDRAULIC LIME, CHINA CLAY

E. FREEMAN, 20 Bucklersbury, LONDON, ENG. Sole Agent for U.K. and Colonies for Oldest Continental

Works

CORRESPONDENCE INVITED FOR CONTROL OF BRANDS

October 5, 1904

ion or and hood of 5.000 10,000 nd con pumps, founda gas contin--Iohn desires and delaide lumbing house. irchased Oueen ich they heir detion will ntil 1908, 1 be 30 t of the lereon.itnightly ve., from cost of ent con-et, from street, 8 inches 201nt 250 Dupont Ulster to Spadina ve., from The

have ap-

irracks to 50,000.et, wants

ICHT 's

etc., in

eriz.

1904

tenders for all trades except plumbing for two houses.-The Board of Control will receive tenders up to October 11th for the construction of steel root principals and purlins over the new engine house at the main waterworks pumping static Plans at the office of the City Engineer. station The following building permits have been granted : Wm. H. Thomson, two and a half storey brick dwell-ing, 24 McPherson avenue, cost \$3,000 ; Very Rev. V. Marjon, onetwo and a half storey brick dwell-ing, 24 McPherson avenue, cost \$3,000; Very Rev. V. Marijon, one-storey brick boiler house, Chapel street, near St. Mary, cost \$4,000; H. Hutson, pair two-storey brick dwellings, 66 and 68 Dewson street, cost \$5,000; H. B. Johnston, two-storey frame and gal-vanized and corrugated iron factory. Don Esplanade, near Cornwal street, cost \$6,000; Trustees of Yonge street Mis-sion, one-storey stone and brick mession. \$6,000; Trustees of Yonge street Mis-sion, one-storey stone and brick mission, 381 and 383 Yonge street, cost \$12,000; Northrop, Lyman & Co., three-storey brick warehouse and office, 86 and 88 Richmond street west, cost \$15,000; Jessop & Sons, five-storey brick and cut stone warehouse, 80 Bay street, cost \$2,000 ; W. Littleford, pair two-storey roughcast dwellings, Jones ave., near Boultbee street, cost \$1,650 ; Arthur Pinel, 2½ storey brick dwelling, cement foundation, east side Euclid ave., near Marbord street, cost \$2,300 : W. Downs. Finel, 25 storey brick dwelling, cement foundation, east side Euclid ave., near Harbord street, cost \$2,300; W. Downs, pair 2½ storey brick dwellings, 46 Hux-ley street, cost \$3,500; John H. Vivian, one-storey brick warehouse, east side Bellwoods ave., near Robinson street, cost \$3,200; Canadian Kodak Co., four-storey brick and stone factory, King street west, near Porland, cost \$40,000; Mrs. Annie Greenshields, 1½ storey stone and brick dwelling, 49 Lansdowne ave., cost \$2,500; Sisters of St. Joreph, two-storey brick addition to House of Providence, stone foundation, Power street, near Queen, cost \$3,000; W. H. Hutchison, 2½ storey brick dwelling, 63 Grescent road, cost \$40,000; Elias Rogers Co., two-storey brick and wood stable, Niagara street, near Bathurst, cost \$1,800; Gale Manufacturing Co., three-tioner brick machanes and forthere Niagara street, near Bathurst \$1,800; Gale Manufacturing Co., storey brick warehouse and f threesouthwest corner Spadina ave. and Wel-lington street, cost \$30,000; J. V. Hun-ter, two pair two-storey brick and stone ter, two pair two-storey brick and stone dwellings, Havelock street, near Hep-bourne, cost \$7,000 ; C. B. Miles, 2½ storey brick and stone dwelling, Rose-dale road, near Crescent, cost \$7,000 ; W. O. McTaggart, two pair two-storey roughcast dwellings, brick fronts, Dover-court road, near Shanley street, cost \$6,000, also pair two-storey roughcast dwellings, brick fronts, Dovercourt road, near Hallam street. cost \$1,000 ; H. near Hallam street, cost \$3,000 ; Elnor, two-storey brick dwelling, H Elnor, two-storey brick dwellir Euclid ave., cost \$1,200; Chas. Joliffe. pair 11/2 storey roughcast dwellings, Melville ave., near Christie street, cost

\$3,000 ; Merris Read, two-storey dwell-

CONSULTING ENGINEER.

Room 41. National Trust Building, 20 King Street East, TORONTO, ONT. Telephone Main 3488.

Waddell & Hedrick

KANSAS CITY, MO.

Montreal Office : 185 St. ames Street.

ng, brick basement, Lee ave., near

CANADIAN CONTRACT RECORD

let street, cost \$1,100 ; Alfred Defries, two-storey and attic frame dwelling, brick foundation, Waverley road, near Oueen street, cost \$2,000.

CONTRACTS AWARDED.

