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Vol. 6.

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## FEKCE OK THE ROSEDHLE RAYIME

Specifications may be seen and forms of iceder ob tained at the office of the City Engineer, Tornsto, on tained at the ofice of the City Engine
and after the sth day of October, 295 .
A marked cheque, payable to the order of the City Treasurer. for the sum of $2^{7} / 2$ per cent. .n the amount endered for, muss acommpany each and every tender, otherwise it shall be ruled out as informal.
The lowest or auy tender not necessarily aecepted.
DANIEL LAMB,
Chairman of Committee on Works. sito, Sep: 30, $\times 895$.

COTOBER 10, 1895
No. 36.

## TO STEAM FITTERS

Tenders will be received up to 19 Th OCTOBER the Queen's Hotel, Barrie. Plans and specifications may be seen at the offices of
KENNEDY, McVITTIE \& CO., Arclitect,
Barrie, Ont.

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The Town of Lindsay invites offers and inspection, from likely purchasers, fui the following articles offered

1st. One Worthington Steam Pump, steam cylinders 18 in. in diameter and roin. stroke; water cylinder ioin. in diameter; in fair working order. Cost $\$ 1, \infty$

2nd. 21 Gas Lamn Posts, Globes and Heads complete, in good condition.
3rd. Road Scraping Machine, which received little or no use; in good repair. Cost $\$ 250.00$.
r. KNOWISON

Town Clerk.


Tenders will be received by registered post, ad dressed to the City Engir.ecr, Toronso, up to 11 oc'ack a.m. on SATURDAY, OCFOBER $12 T H$, tEgS, for the ollowing work:

## A CONCRETE GEMENT WALK

On south side Bloor Sirect, from St. Geirge Siree: to a point 198 fect easterly.
Specifications may be seen and forms of tender ob tained onatd after 5 th October, $:$ E95, at the office of the City Enginecr, Toronto.
a deposit in the form of a marked cheque, payable to the order of the City Treasurer, for the sum of $s$ per
cent. on the value of the work sendered for up to $\$$ icon and $a^{1} / 2$ per cer.t. on the value of the work tendered for over that amount, must accompany cach and every tender, otherwise is will not be entertaired.
The tenders must bear the buaa fide signatures of the contractor and his surcties, or they will be ruled ont as
The lowest or any tender not necessarily accepted.
DANIEL LAMB,
Chairman of Committec on Works.
Committec Room, Toronto, Oct. $\mathbf{2 s t}, 1 \varepsilon_{95}$.

Galipeau \& Boyer, joiners, Montreal, have dissolved partnership.
P. Poitras \& Son, plumbers, Montreal, have dissolved partnership.

Archambault $\&$ Major will carry on a plastering busmess in Montreal.

The dissolution is announced of $L$. Bastien \& Son, contractors, Montreal, and Galipeau \& Beyer, contractors, of the same place.

## CONTRACTS OPEN

Lachine, Que.--The Council will botrow $\$ 8,000$ tor public parks.

Farren's Point, Ont. - A new Romars Cathole chapel will be built here.
Desbronio, Ont.-The construction of a system of waterworks is agitated.
Kalso, B. C.-The Anglican congregation are preparing to erect a new church.

Berlin, Ont.-Mr. Stouffer will erect a button factory this fall, two stories, 40 $\times 35$ feet.

Union, B. C.-The Union Brewing Co., of Nanamo, B. C., will erect a brewery here.
Moosomin, N. W. T.-The Council is prepared to award a contract for putting down artesian wells.

Wingham, Ont. -The Union Furniture Company have decided to rebuild their factory at once.

Portsmouth, Ont.-A residence for the Roman Catholic clergythan will be built here, at a cost of $\$ 6,000$.

Guelph, Ont.-Mr. S. J. Curry, of Toronto, is architect for the proposed wing to the General Hospital.
Fort Whllim, Ont:-The Council has decided to make an issuc of $\$ 3,00$ of debentures for school purposes.

Victoria, B. C.-The local government is calling for tenders for electric light uiring at the new Parlianent buildings.

Simene, Ont. - The estimates for the proposed "aternorks system have been submitted. The cost will be about \$27,000.

Huli Que. - The Council is considering the issuc of debentures to the amount of $\$ 100,000$ to cover the corporation debt.

