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CANADIAN CONTRACT RECORD

A WEEKLY JOURNAL

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.

APRIL 4, 1895

No. 9.

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NOTICE TO CONTRACTORS

Tenders will be received by registered post, addressed to the City Engineer, Toronto, up to 11 o'clock a. m. on SATURDAY, APRIL 6, 1895, for the following works:

CONCRETE SIDEWALKS

On Lombard street, north side, from Victoria street to Church street.

On Adelaide street, north side, from the post office to Church street, except opposite Nos. 60½ and 62.

ASPHALT PAVEMENT

On Leader lane, from King street to Colborne street.

Specifications may be seen and forms of tender obtained at the office of the City Engineer, Toronto, on and after March 30, 1895.

A marked cheque payable to the order of the City Treasurer, for the sum of 2½ per cent. on the amount of the work tendered for, must accompany each and every tender, otherwise it will be ruled out as informal. The lowest or any tender not necessarily accepted.

DANIEL LAMB,
Chairman Committee on Works.
Committee Rooms, Toronto, March 23, 1895.

TENDERS

Sealed tenders, marked "Waterworks," will be received by the undersigned on or before the

1st of May, 1895,

For the construction of

A SYSTEM OF WATERWORKS AND SEWERAGE IN THE TOWN OF SUDBURY, ONT.

Plans, specifications, etc., can be seen and forms of tender had at the following places:

Office of Gordon & Rorke, Engineers, Sudbury.
" Montreal Star, Montreal.
Messrs. McPherson, Clark & Jarvis, Barristers, Toronto.

An accepted bank cheque, equal to 5 per cent. of the amount of tender must accompany each tender. This cheque will be forfeited if the party declines to enter into the contract and will be returned in case of non-acceptance of tender.

The lowest or any tender not necessarily accepted.

A. FERRIS,
Clerk Town of Sudbury

March 18, 1895.

NOTICE TO CONTRACTORS

Sealed tenders will be received by the Chairman of the Board of Works until the

26th day of April, 1895

at 7 p.m. for the construction of Cement Sidewalks that may be required to be laid by the corporation of the City of Guelph during the current year.

All proposals must be on the blank forms furnished by the city and must bear the bona fide signatures of the contractor and his sureties, and must be accompanied by a certified check for \$250, drawn on some bank doing business in the city and payable to the order of the City Treasurer, as a guaranty that contract will be executed in case of award.

Each bidder is required to make a statement indicating what sidewalk work he has done, or to give references that will enable the Board to judge of his experience and business standing.

Specification, blank forms and all available information will be furnished intending bidders on application at the office of the Engineer.

The Board reserves the right to reject any or all tenders.

JOHN NEWSTEAD,
Chairman Board of Works, Guelph.
J. HUTCHEON, City Engineer.



Notice to Contractors

Tender will be received by registered post, addressed to the City Engineer, Toronto, up to 11 o'clock a.m. on SATURDAY, APRIL 6TH, 1895, for the

DREDGING OF WATER SLIPS

Specifications may be seen and forms of tender obtained on and after Monday, April 1st, 1895, at the office of the City Engineer.

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.

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

DANIEL LAMB,
Chairman Committee on Works.
City Hall, Toronto, March 28th, 1895.

TENDERS FOR DEBENTURES

The Municipal Council of the City of Nanaimo invite proposals up to MONDAY, 29TH APRIL, 1895, endorsed "Tender for Debentures," for the purchase of

\$10,500.00 DEBENTURES

issued under the authority of the Commercial Filling By-Law, 1894. The Council reserves the right to reject the highest or any proposal.

S. GOUGH, City Clerk.
Nanaimo, B. C., 22nd March, 1895.

Notice to Contractors

Sealed tenders, separate or bulk, will be received by the undersigned up to 12 o'clock, noon, WEDNESDAY, APRIL 17TH, 1895, for the Brickwork, Plastering, Carpenter and Joiner's work, slating and Painting required in the erection of a

RESIDENCE

for David Lloyd in the Town of Newmarket, according to plans and specifications prepared for the same by Wm. Bunney, Registered Architect, Newmarket.

Plans and specifications can be seen at Mr. David Lloyd's office, Main Street, Newmarket, on and after Tuesday, April 9th, 1895.

The lowest or any tender not necessarily accepted.

DAVID LLOYD.
Newmarket, April 1st, 1895.

