residence on south Park st. for Mr. Rebecca Starr, cost \$4,000. He has also prepared plans for a brick office for Dr. Kirkpatrick, Pleasant st., cost \$2,000.

PORTAGE LA PRAIRIE, MAN.—Mr. George Browne, architect, of Winnipeg, will shortly comple the plans for the proposed new court house and addition to the jail here. The foundations will be of stone, basement, ground floor and first story of Portage brick, with Calgary stone trimmings, and roof of slate, size of court house, 75 × 54 feet, jail addition 36 × 30 ft.

MONTREAL, QUE-Messrs. Perrault & Lesage, architects, will receive tenders at their office until the close of next week for the following work: two stores and dwellings, Notre Dame street, corner St. Felix, for Mr. Ed. Marcil; two stores and dwellings and one bank building, corner Notre Dame and Mountain streets, for Mde. Théorét, for a branch of Bank of Machales et al. 1888. Hochelaga; two stores and dwellings, Notre Dame street, near des Seigneurs street, for Mr. John Kane; two stores and dwellings, corner Notre Dame and Maple streets, for Mr. C. A. Briggs. These buildings will each be three storeys high, with cut stone front.-The Health Committee has recommended to Council that tenders be asked for a site for the proposed contagious diseases hospital.-Messrs. Perrault & Mann, architects, have prepared plans for rebuilding St. Antoine The cost is estimated at \$19,000. The Market Committee will ask the Council for an appropriation for the pur-

HAMILTOI:, ONT.—Robert Clohecy, architect, invites tenders until 6 p.m. tomorrow, (Friday) for the excavating, brickwork, stonework, and cut stone required in making additions to St. Joseph's hospital.—The City Engineer has been instructed by the Board of Works to prepare an estimate of the cost of paving James and King streets with Trinidad asphalt, with vitrified brick between the tracks.—It is said to be the intention of the Philadelphia Engineering Company, who have been awarded the contract for constructing the smelting works in this city, to sub-let all the contracts for work which can be done satisfactorily in Canada. Mr. F. W. Fordon, of the Engineering Company is expected to arrive in the city shortly to complete arrangements.—Building permits have been granted as follows: E. Harris, two brick dwellings on Hughson street, between Augusta and Yonge streets, cost \$2,500; R. R. Waddell, brick residence on the northeast corner of Hughson and Hannah streets, cost \$5,000, F. Stinson, brick dwelling on Cannon street, between Victoria and East avenues, cost \$1,000.

has been instructed to prepare an estimate of the cost of constructing the proposed high level bridge over the Don, for use when the question comes before the Privy Council at Ottawa.—A light house and range lights are to be erected on the eastern end of the island this summer -It is said that Mr. H. A. Massey proposes to lay a granolithic sidewalk on the north and east sides of the Massey Music Hall on Shuter street.-We learn that Ex.-Ald. Pells is considering the erection of a new theatre on his property at the south-west corner of King and Frederick streets, on which there are at present several stores. Plans are now in course of preparation, and should the idea be carried out, building operations will be commenced in a few weeks. The building will be of brick, with brown stone front, with seating capacity for 2,000.—The recommendation of the City Engineer regarding the pro-posed widening of the Queen street subway, was referred back to the Board of Works at the Council meeting on Monday last, it being deemed unwise to proceed with the work until all the land damages had been ascertained. - Tenders are wanted for new store front and show cases for Messrs. Guinane Bros. Plans may be seen on the premises, 214 Yonge street.—The plans for Mr. Robert Simpson's proposed new dry goods establishment at the corner of Queen and Yonge

streets have been filed with the City Commissioner. It will be six stories and basement and will cost probably \$80,000. The City Council has given notice to ratepayers that it is proposed to construct the following work: asphalt pavement on Winchester street, from Farhament street to Ontario street, cost \$7,440, and on Parliament street, from Queen street to Gerrard street, cost \$25,000; brick pavement on Cecil street, from Spadina avenue to Beverley street, cost \$9,570 and on Wellesley place, from Wellesley Crescent to its north end, cost \$3,350; cedar block pavement on Gildersleeve avenue, from Sumach street to its north end, cost \$800, and on Amelia street, from Parliament street to Sumach street, cost \$3,900; repairing macadam roadway on Jarvis street, from King street to Queen street, cost \$7,100.—Mr. F. H. Herbert, architect, has prepared plans for altering and remodelling the stores No. 5 and 7 Richmond st. w., to be fitted up as a jewellery mond st. w., to be fitted up as a jewellery establishment for Messrs. Kent Bros. The same architect is preparing plans for alterations to a pair of residences on Berkeley st. Tenders for which will be called shortly.—Building permits have been granted as follows: Thos. Davis, 2 story bk. stable, rear of Royal Hotel, Front and George sts., cost \$1,000; R. Simpson, 6 story bk. store, s.w. corner Queen and Yonge sts., cost \$80,000; R. Jose, Queen st. w., 2 story bk. add. rear 21 Close ave., cost \$1,000.

