

## TORONTO SEWERS PRIOR TO 1867.

Following are some of the oldest sewers in Canada, all built prior to Confederation. This list was furnished to *The Canadian Engineer* through the courtesy of R. C. Harris, Commissioner of Works, and W. R. Worthington, Engineer of Sewers, of the city of Toronto. It is a complete list of all of the Toronto sewers laid prior to 1867. Some of these sewers are still in service, in whole or in part, but many of them have been entirely reconstructed owing to the greater carrying capacities needed:

Year built.	Location.
1840	Pearl St., Simcoe St. to east end.
1843	Adelaide St., York St. to Bay St.
1843	York St., Front St. to King St.
1844	John St., King St. to Wellington St.
1844	Peter St., Front St. to Queen St.
1844	Queen St., Peter St. to Spadina Ave.
1844	Wellington St., Church St. to Yonge St.
1844	Wellington St., Peter St. to Simcoe St.
1845	Wellington St., York St. to Simcoe St.
1845	Adelaide St., York St. to Simcoe St.
1845	Bay St., King St. to Adelaide St.
1845	Richmond St., Church St. to Yonge St.
1849	Duke St., Sherbourne St. to George St.
1851	Mutual St., Gerrard St. to Wilton Ave.
1855	Agnes St., Yonge St. to Terauley St.
1855	Albert St., Yonge St. to James St.
1855	Albert St., Elizabeth St. to James St.
1855	Bathurst St., Front St. to Queen St.
1855	Berkeley St., Queen St. to Sydenham St.
1855	Centre Ave., Armory St. to Elm St.
1855	Chestnut St., Queen St. to Elm St.
1855	Duchess St., Ontario St. to 140' W. Parliament St.
1855	Front St., Don River to Trinity St.
1855	Front St., Peter St. to Spadina Ave.
1855	John St., Front St. to Wellington St.
1855	John St., Queen St. to Stephanie St.
1855	James St., Queen St. to Louisa St.
1855	Osgoode St., Chestnut St. westerly.
1855	Queen St., Jarvis St. to Victoria St.
1855	Richmond St., York St. to Simcoe St.
1855	Simcoe St., 180' N. of Esplanade to Caer Howell.
1855	Sydenham St., Ontario St. to Berkeley St.
1855	Terauley St., Queen St. to Elm St.
1855	Victoria St., Adelaide St. to Gould St.
1856	Shuter St., Yonge St. to Bond St.
1856	Victoria St., Gerrard St. to Gould St.
1856	Carlton St., Church St. westerly.
1856	Centre Ave., Chestnut Place to Elm St.
1856	Duke St., Parliament St. to Berkeley St.
1856	Queen St., Simcoe St. to John St.
1858	Jarvis St., King St. to north of Shuter St.
1858	Parliament St., Front St. to King St.
1859	Elizabeth St., Agnes St. to College St.
1859	Foster Ave., Elizabeth St. to 145' east.
1859	George St., King St. to Queen St.
1859	Mutual St., Shuter St. to Wilton Ave.
1861	Gerrard St., Yonge St. to Jarvis St.
1861	Jarvis St., Wilton Ave. to north of Shuter St.
1861	Wilton Ave., Dalhousie St. to Jarvis St.

The cost of the report on the Montreal aqueduct made for the city of Montreal by consulting engineers H. E. Vautelet, J. B. McRae and Arthur St. Laurent was approximately \$20,000.

## FIELD MARSHAL HAIG'S TRIBUTE TO THE WORK OF THE ENGINEER AT THE FRONT.

Recently there has appeared in various newspaper dispatches eloquent testimony of the work of the engineer at the front, all of them thoroughly deserved. Following these reports it is particularly gratifying to read the statement by Field Marshal Haig, covering operations from December 18th, 1916, to the present offensive. He pays the following tribute to the work of the engineers:—

"The prospect of a more general resumption of open fighting can be regarded with great confidence. The systematic destruction of roads, bridges and railways made unprecedented demands on the Royal Engineers, who were already heavily burdened by the work entailed in the preparations for the spring offensive. Our steady progress in the face of great difficulties is the best testimony to the energy and thoroughness with which those demands were met. The bridging of the Somme at Brie is an example of the nature of the obstacles which we encountered, and the rapidity of their removal. In this instance six gaps had to be bridged across the river, where it is of considerable width and where the current flows swiftly. The work was commenced on the morning of March 18, and by 10 p.m. the infantry bridges were completed; by 5 a.m., March 20, a medium-type bridge for horse transport and cavalry was completed, and by 2 p.m. of the 28th heavy bridges, capable of taking all forms of traffic, had replaced the lighter type.

"Throughout the winter the transport problems were most serious, both in the battle area and behind the lines, and on the rapid solution of these success or failure necessarily largely depended. At the close of last year's campaign the steady growth of our armies and the rapid expansion of our material resources had already taxed the roads and railways to the utmost. With winter conditions deteriorating the roads, the difficulty of maintaining them became almost overwhelming.

"An increase of railway facilities of every type and on a large scale therefore became imperatively and urgently necessary. Great quantities of material and rolling stock were required immediately, while subsequently our wants in that regard were considerably augmented by a large program of new construction in the area of the enemy's withdrawal. The task of obtaining the amount of railway material required and the carrying out of the work of construction at the rate which our plans rendered necessary, besides providing labor and material for the repair of roads, was one of the greatest difficulties. Its successful accomplishment reflects the highest credit on the transportation service, of whose efficiency and energy I cannot speak too highly."

A recent report submitted to the Winnipeg Grain Exchange by United States capitalists outlined a scheme for a through railway route from the United States to Petrograd by way of Canada. The scheme has been considered for some time, and negotiations with the railways and governments which will be involved in the project will be opened in the near future. The plan provides for a standard railway line, connecting United States roads through British Columbia and Alaska with Behring Strait and a line from the Siberian coast to the Trans-Siberian Railway. Large ferries would carry freight and passenger cars across the 56-mile-wide strait. Negotiations have been opened with the Russian Government to improve the Trans-Siberian Railway into a modern road instead of a primitive stretch of track overburdened by war transportations. The United States commission to Russia will take up that phase of the proposed line with the new Russian Government.