STRENGTH OF MORTAR. That the common belief among builders that it is better practice to mix lime mortar and let it lie in a heap some days previous to use is well founded has been proven by recent experiments made in England. In the tests samples of mortar were taken, on successive days, from two separate heaps of large size, briquettes were made therefrom, and, after an interval of some weeks, were broken for estimation of tensile strength. The brick 50 days old, which was made from mortar that had been in the heap three days, showed an average breaking weight of 34.6 pounds; while a brick 45 days old, made from mortar which had been in the heap after mixing seven days, required 41.5 pounds strain.

The Hamilton Bridge Works are applying to the Dominion Government for a charter to acquire the business of the Hamilton Bridge Company, and have elected the following directors: W. Hendrie, John S. Hendrie, C. S. Murray, John H. Tilden and H. C. Symmes, Niagara Falls South.

A. W. Godson, contractor, of Toronto, has assigned to E. R. C. Clarkson. For some years past he was engaged in contracting for civic works, and recently, in conjunction with Arthur Ardagh and the late Arthur Leonard, organized the Construction and Paving Company, of which he was president. This company is not affected by the assignment.

CONTRACTS OPEN.

BANDA, ONT.—The Presbyterians will build a new church.

NOVAR, ONT.—A new Presbyterian church is to be built here.

WHITECHURCH, ONT.—A Presbyterian church will be erected here.

SCHONBERG, ONT.—A new Baptist church will probably be built here.

GANANOQUE, ONT.—A. M. Gamble intends building an addition to his hotel.

NEW GLASGOW, N. S.—A Y. M. C. A. building, to cost \$10,000, will be erected here this spring.

BARRIEFIELD, ONT.—Mrs. Grange will erect a new residence on the site of the one recently burned.

ST. THOMAS, ONT.—The trustees of the First Methodist church have decided to rebuild on the old site.

OSHAWA, ONT.—The Pedlar Metal Roofing Co. propose making extensive additions to their factory.

BRANTFORD, ONT.—The Waterous Engine Works Company have invited plans for their proposed new works.

HAMILTON, ONT.—The plans prepared by Mr. Reeve, architect, for the proposed city gaol will probably be accepted.

QUEBEC, QUE.—The authorities of the Jeffrey Hale hospital have purchased a site for their proposed new hospital. The structure will cost \$60,000.

CAYUGA, ONT.—A joint stock company has been formed for the purpose of erecting a three story Masonic block here. Operations will be commenced at once.

SHAWVILLE, QUE.—J. J. Turner, Jas. M. Hodgins and John Caldwell will each erect new dwellings this summer.—Fred. Hodgins contemplates erecting an addition to his store.

KINGSTON, ONT.—The plans submitted by W. Newlands, architect, for the new operating amphitheatre in connection with the general hospital have been accepted. The building will cost about \$3,000.

BRUCEFIELD, ONT.—Tenders are invited until the 10th inst. for building a brick or frame cheese factory for the Brucefield Cheese Manufacturing Company. Address Alex. Mustard for particulars.

ST. JOHN, N. B.—Tenders for lighting the streets with electricity are invited by the City Clerk until Monday, the 15th inst.—White, Colwell & Co., wholesale confectioners, are contemplating the erection of a five-story brick building, 40 x 100 feet in size.

HALIFAX, N. S.—Plans are now being prepared by the Department of Railways and Canals, Ottawa, for coal sheds and other buildings to replace those recently burned here.—Work on the trestle work and wooden crib work for the new coal wharf will be commenced at once.

COLLINGWOOD, ONT.—Plans are being prepared for the erection of a wing to the Collingwood Marine Hospital, by architect Fred. T. Hodgson. The proposed building will be 48 feet long by thirty-four feet wide. Two storey and basement. Hot water system of heating.—The Catholics will build a separate school.

VICTORIA, B. C.—Messrs. Keating, of Toronto, and Haskins, of Hamilton, the experts appointed to examine the plans sent in for the proposed filter beds, have selected the plan of Mr. Jorgenson, of this city, as the most suitable. The plan calls for downward filtration through sand, gravel and rocks. The capacity of the beds is given as two million gallons, and that of the reservoir as 5,500,000 gallons. The cost of the execution is placed at \$60,000.

ANTIGONISH, N. S.—Tenders are invited by D. A. Chisholm, on behalf of the Board of Governors of the College of St. Francois Xavier, until Tuesday the 16th

inst., for the construction of an extension to the College kitchen to be completed this season, and that on the dwelling house to be commenced in the spring of 1896. Plans may be seen at the College or at the office of J. C. Dumaresq, architect, Halifax; tenders are invited at the same time for heating the above mentioned buildings with steam or hot water, contractors to furnish their own plans.

