

things would be made so unpleasant for him that he would welcome resignation. There is a popular fiction current to the effect that the sanitary inspector is protected by the local government board. He has no more real protection than the surveyor, and councils may do as they please with him. The sole duty of the council should be the making of the rate, and this could be as well done by one man as by twenty—the collector could, in fact, do it. Directly a council concerns itself on engineering matters it becomes ridiculous, and the effect of its interference is to hamper the technical officers. These should be appointed by a central controlling authority, and should be removable only for misconduct, or at an age when a pension (and a sufficient one) falls due. Their appointment would, in fact, be a life one, with promotion to larger appointments as vacancies occur. They would be responsible to the central department only, just as are police and post-office officials. What would happen were these classes appointed and dismissed at the pleasure of small local bodies? Perhaps, when councils no longer exist, the municipal engineer will be appreciated at his true worth. Until then but little can, I fear, be done.

The question of salaries is all-important. Municipal engineers are usually woefully underpaid and overworked. Higher salaries and less hours of labor would reduce the ranks of the unemployed, and the overcrowding question would not recur for years. There would be room for thousands if proper and sufficient staffs were engaged. £150 a year should be the minimum salary for even a deputy or chief assistant.

The full qualifications for a municipal engineering appointment are so many and so varied that no one man could satisfy a standard. The essential qualifications would place no light tax on a man's abilities, and none should be appointed without these. Some towns have, I believe, passed resolutions to the effect that no man should be appointed who has not passed the examination of the Institution of Civil Engineers qualifying for at least associate membership. This is, of course, pure nonsense; indeed, so far as municipal engineering goes, the examination is three-fourths sheer waste of time. While there are special examinations for municipal engineers, it is as ridiculous to ask a man to pass another as it would be to ask a judge to pass in surgery because he might on some occasion have to hear an action in which a broken leg was introduced. That some limitation should be imposed upon the appointment of quite unqualified men no one will deny, but it is equally important that the test to be undergone shall be a reasonable one. It is to be hoped that councillors will not allow themselves longer or to any further extent to be hoodwinked by men whose interest is with an alien profession. It must not be forgotten either—and I cannot lay too great a stress upon it—that civil engineering as practised is only one branch of municipal engineering. A calculating boy or similar wonder need not necessarily make a good municipal engineer.

I have no hesitation, in conclusion, in placing municipal engineering at the top of all the professions. It is one in which the duffer can never shine, and there is no other profession of which this can be said, except, perhaps, that of the barrister, and he, unless possessed of special talent, has no chance unless he be promoted to the Bench. The time has arrived when the municipal engineer must take the place which is his by right, and with two active bodies to voice his interests, both working now upon similar lines, great strides must inevitably be made during the next decade or two. Individual effort is, however, none the less necessary.

CIVIC PORTION OF STREET RAILWAY EARNINGS.

The franchise which gives the Toronto Street Railway Company running rights on the thoroughfares of this city calls for a percentage of the receipts to be turned over to

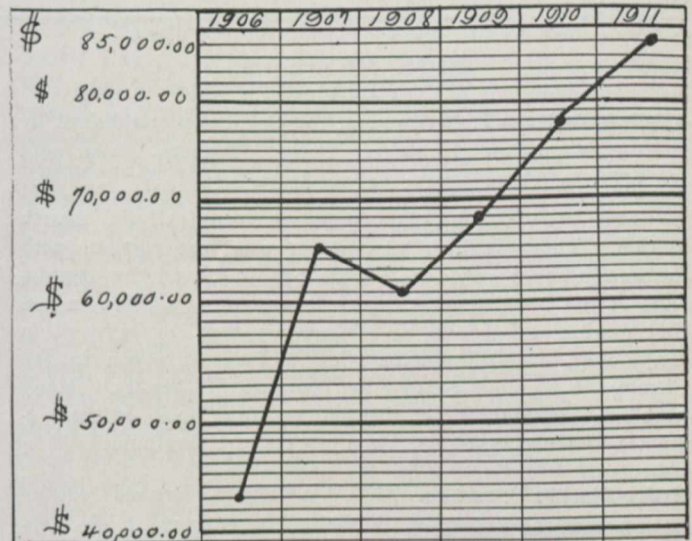


Fig. 1.

the council. The curve shown in Fig. 1 illustrates the manner in which this sum has grown in six years. The comparison is made in the month of August of each year.

RAILROAD AND COMPANY EARNINGS.

The net earnings of the Regina municipal railway for August, inclusive of the 29th and 30th of July, amount to \$4,390.02. The number of passengers carried was 151,104, and the cars travelled 12,815 miles. The railway's gross earnings were \$7,718.50, while the operating expenses amounted to \$3,328.48. The gross earnings per car mile were \$60.23, and the net earnings per car mile, \$34.26.

The Lake Superior Corporation has issued its annual report for year ending June 30th, 1911. It shows that the yearly operations of the subsidiary companies resulted in a surplus of \$1,200,216, subject to depreciation and other charges. The output of the steel plant compares with 1910 as follows:—

	1910.	1911.
Pig-iron	\$53,528	\$170,359
Steel rails	201,615	208,283

The Camaguey Company earnings for August show an increase in gross of 17 per cent., while the gain in net is nearly 28 per cent. over the same month of the previous year. Gross for the eight months ended August 31st shows an advance of 14.58 per cent. over the corresponding period of last year, and net is 29.39 in excess of the figures for the similar period of the year preceding.

Following are the figures in detail:—

	1910.	1911.	Inc.
Gross	\$11,749	\$13,751	\$2,002
Net	5,691	7,267	1,576

The Cuba Railway Company earnings for July were as follows:—

	1911.	1910.	Inc. or dec.
July gross	\$262,666	\$233,441	+ \$29,225
Net	119,352	118,433	+ 919
Surplus after chgs.	59,227	81,766	— 22,539