

Lacroix street with asphalt and scoria blocks.—The City Engineer has reported that the bridge over the C. P. R. tracks on Notre Dame street, in connection with the east end station, will cost \$112,000.

TORONTO, ONT.—The Canadian General Electric Co. are desirous of purchasing a quantity of white wood, ash, mahogany, pine, oak, basswood and Georgian pine lumber.—Preparations are being made for the erection of ten or twelve semi-detached brick houses on the north side of Wood street, near Yonge street.—The City Engineer in his report presented to the Board of Works on Monday last, recommends that tenders be called at once for the dredging of slips on the water front, also that the following work be carried out at once: 16,000 feet of 36-in. force main, from Bathurst and College streets to Rose Hill reservoir, estimated cost, \$135,500; 1000 feet of 30-in. pipe in Wellington street, from John street to Simcoe street, cost \$8,000; 14-in. main in Front street from Simcoe street to Sherbourne street, cost \$36,000; 12-in. main at Avenue road, from Davenport road to Bloor street, cost \$5,500.—A new tank is recommended at the pumping station; to cost \$6,000 and a new connecting pipe from the old pumping well to the four-foot conduit, to cost \$4,500. Authority is asked for in the report to request the Toronto Railway Company to establish a single line of railway on Simcoe, Front, Station and York streets, and to pave the space between the tracks with scoria blocks on Station street and vitrified brick on Simcoe and York streets. The Medical Health officer has again urged the construction of a sewer on North Crawford street, to cost \$3,000, and the Board of Works has decided to recommend that the work be proceeded with.—The report of the City Engineer on the proposed widening of the Queen street subway will be presented at the next meeting of the Board of Works, together with the plans.—At the meeting of the Board on Monday last, it was ordered that the plans relating to the proposed high level bridge over the Don at King street be at once forwarded to Ottawa, in order that the Railway Committee at an early date may apportion the share of the cost to be borne by the city and by the railways.—A deputation from the east end presented a petition against the paving of Queen street with asphalt from Parliament street to the Don, urging that cedar blocks be used. It was decided not to grant the request, and an asphalt pavement will be constructed from Yonge street to the Don, at a cost of about \$100,000.—It is understood that several Toronto firms are at present engaged in preparing tenders for the heating apparatus required for the new Parliament Buildings at Victoria, B. C.—Tenders are invited by Mr. Thomas Crawford, Chairman of the Property Committee, until the 15th inst., for furnishing dog and horse tags and vehicle numbers.—A committee consisting of Ald. J. E. Thompson, Messrs. J. P. Murray, S. F. McKinnon, J. L. Hughes and others, has been appointed to take steps to secure the erection of a first class hotel in Toronto.—The recommendation of the Committee of Management of the Separate School Board, that two additional rooms be built at St. Francis school and that additional accommodation be provided at St. John's school was passed by the Board at its meeting on Tuesday last.—The Toronto Public School Board is inviting tenders until noon of the 12th inst. for school supplies, such as writing paper, note books, pencils, etc.—Building permits have been granted as follows: F. H. Herbert, alterations to stores, 118, 120 King street east, cost \$2,000; Imperial Bank, additions to 3, 5 and 7 Queen street east, cost \$3,500; R. J. Lovell, addition to 283 Berkeley street, cost \$2,000; John Malone, pair brick front dwellings in Sumach street, cost \$2,000; Mrs. E. Robertson, three brick houses, 35 to 39 Cumberland street, cost \$3,000; John Hanrahan, bk. add. and alterations to dwelling, 25 Maitland st., cost \$2,000.

FIRES.