MONTREAL, QUE.—The building of a new city hall is talked of at St. Cunegonde on the site occupied by the present one.—Messrs. Roy & Gauthier, architects, are preparing plans for alterations and additions to the church of the parish of St. Laurent.—Mr. C. St. Jean, architect, has prepared plans and will shortly call for tenders for a Presbytery at St. Jerome, Que.

WINNIPEG, MAN.—It is understood that a site has been selected for the proposed Masonic temple.—Mr. McGowan, architect, is preparing plans for a solid brick building, on stone foundation, 50 x 90 feet, to be built at the corner of Main and James streets for W. J. Christie and G. Broughall.—S. Frank Peters, architect, will shortly make a tour of several American cities in connection with the proposed change in the interior arrangement of the Clarendon hotel, and with a view of securing the best possible plans.—Five detached houses at the corner of York and Garry streets will be enlarged this spring.

OTTAWA, ONT.—The sum of \$15,000 will be expended on waterworks extensions. The following have been decided upon: 12-inch main on Sussex street, between Rideau and St. Patrick; 15-inch main on Somerset street, between Bank and Kent; 5-inch main from Beechwood to Chapleau ave. The main on Rideau street, between Friel and Augusta, will be lowered and 30 new hydrants put in.—Tenders are invited by the Public School Board until Saturday next, the 6th inst., for an addition to Elgin street school, in accordance with plans prepared by M. C. Edey, architect, 51 Sparks street. Tenders are also asked for supplying one or three boilers for heating apparatus. Address, Wm. Rea, Secretary.

LONDON, ONT.—The Medical Health Officer has recommended the erection of a new smallpox hospital.—The City Council will shortly consider the question of permanent pavements on Dundas and Richmond streets. The merits of asphalt and vitrified brick will be discussed. Mr. S. F. Glass, of this city, has bought a lot at Pottersburg, on which he will build this season.—Joseph Nicholson will build a two-story brick residence on Piccadilly street.—The vestry of St. John's church have decided to erect an addition to the Sunday school, which will nearly double the seating capacity. Several other improvements to the church are contemplated.—J. D. O'Neil, proprietor of the Gosling hotel, proposes to erect an addition to the hotel. A brick stable will also be built.—Mr. Matthews, architect, has been instructed to prepare plans for a new residence on Central avenue for D. S. Perrin, also for a residence for Joseph Smith, to be built on Princess avenue, near Waterloo street.—The City Engineer has granted the following building permits: George Bonser, brick cottage, corner of Askin and Teresa streets, cost \$1,200; Ald. A. Callahan, two-story bk. dwelling on Piccadilly street, cost \$2,350; Mrs. May, brick cottage on Queen's avenue, between Adelaide and Elizabeth streets, cost \$1,300; Mrs. Joseph T. Burridge, brick cottage on Riverview avenue, cost \$1,000.

TORONTO, ONT.—Messrs. Darling, Sproatt & Pearson, architects, have prepared plans for a residence to be erected in Elmsley place, for Mr. A. Dickson Patterson, to be built of brick.—

A meeting of citizens was held last week to consider the question of erecting an art building, and a committee was appointed to act in conjunction with the Art Association Building Committee with a view to carrying out the scheme.—It is said to be the intention of the Massey-Harris Company to build a large addition to their present factory. The building will be a four-storey wing, extending 90 feet north. The basement will be used for resting malleable castings, the first floor as a tool room, second floor as a pattern and experimental room, and the top floor as a paint mixing room. The large four-storey building at the east end of the moulding shop will be converted into a fire-proof building for the storage of patterns.—The sergeants of the Queen's Own Rifles are considering plans for the erection of a new mess, to cost from \$25,000 to \$30,000. It will be located just north of the new armories, and will be a brick and stone structure, fitted with modern conveniences, including gymnasiums, billiard rooms, bowling alleys, and swimming baths.—The Property Committee at its last meeting adopted the report of the sub-committee recommending the remodelling of the Bay street fire hall and the erection of a building in the rear of the Lombard street fire hall in which to store one of the new fire engines. It was decided to engage an architect to prepare plans for the work.—The borings which have been taken by the City Engineer in connection with the proposed tunnel across the bay indicate that no engineering difficulties are likely to be met with, and it is urged by the Mayor that the work should be proceeded with without delay. The engineer's report has been sent to the Board of Works.—The House of Industry will ask the City Council for a grant of \$35,000 for the erection of a new building. The City Council has given notice of its intention to construct the following works: sewer on Pears avenue, Avenue road to Bedford road, cost \$4,628; asphalt pavement on St. Joseph street, Yonge street to St. Vincent street, cost \$6,900; asphalt pavement on Selby street, Huntley street to Sherbourne street, cost \$4,640; Concrete sidewalk on Church street, King street to Wellington street, cost \$885; concrete sidewalk on church street, e.s., King street to Front street, cost \$1,400.—Mr. W. J. Gage has asked the co-operation of the Board of Trade in securing the erection of a hospital for consumptive patients and a committee has been appointed to act in conjunction with other deputations to interview the Government on the subject.—Tenders are invited by Mr. John Hallam, Chairman Parks and Gardens Committee, until Tuesday, the 9th inst. for a steam boiler for the Island Park electric light station. Specifications may be seen at the office of the Park Commissioner, St. Laurence Hall.—A building permit has been granted to Isabel Gray, for the erection of a five-story bk. warehouse, 24-26 Wellington st., cost \$20,000.