MICHEL, B. C. -- Construction of ck-up : White & Comteis, contractors. - Construction of lock-up : DOAKTOWN, N.B. — Erection of Orange hall : J. E. Doak, contractor.

AFWOOD, ONT.-\$10,383 township debentures : W. C. Brent, Toronto, purchaser.

CHATHAM, ONT.-Warehouse for George Stephens & Co. : Scott Bros., contractors.

ST. BONIFACE, MAN .- New hotel r E. & V. Coutere : J. E. Cusson, this place, contractor.

NELSON, B.C.-Brick block for J. L. Stocks : John Burns, contractor, cost about \$5,500.

BRANDON, MAN .- New pumping station : Brick work, Chambers & Co. carpenter work, C. W. Hall.

FREDERICTON, N.B —Residence on University ave. for R. W. McLennan : Harry M. Clarke, contractor.

ORILLIA, ONT .- Cement abutments for steel bridge at Bennett's : J. O. Coates, this town, contractor, price over \$3,000.

BERLIN, ONT.-The Dominion Securities Corporation, Toronto, have pu chased \$7,000 High school debentures. have pur-

WARWICK, ONT. - Superstructure of steel bridge over Brown's creek : Hamilton Bridge Co., successful tenderers, \$980

MONTREAL, QUE.—New Catholic church in St. Cunegorde : Louis Payette, contractor. The building will cost about \$138.000.

VICTORIA, B.C.—Two storey bunga-won Rockland ave. for Alexis Martin : on Rockland ave. for Alexis McClure, architect ; Ash & Gleeson, contractor

OWEN SOUND, ONT.—Building a dock on east side of harbor : Tender of Green & McKinnon, \$1,850, recommended for acceptance.

PICTON, ONT .- Supply of 500 to 8,000 barrels of Portland cement for cor-poration work : National Portland Cement Co., Durham, Ont., successful tenderers

NIAGARA FALLS, ONT. - The City Council have finally awarded contracts for sewer construction as fo lows : Sections 11 and 12, Barry & McMordie ; section 13, Peter Lorenzo, \$11,012. BROCKVILLE, ONT.-The James

Smart Manufacturing Co., this city, have secured contracts for heating and ventilating public schools at Beeton and Dutton, Ont., with their Kelsey generators.

TORONTO, ONT.—The DeLano-Osborne Engineering Co., this city, have received the contract for the inspection work on a new bridge to be erected by the New Brunswick Southern Railway and for several bridges across the Welland for canal.

NORTH VANCOUVER, B.C.--The contract for supplying and laying water-works pipe has been awarded to J. C. Gra-ham, of this place. The tender is for the main pipe only and does not include the distributing pipe. Length of main, 51/4 miles. Wired wooden pipe will be used,

HUNTSVILLE, ONT .- Tenders for heating new school were received as fol-lows : Toronto Furnace & Crematory Co., S2,971; Keith & Fitzsimmons, Toronto, \$2,375; Harrison & Robinson, Toronto, \$2,200: Purdy, Mansell & Co., Toronto, \$2,200; Purdy, Mansell & Co., Toronto, \$2,153; White Bros., Huntsville, \$2,255 pted) (acce

VANCOUVER, B.C.-The Britannia Mines Company have awarded the Cana-dian Westinghouse Company, Hamilton, the contract to supply the electrical plant and wire cables for the tramway to be

SAND

Why use sand containing earth and loam when you can get clear Water Washed Sand and Gravel at the same price? Why add poor sand to good cement lime and stone? It costs as much as the best and is 50 per cent. poorer.

SAND & DREDGING. Limited John Street Dock, TORONTO Tel. M. 4507

PALMERSTON BOULEVARDE, AVENUE ROAD AND WALKER AVENUE, TORONTO, are now being paved with the Bitulithic pavement Petitions have been presented from Woodlaw Avenue, Bleecker, Gerrard and other streets for this pavement. Investigate it befor deciding on other kinds. Estimates furnished by The Warren Bituminous Paving Co., Limited Head Office: 164 Bay Street, TORONTO.



Andian Head Office : Manning Chambers, TORONTO, ONT. E. F. Dartnell, Adent, Montreal

5

built at the mine. The Hinton Electrical Company, of this city, will install the plant and build the transmission line.

6

FORT WILLIAM, ONT. - The Ogilvie Flour Mills Co. have given a con-Oglive Flour Mills Co. have given a con-tract to the Nordyke, Marmon Co., of Indianapolis, for the machinery of a 3,000 barrel flour mill to be built at this place, and the erection of the building proper will be commenced at once, unproper will be commenced at once, un-der the direction of Mr. Chalfant. Build-ing will be 50 \times 100 feet, five stories, with power house 50 \times 75 feet and store house 85 feet square and three stories high, of cement, stone and brick, with pile foundations.

