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CANADIAN CONTRACT RECORD

A WEEKLY JOURNAL OF
PUBLIC WORKS • TENDERS •
ADVANCE INFORMATION •
AND MUNICIPAL PROGRESS

EVERY THURSDAY

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

Vol. 6.

JUNE 13, 1895

No. 19.

THE CANADIAN CONTRACT RECORD, PUBLISHED EVERY THURSDAY

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

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

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

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TENDERS

Tenders will be received at this office (where plans and specifications may be seen) up to noon on THURSDAY, JUNE 20th, for

Asphalt and Brick Pavements

on Dundas and Richmond streets, London, Ont.
ORMSBY GRAYDON,
City Engineer.
Ald. Wm. Clenman, Chairman No. 2. Committee.



Notice to Contractors

Tenders will be received by registered post, addressed to the City Engineer, Toronto, up to SATURDAY, JUNE 15th, 1895, for the following works:—

CEDAR BLOCK PAVEMENT

On D'Arcy Street, from Spadina Avenue to McCaul Street.
On Oxford Street, from Spadina Avenue to Augusta Street.

BRICK ON CONCRETE

On Ossington Avenue, from Queen to College Street, on track allowance.

CONCRETE CEMENT

On lanes off Wellington Street in rear of Bay Street.
Plans can be seen and forms of tender obtained at the City Engineer's office on and after Saturday, June 8th, 1895.

A deposit in the form of a marked cheque, payable to the order of the City Treasurer, for the sum of 5 per cent. on the value of the work tendered for under \$1,000, and 7½ per cent. for the value of the work tendered for over that amount, must accompany each and every tender, otherwise it will not be entertained. All tenders must bear the bona fide signatures of the contractor and his sureties (see specifications) or they will be ruled out as informal.

The committee do not bind themselves to accept the lowest or any tender.

DANIEL LAMB,
Chairman of Committee on Works.

Committee Room, Toronto, June 4, 1895.

TO BUILDERS

TENDERS WILL BE RECEIVED FOR

BRICK FACTORY

Until June 20th, to be erected on Bell street, Toronto. The lowest or any tender not necessarily accepted. Plans may be seen and all information obtained at the undersigned.

KEMP MANUFACTURING CO.,
Gerrard and River Streets.

CONTRACT OF DREDGING

in the Townships of Raleigh and Tilbury
East, in the County of Kent, Ont.

Estimated Cost, \$48,428.

Competition is invited for the work of repairing and improving the RALEIGH PLAINS DRAIN, according to the plans and specifications of W. G. McGeorge, Civil Engineer.

Competition will be by open bidding on the ground at the 6 and 7 Side Road, in the Township of Raleigh, beginning at the hour of Two o'clock in the afternoon on MONDAY, THE 2ND DAY OF JULY, 1895.

Conditions will be given at the same time and place, or these and the specifications may be obtained on application to the Clerk of the Municipality of Raleigh at Fletcher P. O., Ont., on or after the 24th day of June, 1895.

The Commissioners will not be bound to accept any offer or to let the work to any bidder.

R. J. MORRISON, } Commissioners.
N. H. SHEPLEY, }
J. G. STEWART, Clerk.

Clerk's Office, Raleigh, Fletcher P.O.
27th May, 1895.



Notice to Contractors

WATER METERS

Tenders will be received by registered post, addressed to the City Engineer, Toronto, up to 11 o'clock a.m. on SATURDAY, JUNE 29, 1895, for the supply and delivery to the Water Works Test House, Soho street, of the following

WATER METERS

of the Siemens and Adamson pattern:

5 ½-inch; 10 1-inch; 10 2-inch; 15 3-inch; 15 4-inch;
16 5-inch; 2 6-inch; 2 8-inch; 1 10-inch

Specifications may be seen and forms of tender obtained on and after Monday, June 17, 1895, at the office of the City Engineer, Toronto.

A deposit in the form of a marked cheque, payable to the order of the City Treasurer, for the sum of 2½ per cent. on the value of the work tendered for must accompany each and every tender, otherwise it will not be entertained.

The tenders must bear the bona fide signatures of the contractor and his sureties, or they will be ruled out as informal.

DANIEL LAMB,
Chairman Committee on Works.

Committee Room, Toronto, June 12th, 1895.

FOR SALE OR TO LEASE

For term of years, with option of purchase: brick-yard, about 26 acres, with buildings, etc.; just outside city limits and adjoining the celebrated Don Valley Brick Works; splendid chance for anyone wishing to engage in the manufacture of common and dry pressed brick and paving brick, for which there is a large and increasing local demand. **H. L. HIME & CO.,** 15 Toronto street.

CONTRACTS OPEN.

RIDGEWAY, ONT.—Ground has been broken here for a new \$10,000 hotel.