FIRES.

The drying house of the Royal City Planing Mills, Vancouver, B. C., was burned last week. Loss on building, \$5,000. It will be rebuilt at once.—Fire at Arna, Ont., last week, destroyed Wm. Fraleigh's hotel, Edwin Brook's hotel, Jas. Ralph's building, Wm. Wyatts two story store and James Grant's dwelling. The loss in each case partially covered by insurance.—Wm. Ewen's residence at Owen Sound, Ont., was damaged by fire last week to the extent of \$1,200.—A two-story frame dwelling at Strathroy, Ont., owned by the Canada Permanent Building Society of Toronto, has been destroyed by fire. Loss on building, \$1,000.—The two-story brick residence of Hugh McCartney at Brucefield, Ont., was

burned last week; partially insured.—A block of stores at Chatham, Ont., owned by James Lamont, G. Richardson and G. E. Young, were burned on the 31st inst. The insurance on the buildings amounted to \$11,000 which will nearly cover the loss. A large building owned by M. Houston was also burned. Loss, \$10,000.—A fire occurred at Summerside, P. E. I., on the 30th inst. which destroyed The Journal building, R. C. McLeod's carriage depot and warehouse, J. D. Reid's warehouse, Bank of Nova Scotia, D. McKinnon's grocery store and warehouse, McIntyre's hotel, J. A. Gourlie's drug store and George Muttart's store. Loss, estimated at \$35,000. Insurance, \$15,000.—A brick building, Nos. 48-50 Lombard street Toronto, was completely gutted by fire on Tuesday last. The loss is placed at \$20,000.—A store and dwelling at Beachville, Ont., owned by J. Fairbairn, of Woodstock, was burned on Monday last.—Bowden's factory at Port Rowan, Ont., which was being converted into a hotel, was destroyed by fire on the 1st inst. Loss \$3,500; insurance \$2,200.—A residence at Foley, Ont., owned by the Trust and Loan Co., of Oshawa, was burned recently. Insurance, \$1,500.—The Court House at Regina, N. W. T., was consumed by fire a few days ago. The building was valued at \$14,000.

CONTRACTS AWARDED.

CALGARY, N. W. T.—Thomas Underwood, of this place, has been awarded the contract by the Dominion Government for the erection of the Indian Industrial school here.

FREDERICTON, ONT.—The contract for Hoegg & Co.'s canning factory has been let to Albert Sanderson.—Ald. Limerick has contracted to build a new residence for T. C. Allen.

TORONTO, ONT.—The Fire and Light Committee have accepted tenders for equipments for Bolton avenue fire hall as follows; two horse hose waggons, William Vokes, \$247.60; two one horse hose waggons, \$285.20; hook and ladder truck, Smith Bros., \$418. The tenders for chemical fire engines were referred to a committee for a report.

LONDON, ONT.—Herbert Matthews, architect, has awarded contracts as follows for three dwellings on Richmond street for C. H. Tune. masonry, Moran & Ridge; carpentry, Joseph Holmes. The cost of the houses will be about \$1,600 each.—The City Council has accepted the tender of the Gutta Percha & Rubber Co., of Toronto, for 1000 feet of Fabric hose, at 90 cents per foot.

LEVIS, QUE.—D. Ouellet, architect, of Quebec, has awarded contracts for the work at the church vestuary and Presbytery of Notre Dame of Levis as follows: Jos. Conture, masonry, \$6,037; O. Michaud, woodwork of vestuary and Presbytery, \$5,800; Jos. Gosselin, woodwork for church pews, etc., \$5,482; Alph. Verreault, painters' work, \$4,777. The contract for carving and gilding will be awarded next week.