WINNIPEG, MAN. - Addition to Mrs. Gallagher's residence on Ross ave.: Mrs. Ganagner's residence on Koss ave.; J. Chisholm, architect ; Maurier Bros., contractors ; cost \$8,000. — Franklin Press building : Architect, J. H. G. Russell; masonry, Davidson Bros.; cat-pentry, B. W. Latimer; cost about \$7,000. - Addition to Ames Holden block, corner Princess and McDermott streets : Mas-onry, S. Brown; carpenter work, J. J. Vopin; cost about \$17,000. - Darling, Pearson & Over, architects for the new Pearson & Over, architects for the new block to be built by the Alaska Feather & Down Co., corner Princess and Logan aves., have let the contract for the exca-vating and foundation. The building will cost about \$30,000.

HAMILTON, ONT .- The Canadian Otis Elevator Company, of this city, have been awarded the following contracts for Oth Elevator Company, of this City, have been awarded the following contracts for elevators : International Stock Food Co., Toronto ; Anderson Furniture Co., New-castle, N.B. ; Calgary Brewing and Malt-ing Co., Calgary, N.W.T. ; Joseph E. Seagram, Waterloo, Ont.; A. C. McCrea., Winnipeg ; Laurentide Paper Co., Grand Mere, Que. ; Rodger Hardware Co., Charlotteown, P.E. I.; National Trust Co., Toronto; Masonic Temple, London, Ont.; Warwick Bros. & Rutter, Toronto; St. Boniface Hospital, S. Boniface, Man.; School of Science, Toronto ; Collingwood Meat Co., Collingwood, Oat.; Gutta Percha & Rubber Co., Toronto; Newlound-land Clothing Co., St. Johns, Nid.

Rudd & Smith, painters, Winnipeg, have dissolved, M. H. Smith continuing.

Speight & Van Nostrand

LAND SURVEYORS, ETC. Room 405 Temple Building, TORONTO, CAN. Field Notes of the late F. F. Passmore.

Notice to Gontractors.

The Niagara Falls Machine & Foundry Co., Limited, Niagara Falls, Ont.,

are making a specialty of improved

HOISTING AND BUILDING ENCINES. Write for Prices.

Cablegrams : Glenyards, Bonnybridge.

OR & M°INTYRE, MCGR 67 to 91 Pearl Street, Toronto. Ont. STRUCTURAL IRON WORKS Fire Escapes, Library Backs, Sidewalk Door, Jail Cells, 1ron rs. Railings, Etc., Etc. Stairs. SOLE AGENTS FOR DUPLEX HANGERS WRITE FOR ESTIMATES.

INDEX TO ADVERTISEMENTS In the "Canadian Architect and Builder."

Architects. Ontario Directory ... III Quebec Directory ... III

CANADIAN CONTRACT RECORD

Architectural Sculptors. Holbrook & Molling-ton i

Architectural Iron Work.

Work. Canada Foundry Co xi D n nior Bridge Co. I Locomotive & Ma-chine Co ii

Blue Print Paper. Hughes Owens Co. IV

Burlaps Richter Mfg. Co... IV

Bridges Canadian Bridge Co ix Dominion Bridge Co. I

Builders' Supplies.

Building Stone Dealers.

Builders' Hard-

Res Lewis & Son Wokes HardwareCo.is

Bricks

Contractors.

Toronto Contracting & Paving Co. III

Contractors' Plant and Machinery Rice Lewis & Son IV Cements.

Owen Sound Portland Cement Co...... III The Rathon Co iii Hanover CementCovii

Oreosote Stains Cibot, Samuel. . . i

Drawing Instru-ments Thornton, A G

D-awing Inks Wagner,Gunther.... xiv Elevators

Fensom, John 1 Otis Elevato Co..... I Parkin Elevator Co. I Turnbull & Russell Cevii

Engravers. Alexander Eng raving Co

Folding Partitions. Springer, O. T..... 11

Granste Brunet, Jos vi

Hardwood F.oor-

Seaman, Kent & Co.... 1 Heating.

Clare Bros...... vii James Smart Co... IV Sheldon & Sheldon II Warden King & Son 44

ii Interior Decoration

Elliott & Son Co.....vill Lime. O stario Lime Associa-

Robertson & Co.... vi Legal.

Ouinn & Morrison ... II Laundry Machin'y

Troy Laundry Ma-ch nery Co..... vH

Mail Chutes. Ti e Cutler Mfg. Co 4 Mantels, Grates, and Illes. Holbrock & Mollington i O'Keefe Mantel & Tile Co..... iz Rice Lewis & Son....lV Samson Cordage Works. Stained and Decor a tive Glass Mouldings. Decorators' Supp y Co..... iii téve Glass Crown Art Stained Marwood & Sons, H. v Mackwood & Sons, H. v Mackwood & Sons, H. v Mackwood & Sons Constitution of Class Glass Works and v Stained Glass Co... v

October 5, 1904

Sash Cord.

