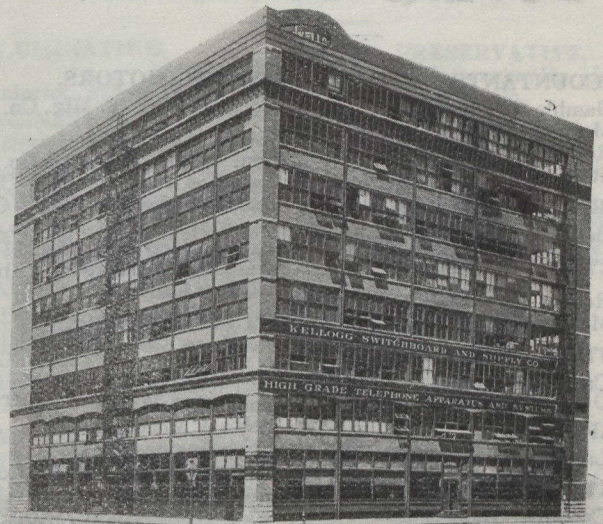


PAGES

MISSING

The Service of the Telephone



THE KELLOGG SWITCHBOARD AND SUPPLY COMPANY HAVE BEEN IN BUSINESS SINCE 1897 — SIXTEEN YEARS. THIS IS A SURPRISINGLY SHORT TIME, JUDGING FROM THE REPUTATION OF "KELLOGG" APPARATUS.

OUR EQUIPMENT IS USED IN MANY FOREIGN CITIES AS WELL AS THOUSANDS OF PLACES IN UNITED STATES.

THE REASON OF THIS WIDE SPREAD POPULARITY IS SIMPLY THAT WE HAVE THE BEST ENGINEERING TALENT, THE MOST SKILLED WORKMANSHIP AND THE HIGHEST GRADE MATERIAL IN EVERY PIECE OF APPARATUS WE PUT OUT.

IF YOU ARE A TELEPHONE MAN YOU WILL BE INTERESTED IN OUR BULLETINS. LET US SEND THEM.

Proves the Worth of the Line.

KELLOGG SWITCHBOARD AND SUPPLY COMPANY

MAIN FACTORY & OFFICE, - CHICAGO.

CANADIAN SALES OFFICES:

DEERING ELEC. Ltd., Regina, Sask.
HOUSTON & CO. Ltd., Winnipeg, Man.
B. C. HOLST & CO., Vancouver, B. C.

BUYERS' DIRECTORY

ACCOUNTANTS.

Gamble & Gladwell.
McIntosh & Hyde.
Ross, H. J.
Stein & Co.

AIR COMPRESSORS.

Belliss & Morcom.

ARTIFICIAL STONE.

Roman Stone Co.
Morrison Co., T. A.

AUTOMATIC TELEPHONES.

Canadian Machine Telephone Co.

BARRISTERS.

Lighthall & Harwood.

BATTERIES, DRY.

Canadian Independent Telephone Co.

BELTING.

McLaren Belting Co., J.C.

BOILERS.

Babcock & Wilcox.
Robb Engineering Co.
Waterous Engine Works Co.

BONDS, ETC.

Bank of Montreal.
Bank of Ottawa
Bank of Toronto.
Brent, Noxon & Co.
Canada Securities Corpor'n.
Can. Bank of Commerce.
City & District Savings Bank.
Dominion Bond Co.
Domion Securities Corp.
Imperial Bank.
Merchants Bank.
Ross, H. J.
Wood, Gundy & Co.

BRIDGES.

Canadian Bridge Co.
Cleveland B. & Eng. Co.
Dominion Bridge Co.

CABLES.

Brit. Insulated Co.
Can. Indep. Telephone Co.
Imperial Wire & Cable Co.
Phillips Elec. Works, E.F.
Standard Underground Cable Co. of Canada, Ltd.

CAST IRON PIPES.

Can. Iron Corporation.
Canadian Fairbanks Morse Co.

CEMENT,

Canada Cement Company

CONCRETE STEEL DAMS.

Ambursen Hydraulic Const. Co.

CONCRETE MIXERS.

Canadian Fairbanks Morse Co.

London Concrete Machy. Co.
Mussens, Limited.

CONCRETE REINFORCEMENT

Can. Wire & Iron Goods Co.

CULVERTS.

Pedlar People.

DUST PREVENTIVE.

Barrett Mfg. Co.