OTTAWA, ONT.—The lowest tender received by the Public Works Department for the Peterboro' and Lakefield division of the Trent Valley Canal is from Brown, Love & Aylmer, of Toronto, to whom the contract will probably be awarded. The value of the contract is about \$350,000 for six miles of canal work.—Smith & Haney, of this city, have secured the contract to repair the breakwater at Rustico, P. E. I.—The Public Works Department has awarded the contract for improving the channel on the Ottawa River, near Pembroke, to W. J. Poupore.

WINNIPEG, MAN.—The Fire and Light Committee received only two tenders for lighting the streets with electricity. Mr. Bathgate, representing the company now

holding the contract, tendered for 121 lights at 54 cents each per night, and for each additional light from 30 up to 200, at 52 cents. John Ingram tendered at 52 cents each per night for 121 lights, 51 cents each for 30 additional lights, and 50 cents each for 50 or more additional lights. The latter tender has been recommended for acceptance.—The Finance Committee of the City Council have accepted the tender of O'Hara & Co., of Toronto, for the purchase of \$50,000 of debentures. The price is \$96.67.

BUSINESS NOTES.

A partnership has been registered by Brunet & Frere, contractors, Montreal.

Arthur Lavallee, contractor, Montreal, is reported to be in financial difficulties.

H. Clavel & Fils, painters and decorators, have commenced business in Montreal.

A. C. St. Armour, roofer, Montreal, has assigned, with liabilities of \$8,460 and assets of \$5,972.

John Boyd & Co., plumbers' goods, Vancouver, B. C., have dissolved. W. L. Newsome retires.

Gerome Leconte, Fils & Cie have formed a partnership in Montreal, as plumbers, roofers, etc.

John and Thos. Glenny have been registered proprietors of John Glenny & Co., painters, Montreal.

Alex. and Thomas Ward have formed a partnership in Montreal as contractors, under the style of A. Ward & Son.

A syndicate is being formed in Ottawa, with a capital of \$100,000 for the manufacture of artificial rock for building purposes.

H. L. Walker has retired from the firm of Walker & Mahoney, plumbers and gas fitters, Guelph, Ont., and the business will be continued under the style of Mahoney Bros.

J. W. Schaub, formerly engineer for the Carnegie Steel Company, Pittsburg, and late chief engineer of the Detroit Bridge Works has been appointed chief engineer and manager for the company.

The firm of McRae & Co., dealers in cement and Contractors' supplies, Ottawa, Ont., are in embarrassed circumstances, and are reported to be seeking an extension of time. The liabilities are placed at \$45,000, and assets show a fair surplus.