FIRES.

The plant and works of John Russell, brick manufacturer, King street east, Toronto, were badly damaged by fire on Saturday night last, to the extent of \$20,000. The engine and a brick making machine were destroyed.—The Electric Light Co.'s power house at Nanaimo, B. C., was destroyed by fire on the 6th inst., together with McKenzie's furniture factory, Hirst Bros'. general store, and two private dwellings. The loss to the electric light works is estimated at \$50,000, and the insurance \$12,000.—Price Bros'. extensive lumber mills at St. Thomas, Montmagny County, Que., were burned on Sunday last. Loss, \$20,000.—Desire Begin's tannery at Levis, Que., has been destroyed by fire. Loss, \$3,000,—The Upper Ottawa Improvement Company's steamer Dauntless, valued at \$25,000, was burned on Saturday last.—The Cameron Hotel at Stayner, Ont., occupied by John Coleman, was gutted by fire recently. Loss, \$3,000; insurance, \$2,000.

CONTRACTS AWARDED.

RENFREW, ONT.—Mr. J. W. Munro, of Pembroke has been awarded the contract by the corporation for the masonry of the proposed new bridge over the Bonnechere river. The contract price is \$3,900.

HALIFAX, N. S.—J. C. Dumaresq, architect, has let contracts as follows for building St. Mary's Convent; masonry, Jas. K. McDonald & Co.; carpentry and other trades, Mr. Power, cost \$1,500.

NEW WESTMINSTER, B. C. – The Coquitlam Dyking Commissioners recently awarded the contract to Messrs. McLean Briss. to dyke 3,300 acres of the Pitt Meadows, about nine miles from this city. The contract price is between \$65,000 and \$70,000.

OTTAWA, GNT.—Messrs. Warren & Sons, of Toronto, have been awarded a contract by the trustees of St. Andrews church for a new pipe organ, to cost in the neighborhood of \$7,000.—The contracts for constructing plank and granolithic sidewalks throughout the city have been awarded to Mr. Patrick Burns and the Canadian Granite Co. respectively.

MONTREAL, QUE.—Messrs. Duman & Co., of this city, have been awarded the contract for the construction of twelve miles of the Nova Scotia Southern Railway from Shelburne, N. S.—Messrs. Perrault & Lesage, architects, have awarded the contract for excavation, drainage, masonry, and brickwork of four stores and dwellings, corner Notre Dame and Versaille streets, for Fabien Lafoiest,

to Messrs. Maitineau, Turcot & Bronoveau, and for the steel work to the Dominion Bridge Co. The same architects have also awarded the contract for the excavation, drainage and masonry of a large three story store on St. Lawrence street to Messrs. Oumet & Labelle, the steel work being also secured by the Dominion Bridge Co. Other trades not yet awarded.

TORONTO, ONT.—Contracts for the erection of the new disinfecting station adjoining the Isolation hospital have been awarded as follows by the Local Board of Health: masonry, Wickett Bros., \$829; carpentering, James Hutchison, \$297; painting and glazing, Gilmour & Casey, \$49; concrete flooring, Wickett Bros., \$150.—The following are the tenders received by the Commissioners of the Counties of York and Peel for the proposed new bridge at Silverthorne's, between the counties: Weddell Bridge and Engine Works, Trenton, \$1242.50; G. & J. Brown Mfg. Company, Belleville, \$1,300: Central Bridge & Engineering Company, Peterboro', \$1001.44; King Bridge Company, Cleveland, Ohio, \$1224; Dominion Bridge Company, Montreal, \$1125; Hamilton Bridge Company, \$1100. The contract was awarded to the Dominion Bridge Company, of Montreal, on the recommendation of the engineer. The Central Bridge Company were the lowest tenderers, but as they desired to submit their own specifications their tender was not entertained.

BUSINESS NOTES.