ELECTRIC MOTORS.

Northern Elec. & Mfg. Co.

ELECTRIC WIRE.

Can. British Insulated Co.
Canadian Indep. Teleph. Co.
Canadian Machine Teleph. Co.
Imperial Wire & Cable Co.
Phillips Electrica Works, E.F.
Standard Underground Cable Co. of Canada, Ltd.

ELECTRICAL SUPPLIES.

Northern Elec. & Mfg. Co.

ENGINES.

Babcock & Wilcox
Bellis & Morcom.
Robb Engineering Co
Waterous Engine Works Co.

ENGINEERS & CONTRACTORS.

Aqueducts, Limited.
Austen & Chapdelaine.
Barrow, E. G.
Bayfield & Archibald.
Beaubien, De Gaspé.
Bowering & Logan.
Bowman & Connor.
Brandeis, Charles.
Brown, W. M.
Burnett, Geoffrey K.
Can. Inspection and Testing Laboratories.
Cartwright, Mathieson & Co.
Chipman & Power.
Cleveland & Cameron.
Dietrich, W. N.
Dutcher, Foreman & Gregory
Fairchild, Jones & Taylor.
Francis, Walter J. & Co.
Frew, J. F.
Fuce & Scott.
Galt Eng. Co., The John Higman & Doctor.
Isdale, John S.
Jacobs & Davies, Incp.
Keefer & Keefer.
Laurie & Lamb.
R. S. Lea and H. S. Ferguson
Leofred, A.
Mace, T. Harry.
Mather, Yuill & Co.
McConnell, B. D.
McCulloch, A. L.
Moon & Silverton
Murphy & Underwood.
Murray, T. Aird.
Phillips, Stewart & Lee.
Potter, Alex.
Ross & Co., R. A.
Smith, Kerry & Chace.
Surveyer & Frigon.
Topp, Charles H.
Wright, P. Mortin.
Young, C.R.

ENGINEERS, TELEPHONE.

Clement, Edw. E.
Dagger, F.
McMeen & Miller.
Zabel, Max. W.

ENGRAVERS.

Amer. Bank Note Co.

FIRE ALARMS.

Northern Elec. & Mfg. Co.

FIRE DEPT. SUPPLIES.

H. K. Martin.
Waterous Engine Works Co.

FIRE ENGINES.

Waterous Engine Works Co.

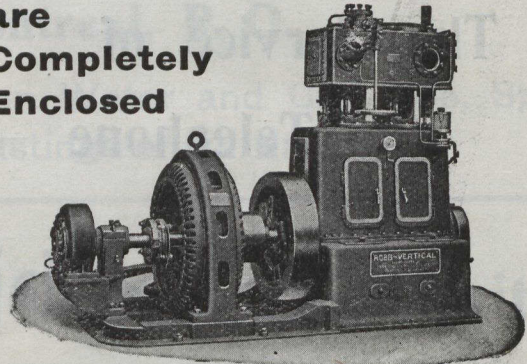
GAS ENGINES.

Can. Fairbanks-Morse Co.

For Cleanliness and the
Protection of Moving Parts

ROBB COMPOUND ENGINES

are
Completely
Enclosed



INTERNATIONAL ENGINEERING WORKS, Ltd.

Owners of works formerly of

ROBB ENGINEERING COMPANY

Works: AMHERST, N. S., CANADA
South Framingham, Mass.

SOLE CANADIAN AGENTS FOR

C. A. Parsons & Co., Newcastle-on-Tyne

Turbines, Turbo Electric Generators, Turbo Pumps, Blowers
and Compressors

39-17

THE DOMINION WOOD PIPE COMPANY LIMITED

New Westminster, B. C.

Manufacturers of

DOUBLE WIRE WOUND



AND

Cast Iron Specials, Valves, Hydrants, Etc.

WELL DRILLING

TOWN WELLS A SPECIALTY

We have the latest scientific instruments for locating subterranean
water courses before drilling.

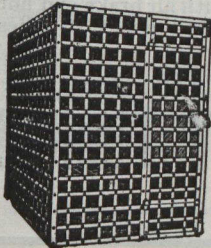
If you need water, you need us.