Gigerown, N. B.-Mr. Wemore, C. E., has recently been surveying the site for a new bridge over the mill stream near Redstones.

Halifax, N. S.--J. A. Leaman will erect a new residence, corner Pleasant and South streets. Elliot \& Hopson are the architects.

Golerich, Ont. - The Henderson Bicycle Company, recently orgmized, will build an addition to the Goderich foundry, $40 \times 36$ feet.
Windsor, Ont.-The Essex Standard Oil \& Gas Co. lave struck another oll well at (Tnion, and will negotiate to pipe the oil to cities.
Owen Sound, Ont.-]. C. Allen and A. J. Creiphton have been granted permission by the Council to establish an oil barrelling industry.
St. Thomas, Ont.-James A. Bell, City Engineer is preparing plans for a new sixty-foot steel bridge to replace the bridge at Glencolin.
ST JOHN, N. B-James Thompson, machinist, will crect a two and a half story addition to his factory, $60 \times 70$ feet in size.-The Hebrew congregation pro-
pose erecting a synagogue, at a cost of $\$ 6 ; 00$. The building committee consists of C. Hoffman, B. Myers and J. Fanbiook.

Gananuuue, Ont. - It is reported that the Bennett block will be built up from the corner of King and Stone streets as was originally intended.

Carleton Place, Ont.-Voting on the by-law to raise an additional $\$ 6,000$ for the town and fire hall will take place on Saturday, October 19th.

Nelson, B. C.-Twenty-six tenders have been icceived for building the extension of the C. P. R. from the Wigwam to the head of Arrow Lake.

Brantford, Ont.-Mr. W. A. Wilkes, solicitor for the Brantford Electric \& Power Co. will offer for sale on the 14th inst. $\$ 40,000$ of second mortgage bonds.

Welland, Ont.-The Council has decided to extend the waterworks system to the H. G. and B. tank, at a cost of $\$ 1,962$, and work will be commenced at once.

Meafurd, Ont.-A vote of the ratepayers will be taken on the 6ith of January next to expend the sum of $\$ 6,000$ for the purpose of extending the waterworks system.
Orangeville, CNT.-At the next meeting of the County Council the proposition made by the Peel County Councal to erect a joint poor house will be considered.

Brockville, Ont.-Mr. G. T. Fulford has purchased property and purposes erecting a summer residence of considerable magnificence. An architect has not yet been chosen.
Sarnia, Ont.-The County Council of Lambton has decided to erect and maintain a County House of Refuge, and a committee his been named to make urther arrangements.
Kamloops, B. C.-Local capitalists propose to build a tirst-class modern hotel in this city, to cost in the neighborhood of $\$ 30,000$. A joint stock company, with a capital stoci of $\$ 50,000$, will be formed for the purpose.

LONDON, ONT. - It is currently reported that work on the G. T. R. shops will be commenced this fall. A special meeting of the City Council will be held ihis week to consider the question of improving the city's water supply.

Frasekville, Que.-The Fraserville Electric Power Co. is applying for incorporation, to operate telephones and contract for electric lighting. Capial \$25,$\infty$. N. G. Pelletier and P. E. Granbois, M. P., are among the promoters.

Rat Portage, Ont.-The waterworks by-law to raise the sum of $\$ 60,000$ for the construction of a complete system of waterworks, has passed its second reading in Council. Voting will take place at the January municipal elections.

Niagara Falls, Ont.-Mr. John Galt, C. E., of Toronto, has submitted his report on the survey of the streets in connection with the construction of a street railway, and work will probably be commenced within the next few davs. The scheme is cepposed by several aldermen who are in favor of an electric belt line for the town.

Barrie, Ont.-Messrs. Eden Smith and Eustace Biad have been appointed architects for the following buildings to be erected in this town : a theatre to accommodate 1000 persons, bick house for the Cuswicke Estate, two small houses for P. H. Stewart, bungalow for Gco. Esten, and extensive alterations and additions to house of S. J. Sinford.
Flesherton, Ont.-The Township Council of Artemesia is :o build next spring two bridges, probably of steel, over the Saugeen river and several smali wooden bridges over minor streams.-

Beecroft \& Sloan are goine to build this fall, a saw mill, $24 \times 50$ ft., to be run by water power, have two circular saws, and latest machmery, capacity 10,000 feet per day.

