

be placed in the building which will probably be operated by electricity. The plans have been prepared by Mr. Wilson. The total cost is estimated at \$6,000. The company consists of Messrs. James Wilson, James A. Lowell, H. C. Symmes and Rev. Canon Bull.—A staff of surveyors under the supervision of Mr. Burbank, of the Cataract Construction Company, and Mr. James Wilson, superintendent of Niagara Falls Victoria Park, have commenced operations surveying the ground near Falls View for the great Canadian tunnel, for which it is said ground will be broken in the near future.

LONDON, ONT.—Messrs. Moore & Henry, architects, will receive tenders until Friday, the 24th inst., for the erection of a brick Sunday School building in London South and for the erection of a double brick dwelling.—Messrs. McBride, Jones & Farncombe, architects, will receive tenders until the 25th inst. for the erection of a brick dwelling on King street and a brick and frame dwelling on Cheapside street. A deputation from this city waited on the Minister of Militia at Ottawa, last week, urging that the present drill shed in this city be replaced by a new one. The Minister gave the deputation to understand that their wishes would be complied with.—The free library board have selected the south-west corner Queen avenue and Wellington street, as the site for the proposed building. The building will cost \$15,000.—The City Engineer has issued the following permits: J. M. McKinnon, addition to the Grogg house, cost \$3,500; O. G. Bayley, brick cottage, corner of Wellington and York streets, cost \$2,200; S. B. Coon, Hyman street, two brick cottages, cost \$1,200.—It is probable that a new Normal school will be erected at an early date.

MONTREAL, QUE.—The Freemasons of this city have decided to build a Masonic temple.—The directors of the Bank of Montreal have decided to erect in this city a handsome residence for the general manager.—A syndicate has secured the Erskine church property at the corner of St. Catherine and Peel streets, as well as the Gibb estate there, and contemplates the erection of a large eight storey hotel. The stone will be cut next winter and operations will be commenced early in 1894.—It is now stated that the donation of \$70,000 made by Mr. J. R. Molson to the faculty of McGill university will be supplemented by a grant of \$30,000 from the funds of the Medical faculty, and that the total sum will be used to build an extension to the present premises

of the faculty.—The Catholic School Commissioners have adopted the report of the Building Committee that a school capable of containing fifteen classes be constructed on the Devin's property at the corner of St. Hubert, Mignonne and St. Christopher streets, and that the accommodation of Sarsfield school on Centre street be increased to twelve classes, also that the sanitary conveniences of the Commercial academy be improved. It was decided to issue bonds to the extent of \$90,000 to meet the cost of these improvements.

TORONTO, ONT.—It is stated that a number of Toronto and Montreal capitalists have formed a company for the purpose of manufacturing watch cases, the capital stock being placed at \$50,000. The factory will probably be located at Weston.—Mr. John Brewer contemplates building a new hotel on the north-east corner of Queen street and Spadina avenue. The plans are being prepared by Mr. Mallory, architect, of Adelaide street east.—Mr. George Sheard has begun excavations for a three-story brick store and dwelling at the north-east corner of Yonge and McGill street. It is estimated to cost \$4,500.—Mr. E. J. Hobson, of Wood street, is building six three story brick stores and dwellings, to cost \$14,500, at the south-west corner of Agnes and Yonge streets.—Mr. C. J. Gibson, architect, Adelaide street east, has prepared plans for a pair of semi-detached residences to be erected by Mr. D. Todd. The Board of Works have adopted the report of the City Engineer recommending the construction of pavements on the following streets: asphalt pavements, Richmond street, from Victoria to Bay, cost \$15,000; Earl street, from Sherbourne street to west end, cost \$5,000; cedar block pavements on Mansfield avenue, from Bellwoods avenue to Grace street, cost \$700; Prospect street from Rose avenue to Parliament street, cost \$650; Lisgar street, from Queen to Dundas street, cost \$5,400; Bellevue avenue, from College street to Bellevue place, cost \$13,400; Orde street, from McCaul street to east end, cost \$1,300; Baldwin street, from Beverley street to Spadina avenue, cost \$2,450; D'Arcy street, from Beverley street to McCaul street, cost \$1,380; Cecil street from Beverley street to Spadina avenue, cost \$2,525; Sullivan street, from Beverley street to Spadina avenue, cost \$2,560; and Nassau street, from Spadina avenue to Lippincott street, cost \$3,645. Vitrified brick pavements on Argyle street, from Dundas street to Gladstone avenue, cost \$20,380; Henry street,

from Baldwin street to Cecil street, cost \$3,375; St. Patrick street, from McCaul street to Spadina avenue, \$15,120.—The City Engineer has recommended the purchase of a corporation yard on the north side of King street, between Dufferin street and the subway, on which to erect new stables at a cost of \$5,000. An item of \$10,000 has been included in the estimate of 1893 to cover cost of reconstructing the Bathurst and Simcoe street sewers under the railway tracks on the Esplanade. The City Engineer recommends an interim appropriation of \$5,000, so that the work may be started at once.—The paving, grading and extension of College street into High park from Sorauen avenue, and the laying of a single line street railway track upon the street is also recommended. The cost of this is placed at \$27,000.—The Street Railway company contemplates enlarging their power house on Front st. by taking in the vacant lot at the corner of Frederick street and the Esplanade.—Mr. D. C. Adams has applied to the Council for a lease of the old Parkdale waterworks property for the purpose of establishing a rolling mill. The buildings which would be erected would be a main building, 70 x 140 feet, a boiler shed, 25 x 29 feet, a scrap shed 26 x 59 feet, an office 15 x 20 feet, a warehouse 34 x 51 feet, which together with the machinery will necessitate an expenditure of \$40,000, exclusive of the cost of filling in 18,850 feet to level up the ground. An additional expenditure of \$4,000 would be incurred by the extension of a G. I. R. switch across the lot.—Senator Sanford, of Hamilton, has purchased the building on King street occupied by the Oak Hall clothing store, and will make application to the city for a transfer of the lease. It is said to be his intention to erect a new building upon the site.—A committee of the Agricultural and Arts Association will wait upon the Mayor to ascertain if the city will assist in the erection of a suitable building for holding fat stock and horse shows.—The following building permits have been granted: Wm. Davies & Co., Ltd., brick addition to packing house, east side Beachell street, cost \$1,600; J. J. McLaughlin, brick stable and shed, Sherbourne street opposite Shuter street, cost \$1,500; American Watch Case Co., 4-story brick factory, south side King street, opposite Brant street, cost \$18,000; J. Sutcliffe & Sons, alterations to 4 Queen street west, cost \$1,000.