**SASKATCHEWAN WELL DRILLING CO.
ROULEAU, SASK.**

Eugene F. Phillips Electrical Works,
LIMITED
MONTREAL, - - TORONTO

**Bare and Insulated Electric Wire,
Electric Light Line Wire,
Incandescent and Flexible Cords,
Railway Feeder and
Trolley Wire.**

Jail Cells



We are Headquarters for all Classes of
PRISON WORK

Our Village and Town cells are all equipped with our Patented Automatic Locking Device. No Padlock to bother with.

Inquiries Solicited

Canada Wire & Iron Goods Co.
HAMILTON, Ont.

THE PRINTERS OF THIS JOURNAL

The MODERN PRINTING COMPANY

STUDY THE BUSINESS INTERESTS OF THEIR CUSTOMERS

RING UP MAIN 111 OR 112

and their Representative will wait upon you at your convenience, and it may be a few minutes of your time will result in a marked improvement in your Stationery or Advertising Departments.

UPON EVERY OCCASION
GET IN TOUCH WITH

The MODERN PRINTING COMPANY

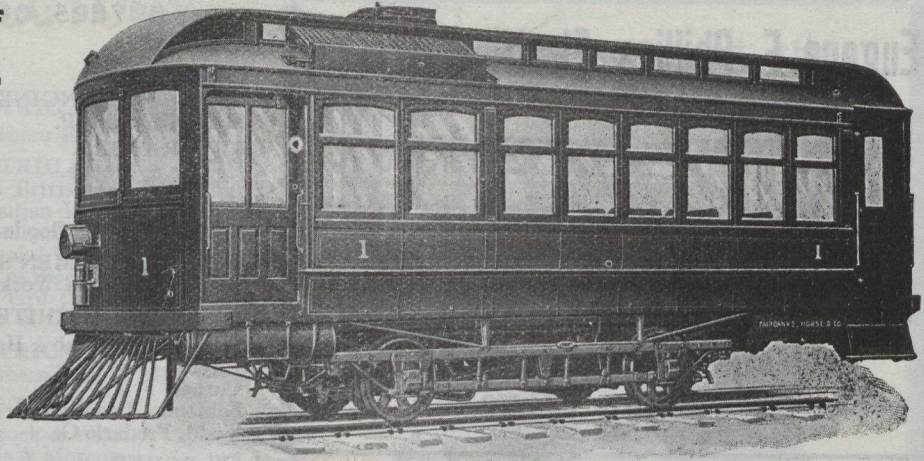
39 DOWD STREET, - MONTREAL

BUYERS' DIRECTORY.—Continued

- ILLUMINATING ENGINEERS.**
Morton-Wright, P.
- INCINERATORS.**
Heenan & Froude.
- JAIL CELLS.**
Can. Wire & Iron Goods Co.
- LADDERS, FIREMEN'S.**
Waterous Engine Works Co.
- LANDSCAPE ARCHITECTS.**
Dunnington-Grubb & Harries.
Haylor, Guy W.
Outhet, F. A.
Schlemm, Leonard E.
Todd, Frederic G.
- LAW BOOKS.**
Carswell Co., The.
- LEATHER BELTING.**
McLaren Belting Co., J. C.
- LITHOGRAPHERS.**
Amer. Bank Note Co.
- LUMBER.**
Naugle Pole & Tie Co.
Partridge-Dyer L. Co.
Valentine-Clark Co.
- METAL CULVERTS.**
Pedlar People, The
- METERS, WATER.**
Buffalo Meter Co.
- MUNICIPAL FORMS.**
Modern Printing Co.
- MUNICIPAL VAULTS.**
Office Specialty Co.
- NUMBERS.**
Davidson Mfg. Co., Thos.
Warminton, J. N.
- ORNAMENTAL IRON.**
Can. Wire & Iron Goods Co.
- PAVEMENTS.**
Canada Cement Company.
Carritte-Paterson Mfg. Co.
Paterson Mfg Co.
- PATENTS.**
Clement, Edw. E.
Munn & Co.
- PIPE, IRON.**
Can. Fairbanks Co.
Can. Iron Corporation.
Martin & Co., Jos. R.
- POLES.**
Naugle Pole & Tie Co.
Partridge-Dyer Lumber Co.
Valentine-Clark Co.
- POLICE SUPPLIES.**
H. K. Martin.
- PUBLIC ACCOUNTANTS**
Gladwell, Wilson & Co.
Ross, H. J.
Stein & Co.
- PRINTERS.**
Modern Printing Co.
- PUBLISHERS.**
Carswell Co., The.
- RAILINGS.**
Can. Wire & Iron Goods Co.
- ROAD MACHINERY.**
Amer. Road Mach'y. Co.
Morrison, T. A. & Co.
Mussens, Limited.
Waterous Engine Works Co
Wettlaufer Bros.
- ROAD PRESERVATIVE.**
Carritte-Patterson Mfg. Co.
Patterson Mfg. Co.
- ROAD ROLLERS.**
Hamilton Mach'y Co.
Morrison, T. A. & Co.
Mussens, Limited.
Waterous Engine Works Co
- SCIENTIFIC INSTRUMENTS**
Isdale, John S.
- SEWER PIPE.**
Dominion Sewer Pipe Co
Morrison, T. A. & Co.
- SEWER PIPE MOULDS.**
London Concrete Machy. Co
Wetlanfer Bros.
- STAIRCASES.**
Can. Wire & Iron Goods Co
- STEAM ENGINES.**
Babcock & Wilcox, Ltd.
Belliss & Morcom.
Robb Engineering Co.
Waterous Engine Works Co
- STEAM FIRE ENGINES.**
Morrison, T. A. & Co.
Waterous Engine Works Co
- STONE.**
Roman Stone Co.
- STREET NAMES.**