SPRINGHILL, N. S.—A site has not yet been secured for the proposed drill shed.

SUSSEX, N. B.—A new building is shortly to be erected for the Sussex foundry.

HARRISTON, ONT.—Wm. Symon will build a new residence. The architect is Geo. Gray, of Harriston.

BARRIE, ONT.—The prospects are favorable to the construction of an electric street railway for the town.

CONSECON, ONT.—Mr. Gillen, architect, of Belleville, is preparing plans for a residence to be built here.

PARIS, ONT.—H. McK. Wilson, County Clerk, invites offers until the 18th inst. for the purchase of \$3,500 of debentures.

ELMVALE, ONT.—John Tweed proposes putting up a skating rink 300x100 ft., with arched roof supported by steel frames.

WINDSOR MILLS, QUE.—The Canada Paper Company will expend \$20,000 in the extension of their works this summer.

CARLTON, N. B.—The vestry of St. Jude's church have decided to procure plans at once for a new church building.

PORTAGE LA PRAIRIE, MAN.—The Baptist congregation is calling for tenders for the erection of their proposed new church.

ORANGEVILLE, ONT.—The proposed system of water supply for the town has been approved by the Provincial Board of Health.

GALT, ONT.—Messrs. Cowan & Co. are making preparations to erect a three and a half story building, adjoining their present works.

CALABOGIE, ONT.—The Roman Catholic congregation have selected a site for their new church, which will be built this summer.

CHATHAM, ONT.—The proposal to furnish the city with additional water supply from the Thames river has been sanctioned by the Provincial Board of Health.

BROCKVILLE, ONT.—Power & Son, of Kingston, are preparing plans for the alteration and enlargement of the Bank Street Methodist church. The cost will amount to \$20,000.

VANCOUVER, B. C.—S. S. Douglass has negotiated the sale of the property at the north-east corner of Howe and Dunsmuir streets to a Portland capitalist, who intends building on the property at once.

PEMBROKE, ONT.—The Trustees of the Separate School Board have decided on the erection of an addition to their present

building, to be 40x50 feet, two storeys high. The plans are being prepared and tenders will be called for within a few days.

AYR, ONT.—Tenders for heating and ventilating the public school building in this town will be received by the Chairman of the School Board up to the 20th inst.

BURK'S FALLS, ONT.—The Board of Education have adopted the plans of J. Francis Brown, architect, Toronto, for the proposed new school building. There were twenty-seven designs submitted.

HAMILTON, ONT.—It is urged by some of the aldermen that steps be taken at once to install an electric light plant to be operated by the city. The City Council has resolved to call for tenders for erecting a new jail, to cost \$30,000.

WINDSOR, ONT.—St. Andrew's congregation have accepted the plans of W. C. Rohns, architect, for their new church. The seating capacity will be 800, the auditorium 75x50 feet in size, and the school room 75x35 ft. Estimated cost, \$25,000.

NEW WESTMINSTER, B. C.—Mr. A. J. Hill, C. E., acting under instruction from the Dominion Government authorities, has taken levels of the proposed up site for the new drill shed here, and it is probable that plans will be prepared and contracts let at an early date.

HALIFAX, N. S.—Tenders for erecting an addition to Bloomfield school are invited by R. J. Wilson, Secretary School Board, until 8 p.m. on Friday, the 14th inst. Plans may be seen at the office of H. S. Trenaine, architect.—The City Council will ask for tenders for a chemical fire engine.

GUELPH, ONT.—G. A. Hunstreet, of Milton, has purchased property here and will build a brick store.—The by-law to raise the sum of \$9,500 for extending the waterworks will be voted on by the ratepayers on the 24th inst.—The Board of Trade is considering the erection of a cold storage building.

WOODSTOCK, N. B.—At a meeting of ratepayers held on the 4th inst. to discuss the question of constructing a sewerage system for the town, it was decided to procure the services of a competent engineer to prepare plans and estimates of cost. Information may be obtained by addressing Mayor Saunders.

SHERBROOKE, QUE.—The Board of Protestant School Commissioners are asking for tenders until the 15th inst. for alterations and repairs to the Young Men's Academy. H. A. Odell, Sec. treasurer.—Wm. Murray, secretary-treasurer of the School Board, will receive tenders until Saturday next for building an addition to the Brothers school in the south ward, from plans prepared by J. J. Verret, architect.

TILSONBURG, ONT.—The Tilsonburg, Lake Erie and Pacific Railway Company invite tenders until Tuesday, the 25th inst., for work and materials required in track-laying and ballasting of the company's line between the G. T. R. in this town, and Port Burwell on Lake Erie, a distance of 16 miles, and for the construction of another section 1¾ miles in length. Plans may be seen at the company's office, Tilsonburg.