The dwelling house of A. W. Grant, at Gravenhurst, Ont., was burned on the 1st inst.—The Catholic church at Thurso, Que., was destroyed by fire recently. Loss, \$20,000; insurance, \$14,000.—Mr. Goorkee's boot and shoe store and a brick block, owned by Mr. Holt, of Montreal, at Sault Ste. Marie, Ont., were destroyed by fire on the 3rd inst. Loss on shoe store, \$4,000; on Mr. Holt's brick block, \$7,000; partially covered by insurance.—The residence of Mr. John Richardson at Kent Bridge, Ont., valued at \$1,500, was burned on Saturday last. Insurance, \$500.—A three-story building on Water street, Halifax, N. S., owned by Miss Jane Davis was damaged by fire to the extent of \$4,000 recently. No insurance.—The syndicate block at Brandon, Man., owned and occupied by Messrs. Wilson & Rankin, was damaged by fire recently to the extent of \$25,000.—The avenue hotel, owned by E. J. Rochon, Mill's jewelry store, and a residence owned by Mr. Hunt, at Fort William, Ont., were destroyed by fire on Tuesday last. The insurance will cover only a small portion of the loss.—Sixteen buildings at Jordan village, Ont., were consumed by fire a few days ago, including S. C. Hinsberger's carriage works, J. R. Snare's hotel and outbuildings, the Town Hall, Everhart's store, three houses belonging to Miss Bradt.

CONTRACTS AWARDED.

TORONTO JUNCTION, ONT.—Mr. J. Hershaw has been awarded the contract to build a brick cold storage warehouse for Messrs. McKay & McKay. It will cost about \$8,000.

LONDON, ONT.—The Water Commissioners have accepted the tender of the London Machine Tool Co., of this city, for the pumping machinery required for the waterworks plant at Springbank.

MONTREAL, QUE.—The Protestant Board of School Commissioners have accepted tenders as follows for alterations to the Riverside school at Point St. Charles: bricklaying, A. Wand, \$4,212; masonry, J. H. Hutchison, \$7,900; carpentering, A. J. Kneeland, \$9,696; plumbing, Garth & Co., \$930; plastering, W. J. Cook, \$2,028; painting, Bartholemew, \$1,585; steel beams, Dominion Bridge Co., \$659; roofing, Montreal Roofing Co., \$2,235; heating, Smead, Dowd & Co., \$3,315.

TORONTO, ONT.—The Board of Works on Saturday last awarded contracts as follows: concrete pavements under tracks—Bloor street, Spadina avenue to Palmerston avenue, Construction and Paving Co., \$3,711; Bloor street, Palmerston avenue to Givens street, Construction and Paving Co., \$4,147; Bloor street, Givens street to Dufferin street, C. Farquhar, \$4,284; cedar and granite pavement on concrete foundation, Broadview avenue, Gerrard street to Danforth avenue, D. Van Vlack, \$12,395.

BUSINESS NOTES.

The *Legal and Commercial Exchange* reports the following: Henry Paquin and W. Gelinus have formed partnership in Montreal as joiners, under the new name of Paquin & Gelinus.—Wm. Johnson, Dixon & Co., will carry on business in Montreal as paint, color, lead, and varnish manufacturers.—Gustave Stampfleur and Arthur Alousie have registered as the Montreal Plaster Ornament Co. to carry on business in Montreal.—Duckworth Bros., plasterers, of Toronto, have dissolved partnership. The business will be continued by Wm. Duckworth.—A demand of assignment has been made on Cyrille Jubin, plumber, of Montreal, by Frederick Nash.—Geo. F. Bostwick, dealer in office furniture and supplies, is offering to compromise at 45 cents on the dollar.—Honde & Charbonneau, builders, Montreal have dissolved.—Edouard St. Aubin has registered as brick mason at St. Cunegonde, Que., under the style of St. Aubin & Co.—Joseph Lemarche and Pierre Leclerc have registered in Montreal as plumbers and roofers, under the

style of Lemarche and Leclerc.—Jackson & Frudeau, builders and contractors, Montreal, have dissolved.

MUNICIPAL DEPARTMENT.

THE SEWERAGE SYSTEM OF PARIS.