Davidson Mfg. Co., Thos.
Warmington, J. N.
- STREET SPRINKLERS.**
Mussens, Limited.
- STRUCTURAL STEEL.**
Canadian Bridge Co.
Cleveland Bridge & Eng. Co
Dominion Bridge Co.
National Bridge Co.
Structural Steel Co.
Belliss & Morcom.
- SUCTION GAS PLANTS.**
Can. Fairbanks-Morse Co.
Mussens Limited.
- SUPPLIES & MACHINERY.**
Morrison, T. A. & Co.
Mussens, Limited.
Waterous Engine Works Co.
- TELEPHONES.**
Canadian Indep. Teleph. Co.
Canadian Machine Teleph. Co
Garrioch, Goddard & Co.
Kellogg S. & Supply Co.
McMeen & Miller.
Northern Elec. & Mfg. Co.
- TURBINES.**
Belliss & Morcom.
Robb Engineering Co.
- VAULTS, SAFETY.**
Office Specialty Co.
- WATER WORKS SUPPLIES.**
Buffalo Meter Co.
Can. Fairbanks Morse Co.
Can. Iron Corporation.
Mussens, Limited.
Dom. Wood Pipe Co.
- WELL DRILLERS**
Sask. Well Drilling Co.
- WIRE, ELECTRIC.**
Imperial Wire & Cable Co.
Phillips Electric Works, E. F.
Standard Underground Cable
Co. of Canada, Ltd.
- WINDOW GUARDS.**
Can. Wire & Iron Good
- WOOD STAVE PIPE.**
Dom. Wood Pipe Co.

Saves the Cost of Poles and Power

The No. 24 Fairbanks-Morse Gasoline Motor Car shown here is a self-contained power plant, as easily controlled as an electric car, and far more economical. It is designed for passenger service and has a seating capacity for 35 people. The body is divided into two compartments, the rear having reversible seats upholstered in rattan, and the forward compartment containing engine and having ample room for light baggage and express, or can be used as a smoking compartment, as it is arranged with side drop seats.



FAIRBANKS-MORSE GASOLINE MOTOR CARS

Are very economical and efficient equipment for branch lines, feeders, etc. They are now in successful operation on many parts of the Continent. The cars we have in use in Winnipeg are giving splendid satisfaction.

In sparsely settled districts, or for connecting adjacent towns, the gasoline motor car is the most logical solution of efficient and satisfactory service. Not only is the first cost of the equipment low, but these cars will

operate on a fraction of the expense of the steam train. As compared to the electric line they require no poles, wiring, power house, or other expense except when actually running.

These cars are regularly equipped with air brake and hot water heating system. Maximum speed about 30 miles per hour.

Write us for specifications and catalogue.

The CANADIAN FAIRBANKS-MORSE COMPANY Limited
444 St. James St., Montreal

Your Police Force Could Handle Any Riot if —

it had the aid of an efficient, modern signal system.

¶ Crowds very quickly become excited. The arrival of two or three policemen before the excitement becomes heated will often disperse a crowd that later on could not be handled by one hundred men.

¶ By means of an efficient signal system, headquarters can keep in touch with the movements of every man on the

force, and every man on the force can keep constantly in touch with headquarters.