Kingston, Unt.-- I he Lity Treasurer is asking for tenders on behalf of the corporation for the purchase of upwards of $\$ 50,000$ worth of debentures. The tume tor the reception of offers rloses at noon on the $14 i \mathrm{~h}$ inst.-W. Newlands, archutect, bas in hand the erection of a new building on Brock street for John Mckay. -The contract for the new pumping engine has not yet been let.
Dundalk, Ont.-Mr. E. A. Deans is puting up a solid white brick diug store with basement and offices overhead, to cost $\$ 3,000$. He is going to erect later a store of the same material with a Masonic hall above the store, to be $23 \times 98$ fect, and to cost $\$ 4,000$. He is just completing a fine drus stote, whalh whll be fitted up whth hardwood and hase plate glass mirror panels, the contract for which has not yet been let.
Hamilion, Onf.-A. W. Pcene, architect, will let contracts this week for a block of bouses on Magill street.-A building permit has been issued to A. Peacock, for two 2 story bk. stores, corner King and Wentworth streets, to cost \$3,500.-Steamboat owners are agitating to have the canal at the Beech deepened and the City Council will be asked to bring the matter to the attention of the Dominion Public Works Department.

Winnipeg, Man.-The Great Northern railway will build two steel bridges this winter, one across the Red River at Grand Forks, and the other at Moorehead. The structures will be of the latest pattern, and will cost $\$ 85,000$ each.-The Bell Telephone Co. have purchased a lot on Thistle street and will erect thereon a commodious telephone exchange building, to cost between $\$ 15,000$ and $\$ 20,000$. Plans are now in course of preparation, but work will not likely be commenced until next spring.

Toronto, Ont. - The Industrial School Association has authorized the issue of debentures for $\$ 35,000$.-Tenders are invited until November ist, by James Joliffe, City Hall, for annual supplies for industrial schools.-The City Engineer has received the plans of the York street bridge from the C. P. R. for approval, and the work will be proceeded with at once if they are found satisfactory.-A deputaion have requested the Board of Works to isphalt St. Lawrence market, and a report thereon has been ordered.-The $C$. P. R. has submitted to the City Engmeer the plans of a station to be erected at the Don, at the Queen street crossing.Building permits have been granted as follows: Jas. Lano, pr. s. d. 2 story and attic bk. dwellings, 247 Sherbourne st., cost $\$ 6,00$; North American Life Insurance Co., mansard roof, s. w. corner Queen and Victoria strects, cost $\$ 3,000$; Gencral Hospital Trust, alserations to 30 Bright street, cost $\$ 3,0=0$.
Montreal, Que-Mr. S. Howard, C. E., of the road department has submitted a plan to the City Cnuncil of a proposed elevated road from Bonaventure depot to St. Henri in order to abolish the level crossings between these two points. The estimate for the whole work is $\$ 916,450$, with a wooden floor, and $\$ 1,033,450$ an iron one. At the next mecting of the committee on level crossings he will submit a plan showing temporary trestle way with cross streets, bridges and abutments, and another with bridges at every cross strect.-Miessrs. Harris, Youngheart \& Co., cigar manufacturers, of this city, have ofiered to build a factory in St. Johns in lieu of exemption from taxation and a bonus of $\$ 20,000$. - The Montreal Park \& Island Railway Co. will extend their line to St. Laurent, a distance of 7 miles. Engineers are now surveying the route,
and construction work will probably be commenced this fall.- W. McLea Walbank, architect, is calling for tenders for a boller and engine huuse for the American Tobacco Co., to be erected al Cote St. [raul. Same architect is preparing plans for a larke fine-story factory to be erected in the east end, and also for two summer cottages, one at Beaconsfield and the other at Bay liew. - The question of a site for the proposed new fire station has not yet been settled. A. J Couke, architect, is preparing plans for two sumber cottages, one at Chateauruay for W. G. Ross, and one at Dicksey for Dr. A. Laphorne Smith.

