

OTTAWA, ONT.—Addition to Rideau street convent: John O'Connor, contractor. Work will commence in June.

SHELburne, ONT.—New school building: Jerrett & Son, of Alliston, contractors; price, \$6,640. The system of heating has not yet been decided upon.

BRANDON, MAN.—W. H. Finlay has let contracts for hot air frame residence, cost \$2,000. Hot air heating and plumbing, Geo. Shirrett, contractor; W. H. Shillinglaw, architect.

MONTREAL, QUE.—Arthur J Cooke, architect, has awarded contract for addition to summer cottage at Woodlands for W. G. Ross to Leduc & Fortier, Beauharnois. He has also awarded contract for conversion of residence, cor. Prince Arthur and St. Dominique streets, into a store, for W. F. Lighthall, to D. Long.

MAISONNEUVE, QUE.—Alcide Chausse, architect, of Montreal, has let the following contracts for a cottage to be erected here for M. S. Ecrement: Mason work, G. Guillault; carpentry, A. Tetrault; brickwork, John Bombray; plastering, F. X. Charbonneau; plumbing, heating and roofing, J. Sicard; painting and glazing, Ernest Belanger.

ST. JOHN, N.B.—Warehouse for James Robertson Co. (H. H. Mott, architect): S. Drury, contractor.—In the CONTRACT RECORD of March 22nd, it was stated that T. Campbell had been awarded the contract for plumbing in connection with a building, corner Peter and Waterloo streets, of which H. H. Mott is architect. This should have read P. Campbell & Co.

ST. THOMAS, ONT.—Below is a list of the successful tenderers for court house fittings: The Canadian Office & School Furniture Co., of Preston, awarded special woodwork of court room and offices, Office Specialty Mfg. Co., of Toronto, vault fittings and office cabinets, etc.; McDonald & Wilson, Toronto, combination gas and electric fixtures; James Acheson, of St. Thomas, hardware, etc.; total cost about \$5,500.

PRESCOTT, ONT.—At a meeting of the Board of Water Commissioners held on Saturday last, the contract for sections one, two and five of the combined waterworks and sewerage systems, as per amended plans, was awarded to Clarke & Connolly, of Toronto, at \$87,590, and sections three, five and six to Kaney, Selby & Co., of Kingston, at \$9,600. The waterworks will be a direct pumping system, with storage tank for domestic use. Galt & Speakman, Toronto, are consulting engineers.

TORONTO, ONT.—Contracts have been awarded by F. H. Herbert, architect, as follows. Pair of semi detached residences on Classic avenue for L. G. Christie: Brickwork, R. Chalkley; carpenter work, P. Curtis; plastering, C. B. Simpson; plumbing, E. Burroughes; painting, Stewart Hughes & Co; galvanized iron, Wheeler & Bain. New detached residence, Lowther ave., for Ambrose Kent: Brickwork, Davidge & Lunn; carpenter work, Young & Co; plastering, C. B. Simpson; painting, H. W. Johnston; galvanized iron, A. B. Ormsby & Co; roofing, R. Rennie & Son; plumbing and heating, The Bennett & Wright Co.

SEWERAGE SYSTEMS OF ONTARIO.  
By WILLIS CHIPMAN, C.E.

The following tabular statement gives the extent and cost of the sewerage systems of the province, excluding those of the cities of Toronto, Ottawa, Hamilton, London and Kingston:

	Population.	Miles Sewers.	System.	Approximate Cost.
Barrie.....	6,000	8½	Separate	\$ 27,000
Belleville.....	10,000	5	S. & C.	65,000
Berlin.....	9,500	10	Separate	69,000
Brantford.....	17,000	14	Separate	134,000
Brockville.....	9,000	11	Separate	121,000
Chatham.....	10,000	18	Combined	95,000
Cornwall.....	7,000	7	C. & S.	55,000
Goderich.....	4,000	4½	Separate	19,000
Niagara Falls....	5,000	11½	Separate	105,000
Owen Sound.....	8,000	7½	Combined	48,000
Peterborough.....	11,000	7½	Separate	70,000
Petrolia.....	6,000	6	Combined	45,000
Renfrew.....	3,000	4	Separate	20,000
St. Catharines....	10,000	6	Combined	70,000
St. Thomas.....	11,000	46	Combined	150,000
Sarnia.....	8,000	7	Combined	26,000
Sudbury.....	1,400	1½	Separate	10,000
Stratford.....	10,500	8½	S. & C.	70,000
Toronto Junction	5,000	11	Separate	120,000
Walkerville.....	2,500	4½	Combined	50,000
Waterloo.....	3,000	3½	Separate	20,000
Welland.....	2,500	1½	Combined	7,200
Windsor.....	12,000	21	Combined	280,000
Woodstock.....	9,000	11½	Separate	50,000

plumbing work and the laying of house sewers are done according to stringent rules and regulations under the city or town engineer's inspection, and full records kept of all such work. These are undoubtedly the best sewer systems in Ontario, not excepting the five largest

Engineers.  
Chipman, Ardagh  
Neilson, McDougall  
Bowman, Chipman\*.  
Chipman, Jones, T. II.  
Chipman.  
McDonell, McGeorge, Topp.  
Chipman, Wiggins, Brown.  
McDougall, † Brough.  
Mitchell, Chipman. †  
Kennedy, McDowell.  
McDougall, Belcher.  
Jones, J. II.  
Chipman.  
Gardiner, Reynolds, Roberts.  
Bell, Campbell.  
Jones, J. II.  
Gordon, Rorke.  
McDougall, VanBuskirk.  
Chipman.  
DeGurse.  
Bowman, Chipman\*.  
Ross.  
DeGurse.  
Davis.

In those places where the separate system has been adopted, the sewers are modern in design, and have been constructed during the last ten years under the supervision of competent engineers.

In some places the sewers have been built street by street and year by year without reference to any general plan or system, and occasionally without the advice or assistance of an experienced engineer. In some few places a large amount has been expended, but to the present time they have few, if any, proper sanitary sewers.

Class A.—Barrie, Berlin, Brantford, Brockville, Niagara Falls, Renfrew, Toronto Junction, Waterloo.

Class B.—Cornwall, Goderich, Peterborough, Owen Sound, Sarnia, Sudbury, Walkerville, Windsor.

Class C.—Belleville, Chatham, Petrolia, St. Catharines, St. Thomas, Stratford, Welland, Woodstock.

In Class A have been included those places in which the majority of the citizens are now served with well built, properly designed sanitary sewers; and where all

cities of the province. Drains of wood and stone are excluded from these systems.

In Class B some of the places have almost complete sanitary systems, but they have no regulations or rules whatever governing plumbing, and no complete records are kept of the work done. The other places in this class have partial systems now built, covering the majority of the streets, but the plumbing by-laws are very imperfect.

In Class C have been placed: (a) Those places that have constructed a very few sewers or a main sewer, but in which the great majority of the streets have at present no proper sanitary sewers. The work done has been of a modern character, but only a commencement has been made towards a first-class sewer-system. (b) Those places in which a large part of the expenditure represents the cost of box drains and sewers that cannot or should not be used for sewage purposes. It must not be inferred, however, that all of the places in class C are not, on the whole, as well sewered as those in class B.—Canadian Engineer.

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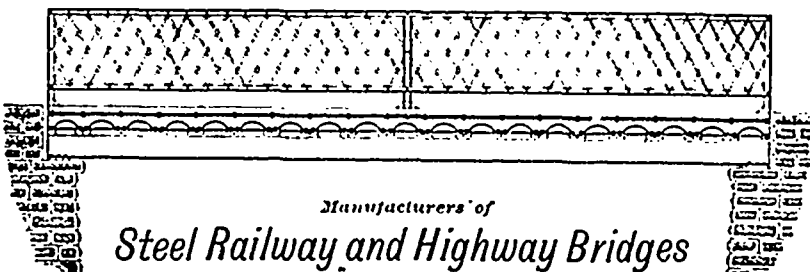
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