¶ A small police force with the aid of proper signal equipment can do more effective work than a much larger force working without the aid of a signal system.

¶ No village is too small for an efficient police signal system.

Write to our nearest house
for prices and particulars.

The Northern Electric
AND MANUFACTURING CO. LIMITED

Manufacturer of Telephone and Fire Alarm
Apparatus and Distributor of Electrical
Supplies for every possible need.

MONTREAL HALIFAX TORONTO WINNIPEG
REGINA CALGARY EDMONTON VANCOUVER

ALPHABETICAL INDEX OF ADVERTISERS

	PAGE		PAGE		PAGE
Ambursen Hydraulic Cons. of Can.....	424	Dunnington-Grubb & Harries.....	435	Naugle Pole & Tie Co.....	422
American Bank Note Co.....	427	Dutcher, Maxwell & Co.....	431	Northern Electric & Mfg. Co.....	384
Aqueducts, Limited.....	430	Fairchild, Jones & Taylor.....	432	Office Specialty Co.....	386
Austen & Chapdelaine.....	431	Francis Walter, J. & Co.....	429	Outhet, R. A.....	435
Babcock & Wilcox, Limited.....	386	Frew, J. F.....	430	Partridge Dyer Lumber Co.....	422
Bank of Montreal.....	426	Fuce & Scott.....	430	Paterson Manufacturing Co., Limited.....	416
Bank of Ottawa.....	425	Galt, Eng., Co., The John.....	432	Phillips Electrical Works, Eug. F.....	383
Bayfield & Archibald.....	428	Gladwell, Wilson & Co.....	424	Phillips, Stewart & Lee.....	432
Beaubien, DeGaspe.....	430	Higman & Doctor.....	429	Potter, Alexander.....	431
Bellis & Morcom.....	422	Haylor, Guy Wilfrid.....	435	Robb Engineering Co.....	382
Bowman & Conner.....	423	Imperial Bank of Canada.....	425	Robertson Limited, J. M.....	431
Bowring & Logan.....	431	Imperial Wire & Cable Co.....	385	Roman Stone Co., Limited.....	423
Brandies, Charles.....	430	Isdale, John S.....	429	Ross, H. J.....	423
Brent, Noxon & Co.....	425	Jacobs & Davies.....	432	Ross & Co., R. A.....	428
Brit, Insulated & H. Cables Ltd.....	422	Keefer & Keefer.....	430	Royal Bank of Canada.....	426
Burnett & McGugan.....	435	Kellogg Switchboard & Supply Co.....	381	Saint-Cyr, J. B.....	428
Canada Cement Co... Cover Page.....	2	Laurie & Lamb.....	428	Sask. Well Drilling Co.....	382
Canada Iron Corporation.....	436	Lea, R. S. & H. S. Ferguson.....	429	Schlemm, Leonard E.....	435
Canadian Bank of Commerce.....	426	Lighthall & Harwood.....	423	Smith, Kerry & Chace.....	430
Canadian Bridge Co., Ltd.....	436	London Concrete Machinery Co... Cover Page	4	Standard Underground Cable Co., of Canada.	422
Canadian British Insulated Co.....	422	Leofred, A.....	430	Stein Co., W. T.....	422
Canadian Fairbanks-Morse Co.....	384	Martin & Co., Jos. R.....	424	Surveyer & Frigon.....	428
Canadian Wire & Iron Goods Co.....	383	Mather, Yuill & Co.....	432	Todd, Frederick G.....	435
Can. Independent Telephone Co., Limited.....	421	McLaren Belting Co., J. C... Cover Page	4	Topp, Charles H.....	428
Can. Inspection & Testing Laboratories.....	429	McMeen & Miller.....	432	Trussed Steel Concrete Co.....	422
Carswell Co., The.....	424	McCulloch, A. L.....	428	Valentine-Clark Co.....	422
Carritte-Paterson Manfg. Co.....	287	Macintosh & Hyde.....	386	Warmington, J. N.....	436
Cartwright, Matheson & Co.....	429	Merchants Bank of Canada.....	426	Waterous Engine Works Co., Limited.....	386
Chipman & Power.....	429	Modern Printing Co.....	383	Wood, Gundy & Co.....	427
City & District Savings Bank.....	425	Moon & Silvertan.....	430	Wright, P. Morton.....	435
Cleveland Br. & Eng. Co... Cover Page	4	Morrison & Co., T. A.....	423	Young, C. R.....	431
Cleveland & Cameron.....	428	Murphy & Underwood.....	431		
Dagger, F.....	432	Murray, T. Aird.....	431		
Davidson Mfg. Co., Ltd., The.....	436	Mussens, Limited... Cover Page	3		
Dietrich, Limited.....	429				
Dominion Bridge Co., Limited... Cover Page	4				
Dominion Securities Corporation.....	427				
Dominion Sewer Pipe Co., Limited.....	436				
Dominion Wood Pipe Co.....	382				