Sanitary Supplies James Morrison Brass Mfg. Co xiii

Shingles and Siding

Metallic RoofingCo.15 (Densby & Co., A B. I Pedlar People.....xiii Roofers Supply Co... II

Tubing and Fittings

Richmondt Conduit Co..... 150

Tiles.

Albert Mfg. Co.,

Wall Plaster

Wire Lathing

The B. Greening Wire Company..... xvi

Window Cord.

Samson Cordage Works....

Mortar Colors and Shingle Stains. Cabot, Samuel

Marbie, Canada Coral Marble Coiv Ornamental Iron Work, Canada Fouidry Co, xi Dennis Wire&IronCovili **Ornamental** Plaster

Hynes, W J..... IV Fredk Walton..... Painters. Montreal Directory...xvi Toronto Directory... xvi

Prisms. Toronto Plate Glass Soil Pipe. Toronto Foundry Co. II Sheathing and Deafening Material, Cabot, Samuei Paints & Varnishes

Berry Bros xii Parquetry Floors Elliott & Son Co..... vi

Plate Glass

oronto Plate Glass Importing Co... vii Plumbers

Montreal Directory ... xvi Toronto F irectory ... xvi Roofers

Roofers Duthie & Sons, G... xvi Douglas B cs..... xvi Forbes Roofing Co... xvi Nicholson & C ., D xvi Rennie & S.n. Robt xvi Ormaby & Co., A. B. 1 Ringham. George... xvi Stewart & Cr., W.T. xvi Williams & Co., H. xvi

Rubber Tiling. utta Percha Rubber Co.....iii G

Rubber Mats. Dunlop Tite C ix

Reflectors

Frink, I. P..... xvi Roofing Material Metallic RoofingCo.151 Ormsby Limited, A B 1 Pedlar People ... xiil Roofers Supply Co... 11

Waterproofing for Brickwork Cabot, Samuel......

Fire Clay Products CLENYARDS FIRE CLAY THE

BONNYBRIDGE, SCOTLAND.

Codes used, A.B.C. and Glenyards.

Manufacturers of all kinds of Fire Clay Goods, Ganister and Silica Goods, for Iron and Steel Works and Gas Works, including Boiler Seating Blocks and Covers of all sizes. Ground Fire Clay, Ganister and Silica in all kinds

Arch 60)



Pat

JOS.1 TUNN Works : 1 Roofs, ARTIF

Octob

The Han

SAUG

Pi Granite s to any Bui Quar

м

PUR

WALTE



S





T

Mun Corr

Engi Mine

Raily Build







TEN INCH TURBINE DagDGING PUMP. With removable chrome-steel lining and manganesse-steel impeller. Used for h udling phosphate rock and for dredging purposes. Capacity 2,500 gallons per minute against 50 feet head Steam Boilers and Filters Builders in Canada for Worthington Turbine Pumps.

THE JOHN MCDOUGALL CALEDONIAN IRON WORKS CO., LIMITED Montreal, Que.

10

Haskell Lumber Company, Limited, Monte Bello, Que., incorporated, capital \$400,000, to manufacture and deal in lumber. Promoters, W. Haskell, Ulysses, Pa.; Charles Adsit, Hornesville, N. Y.; George H. Cobb, Ulysses, Pa.; George W. Thayer, Rochester, and others.

W. Thayer, Rochester, and others. Chatham Palp & Paper Company, Limited, Lachute Mills, Que., incorporated, capital \$200,000, to manufaciure pulp and paper and carry on a general lumbering business. Promoters, T. H. Ayers, John T. Ayers, W. H. Ayers, E. F. Ayers and J. T. Griffith, all of Lachute Mills, Que.

Northern Construction Company, Limited, Toronto, incorporated, capital \$200,000, Directors. A. R. Mann, A. C. McKenzie, W. H. Moore, Fred Annesley and Albert Mitchell.

Hamilton Biscuit & Confectionery Compaoy, Hamilton, incorporated, capital \$100,000. Directors, W. H. Schneider, T. W. Hand, W. H. M. Williams and R. A. Ptolemy.

Canada Coating Mills, Limited, Toronto,

THE CANADIAN INSPECTION COMPANY, LIMITED

Main Office and Laboratories : 46 St. James Street, MONTREAL

SPECIALTIES: Inspection of RAILS and all material for BRIDGES, BUILDINGS, and other structures, cask from pipe, wood and steel railroad cars. MANUPACTURE AND ERECTION.

Expert examination and reports, chemical analyses and physical tests of all kinds. Cement Testing.

FIREMEN'S LADDERS

We make the lightest, quickest, strongest and cheapest. Every Town and Village needs them and can aflord them. They will save 50 times their price in insurance premiums. Write for circulars and quotations.

THE WAGGONER LADDER CO., Limited

incorporated, capital \$100,000, to manufacture coated and other paper. Directors, John R. Barber, Georgetown; Edward Trout, John Waldie, Robert Kilgour, Toronto; Charles Schumacher, Kalamazoo, Mich.