QUEBEC, QUE.—The plans of E. Tache, architect, have been adopted for a new church on Grande Allee.—The C. P. R. has leased the block between the post-office and Cardinal's palace, and are about to convert a portion of it into offices.—The City Council has adopted the report of the Road Committee on the proposed electric street railway.—The Champlain Monument Committee have decided to expend \$40,000 instead of \$25,000 for the erection of a shaft to the memory of the founder of Quebec. The Provincial Government has granted a site.

COLLINGWOOD, ONT.—The enlargement of the gymnasium at the Collegiate Institute has been decided upon, and plans are in course of preparation.

TORONTO JUNCTION, ONT.—Negotiations for the purchase by the Toronto Railway Co. of the local street car line are said to be off and arrangements are being made by the present owners to extend the road to Weston and Islington.

OTTAWA, ONT.—The bill for the extension of time for the completion of the Great Northwest Central Railway has been passed by the Railway Committee of the House of Commons, with an amendment inserted that the company must build 50 miles of the road each year until completed. The company were represented by Messrs. O. A. Howland, M.P.P., and Frank Arnoldi, of Toronto.—Wm. Rea, Secretary Public School Board, invites tenders until noon on Thursday, 20th June, for supplying school furniture required by the Board for the annex to Elgin street school and for the new school to be erected on Mutchmor street. The tenders are to be accompanied by a sample desk.—Mayor Birdett will erect a new residence to cost \$12,000.

KINGSTON, ONT.—A surveying party has been at work east of Kingston Mills for some weeks past laying out the proposed line of the Kingston and Smith's Falls railway from Rideau to Blakie's farm.—A bill has been introduced into the House of Commons allowing the Thousand Island railway to extend from Gananoque to Kingston, Brockville and Rockport.—A bridge will be built at Clyde Forks on the line of the Kingston and Pembroke railway.—A deputation of the Public School Board has again requested the City Council to grant the sum of \$20,000 for a new eight-roomed school in the northern part of the city, and it is probable the grant will be made.—Power & Son, architects, are asking for tenders for a residence on King street.—Same architects are preparing plans for Messrs. Richmond & Son's offices.

WINNIPEG, MAN.—It is stated that the survey of the first section of the Winnipeg and Great Northern Railway to Waterhin has been completed, and that construction work will begin at once. Grading will be started west of Westbourne and be carried northward and eastward simultaneously. It is the intention to complete 125 miles of the road this year, and to make Port Nelson the terminus of the line. The chief engineer is Mr. Alex. Stewart, who is preparing the plans and profiles preparatory to letting contracts.—The Winnipeg Electric Street Railway company are about to make improvements to the extent of \$60,000, including the installation of a new power plant and the extension of the power house by a large addition, with brick walls and iron roof. A chimney 150 feet in height will also be built.

MONTREAL, QUE.—The City Surveyor has presented to the Road Committee several estimates for the paving of Notre Dame street west, varying from \$115,531 for asphalt, with Cantan shale bricks between the tracks, to \$131,000 for asphalt from curb to curb.—The Finance Committee has been asked to provide \$23,000 for paving Pantaleon street.—J. H. Macduff, architect, is preparing plans for two houses on Greene avenue for A. Mongean.—Building permits have been granted as follows: R. Taylor, extension to residence, Peel street, cost \$5,000; Mrs. M. Desaulniers, tenement brick building, St. Hubert street, cost \$4,000; M. Lynch, tenement brick building on Seigneurs street, cost \$4,000; Church of St. James the Apostle, transept to church and new school house, St. Catherine street, cost \$8,000.

LONDON, ONT.—The sum of \$9,400 has been subscribed towards the Y. M. C. A. building fund.—Peter Birtwhistle will erect two brick cottages on the Hutchison

survey, at a cost of \$1,500 each.—At a special meeting of the shareholders of the London Street Railway Company held last week, the agreement with the city to adopt electricity for the local system was signed by the president. The capital stock of the company will be raised to \$150,000. Owing to inability to obtain groove girder rails in the United States, construction will probably be delayed until the fall.—The City Council have resolved to call for new tenders for a steam road roller.—The request of the Board of Education for \$36,000 for new schools has been granted by the City Council, and debentures will be issued for the amount.—The question of improving the city's sewerage system will probably be taken up by the Council at an early date.