Across Canada with the
**IMPERIAL
 WIRE & CABLE
 COMPANY
 LIMITED**

Toronto - MONTREAL - Winnipeg

FOURTH of a series of advertisements showing buildings of National importance which have been wired with Imperial Wire & Cable Co.'s Limited, wires.

This picture shows

**THE ELECTRIC RAILWAY CHAMBERS,
 WINNIPEG.**

Architects: Pratt & Ross, Winnipeg.
 Engineers: Neiler, Rich & Co., Chicago.
 Electrical Contractors: Schumacher, Gray Co.,
 Winnipeg.

This building was wired with "IMPERIAL HIGHGRADE" Rubber Insulated Wire.

Address enquiries to nearest office
 MONTREAL TORONTO WINNIPEG

Alberta and British Columbia enquiries to Northern Electric & Manufacturing Co., Limited, Calgary and Vancouver.

TORONTO
85 Bay St.

CALGARY
Molsons Bank Chambers

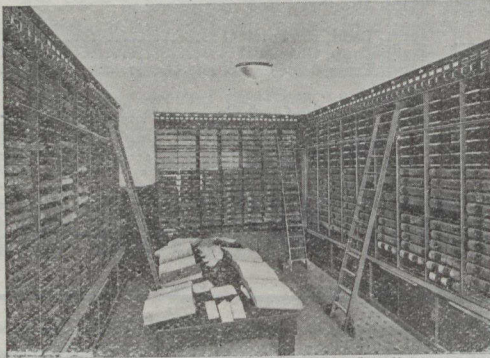
WINNIPEG
173 Portage Ave. East

MACINTOSH & HYDE
Chartered Accountants

ESTABLISHED 1835

157 ST. JAMES ST., - MONTREAL

Municipal Accounts Organized, Reported Upon or Audited.



REGISTRY OFFICE equipment in Steel is a specialty with us.

Let us send you a handsomely illustrated folder showing some of the installations we have made.

Plans for filing and record keeping equipment prepared and submitted at your request.

Head Office:

97 WELLINGTON STREET WEST, TORONTO.

Filing Equipment Stores:

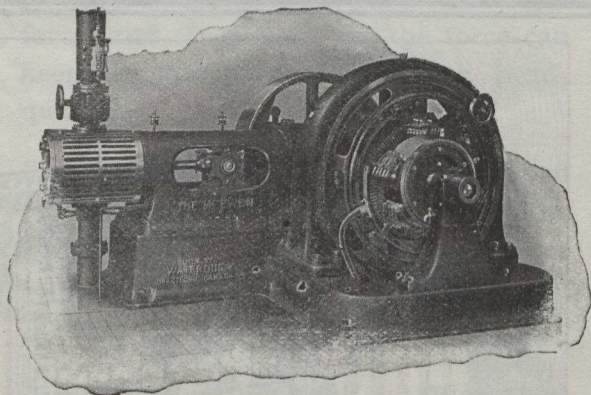
Montreal, Ottawa, Halifax, Winnipeg, Calgary, Edmonton, Vancouver.

Factories: NEWMARKET, Ont.

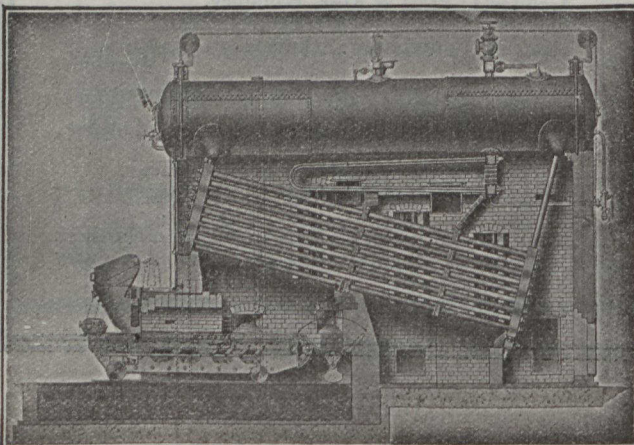


McEWEN
ENGINES

have a record of success in the very service you require. Every dollar you put into the cost of your McEwen, you get out in economical operation and in all-round seven-days-in-the-week service. Their ability to make good is vouched for by hundreds of satisfied users in Canadian power plants.