Quebec, Que-The plans for the proposed Jeffres Hale hospital are to be sent in by the 1st of November.-Peachy \& Dussault, architects, bave prepared plans for the finishine and decoration of the interior of the Chapel of Levis' college, and will shortly call for tenders for the work. H. Staveley, architect, is preparing plans for the following buildings: A summer cottage for the Triton Fish and Game Club at Lake of the Cross; a Church of Encland for Danville, costing $\$ 6,000$, and a ralivaly depot for the Quebec, Moatsmorenci and Charlcvoix Railway.-The following building permits have recently been granted: Mr. Griffith, iron fence De Salaberry strect, cost $\$ 1,000$; $P$ Bergeron, skating rink, Chares! street, cost $\$ 1, S 00 .-E$. M. Talbot, archifect, is preparing plans for the following work Repairs to church and presbytery of St. Bernard, of Dorchester, with hot water heating ; P. Angers, M.P., St. Francois Beauce, private residence, to cost $\$ 5,000$, to be built of wood and heated by wood furnace; new R. C. church at St. Marcel de L'Islet, all wood, cost $\$ 4,000$ to $\$ 5,000$ new store and residence for Dr. Lepage, of Rimouski, to cost about $\$ 3,500$; new store and residence for Gnulet $\&$ Bros., at Levis, wood and brick, cost about $\$ 4,500$. Heating not yet decided.

Otrawa, Ont.-The Fire and Light Committee has decided to submit a bylaw to the ratepayers at the January elections to raise $\$ 45,000$ for the purpose of erecting a new fire hall in the southern part of the city. - The chief of the fire department recommends the purchase of two chemical fire engines. - The residents of New Edinburgh are taking steps to secure the erection of a new school in that section, and a mecting will be held at an early date to further the scheme. The sire will likely be on McKay street. - A pettion is being circulated asking the Minister of Railways and Canals to have a new bridge built across the canal at Bank street.-The quarterly board of McLeod Street Methodist church have decided to erect a new church, at an estimated cost of from $\$ 15,000$ to $\$ 17,000$ M1. M. C. Edey will be the architect.-S. Rogers \& Sons, undertakers, have made a proposition to the City Council to erect a morgue, at a cost of $\$ 3,000$. - Tenders will be called for furnishing the new town hall in Ollawa East.-Assessments have been contirmed for granolithic sidewalks on the following strects: Elgin street, west side, from Cooper to McLaren; L.sgar street, north side, from Bank to Kent; Church street, both sides, fron King street; St. Andren's street, north side, from Sussex to Dalhousie sireet.The new ensine house to be built by the Canada Atlantic railway in the "Y" be yond Archville will have twenty locomotive stalls and five thnusand fect of timber will be used in bulding the flooring.-The City Engineer has recommended the council to seck special legislation authorizing the construction of asphalt pavements on the following streets: Elgin, O'Connor, Bank and Kent, out to Ann and Isabella; Queen and Alberi to Wellington ; Maria to Bay; Rideau to Wurtemburg ; Clarence and Murray to King ; St. Patrick, from Sussex to Augusta;

Sussex, St. Prtrick to Riclenu river; Nicholas and Waller from Rideau up; Cumberland from Rideau to Sussex; Daly avenue and Theodore streets. Notice of expropriation of the land required for a central railway station in this city, has been setved. The building will be erected on the site of the Militia stures building, and work will be commenced next spring. It will be six stories, built of sandstone brought from near Jones' Falls, up the Ride u1 River. The filling in of the canal basin for the right of way will necessitate the imnediate construction of another canal basin, which will be built on the west side of the canal directly opposite the present one. Excavation for this basin will be carried on this winter, and the work completed early in the spring. The old skating rank will be torn down, and two docks built, one at the Mouth of Patterson's Creek, and the other at the Bank street bridge.

## FIRES.

John Andersor.'s blacksmith shop at Galt, Ont., has been burned. - The Queens hotel building and a store at Regina, N. ${ }^{\mathrm{V}} \mathrm{V}$. T., were destroyed by fire hast week. The store building was owned by G.F. and J. Galt, of Winniper.--The t:vo-story brick veneer residence of Edward $F$. Johnston, London West, was burned to the ground on the 4 th inst. Loss covered by insurance. - A dwelling at Midland, Ont.. owned by John Jackson, was destroyed by fire on Tuesday last. Loss partially covered by insurance.

## CONTRACTS AWARDED.

Renfrew, Ont. -The Council has sold to O'H:ara \& Co., Toronto, $\$ 7,000$ of thirty year 5 per cent. debentures, receiving therefor $\$ 7,844.27$.

St. Thomas, Ont. - The city has sold to G. A. Stimson, of Toronto, $\$ 15,000$ of 5 per cent. local improvement debentures. The premium was over $\$ 900$.