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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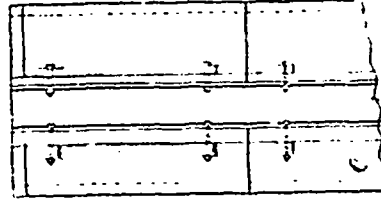
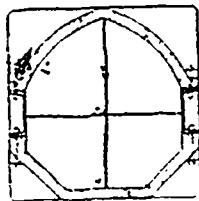
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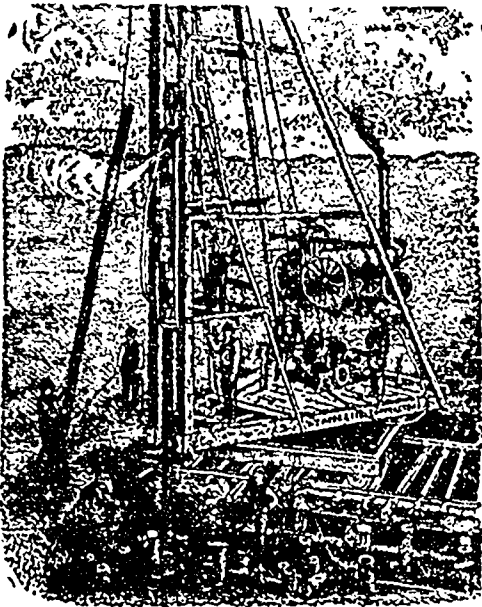
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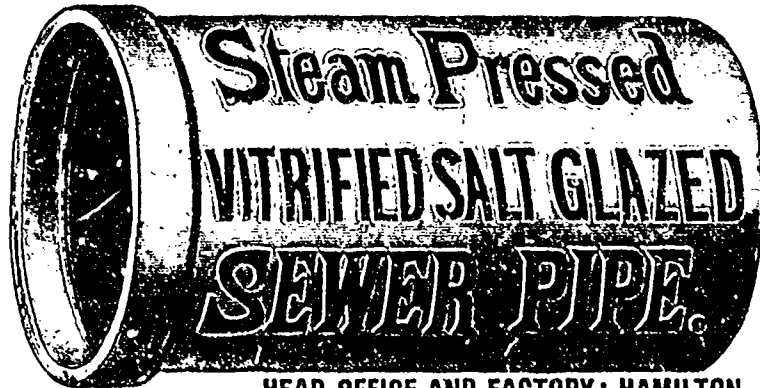
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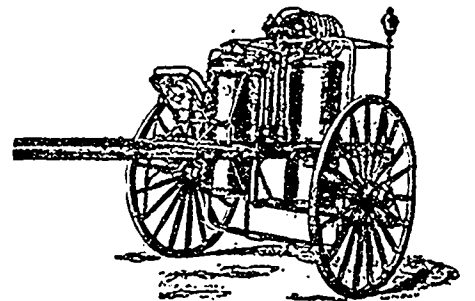
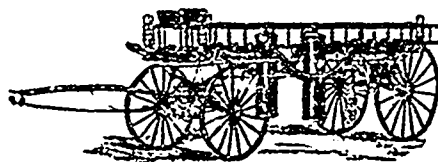
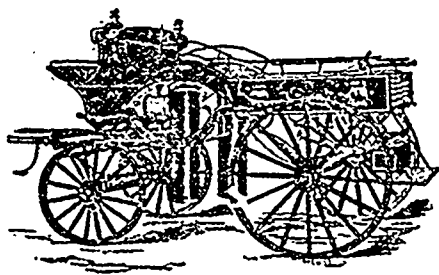
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MUNICIPAL DEPARTMENT

FEVER HOSPITALS.

Mr. T. W. Aldwickle, in a paper on the above subject before the British Institute of Architects, recently said:—English communities nowadays recognised the advantage of isolation hospitals as a means of preventing the spread of infectious diseases from persons who cannot be properly isolated in their own homes. But too often the provision of such hospitals is put off until some infectious disease is immediately threatening, or has actually invaded, a district. It cannot be too clearly understood that an isolation hospital, to fulfil its proper purpose of sanitary defence, ought to be in readiness beforehand. During the process of an epidemic it was of little avail to set about hospital construction. The mischief of allowing infection to spread from first cases will already have been done, and this mischief cannot be repaired.

Large villages, and groups of adjacent villages, would commonly require the same sort of provision as towns. Where good roads and proper arrangements for the conveyance of sick have been provided the best arrangements for village populations was by a small building accessible from several villages; otherwise, the requisite accommodation for, say four cases of infectious diseases in a village, might at times be got in a fairly isolated and otherwise suitable four-room or six-room cottage which has been acquired by the Sanitary Authority, or by arrangement made beforehand with some trust-worthy cottage holders, not having children, that they should receive and nurse, on occasion, patients requiring such accommodation.

In towns, hospital accommodation for infectious diseases was wanted more constantly, as well as in larger amount, than in villages, and in towns there is greater probability that room will be wanted at the same time for two or more infectious diseases, which have to be treated separately. The permanent provision to be made in a town should consist of not less than four-rooms, in two separate pairs, each pair to receive the sufferers from one infectious disease, men and women of coarse separately. The number of cases for which permanent provision should be made must depend upon various considerations, among which the size and growth of the town, the housing and habits of its population, and the traffic of the town with other places are the most important.

For a town the hospital provision ought to consist of wards in one or more permanent buildings, with space enough for the erection of other wards, temporary or permanent. Considerations of ultimate

economy make it wise to have permanent buildings sufficient for somewhat more than the average necessities of the place, so that recourse to temporary extensions may less often be necessary. And in any case, it is well to make the administrative offices somewhat in excess of the wants of the permanent wards; because thus, at little additional first cost, they will be ready to serve when occasion comes for the wants of temporary extensions.

FIRE PROTECTION.