TORONTO, ONT.—Mr. E. B. Jarvis, architect, of this city, is preparing plans for a four roomed school at Brantford, and for alterations to a six roomed school.—F. H. Herbert, architect, is asking for tenders until 2 p.m. on Saturday, the 15th inst., for the erection of a stone and brick residence on the north side of Lowther avenue.—Mr. E. J. Lennox, architect, has prepared plans for a new factory building for the Cobban Manufacturing Company. The commencement of the work is being delayed by differences between the city and the company concerning a site. The same architect has prepared plans for a new building for the House of Industry.—The School Board of East Toronto have accepted the plans of G. Ellis, architect, of this city, for a new four roomed school building to be erected on Mary street.—The Massey-Harris Co. have purchased 260 feet of land adjoining their present premises on King street west, and it is understood to be the intention of the company to erect a large bicycle factory on the property.—The Property Committee have accepted the plans of A. R. Denison, architect, for additions to Lombard street fire hall. The cost will be about \$5,000, and tenders will be called for at once for the work, and also for the erection of a new hall in Dundas street.—The City Council have granted the request of the Public School Board for \$61,500 for school accommodation, and the money will be expended as follows: new school for Rosedale, \$16,500; four additional rooms, Morse street, \$9,000; Borden street, six rooms, \$14,000; Palmerston avenue, 4 rooms, \$10,000; Queen Victoria School, four rooms, \$12,000. The Collegiate Institute Board have also been granted the sum of \$10,000 for enlarging the Jarvis street Collegiate Institute.—Owing to the defeat of the by-law to provide funds for enlarging the water mains, the City Council resolved at its meeting held on Monday last to request the City Treasurer to report at next meeting of council the probability of their being a sufficient surplus to the credit of waterworks department to carry out the improvements. The Board of Works will also consider at an early date the advisability of proceeding at once with the construction of a new 6-foot steel intake pipe, to replace the old wooden conduit.—Mr. W. J. Gage, accompanied by Mr. G. M. Miller, architect, is at present on a visit to Dr. Trudeau's Sanatorium for Consumptives at Saranac Lake, in the Adirondacks, to secure information with a view of erecting a National Consumptive Home in Canada. It is said that a Toronto gentleman is prepared to assist the undertaking with a large donation. Building permits have been granted as follows: Corporation of Toronto, alterations at cattle market, cost \$2,500; J. Wilson Gray, pr. s. d. 2 story and attic bk. dwellings, 95 Jameson ave., cost \$5,000; J. T. Pearce, 757 Gerrard st. e., pr. s. d. 2 story bk. dwellings, 96 and 98 Victor ave., cost \$2,200; D. P. Ansten, 525 Bloor st. w., pr. s. d. 2 story and attic bk. dwellings, 142 and 144 Howland ave., cost \$3,000;

Wm. Dineen, bk additions and alterations to dwelling, 228 Sherbourne st., and 2 story bk. stable in rear, cost \$5,000; N. Rooney, rebuilding warehouse, 62 Yonge st., cost \$12,000.

FIRES.

The residence of Jas. F. Atkinson, lumber merchant, at Kouchilbournac, N. B., was destroyed by fire on June 1st.—At Springville, Ont., on the 6th inst. fire destroyed the drill shed, loss \$2,500; the brick residence of Mrs. McCannon, the post-office and Wm. Irwin's shop.—The residence of W. Clement at Burford, Ont., was burned recently; partially insured.—The residence of Benjamin Russell, Q. C., at Dartmouth, N. S., was burned on the 9th inst. Insurance, \$4,000. A two-story residence at Oshawa, Ont., owned by H. E. W. Aylsworth, was destroyed by fire on Monday, partially insured.

CONTRACTS AWARDED.

GLENBORO, MAN.—The contract for building the new Presbyterian church has been let to R. G. Steele, at the price of \$2,150.

CHICOUTIMI QUE.—The contract for the establishment of a system of water-works here has been awarded to E. L. de la Vallée & Co., of Montreal.

PORT HOPE, ONT.—The contract for the masonry and stonework of the water-works has been awarded to John McGill. The system will cost \$30,000.

(Continued on page 4.)

WILLIS CHIPMAN, B. A. Sc.

M. Can. Soc. C. E.; M. Am. Soc. C. E.; M. Am. W. W. Ass'n.

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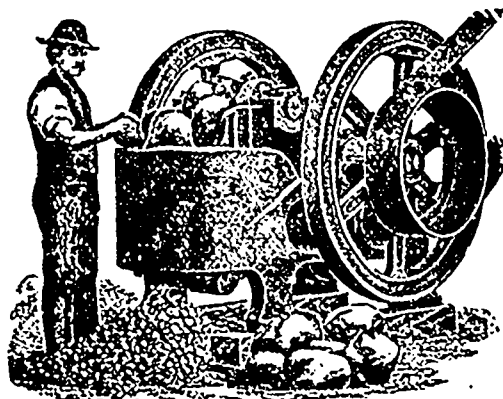
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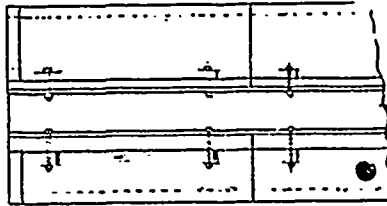
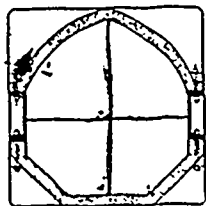
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MUNICIPAL ENGINEERS, CONTRACTORS AND MATERIALS

HALIFAX, N. S. John Askwith, of Ottawa, is said to be the lowest tenderer for the proposed drill shed in this city, his tender being in the neighborhood of \$260,000.