Sault Ste Marie, Ont.-Mr. Miller, who built the power house and lock gates, has been awarded the contract by the Government for new offices and workshops to be built in connection with the canal.

Collingwood, Ont.-A contract has been awarded for the enlargement of the Presbyterian church by the addition of two transepts and a gallery, giving extra accommodation ior 300 persons. The cost will be about $\$ 5,000$.
Hamilton, Ont.-The City Council has accepted the tender of the Guelph Paving Company for a cement sidewalk on James street, from King William to K ng street, and on King street from James to Hughson street, at 14 cents per foot.
Montreal, Que.-A. J. Cooke, architect, has awarded contracts for eight houses on Prospect ave. for W. F. Borland as follows: masonry, Mr. Charette ; brick, Mr. St. Aubin; caspenter and joiner's work, J. A. Collins; plumbing and heating, John Creed; painting, A. Leather. Same architect has awarded the contract for seven houses on Concord street for the Proctor Estate to W. Whytock, general contractor.
Halifax, N. S.-Contracts for the different works required in restoring the buildings and wharves at the deep water terminus of the Intercolonial rallway have been awarded by the covernment as follows: formulation of freyght house, T. P. Leblanc, Moncton ; warehouse, Piton \& Samson, Levis; brick freight house, R. C. McDonald, Moncton ; creosoted timber and plank for wharves, A. Gunn \& Co., of Halifax, and C. Haliday, of West Chester.
London, Ont.-Contracts for the new Y. M. C. A. building have been awarded except for plumbing and heating. The
following are the successful contractors: stone and brickwork, J. Hayman $\&$ Sons, London, $\$ 6,576$; carpenter and joiner work, A. Bodley, Toronto, $\$ 7,524$; slating and flashing', Geo. Riddle © Co., London, $\$ 485$; galvinized iron, W. Stevely \& Son, London, $\$ 235$; plistering, Gould $\&$ Stratfold, London, $\$ 1,000$, painting andl plazing, A. T. Corp, London, $\$ 1,395$.
Toronto, Ont.-Purdy, Mansell $\&$ Mashonter, of this city, have recently secured the following contracts: plumbmg , gas fitting, steam heativg and ventilating of R. Simpsor's new deparmental
store ; plumbing, gas and steam heating of new building on Adelade street for Toronto Saturday Night; and the hot water heating of post-office bulding at Stratford for the Dominion Government. -The contract for heating and plumbing of the Toronto Lithographing Co.'s new building has been let to John Ritchie.
Woulstock, N. 13.-The only tender received by the Town Council for constructung the entire sewerage system was from Leblanc $\&$ Ganong, of Moncton, who tendered at $\$ 16,780$. The Council has decided not to accept the tender, but to (Continued on page 4.$)$

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execute the work by day labor, and have accepted the followins tenders for sup plies: sewer pipe, cement and brick, W. F. Diblec \& Son; ron for manholes, Connell Bros. and small \& Fisher Co., at $\$ 2$ per hundred pounds. Hazleliurst, of St. Johrs, also tendered for non at $\$ 2$ per hundred, and W. H. Allan at $\$ 164$
Quebec, Qul.--Work has been commenced on the foundation of $?$ threestory house, in dressed stone, for Mir. Smith, on the Grande Allee lt is to be $25 \times 40$ feet and will cost $\$ 0,000$. The architect is Mr. Staveley, and the conractors are Messrs. Fackney for masonry, and Peters for the interior.-Contracts have been let as follows for the construction of warchouses for the Chouinard estate: masonry, A. Fackney; roofing, Mr. Lenghen ; painting, Gauthier \& Frere; interior work, Onesime loitras. Messrs. Tanguay \& Vallier are architects, and the building will cost $\$ 14,000$. Peachy \& Dussault, architecis, have let the contract for a tabernacle for Chicou umi church to Mr. Villeneuve, sculptor, of St. Romnald.