FIRES.

Smith & Mitchell's block at Port Arthur, Ont., has been destroyed by fire. Insurance \$3,000.—The carpet factory at Paris, Ont., occupied by William Tyler and owned by D. Shepherd, was totally destroyed by fire recently. Total loss, \$4,000. Building insured for \$100, stock and machinery for \$1,500.—On Thursday of last week the High School building at Newmarket, Ont., was completely destroyed by fire. Loss \$7,000, partly covered by insurance.—Fire at Arnprior, Ont., on the 14th inst., destroyed the factory of Messrs. McCreary & Whyte, together with a number of smaller buildings. The factory was owned by D. Dagenals; loss \$3,000, no insurance. Messrs. McCreary & Whyte's machinery was valued at \$3,000.—The Wellington hotel at Mono Road, Ont., occupied by T. P. Sparrow, together with a large hall occupied by the I.O.F., was totally destroyed by fire on Saturday last.—The American hotel block, at Owen Sound, Ont., was gutted by fire on Sunday morning last. The losses are as follows: American hotel, loss, \$5,000, insurance, \$3,000; R. M. Nes, hotel keeper, furniture, etc., loss \$3,000, insurance, \$2,500; J. Piche, grocer, loss slight, no insurance.—The Detroit Exchange hotel at Windsor, Ont., was damaged last week to the extent of \$1,200, which is fully covered by insurance.—The confectionery store and residence of T. M. Parkin, on Brock street, Kingston, were gutted by fire on the 15th inst. The loss is estimated at \$2,000, fully covered by insurance.—A large self contained house on Grand Allee, Quebec, owned and occupied by Constable Shirley, was burned to the ground on the 17th inst. The loss will amount to \$3,000 or \$4,000.—The Hub hotel at Rat Portage, Ont., together with the stores of J. Hemmings, S. Botrel and B. Caslake, have been destroyed by fire.

CONTRACTS AWARDED.

OTTAWA, ONT. It is stated that the tenders of Messrs. John Goodwin and John O'Leary, of this city, for the construction of the Soulages canal, have been accepted, the former securing eight sections and the latter one section.

TORONTO, ONT.—The following tenders have been accepted for making alterations and additions to the registry office, which is being carried out under the supervision of Mr. E. Burke: Masonry work, Harris & Lewis, \$7,308; iron work, Dominion Bridge Co., \$1,730.50; sheet metal work, Iucker & Dillon, \$1,200; carpenter work, Wilson & Kane, \$598; painting and glazing, Charles Davis, \$460; electric wire work, Bilt Electric Light Co., \$266; office fittings, George F. Boswick, \$2,448; plumbing and heating, W. J. McGuire, \$1,469.

REQUIREMENTS FOR GOOD ROADS.

Mr. Chas. T. Davis in an address on this subject delivered under the auspices of the Northwestern University, recently, said:—A perfectly good road should have a firm, dry foundation, good drainage, a hard and compact surface, free from ruts, hollows, or depressions. The surface should be neither too flat to allow water to stand nor too convex to be convenient to traffic; free from loose stones, the fresh material being put on when practicable in winter in such a manner as to inconvenience the traffic as little as possible; all mud to be scraped off the surface at once and not left in heaps on the road. A grade of one in forty (2.5 per cent.) may be considered as safe for a horse to trot down with a light vehicle, and this should be the limiting grade. In hilly districts it is impossible to keep the grades down to this, but there exist numerous cases where, by taking off the crest of the hill and filling a hollow, dangerous portions of roads might be improved at a comparatively small expenditure. A grade of one in twenty (5 per cent.) is too steep for convenient traction and should never be exceeded. Where railways alter roads for bridges or other purposes the grade must not exceed one in thirty (3.3 per cent.) for a turnpike road. On a good paved road a tractive force of thirty-three pounds is required to move a ton; on a well-constructed and maintained macadamized road forty-six pounds; on an ordinary road, fairly well kept, sixty-five pounds; on a badly kept road, with loose surface the force may be double or treble the first figure.

Some of the problems interwoven with the road question, and which, in the future, must be fully discussed, are: The kind of roads to build; the method of work to be followed; the character and suitability of paving materials; the employment of convicts in the construction of public roads; the creation of a bonded indebtedness by township, county, or state, to facilitate the rapid construction of roads; the limitations to be imposed in



City Engineer's Office,

Kingston, Ont Feb 14th 1893

C. H. Mortimer Esq.

The Canadian Contract Record
Toronto

Dear Sir

I have had occasion several times to advertise in the Contract Record for tenders for such supplies as are used in Municipal Public Works and from my experience I can say that I believe it to be the best medium in Canada for such advertisements as it reaches every one interested in these matters

Yours truly
T. J. Cooper
City Engineer