OTTAWA, ONT.—New Duhamel school in Lower 'Town: Joseph Bourque, contractor, \$15,750; three and one half storeys, red brick, with stone trimmings. —Two hose waggons: Ottawa Car Co., successful tenderers, at \$625 each.

LIVERPOOL, N.S.—The contract for water pipe has been awarded to the Montreal Pipe & Foundry Co., of Montreal, at the price of \$31.50 per ton of 2,240 Ibs., delivered here. Bids were also received from R. D. Wood & Co., of Philadelphia; Hugo Kainer & Co., of New York, and American Pipe & Foundry Co., of Chattanooga, Tenn.

ENNISKILLEN, ONI. - The Enniskillen council received ienders as follows for the construction and repairs of drains. Shepherd drain-James & Joseph Alloway, \$669 (accepted), Harry Burrows, \$765, William Stidwell, \$645. Stinson drain-James & Joseph Alloway, \$149 (accepted); A. T. Latham, \$148; William Stidwell, \$150. Osborne drain-Wm. Stidwell, \$150. James Blair, \$764,89 (accepted); James & Joseph Alloway, \$950.

TORONTO, ONT.-Messrs. Medler & Arnot have been awarded the contract for the erection of an office building on Eastern avenue for the Warren Scharf Com-pany.-The Board of Control last week pany.—The Board of Control last week awarded contracts as follows: Concrete sidewalks on Sussex ave., St. George to Huron, 67 cents, and on Yonge street, Yorkville to Davenport, \$1.65 per lineal foot, to Excelsior Paving Co.; asphalt pavement on Queen street, from Yonge street to John, \$29,656, Warren-Schuff Co.; brick pavement on Yonge street, Davenport to CPR tracks \$2.402 L H enport to C.P.R. tracks, \$3,493, J. H McKnight ; macadam roadways on Division street, Spadina to Huron, \$1,111, and on Wishington ave., Spadina to Huron, \$1,287, J. H. McKnight.—Barry, Ross & McRae are said to have been awarded the contract for the construction of 88 nules of railway necessary to complete the Great Northern Railway. The contract, which includes a bridge over July, 1900, and the price is given as \$1,664,000.—F. S. Baker, architect, has accepted tenders as follows for a residence in Rosedale. Masonry and plastering, Dancy Bros. Co.; carpentry, E. W. Wyat; painting, H. W. Johnston; tin-smithing and roofing, Hutson & Son; plumbing and heating, Bennett & Wright Co.; electric wiring not let. — The Bennett & Wright Co. have received contracts to install automatic sprinklers in the new Telegram building and in the T. Eaton Co.'s stores.

MARKET CONDITIONS.

The activity in building operations has created an unexpected demand for brick, and prices have advanced slightly, the quotation for common walling being about \$8. Good facing and sewer brick are selling as high as \$9. Owing to unseasonable weather, business in cement at both Montreal and Toronto has been quiet, but no weakening of the market is shown. A new price list for corrugated iron pipe has been issued, which shows an all-round advance. The price of eavetrough is also higher.



SCIENTIFIC STREET PAVING.

One of the most interesting municipal questions we have to consider is how best to pave towns and cities. This problem is admirably discussed in a recent publication issued by Samuel M. Gray, consulting engineer, of Providence, R. I. Mr. Gray gives the answers to questions propounded to him by the authorities of a number of cities, relative, among other things, to the cost of asphalt and brick paving, time their pavements have been laid, intervals at which repairs were made, and which was preferred. Of the twentynine cities that answered the question which kind of paving was preferred, fourteen declared for asphalt, five reported both were satisfactory, three that opinion was divided and one of these that asphalt was preferred by the city engineer, two reported that neither had been fairly tested yet, one that brick was preferred on the whole, one unqualifiedly for brick, one that brick was preferred "except for the noise," and one that asphalt was preferred for testdence and brick for business streets.

The average of the cost per square yard of asphalt pavement given by thirty-three American cities is \$2.27, and of brick by thirty eight cities, \$167 The average time of service is about the same, that of brick given by forty-two cities being nine and one-half years, and asphalt given by thirty one cities being nine years. The average interval at which repairs are re ported by seventeen cities as being made on asphalt paving is three years and on brick paving by eleven cities four and eight-tenth years.

The balance of opinion is, therefore, strongly in favor of asphalt. It is dearer than most materials, but taking into consideration its many advantages for traffic and saving of traction power, it is undeniably the cheapest in the end.

MR. H. J. BOWMAN.

Mr. Herbert J. Bowman, the new president of the Association of Ontario Land Surveyors, was born at Berlin, Ont., in 1865, and received his early education in the public schools of that town, afterwards taking the Civil Engineering course in the Ontario School of Practical Science at Toronto, graduating therefrom in 1885. Upon the breaking out of the Northwest Rebellion, he went to the front with the University Company of the Queen's Own Kifles. In 1887 he qualified as a land



MR. H. J. BOWMAN, President Association of Ontario Land Surveyors.

surveyor, and has always taken a great interest in the affairs of the Association of Ontario Land Surveyors. Mr. Bowman is also a member of the Canadian Society of Civil Engineers, and was for eight years engineer for the town of Berlin, and has had considerable experience in waterworks, sewerage and general municipal engineering. In 1896 he was appointed Clerk and Treasurer for the County of Waterloo, which now takes up the greater part of his time, the balance being devoted to surveying and to consultations on engineering questions.

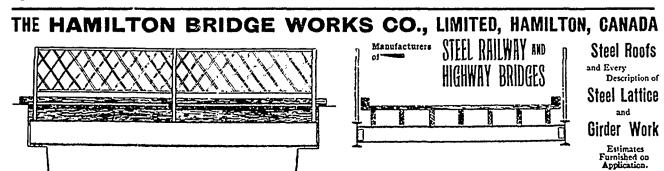


AND ARTIFICIAL STONE SIDEWALKS. Sewer Pipes, Best English Coments. Best Belgian Coments.

Culvert Pipes, &c. W. McNALLY & CO., Monireal.

BELLHOUSE, DILLON & CO., 30 St. Francois Xavier St., Montreal Sole Agents for the Compagnie Generale des Asphaltes de France (Rock Asphalt).

PORTLAND CEMENT NORTH'S CUNDER NORTH'S "CONDOR" BRIND AVARDED FIRST PRIZE AND GOLD MEDIAL AT THE ANTWERP EXHIBITION



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April 5, 1899