TESTING STAINED GLASS.
I have discovered a simple mode, writes C. Winston, of testing whether, on the one hand, glass is sufficient'y opaque so as not to appear flinsy or watery when put up in a window, unassisted by shading, according to the practice of the fat style of glass painting; on the other, whether it is sufficiently clear to produce as brilliant an effect as the old door-as follows: If the glass, when held at arm's length from the eye, and at :he distance of more than a yard from an object, does not permit of that object bein? distinctly seen through it, the glass will be sufficiently opaque; and if, when held at the same distance from the eye, and at the distance of not more than a yard from the object, permits of its being distinctly seen through the glass, it will be sufficiently clear and transparent.
I have found this to be the case with a great many pieces of glass of the twelfth, thirteenth and fourteenth centuries, which had been rendered clear by polishing the surface, or which were already quite clear for it is a great mistake to suppose that all old glass has been rendered dull on the surface by exposure to the atmosphere. I have seen a good deal of glass of the twelfth and thirteenth centuries that is as clear now as when it was first made, its surface not having been corroded in the least. But the glass of which these imitative works are made is cither smooth on the surface and so pellucid or watery as, when held at arm's length, to permit of any object being perfecily seen through it which is at the distance of 100 or even 1,000 yards or more ; or clse is artificially roughened on the surface, a practice which reduces the cordition of the glass nearly to that of ground glass; for when held at arm's length, it will not permit of any object being seen distinctly through it which is distant more than an inch from the glass.
The practice, not unfrequently resorted to by the imitators of old giass, of antiquating smooth-surfaced glass-ithat is, dulting it with the enamel colour used for painting the outlines-renders it, when held at a:m's length, nearly, if not quite, as opaque as rongh-surfaced glass. In deed, almost the only perceptible differ ence in this respect between rough-surfaced glass and smooth-surfaced glass that bas been antiquated is that the former is free from the tint necessarily imparted to the latter by the enamel colour with which it is antiquated. Thus we find that
imitations of glass of the twelfth, thir teenth, or fourteenth century, if executer in smooth-surfaced glass that has not been antiquated, are very poor and watery in comparison with original work of the period, and that if executed in glass that has been antiquated, or rough-surfaced glass, they are much too opaque. In the one case, to speak populatly, the vision passes too uninterruptedly through the plass; in the other if is stopped at the surface of the glass instead rf passing about a yard through it, as in the case of ancient work.

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## MUNCIPAL DEPARTMENT

## proper diameter of fire hose.

Mr. B. L. bowe, vice-president of the Eureka Fire Hose Company, writes an artucle for the New York India Rubber World on the proper diameter of fire hose. The question of size is, the writer declares, far from being the least important one which confronts the purchasers of fire hose. It is, of counse, desimble that the largest sized streams possible should be available in case of fire, and 1 would be easy to construct estumates of the annual saving in fire losses which might be effected under certain conditions with hose of greater diameter than is now in geneial use. It might be shown how great a proportion of water discharged through a hose of small diameter is evaporated as it falls in spray on the flames, thus becoming useless for fire extinction. The real problem, however, is one of practicability. For instance, when it is considered how greatly the weight of a fire hose, carrying a stream of water, increases in proportion to its increase in diameter, it is plain that a limit may easily be reached beyond which the present race of firemen will not be capable of landling the hose effectively. The writer icfers to the paper on this subject read by Mr. John R. Freman before the American Society of Civil Engineers. He points out that the contents of a foot length of $2 \frac{1}{2} \mathrm{in}$. hose are 58.905 cubic inches, while a $j \mathrm{in}$. hose, not appreciably larger to the unpracticed eye, contains 84.8232 cubic inches. The cubic contents of a $3 \pm$ io. hose are nearly twice as great as thuse of a $2 \frac{1}{2}$ in. hose, and of course the weight is propertionally in creased. Then there has also to be considered the bearngss of these figures upon the abrasions whith nuast be experienced when the hose indragged over the ground, across curbsiones, and through windows and other openings into buildings. Increased strams are also put on curvature When the dameter of the hose is increased. This is, of course, of umpertance, since all fire hose, in prattice, is subject to curves. Mr. Stowe bas come to the conclusion, ofter nurb careful investigation, that he must favour a 2 in . hose as the leading hose for fire department use. He admits the advantages of larger hose for special purposes, on account of the greater volume of water controlled, or the throwing of a large stream for a greater distance than is possible with a $2!$ in. hose. But the disadvantages are also very serious.

## geneva's fountain.

The foumtan that the muncipality of Geneva has recently established at the entrance of the port of that city is certainly the largest fountain that exists upon the surface of the globe, since it is no less than 300 feet in height. It may be seen
from a great distance in clear weather, detaching itself like a great white sail flapping through the effect of the wind.