Ham & Nott Company, Limited, Brantford, Ont., in orporated, capital \$100,000, to manufacture and deal in washing machines, retrigerators, etc. Directors, John T. Ham, J. H. Ham and T. L. Lyle, of Brantford.

Lyle, of Brantford. A. J. Young, Limited, North Bay, Ont., incorporated, capital \$100,000, to conduct the business of whole-ale and retail dealers in hardware, lumbermen's supplies, groceries, etc. Directors, A. J. Young, Cache Bay; J. W. Hennessy, Fort Coulonge, Que.; George Gordon, Sturgeon Falls; R. W. Gordon, Robert Booth, Archie Foster, Pembroke.

Hurndell Novelty Furniture Company, Limited, Toronto, incorporated, capital \$40,000, to deal in lumher, woodenware, etc. Directors, J. P. MacGregor, J. A. Ritchie, C. W. Kerr.

Nipissing Foundry & Machine Company, North Bay, Ont., incorporated, capital, \$20,000. Directors, Robert Booth, R. W. Gordon, Pembroke; A. J. Young, Cache Bay.

Electric Development & Securities Company, incorporated under the laws of the State of New York, granted a license to carry on a general contracting and constructing business in Onrario, unler the name of the International Electric Supply Company. F. F. Foster, of Toronto, is altorney for the company.

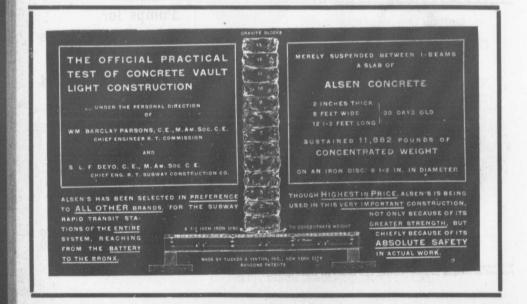
C. B. C. Corset Company, Limited, Toronto, incorporated, capital \$50,000, to manufacture corsets, whitewear, etc. Directors, P. R. Corson, J. T. Cooper, and others.

Ontario Independent Telephone Company, Limited, Windsor, Ont., incorporated, capital \$too,ooo, to construct and operate telephone ines. Directors, C.W. Taylor, J. R. Brooks, J. A. McRae, P. T. Chesley, and A. D. Prosser, all of Detroit, Mich.

Crown Oil Company, Limited. London, Ont., incorporated, capital \$300,000. to manufacture and deal in oil, etc. Directors, D. S. Robb, B. G. Baker, of London, and others.

RTLAND CEMENT SEWER PIPES FIRE BRICKS FIRE CLAY. ALEX. BREMNER





October 5, 1904

Oc

W

NWAT

Ret

R

C

Can

E.

J

R

L,OI

Sy

Ma

an Irc Ch Pt an St Ta

val De H

an tor pli

N

October 5, 1904

CANADIAN CONTRACT RECORD

11

MUNICIPAL ENGINEERS, CONTRACTORS AND MATERIALS



UNICIPA DEPARTMENT

12

THE SCIENCE OF RUAD-MAKING.*

Road-making is a science, a branch of engineering, the difficulties of which are not usually appreciated. It is a common expression that "anyone can make a road." Which merely indicates that the average man knows so little about road construction that he does not realize how much there is to know. If it is true that anyone can make a road, it is also true that anyone can build a house, a bridge or a steamship. "Anyone" can do these things, but in most cases at a great waste of money and labor, and with very inferior results. For centuries in England it was left for anyone to make the roads. It was not until McAdam and Telford appeared, but one century ago, that the people in England became convinced that "any-" could not build a road. This work one was then placed in the hands of expert road-builders and the transformation has been nothing short of wonderful.

In too many townships of Ontario "statute labor" means that once a year the rate-payers gather to make roads under the direction of "anyone." They plow and scrape the mud and pile on a ridge of gravel, after violating every rule * From the Eighth Annual Report of the Com missioner of Highways for Ontario.

and principle laid down by McAdam. After doing everything McAdam told the people of England not to do, the result of this statute labor is called a "macadamized road.

Among the earliest roads of which we have definite information were those built by the Romans, chiefly as military highways, leading east and west to the remote provinces, from which arose the proverb, "All roads lead to Rome." So substantially were these roads built, of layer upon layer of stone and concrete, three and four feet in thickness, that many of them still remain, and are commonly believed by the peasantry of Spain and of other countries of Southern Europe, to be of supernatural origin. These roads were built at an enormous waste of money and labor, and, while of the greatest durability, they lack the first essential of modern construction-a properly balanced union of economy and efficiency.