A lecture on the above subject was recently delivered before the Society of Arts, London, by Mr. Edwin O. Sachs. He pointed out that towns owed their safety from fire, not so much to brigades, as to preventive legislation based on the practical experience and research of architects, engineers, and fire experts. Fire protection was a combination of fire protection, fire combating, and fire research. Preventive measures might be partly contained in the local building Acts and partly in a separate code of fire survey regulations, supplemented by special rules as to the treatment of extraordinary risks, such as the storage of petroleum, the manufacture of explosives, and the performance of plays. Self-help for the shopkeeper, the lodger, or the private householder could scarcely be regulated. There were places where, without any regulation being attempted, and thanks entirely to the influence of training in classes, most residences could boast of a hand-pump, a bucket, and a crow-bar, the proper use of which was known to most of the household. Self-help in small risks must be distinctly encouraged by the authorities, without any irksome interference with personal liberty, simply by the provision of street pillar-boxes with the necessaries of first aid, including perhaps a couple of scaling-ladders, and, further, the arrangement of some opportunities for householders to learn how to handle them. The link between self-help and outside help was the fire-call. The efficiency of the fire-call depended not only on the instrument employed and its position, but also on its conspicuousness and the indications given to find its whereabouts. As to the organised outside help, it need not simply be limited to the attendance of the fire brigade. Special arrangements might be made for the attendance of the local police force, a public or private salvage corps, an ambulance, or in cases a military guard. Arrangements might further be made for the attendance of the water and gas companies' servants, even officials from the public works office and insurance surveyors. The author laid stress on the point that the efficiency of the outside help depended in the first instance on the clear definition of duties and powers of all concerned, then on the organisation, and last, but by no means least, the prestige, the social standing, the education of commanders and their ability to handle men easily. In dealing with the provisions of local by-laws for protection from fire the author urged that if a locality had a proper fire-brigade and the force was decently handled, spreads of fire from one house to

another could be absolutely barred. The division of a building or a large "risk" into a number of minor ones was only possible to a certain extent. In lieu of spending enormous sums trying to make each of the minor "risks" impregnable, the aim should be to try to retard the spread for a certain limited time after the flames had really taken hold of the contents. In those minutes most fires would have been discovered, and a sufficient number of firemen could be on the spot to localize the outbreak, and prevent the conflagration being a big one. In a warehouse or factory, with well-built wooden floors, thickly pugged, and the ceilings perhaps run on wire-netting instead of on laths, with ordinary double-ledged doors safely hung, at the most, perhaps, lined with sheet-iron on asbestos cloth, a very stiff blaze could be imprisoned for an hour. The general mistake of expensive iron and concrete construction was its aptitude to allow some breach being easily made through which the fire spread. Directly a fire had got a hold, these composite floors were, again, much too dangerous for firemen to work on or under. Further, if a strong stream of water touched the hot iron there was often an extra danger; and after the fire had been extinguished, the ironwork would be so damaged that it would require entire renewal, and the brickwork would probably be so strained and bulged that the re-erection would have to commence from the footing. A simpler construction was in most cases the most satisfactory. The few iron and concrete floors, for instance, which would stand some strain were too expensive to allow their introduction for fire protection alone, for it was not only the expense of the floors which had to be considered, but that also of the supports and the surrounding walls. All shaft openings should be as small as possible, well armed with shutters, and the lift have not only vertical doors, but also horizontal flaps, which would cut up the well into sections. Division of "risks," common-sense construction, and proper staircase accommodation were really all that fire protection required, and where the special Building Act clauses had been kept within the lines indicated there had been little friction and discontent. As to the fire survey regulations, they should mainly prevent the actual outbreak of fire. In certain classes of risks fire survey could also increase the personal safety of the inmates, and the possibility of a fire spreading might be lessened. The actual preventive work of the survey would, however, mostly consist in the warning of property owners against temporary stoves standing on ordinary floor-boards, sooty chimneys, badly hung lamps, dangerous burners, and gas brackets fixed in risky positions. So far as the safety of the public in theatres and public assembly halls was concerned, attention should be chiefly given to the exits. Spread of fire, and even its outbreak, were secondary considerations, for a panic caused by a suspicion of fire would be quite as fatal as where a conflagration was actually started.