The city of Geneva possesses a most complete distribution of water under pres sure, the motive power for which is obtained from an artificial fall established upon the Rhone at the point of the lake. The water for domestic purposes and for the running of certain motors is raised to a height of 215 feet above the level of the lake. For the distribution of motive force It is raised to a height of 460 feet. The reservoir is an open air one, and is situated upon the top of Bessingers at a distance of three mules from the turbine building. A very ingenius regulator, invented by Mr. Turrettun, assures the uniformity of pressure in the piping.

The length of the first pipe line is about forty miles and that of the second about sixty. It is with this latter that the fountain conduit is connected. The latter is set in play only on Sundays. It is sometimes set in operation also on week days in the evening. Instead of a single jet of great height several are then utilized that do not rise so high. Powerful electric light projectors, placed in a structure nearby, brightly illuminate them with their rays of varied colors, which transforms them into a luminous fountain of the most beautiful aspect.

The ratepayers of Nanaimo, B. C., have defeated the by-law authorizing the Council to purchase the present waterworks system.
The water of the town of Digby, N. S., is brought from over a hill back of the town, and no engines are required in case of fire, sufficient pressure being given.

Carlisle bas its sewers ventilated by their attachment to thirty tall factory chimneys, which, of course, create a strong up draught, besides heating and destroying disease germs in the effluvia carried up.
It has been calculated that there are over 50,000 reservoirs for impounding water, for irrigation purposes, in the Madras P'residency, vaying in size from an embankment 200 yards in length to a couple of mites in length, and often longer. There is a special section of the Madras Public Works Department set aside for the express purpose of tank restoration schemes.
An interesting report upon a series of experiments in filtration has been issued by Mr. W. J. Dibdin, chemist to the London County Council. The trials were made at the northern outfall precipitation werks with burnt ballast, pea ballast, coke breeze, sand, and certain proprietary materials. The experiments proved that coke breeze gave the highest average as regards purification powers. A further series of experiments was then arranged with that material, the results being eminently satisfactory. The conclusions which Mr. Dibdin has come to are surprising to the ordinary mind. It appears that mictobes form an important element in the purification of water, and the Council's chemis. says that "the contact of the microorganisms with the effluent to be purified
must be effected by leaving such effluent at rest in the filter for a greater or less time, according to the degree of purification required. . . . . . After each quantity of efluent has been dealt with, the micro organisms must be supplied with air, which is readily effected by emptying the filter from below, whereby air is drawn into the interstices."
The subject of sewer ventilation was recently brought before the ineeting of the Brtish Medical Association. Mr. J. Parry Laws, who read a paper on the subject, expressed the general opinion of physicians when he said that although the hypothesis which regarded sewer air as capable of disseminating the morbific germs of disease is proved beyond reasonable doubt to be an prroneous one, we must not thereforc forget the immense benefits and the saving of life that modern sanitation, mainly influenced by this bypothesis, has brought about. Whatever the ultimate verdict be, whether sewer air is harmless or otherwise, it will always be the imperative duty of those charged with the care of the public health to insure rapid and efficient removal of all sewage and refuse matter, und, above all, to guard aganst defective drainage and probable pollution of water supplies. The more light that is thrown upon the dissemination of those diseases which have been, he thought, erroneously associated with sewer air, the more evident does it become that a polluted water supply, and, as an incidental result, a polluted milk supply, are amongst our most insidious foes.

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## CONDITION OF THE MARKET

 Toronto：A favorable report comes from hardware dealers，cut mails and shelf goods being especially brisk．The city trade in plumbers just been closed，while the country trade is stendy． Cement is firmand noving freely，with quota－ tions unchanged．Montrent：Business generally is quite satis－ factory．Heavyiron and metals retain the activity of the past inonth，and American manufacturers are said to be considering another ailvance in the price of iton plpe，the output not beine equal to the deminns．Cut nalis wifl probably be advanced at an early date，as a result of the formation of a nail association，which has just been formed by the ma nufacturers．The arrivals of cement inst
week were 2．950 casks English and 3.300 Belgian， and the demand for small lots continues good．


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| ${ }^{\prime \prime}$ | ＂ |  | ＂ | ＂ | ．． | 81／2 | 81／2 |
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