The Paris Administration have taken a further step in the realization of their scheme for the sanitation of the capital by the "tout à l'égout," as it is called—or water-borne sewage-system, combined with eventual sewage-farm treatment. The first of the administration's sewage-farms, created at Gennevilliers, comprised an area of about 200 acres, capable of absorbing about 800,000 cubic feet of sewage daily, which sufficed only for the needs of a little over a third of the present population of Paris, the rest of the sewage, upwards of nine-and-a-half million cubic feet, being turned into the Seine. This, as a consequence, deteriorated the condition of the river to a considerable extent—much more, in fact, than the large deterioration caused in the Thames by a similar practice, in consequence of the vastly dissimilar bulk of water in the two rivers.

If the administration really intended to properly carry out the scheme of Mr. Durand-Claye, the apostle in France of the water-borne sewage-system, to which they were pledged, it had long been evident that fresh areas for the treatment on land of this portion of the Paris sewage must be acquired. This has accordingly now been done, and lands possessing the needed geological and agricultural qualifications have been found at Achères, Méry-sur-Oise, and Melan—all of them well within a convenient distance from Paris.

The first named land has now been taken in hand, comprising about 2,000 acres, and here the whole of the sewage now deflected into the Seine will shortly be treated, the Administration having ordered the commencement of the preliminary engineering works needed to this end; these works are also on a larger scale than the actual requirements, in view of the ultimate annexation of the other two farms mentioned.

The engineering works comprise the building of a station for four pumping machines of 1,000 h.p., which will be eventually increased to eight when the Méry-sur-Oise and Melan areas are served. These machines will raise the sewage to a height of 15 ft., whence it will be discharged in a syphon which will be passed under the bed of the Seine at Asnières, to be conducted, on reaching the opposite bank, by an aqueduct, to the Colombes station near Paris. Here, twenty-four pumping machines of a total power of 6,000 horses will lift the sewage to the height of 153 ft. at Argenteuil, whence it will be discharged into double pipes of about 5ft. diameter each, which pipes are laid across the river by a bridge. The river passed, a sewer of about 9ft. diameter—the estimation based on one-fourth the present waste-water outflow of Paris—receives the sewage, the motive-power here being natural gravitation.

This sewer forms the main trunk of the network, whence branch off the supplementary pipes supplying the newly acquired Achères sewage farm, as well as, in the future, the branches to supply the other prospective new farms mentioned. But before this is done it must again be taken across the Seine at Herblay by means of syphon.

In the first week of last October this new syphon—which weighs no less than 250 tons—was laid. On account of its weight the task was no easy one. The pipe is formed, like the former one, of double tubes in sheet iron 2½ in. thick, parallel wise, about 3ft. apart and united together every 9ft. by cross pieces. Each tube was composed of an oblique portion at the two shore end, and a straight middle run.

The total length of this pipe was 607ft. Each branch of the double tubes was composed of cylinders of sheet iron, joined

and rivetted end to end, four at a time, at the works, and afterwards, when lying on the stagings of the piles set up on the banks and in the river bed, in lengths. Thus made ready, and before immersion the two ends of the straight portion of the tubes were hermetically sealed; then the pipes were floated and guided over the exact position where they were intended to be laid. This was an excavation previously made, 12ft. broad, by a dredger, in the river bottom, made uniformly level with concrete. Wooden framing set up at convenient intervals guided the tubes to the destined location. When all was thus far ready, they were lowered by weighting the cross-pieces with iron rails, which were afterwards recovered by divers. When properly placed on its bed, they were covered in with hydraulic mortar, to protect them from damage from the active traffic which circulates on the Seine. While yet lying on the staging the pipes had been tested for defect with a pressure of 84 atmospheres.

The Administration are to be congratulated on the successful issue of this operation, which is the second one only of its kind executed in France, the former being the St. Louis syphon pipe, laid in November, 1890, which was a much smaller undertaking than the present, but the experience gained at which was doubtless of considerable use in the present case. They are also to be congratulated on the realization of the second portion of the sanitary scheme, albeit much cavil and dissatisfaction has been evinced in France against the whole scheme—chiefly on the financial difficulties of the undertaking.

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