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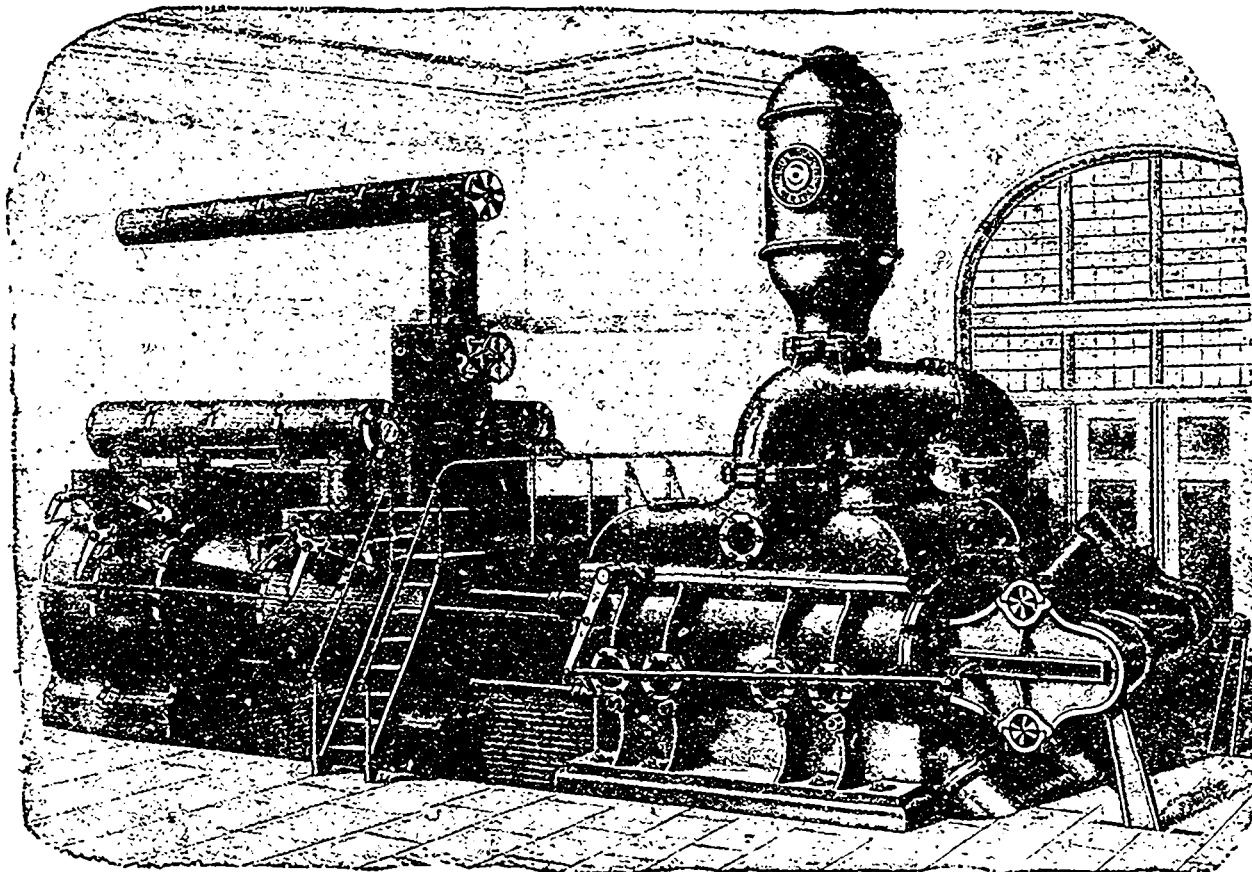
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CONDITION OF THE MARKET.

TORONTO: The reports of proposed building operations from the different cities and towns indicate that the season of 1895 is opening with a satisfactory outlook, and the volume of trade will in all probability be in excess of last year. Prices of building materials are likely to remain firm. In hardware, trade continues to improve, and a number of carload lots have been shipped. Cut and wire nails are moving freely. Cement and firebrick are somewhat quiet, and prices remain unchanged. Lead and iron pipe and galvanized iron are moving freely and some large orders are reported. Considerable plate glass is being sent out.

MONTREAL: Orders are being placed for spring trade, which has a tendency to keep prices firm. A moderate demand is reported for cement, and some enquiries have been made for forward importations. Firebricks are quiet. The heavy iron and metal market is dull, with no changes to note. Glass is steady and quotations remain at \$1.15 to \$1.20 for first break, and \$1.25 to \$1.30 for second.

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Toronto. Montreal.

Table with columns for item description and prices in Toronto and Montreal. Includes items like clear picks, mill run, and various shingles.

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Table listing various lumber items and their prices, including mill cull boards, shipping cull boards, and hemlock scantling.

B. M.

Table listing lumber items with prices for both Toronto and Montreal, including flooring, shingles, and sawn lath.

Toronto. Montreal.

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Table listing brick products such as Common Walling, Good Facing, and Sewer, with prices for Toronto and Montreal.

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Toronto. Montreal.

Table listing cement and plaster products such as Cement, Belgian, and Keene's Coarse Whites, with prices for Toronto and Montreal.

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