

NEWTON JAMES KER, CITY ENGINEER, OTTAWA.

Newton James Ker was born at Brantford on May 6th, 1866, and was educated at the Brantford Collegiate Institute, after which he entered the office of his uncle, Mr. P. A. Peterson, at that time chief engineer of the Canadian Pacific Railway at Montreal.

The first work of importance upon which Mr. Ker was engaged was the construction of the Canadian Pacific Railway into Montreal from Lachine to Windsor Street. He was then engaged upon the Canadian Pacific Railway Esplanade entrance into Toronto, the construction of the Canadian Pacific Railway Bridge over the Thames and approaches at London, Ont., under Mr. W. T. Jennings, C.E.; the Detroit extension at Windsor, having charge of that section running out of Windsor, and subsequently, of the division between Windsor and Chatham, under Malcolm H. McLeod, C.E.

Mr. Ker was on his way to accept a position on the Virginia, Roanoke & Ironton Railway, Virginia, when he was



N. J. Ker.

offered a position by Mr. Jennings, then City Engineer of Toronto. His first work in Toronto was in connection with the arbitration between the city and the old Toronto Street Railway Company. He subsequently had charge of the reconstruction of the system from a horse-car to an electric system, acting as engineer for both the Toronto Railway Company and the City of Toronto.

During his ten years' service in the City Engineer's office, Toronto, Mr. Ker filled the position of engineer in charge of roadways, engineer in charge of sewers, assistant engineer on waterworks, engineer in charge of the Queen Street subway and Island survey, lake under current observation chart, of Toronto Bay, and many other works of importance.

In 1899 Mr. Ker was appointed Assistant City Engineer of Ottawa and engineer in charge of the main drainage system, a work which was built within the estimated cost of \$500,000.

In 1900 he was appointed City Engineer of Ottawa and during his regime, under which great improvements have been made in Ottawa, he has spent over \$6,000,000 on civic works. This embraces permanent pavements, drainage

systems, subways, bridges, the establishment of the civic asphalt plant and blacksmith shops, and other works, as the work in Ottawa is entirely carried on under what is known as the day labor system. Mr. Ker is also manager of the Ottawa Waterworks, which has a capacity of 32,000,000 gallons per day at the main pumping station, which is operated by water power, being one of the largest and finest on the continent. There are also two auxiliary outlying stations, one of which is operated by steam, the other by electric power. The construction upon the new aqueduct and intake pipe, costing \$300,000, is now well under way. The Wellington Street viaduct, estimated cost of which is \$75,000, is also under construction at present.

In addition to his other duties, Mr. Ker is superintendent of parks and street commissioner, having charge of the direct supervision over street cleaning, scavenging system and snow cleaning, all of which are carried on by day labor.

Mr. Ker is a member of the Canadian Society of Civil Engineers, and has served on the Council of that body.

OTTAWA CIVIC WORKS.

Newton J. Ker, M. Can. Soc. C.E.

Ottawa's civic works are under the control and supervision of the Engineering Department.

During the last ten years over \$6,000,000 has been expended and fully 75 per cent. of this has been expended under what is known as the Day Labor System.

Briefly, the works may be classified as follows:—

- 1st.—Water Works.
- 2nd.—Bridges, Subways & Viaducts.
- 3rd.—Roadways, Pavements and Walks.
- 4th.—Drainage.
- 5th.—Park Management.
- 6th.—Special Works.
- 7th.—Collection and Disposal of Refuse.

All of these may again be divided into two departments, Construction and Maintenance.

The staff is composed of the following officials:—

- 1.—The City Engineer, who is also the manager of the waterworks.
- 2.—The Assistant City Engineer.
- 3.—An Assistant Engineer in charge of Pavements and Sewers.
- 4.—An Assistant Engineer in charge of Special Works and Viaducts.
- 5.—A Street Foreman.
- 6.—The Engineers at the Pumping Station.
- 7.—A Superintendent of Mains.
- 8.—An Inspector of Water Services and Drains.
- 9.—A Scavenging Inspector.
- 10.—A Foreman in charge of the City Yards, Blacksmith, Carpenter and Machine Shop.

While in the season and when required, a superintendent of the civic asphalt plant, and street sprinkling inspector, and the many foremen on construction works, are engaged whenever their services are necessary. The force varies in number from 200 to 800 men, during the different seasons of the year.

The office staff is composed of a draughtsman, chief clerk, second clerk and stenographer.

Where works are carried on so extensively by day labor the Department in addition to the usual engineering duties of planning and supervision, really assume the duties of a large contracting firm, purchasing hundreds of thousands of