The Waterous Engine Works Co., Ltd.
BRANTFORD, - CANADA.



BABCOCK & WILCOX

LIMITED

PATENT WATER-TUBE STEAM BOILERS

OVER 10,000 000 H. P. IN USE

OUR BOOK "STEAM" SENT ON REQUEST

HEAD OFFICE **ST. HENRY, MONTREAL**
FOR CANADA

Branch Office: TRADERS' BANK BUILDING, TORONTO

THE CANADIAN MUNICIPAL JOURNAL

AND REVIEW OF CIVIC IMPROVEMENT

HARRY BRAGG, EDITOR

THE CONVENTION OF THE U. C. M.

In revising the report of the Convention of the Union of Canadian Municipalities, one matter attracted a good deal of attention and that was the misconception that arose between the delegates about what is so interesting a topic in every municipal gathering, namely "Commission Government."

Unfortunately this expression has been applied to several different methods which now exist in Canada.

Mayor Lavallee spoke of the "Board of Commissioners" in Montreal, and this is the expression in the amendment to the Charter creating the Board. And yet, this Board is the same as the Board of Control that exists in Toronto, Ont., (where it originated) in Winnipeg, Man., Ottawa, Ont., and Halifax, N.S. The English papers in Montreal generally speak of the "Board of Control," and of its members as "Controllers", and they are really correct.

Then Mayor Short, Edmonton, Alta., spoke of the "Commissioners" in that City Government and few understood at first that these are appointed and salaried officials, much as the City Clerk and Engineer are; and might be called "City Managers."

Next Calgary's representative, Ald. May, spoke of his City's Commissioners, who are elected by the City at large, and are really in the same class as "Controllers."

Mayor Galbraith, of Prince Albert, Sask., gave another example of other "Commissioners," in the appointment of the Mayor and the Secretary-Treasurer as "Commissioners," and gave an address on this kind of government.

Now, as a matter of fact, as we have stated previously, the only municipality in Canada working under "Commission Government" as it is properly understood, and as it is being widely adopted in the United States, is the City of St. John, N.B., which adopted it less than a year ago. In this case the Council has been abolished entirely, and the whole city government rests on five "Commissioners," one of whom is the Mayor, who are elected by the citizens at large—that is without the ward system.

It really was no wonder that some of the delegates got mystified and confused when so many varieties of "Commission Government" were discussed, and when a speaker failed, as a rule, to recognize that his form might be peculiar to his own city.

Another feature was the fact that was evident on the part of some was that by listening to a paper, passing a vote of thanks to the writer, and ordering it to be printed in the Official Report, to be printed in the official organ, "The Canadian Municipal Journal," the approval of the Convention was thereby stamped upon the opinions expressed. The President solved this by announcing that the Convention did not hold itself responsible for the opinions expressed in any address, nor in any speech. It was only bound by such Resolutions as were passed expressing the opinions or the wishes of the delegates.

It was very satisfactory to note how promptly some unwise attempts to bring in a party aspect, were put down by the President, such utterances being ordered to be expunged from the minutes.

As on previous occasions, the discussions on the papers proved very interesting, and a large amount of general information was supplied by the various speakers who took up the prepared addresses.

It was unfortunate that so many of the numerous subjects given in the programme were not even touched upon, and great credit is due to Mr. T. Aird Murray, C.E., and Mayor Oliver, of Port Arthur, for giving such interesting impromptu addresses on "Sewerage" and "Pavements." In the case of the former, a valuable contribution was to be expected, but Mayor Oliver's speech showed how very clearly he knew what was being done in his own city.

It was again noticed that a great deal of the real value of the Convention lay in the talks round the meal tables, where experiences and practical information were exchanged. The addresses and the discussions on them, valuable as they are, were not by any means the total good of the friendly meetings of municipal men from all over Canada.