MORRIS, MAN. The contract for erecting a new hotel here has been let to Scott & Rutherford, who have sub let the brick and stonework to Mr. Willoughby, of Winnipeg.

NEW WESTMINSTER, B. C. The tender of the London and Canadian Loan and Agency Co., of Toronto, for \$20,000 street improvement bonds, has been accepted by the City Council at 1.10.

GUELPH, ONT.—The tender of R. Dixon of Grand Valley, has been accepted for erecting the new buildings for the Guelph Iron and Steel Company. Mr. Geo. R. Bruce, architect, will superintend the work.

NELSON, B. C.—The contract for a single rope aerial tramway between the Silver King Mine and this town has been let to the California Wire Works Company, of San Francisco. The distance is four and one half miles.

TORONTO, ONT.—The J. F. Pease Furnace Company have been awarded the contract for heating with hot water and warm air combination, the residences of H. H. Fudger, Sherbourne street, and Nos. 89 and 91 Breadalbane street.

VANCOUVER, B. C.—The British Columbia Iron Works, of this city, have secured the contract for the equipment of the Slocan Tramway Company's lines, which are being built from the concentrator at Duluth to the mines at Idaho, Cumberland, Alamo and other points.

WINNIPEG, MAN.—The contract for Campbell Bros. new brick block has been let to John Shaw & Co., at the price of \$13,500, exclusive of heating, the contract for which will be awarded later on. The building will be two stories and basement 50 x 132 ft. in size, with red brick elevation and brown stone piers and dressing. Chas. H. Wheeler, architect.

HAMILTON, ONT.—Andrew Ouderdonk has secured the contract for the Toronto, Hamilton and Buffalo railway tunnel on Hunter street.—The contract for the new station for the Toronto, Hamilton and Buffalo railway has been awarded to Geo. E. Mills, the contract price being in the neighborhood of \$22,000.

MONTREAL, QUE.—J. Alcide Chausse, architect, has awarded the following contracts, for a house (store and two dwellings) to be erected on Moreau street for Avile Tremblay: stonework, A. Pion; brickwork, J. Bumbray; woodwork, A. Petrault; painting, W. Tremblay; plumbing and roofing, Noel & Germain.—J. H. McDuff, architect, has awarded the contract for erecting a store on Notre Dame st., for Jas. Kelly to J. Guertin, general contractor.

BUSINESS NOTES.

Belanger & Bosse, plumbers, St. Cune-gonde, Que., have dissolved.

Creed & Small, plumbers, Montreal, are reported to have made an assignment.

W. J. Cooke, contracting plasterer, Montreal, is reported to be in financial difficulties.

Wm. Beatty, contractor, of Woodstock, Ont., died in that city on the 2nd inst., in the 56th year of his age.

Treffie Hamelin and Alfred Cadorette have been registered proprietors of Hamelin & Cadorette, tinsmiths, Three Rivers, Que.

William Farmer, of Hamilton, who has carried on a plumbing business in that city for the past 40 years, died last week, at the age of 74 years.