For several centuries after the downfall of Rome, road-making became a forgotten art. In France during the eighteenth century, under the engineer Tresaugnet, road construction was revived, but on very different principles from those followed by the Romans. The type of road built by the French engineer was that introduced into England by Telford, and consisted of a foundation of large stones, laid on edge and carefully shaped, upon which was placed a coat of finer broken stone. Early in the nineteenth century McAdam advocated and constructed in England a still more economical design, in which the foundation of large stone was omitted, but greater care

Bran

was given to drainage and roadbed. McAdam's system is that most commonly followed to-day, with a number of important alterations consequent upon the introduction of road-making machinery.

In the time of McAdam the best method attainable was to break stone by hand, which was then placed loose on the roadway and left for traffic to consolidate. The progress of consolidation was slow, during which a considerable amount of the stone was forced into and mixed with the earth subsoil, injuring the consistency of the road. Under present methods, by means of a crusher, stone is broken much more cheaply than it could be done by hand.

Stone dust and chips (screenings) are Stone dust and chips (screenings) are created in the process of crushing, which are used to fill the voids, instead of wait-ing for this to be produced by traffic, or allowing the clay or loam from beneath to be forced up among the stones. With a road roller the road metal is made thor-works compact forming a strong water. road roller the road metal is made thor-oughly compact, forming a strong, water-proof covering over a firm subsoil. The result is that more perfect work is done in a few days and at less cost than the methods of McAdam or Telford would accomplish in several months. The main features of present day road-making, which are of recent introduction, are : are of recent introduction, are :

(a) The use of grading machines for forming the earth subgrade and open desins

(b) The thorough drainage of the soil nderlying the road so as to make a strong foundation. (c) The use of a roller to consolidate

(c) The use of a roller to consolidate both the earth foundation and the surface layer of stone or gravel.
(d) Where broken stone is employed, the use of a crusher to prepare the metal, instead of breaking the stone by hand.
(e) The screening of broken stone so as the roll of the screening to the store so as

to grade it, for application to the road in layers according to size.

rtian

Manufactured at BLUE LAKE l Satisfaction. Used exclusively on all work by the City of Brantford and other places



order.