J. T. Quinn, plumber, Montreal, has assigned.

Thibault & Charest are starting business as plumbers in Montreal.

Lecompte & Fils, plumbers, Montreal, have assigned with liabilities of about \$12,000.

An effort is being made to re-organize the St. Thomas Pipe and Foundry Co,, of St. Thomas, Ont.

Mr. J. B. Boustead has been appointed permanent liquidator of the Mimico Sewer Pipe & Brick Co., of Mimico.

The plumbing firm of Snoddy & Cook, Hamilton, has been dissolved. Mr. David Snoddy becoming sole proprietor.

Lieut.-Col. John Stewart, of Ottawa, contractor for the new drill shed in Toronto, died suddenly of heart failure on the 4th inst., at the residence of his son in Toronto. Deceased was 57 years of age, and had been connected with the erection of many of the public buildings throughout Canada.

DOES THE ESTIMATE COVER THE COST?

IT often seems strange, says a writer in Painting and Decorating, to many men in some branches of the building trade, that though they are apparently making money, the end of the year finds them poorer than when they began, and less able to meet their liabilites. They examine carefully their estimates made for each particular job and find that their calculations as to time and material are correct, and, if anything, have erred on the safe side. They have allowed an apparent profit of ten, fifteen or twenty-five per cent on the actual cost of the work, yet still they are constantly growing poorer. The real reason is that the fixed charges of the business are forgotten, and these, even when most economically managed, eat up more than the supposed profit allowed for each job.

Take the case of a master painter and examine the charges which he should portion out to each job, but which usually he does not. There is the master painter's own time, shop rent, wear and tear on wagons, scaffolds and ladders, a certain proportion of the original cost of his horse, as well as the charges of stabling and teed, liability insurance to cover the danger of accidents to his own men and to others, and the unavoidable waste of materials.

As tools, implements, horses, and wagons will last but a few years, it is only fair to charge off a certain amount of the cost, each year, to the expense account; and this amount must be divided out among the work done, as a proportional part of the cost of the job.

It rarely happens, even in the best regulated shops, that these fixed charges amount to less than twenty-five per cent. of the cost of the work, hence the man who has only calculated a supposed profit of fifteen per cent. and has failed to take these items into consideration, really has done his work at a loss of ten per cent.

It is not because low bidders purposely offer to do work at a loss that makes them such dangerous competitors. It is mainly because they are ignorant of the actual cost of doing the work. Education on matters of business is badly needed by master painters everywhere.

MUNIGIPAL DEPARTMENT.

ANIMAL LIFE IN WATER PIPES.

M. Locard has made an investigation of the water pipes of Paris, with a view to ascertaining the character and habits of the life there sustained, and notwithstanding the existence of which in such quantities and variety, the city is noted for the general excellence of its drinking water. Mr. Locard studied in particular the mollusks—an important item, since the animal life of this description alone found in those pipes belongs to forty-four species, all of which exist also in the rivers from which the water is taken. His investigations show that the modifying factors, in respect to their numbers and growth, are darkness and the rapidity of the current; and that the conditions are favorable to the life of mollusks is evident from the fact that colonies of the different species are very numerous, and that all individuals are very similar to each other.

individuals are very similar to each other.

Considered hygienically, M. Locard concludes that the presence of ais animal life may be without any inconvenience, the fact being, indeed, that every water save that of springs contains more or less animal life, and does not become unhealthy on this account; in water pipes, however, a large number may become a danger, brought about by the death of the animals and their putrefying remains.

A SUCTION SAND DREDGE.

A notable work in its line is described by the Engineering News, namely, a suction sand dredge with a capacity of 4000 tons per hour, built by the Naval Construction and Armament Co., of Barrowin-Furness, England, for operations on the Mersey bar. The sand-pumping machin-ery consists of two centrifugal pumps with 36-inch suction and delivery pipes. These pumps are on each side of a well, and draw from a T-head at the top of the suction pipe; and around this head as a trunnion the tube can be raised or lowered to suit the depth of the water, and a ball and socket joint gives a certain amount of lateral motion. The suction nozzle is turned over at the bottom, with its aperture almost at right angles to the axis of the tube. The hull of the dredge is 325 feet long by about 20 feet 6 inches deep and 46 feet 10 inches wide, the loaded draft being 16 feet and 4 inches. has twin-screw engines and a speed of ten knots loaded. The sand is pumped into hoppers, and operations show that the latter may be filled at the rate of 100 tons per minute.

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