DEBENTURES PURCHASED

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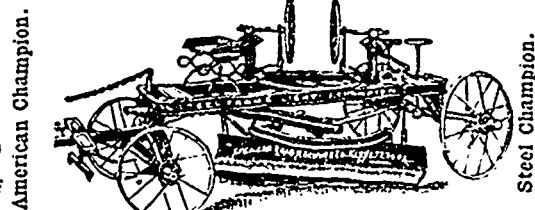
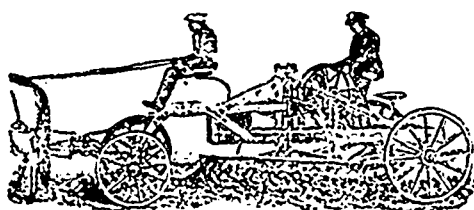
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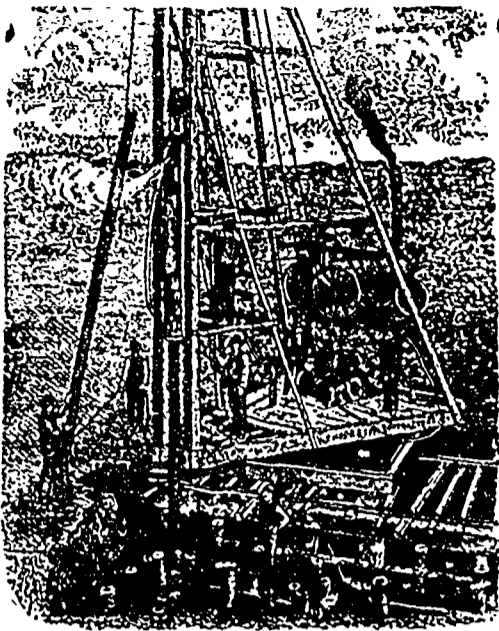
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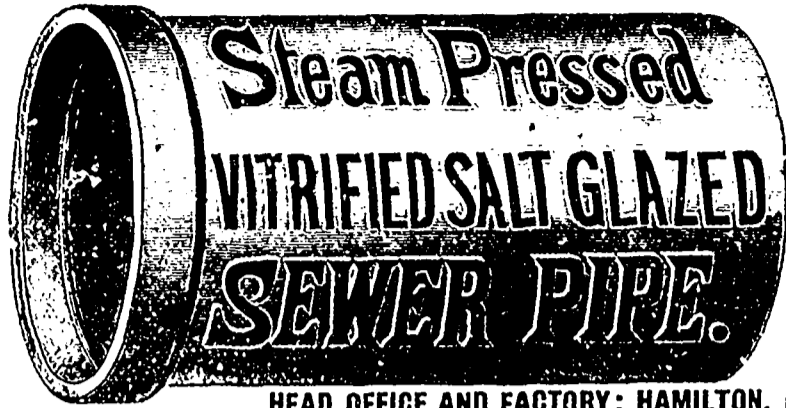
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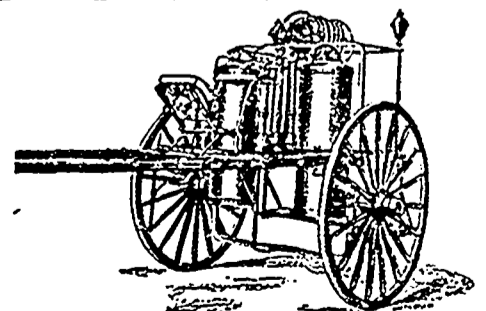
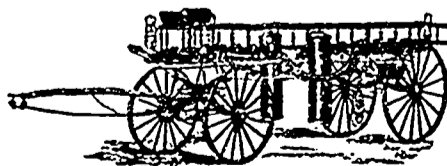
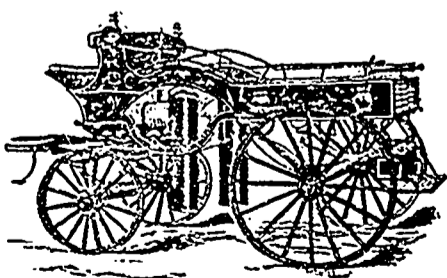
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MUNICIPAL DEPARTMENT

THE IDEAL CITY-ENGINEERING BUREAU.*

By FRANCIS COLLINGWOOD.

One of the most remarkable characteristics of the development of modern civilization is the ever-increasing diversity in all affairs, whether in business, science, art, literature, or the art of living. There is a constant differentiation going on, and a closer attention to detail, all leading to new occupations, new discoveries, and greater responsibilities on the part of the men who are now doing the world's work.

With this development, there is also a growing complexity, and an interweaving of interests such as the world has never before seen. This interdependence becomes most manifest in cities, and the more so as they increase in size.

The recent utter derangement of the business of a large city by a strike on the electric tramways is a case in point. The serious troubles arising from a break in a water or gas main, or a temporary stoppage in the supply of food or fuel, may also be cited.

Now, while it cannot be denied that among the ancients there were often men of great practical skill, yet the engineer as he now exists is a modern production, made necessary by the development of which we have been speaking, and by his own exertions and accomplishments hastening that development on its practical side at a speed far beyond what it has ever before attained. It does not detract from the honor due to the sagacious business men of our country to say that, while without money no great constructive enterprise can be carried through, neither can success be most effectively realized without the boldness and skill of the engineer.

The first point, therefore, to be made is that, no matter how small the community, it will always pay to place work of a public character in the hands of an engineer. The ideal scheme for the development of any town or city would be that the original location and lay-out of all streets and the location and design of all other public improvements should be scientifically done, and the results properly recorded; and that all additions should be similarly treated. The ultimate saving in time, money, law-suits, and comfort would be immense.