OCI

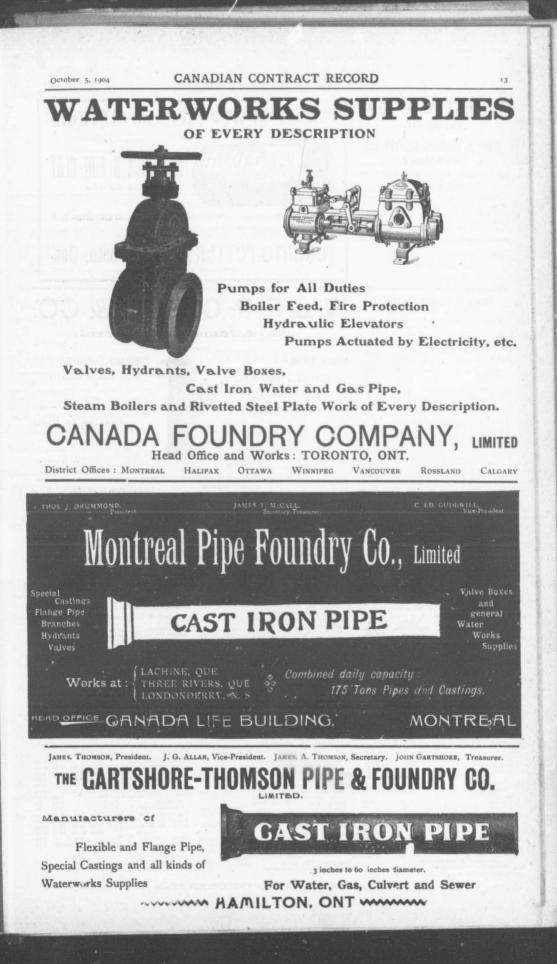
IAM T

Flange

Dist

Mat

Spec Wat



14 CAN	ADIAN CONTRACT R	ECORD October 5, 1904
A. BEATTY & SONS WELLAND, ONT.	LARGEST GLAZED	R PIPE and FITTINGS
Dredges, Citchers, Derricks and		HIGH-GRADE
Steam Shovels		
f various styles and sizes to		FIRE BRICK & FIRE CLAY
suit any work. Submarine Rock Drilling Machinery,	SISTIS P	WHOLESALE ONLY
oisting Engines, Suspension Cableways,		Sewer Pipe Factories at
Horse-Power Hoisters, Gang Stone Saws, Centrifugal Pumps for Water, Sand and Gold Mining, and other Contractors' Plant.		St. Johns, Que., and New Glasgow, N. S. from nearest factory or freight equalized.
	Ask for Dis	scounts and Prices. Address
Please mention the CONTRACT RECORD	I TORONTO POT	TERY GO., Toronto, Ont.
when corresponding with advertisers	Tele	ophone North 1787
Prices of Building Materials.	W&FP	CURRIE & CO.
MILTON PRESSED BRICK AND SEWER PIPE CO. F.O.B. F.O.B	5.3.5.12.12.10.130 <u>660</u>	
P.0.B. P.0.B Milton,0.n. Montreal ed No. z	345 St. Ja	imes St., Montreal
III NO. 1	SEWER PIPES,	PORTLAND CEMENTS.
wn	Culvert Pipes, Etc.	HIGH GRADE ENGLISE
Buff	VENT LININGS.	German
Backing 11 50	front of a start of the set of the set	" " BELGIAN
DON VALLEY PEFSSED BRICK WORKS. s 1, 2 and 3, Red Pressed Bricks	FLUE COVERS,	PLASTER OF PARIS
os 1, a and 2, Red Pressed Bricks	FIRE BRICKS,	
	FIRE CLAY,	Borax,
Descriptions	WHITING.	CHINA CLAY.
ni-Vitrified Foundation Bricks	Toronto. Me	ontroal
ne or Macadamized Roadways E 22	Stanstead geneits naving blocks. Sin. to 12 in. x6 in.	PORTLAND OEMENT
RONTO PRESSED SRICK AND TERRA COTTA WORKS F.O.B. F.O.B. Milton, Ont. Montreal. d No. 1	x456 in. per M Grante curbing stone, 6x win. per lineal fact Buctouche Olive Freestone 85	Brook's Shoobridge Anchor 2 35 2 40 2 00 2 10
¹¹ 2 10 50 16 00 ¹⁴ 3 8 50 14 00		Belgian -
ff No. 1 15 00 20 00 1 3	town, N. B)	"Josson" Brand 2 60 2 70 2 20 2 40
man Red	Cu. Itaresee sees sees sees	60 "White Cross" 2 35 2 50 2 00 2 50 Atlas
Brown	Black Pasture bull stone per cu. R. Site prevener cu. ft. Coursers, 6 to 8 in. f. o. b. St. Mary's, per cord. Pooting, 6 to 10 in. per cubic ft. Dimension Stone, f. o. b. St. Mary's, per cubic foot Orastic (Lavrenius Pitak) Ash.	50 Frammer 180 1 90 65 Fed Cross Brand 195
Back ng	Coursers, 6 to 8 in. f. o. b. St. Mary's. per cord Footing, 6 to 10 in. per cubic ft.	7 co Levie s., "
2.01 per II. run. ofing Tiles, \$20.00 per 1,000, \$23.00 Montrea.	Dimension Stone, f. o. b. St. Mary's, per cubic foot	35 German-
BEAMSVILLE BRICK AND TERRA COTTA CO. F.O.B. F.O.B. Beamsville. Montreal.	Dimension Stock Granite, (Laur-	25 Dyckerhoff 2 05 2 15 2 20 2 40 Karlstadt
d Peerless Facing \$15 00 \$20 50	entian Pink) for building pur- poses, per c. ft., f.o.b. quarries Do., for polishing purposes, up	40 Hercules 2 30 2 30 2 20 2 40
No. 1 13 00 16 50 No. 3 11 00 16 50 No. 3 8 50 14 00 ym Partless Facing 8 00 25 50 No. 1 18 00 25 50 No. 5 18 00 23 50 No. 7 18 00 23 50	to 2 tons weight, per cubic foot F.O.B. 1	70 Canadian
	Dimension stock granite for	50 Ciradel " 170 205
No. 1	building purposes, per cu. ft. Do., for polishing purposes, up to 2 tons weight, per cubic ft. Paving sets, per thousand block	100 Sanson Brand
naa Red (Size 12 X 4 X 1 % in.). 28 co 33 50 	CREDIT VALLEY STONE.	Monarch " 180 190 180 190 Hercules " 200
Brewn " . 34 00 39 50	F.O.B. Qu Rubble, per ton Brown Coursing, up to 10 per	
rined Paving Drick No. 1 18 00 33 50	sup, yard	Crescent 375 Ibs.gross 2 50 240 195 205 85 Diamond 350 2 20 2 30 185 195 70 "Giant" Brautford 1 25 2 00 2 00 2 50
nee Paving Drick No. 1 18 00 23 50 No. 1 18 00 23 50 per	Brown dimension, per cub.	
паса гачир, ряск ию. 1 15 00 23 30 1 No. 1 15 00 23 30 иг	Grey dimension, per cub. ft	30 American