To reach anything like this state of things will require a long educational campaign, and, while not impossible of accomplishment, it seems almost hopeless at the present. In a town of 5,000 to 10,000 inhabitants a street commissioner is usually appointed because he knows how to "turnpike" a road. When an engineer is called in, he finds buildings and sidewalks arranged without regard to grades,

and what grades there are not adapted to the ground or to any possible system. He finds street lines unmarked and none of them straight. If there are any records, he finds the maps incorrect. Should he propose to do the work necessary to correct this state of things, the money question comes in at once, and, in addition, the opposition of all those who oppose change, or imagine it might affect their property in any way.

As time goes on, the questions of water-works and sewerage become prominent, and it is exceedingly important that from the beginning complete records be made of the exact character, location, depth, and size of all sewers and pipes, and of the description of other constructions. The engineer should be adequately paid for doing the work, and the field-books, properly indexed, should be the property of the municipality. Much trouble has arisen from lack of attention to this requirement.

The difficulties arising from inaccurate surveys and mapping and incongruous arrangement of streets have led in several cities to the organization of a so-called Platting Commission, whose duty it is to examine all proposed additions to the city, as well as all rearrangements or subdivisions of territory, and to see that the streets are suitably laid out with reference to the topography and existing streets, are of the proper width, and are properly marked by permanent monuments. The city engineer is always a member of these commissions, and makes the necessary surveys and examinations.

In recent years other duties have been placed upon the engineering department, —such as the care of bridges and harbors, city property, parks and buildings. This great range of work has led in the larger cities to the introduction of boards of public works. In most cases these are appointed by the mayor, either with or without confirmation by the council. These boards consist usually of four members, sometimes with the city or chief engineer as the fifth, acting as president. The city engineer is in some cases elected by the board, in some appointed by the mayor, and in some elected by the people. A very apt remark has been quoted in this connection. "Where you want skill, you must appoint, where you want representation, elect." There can be no doubt that permanency in the office of engineer is greatly to be desired, and the appointment should be as far removed from politics as possible. The more intimate his acquaintance with all the elements affecting his work, the more valuable will his services be; and the more free he is from political interference, the more economically can he do his work. The appointment by the board of works would seem, therefore, to be a wise provision, and it has produced good results where it has been the rule.

Where boards are thus formed, the commissioners are not all engineers, although this would be preferable. It is customary for each to take charge of one portion of the work, the president supervising all, but having only advisory powers.

A classification of the duties that may fall upon a city engineer at the present time would be somewhat as follows:

1. Surveys,—maps and other records;
2. Profiles, grades, specifications, estimates, and assessment maps for street grading and paving;
3. Lines, grades, specifications, estimates, assessments for sidewalk grading, paving and curbing;
4. Sewer construction and maintenance, including all estimates, records and assessment;
5. Water-works construction and maintenance, including all estimates, records, and, in some cases, assessments;
6. Bridge construction and maintenance;
7. Park construction;
8. Harbor and wharf construction and maintenance;
9. Street lighting;
10. Street sprinkling;
11. Inspection of buildings;
12. Regulation and improvement of streams;
13. Inspection of work done by various corporations,—gas, electric, etc.,—in so far as they are under municipal control.

In a small town these duties are comparatively simple. All work can be done by the engineer and one or more assistants; and, if careful records are made and so filed and indexed as to be readily accessible, nothing more can be desired. The difficulties arise when, through increase in population and territory to be cared for, the work becomes so extensive as to require separate departments for its prosecution; and it is here that widely-divergent systems have been adopted. Yet, while the interests to be conserved are very diverse, the city itself is a unit, and no mistake can be made in so concentrating responsibility and maintaining a thorough subordination of each special department as to secure the harmonious working of all.

(To be Continued.)

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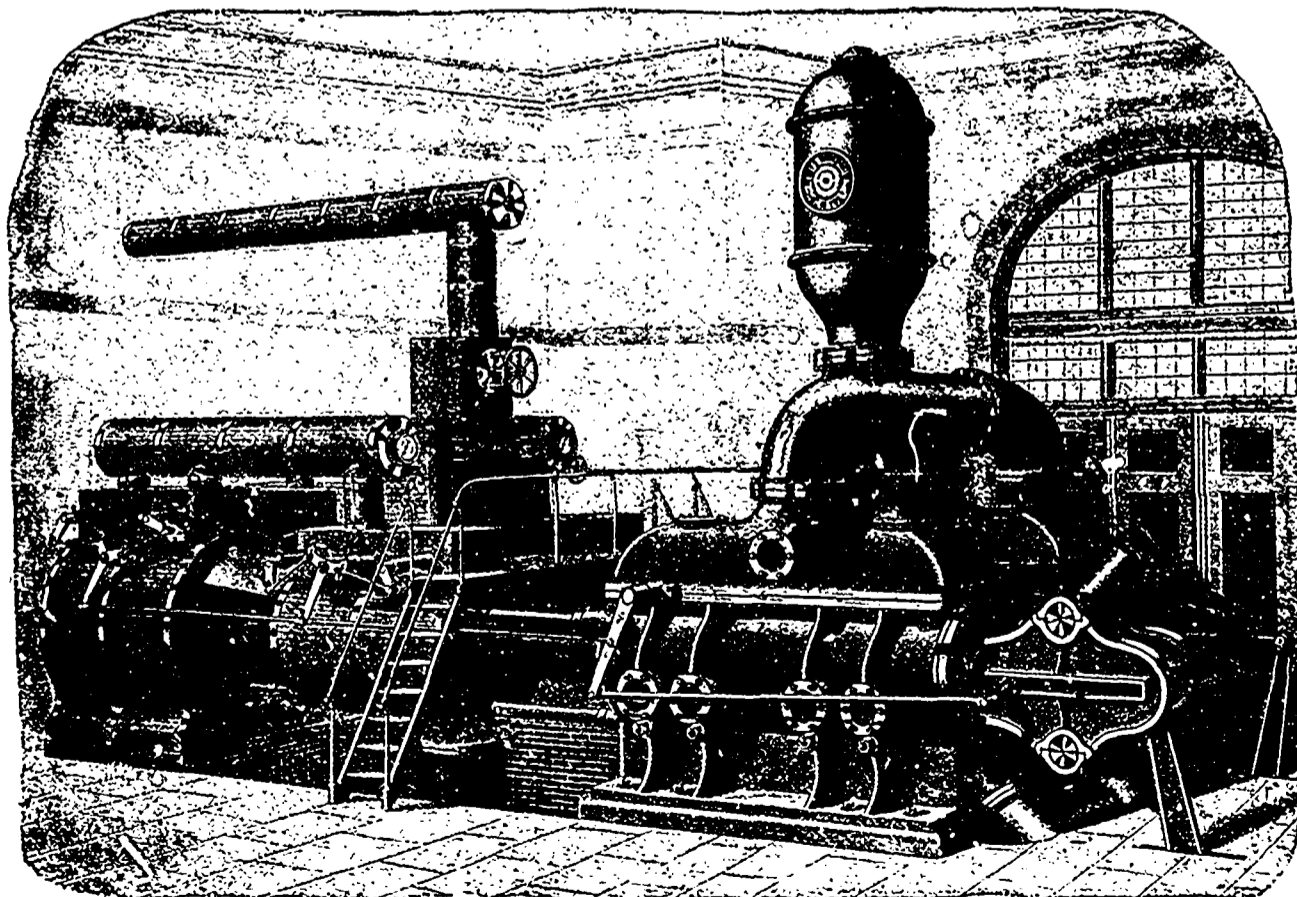
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CONDITION OF THE MARKET.

TORONTO: The market for builders' supplies is firm, and considerable new work is in view. Further advances are looked for in prices of iron pipe, the quotations now being 70, 70 and 5 per cent. Glass is moving freely, and several import orders are expected daily. The paint and oil trade is improving slightly, and prices have a tendency to advance. Wire nails have been advanced 5 per cent.

MONTREAL: The volume of building in the city this season is not large, but builders report activity in country trade. The market is without special features, and prices about the same. The arrivals of cement last week were 5,200 barrels of English brand. The drain pipes are in good demand both in city and country.

LUMBER.

CAR OR CARGO LOTS.

Table with columns for Toronto and Montreal prices for various lumber types like clear picks, mill run, and shingles.

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Table listing various mill cull boards and shipping cull boards with their respective prices.

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Table listing prices for dressed and undressed flooring materials like F.M. and B.M.

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Table listing prices for various types of bricks such as Common Walling, Good Facing, and Pressed Brick.

Toronto. Montreal.

Table listing prices for various types of roof tiles and building bricks.

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Table listing prices for different types of sand and stone.

STONE.

Table listing prices for various types of stone including Common Rubble, Granite, and Freestone.

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Table listing prices for different grades of Ohio freestone.

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Table listing prices for various types of paint including White lead, Red lead, and Yellow ochre.

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Table listing prices for Portland cement and other building materials.

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Table listing prices for various types of cement and plaster.

HARDWARE.

Table listing prices for hardware items like cut nails, steel, and cut nails.

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Table listing prices for fine blue nails.

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Table listing prices for casing and box nails.

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Table listing prices for finishing nails.

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Table listing prices for slating nails.

COMMON BARREL NAILS.

Table listing prices for common barrel nails.

CLINCH NAILS.

Table listing prices for clinch nails.

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Table listing prices for sharp and flat pressed nails.

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Table listing prices for iron pipe.

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