neor Parka, Braco No. 1	Grey course g, per sup, yard Grey dimension, per cub. ft ROMAN STONE, F. O. B. Factor	y. American-
neor Parka, Braco No. 1	Grey course g, per sup, yard Grey dimension, per cub. ft ROMAN STONE, F. O. B. Factor	y. American-
nine of win. proc. 18 co 23 go win. No. 15 co 20 go win. 18 co 18 co 36 go orgentiation FILE BRECK 6 co 18 co obsolve P.O.B. Toronito F.O.B. Toronito Car lois v. Conc. 27 go M. 35 co M. w. Conc. 27 go M. 35 co M. 30 co M. masy.	Grey course g, per sup, yard Grey dimension, per cub. ft ROMAN STONE, F. O. B. Factor	50° American— "Helderberg"
naci Awin. Brite No. 18 co 23 50 fing Tile. No. 15 co 18 co fing Tile. 9 6 18 co 6 co orgon to POTTERY CO. P. O. B. Toronto 6 co 18 co Carlots Less 20 co M. 25 co M. 35 co M. w. Co.	Grey Gurman G, per aub, yard Grey Gimension, per cub, ft ROMAR STONE, F. O. B. Factor Sila tooled scatted and throated 35c. per lineal foot. Hollow Block, Is-inch wall, per superficial foot Window Heads and Ashlar, per superficial foot, 4-inch bed String Courses, Molded and	50° American
naci Awin. Brite No. 18 co 23 50 fing Tile. No. 15 co 18 co fing Tile. 9 6 18 co 6 co orgon to POTTERY CO. P. O. B. Toronto 6 co 18 co Carlots Less 20 co M. 25 co M. 35 co M. w. Co.	Grey course g, per aut, yard Grey dimension, per cub, ft ROMAR STONE, P. O. B. Factor Sila tooled scatted and throated 35c. per lineal foot. Hollow Block, Is-inch wall, per superficial foot Window Heads and Ashlar, per superficial foot, 4-inch bed String Courses, Molded and String Courses, Molded and String Courses, Molded and Chimaey Caps. 5a to	50° American— 1 50° 1 50° 1 95 Atherican— 175° 1 80° 1 95 1 95 Athen Brand 1 75° 1 80° 1 95 1 95 Athen Brand 2 50° 2 00° 2 85° 2 50° 40 Lenigh, in bbls, 175 1 80° 2 00° 2 85° 2 50° 40 '' cotton sacks, 350 net 2 00° 2 55° 2 50° 2 55° 40 '' cotton sacks, 350 net 2 0° 2 55° 2 55° 1 50° 1 55° 40 '' rape bags
naci Awin. Brite No. 18 co 23 50 ref No. 15 co 35 of ref No. 15 co 36 of fing Tile. FIRE BRECK 6 co 6 co oreonto POTTERY CO. P. O. B. Toronio Carlois Less carlois 25 of M. 75 co M. 35 co M. w.Co. 25 of M. 37 co M. 35 oo M. mag. 25 of M. 37 co M. 35 oo M. mag. 25 of M. 37 co M. 35 oo M. mag. 25 of M. 37 co M. 35 oo M. mag. 18 co M. 33 co M. 33 co M. mag. 18 co M. 35 oo M. 35 oo M. mag. 18 co M. 35 oo M. 35 oo M. milered. 14 co M. 18 co 18 co mile (Sianascael) Ashlar, c 5 50 5 nortic Sianascael) Ashlar, c 5 5 5 mberst R ed Sandatone 75 5 5	Grey course g, per sub, with Grey dimension, per cub, ft ROMAN STONE, F. O. B. Factor Sills, tooled scatted and throated sc. per lineal foot Hollow Block, n2-inch wall, per superficial foot window Heads and Ashlar, per superficial foot, 4-inch bed String Courses, Molded and Ornamental, per lineal foot, 50. to 8LATE. Toronto. Mo Rocfing (W seases).	50° American- "Helderbard" 1 50 1 05 Albah Brand" 1 75 1 80 1 85 1 95 Albah Brand 1 75 1 80 1 85 1 95 40 Lenigh, in bbis, 157 18a, 180 2 00 2 35 40 Lenigh, in bbis, 157 18a, 180 2 00 2 35 40 Toro task, 150 net 2 00 2 35 40 Toro task, 150 net 2 10 2 35 40 Toro task, 150 net 2 10 2 35 40 "Toro task" 1 10 5 10 1 70 1 35 5 00 Ketne's Experime "White" 1 0 0 1 20 0 35 0 90 50 50 attraal Fenci Casare" White" 1 0 0 32 0 0 0 2 0 0 2 30 0 30 0 0 30 0 0 30 0 0 30 0 0 30 0 30 0 30 0 30 0 30 0 30 0 30 0 30 0 30 3
nine J Avin. Jaco 33 50 ref No 50 of 15 00 ref No 50 of 15 00 figg Tile	Grey course g, per sub, yard Grey dimension, per cub, ft ROMAN STONE, F. O. B. Factor Sila tooled scated and throated sc. per lineal foot Hollow Block, Lainch wall, per superficial foot Window Heads and Ashiar, per superficial foot, 4-inch bed String Courses, Molded and Ornamental, per lineal foot, 50c. to SLATE. Torento, Mo Roring (W genard).	50° American- i 50 i 95 Y. "ifelderberg"