A suggestion was made after the Convention had closed that the Union should be divided into two sections, an Eastern and a Western one, perhaps meeting at the same time and discussing certain questions in joint session.

This, however, would do away with one valuable feature of the Union, namely the fostering of a truly Canadian spirit by the meeting of men from all over the Dominion, who thus learn much about their common country, its needs and possibilities.

Now is there any need for a divided Union?

Most of the questions of municipal activity are common to every place in Canada, whether on the prairies or the sea-coast. The questions of the form of government, taxation, water supply and sewage disposal, police and courts, fire protection and many others are of common interest, though some variations due to local conditions may arise.

True there are questions which are purely local, such for instance, as Hail Insurance. But these can all be very properly referred to the Provincial Municipal Unions, and this has been the way in which such matters have been treated by the Federal Union.

It would be, we believe, a fatal mistake to take any step in the direction of lessening the all-Canadian character of the Union.

One of the pleasantest features was the absolute friendliness which was so apparent, and the belief that the Union was a Canadian organization, working for no one section of the country, but for the whole Dominion.

THE CANADIAN MUNICIPAL JOURNAL

OFFICIAL ORGAN
UNION OF CANADIAN MUNICIPALITIES.

Provincial Unions of
MANITOBA, BRITISH COLUMBIA, ALBERTA, SASKATCHEWAN,
NOVA SCOTIA, NEW BRUNSWICK AND QUEBEC.

CANADIAN INDEPENDENT TELEPHONE
ASSOCIATION.

CHIEF CONSTABLES' ASSOCIATION OF CANADA.

MONTREAL, OCTOBER 1913

CONTENTS

	PAGE
CONVENTION OF THE U. C. M.	385
Official Report.	
ADDRESS BY LIEUT.-GOVERNOR BROWN.....	389
WANTS OF RURAL MUNICIPALITIES.....	411
J. Norman Bayne, Deputy Minister of Municipal Affairs of Saskatchewan.	
ABOLITION OF WARDS, AND ADMINISTRATION BY ONE BODY ONLY.....	400
Mayor Lavallee, K.C., Montreal, Que.	
INCREASING COMPLEXITY OF MUNICIPAL GOVERNMENT.....	397
Mayor Hocken, Toronto, Ont.	
CITY DEVELOPMENT.....	396
Mayor Short, Edmonton, Alta.	
ABOLITION OF THE WARD SYSTEM.....	402
Mayor Graham, London, Ont.	
CITY CONTROL OF WATERFRONTS.....	401
Mayor Oliver, Port Arthur, Ont.	
B.C. COMMISSION ON MUNICIPAL GOVERNMENT	398
Mayor Gray, New Westminster, B.C.	
IMPROVEMENT OF WATERWAYS.....	406
Controller Church, Toronto, Ont.	
MUNICIPAL FINANCE.....	406
Ex-Mayor W. Sandford Evans, Winnipeg, Man.	
PAVING.....	413
Mayor Oliver, Port Arthur, Ont.	
COMMISSION SYSTEMS OF GOVERNMENT.....	403
Mayor Galbraith, Red Deer, Alta.	
SEWAGE DISPOSAL.....	412
T. Aird Murray, C.E., Toronto, Ont., Consulting Engineer for the Province of Saskatchewan.	
TOWN PLANNING.....	438
Commissioner Yorath, Saskatoon, Sask.	
REVIEW OF CIVIC IMPROVEMENT.....	417
Civic Notes.....	433
Editorials.....	387
Engineering News.....	439
Financial Notes.....	437
Financial Echoes.....	435
Telephone News.....	427

Although the Canadian Municipal Journal is the Official Organ of the Union of Canadian Municipalities and other bodies named above, yet these are not responsible for any other matter published in it than what in each article or itself is stated to be authorized by either of these bodies.

PUBLISHED MONTHLY BY

The Canadian Municipal Journal Co., Limited.

G. S. WILSON Pres. and Mang. Director
H. BRAGO, M. J. I. Vice-Pres. and Mang. Editor
H. WISELY BRAGO, M. J. I. Assist. Editor and Secretary

CORISTINE BUILDING, MONTREAL

Telephone Main 4362—Cable address "Wilbrag".

WESTERN TRAVELLING REPRESENTATIVE: J. GRISDALE.

SUBSCRIPTION RATES

City of Montreal and United States \$1.25
Canada, Great Britain and Countries in Postal Union 1.00

NOTICE TO ADVERTISERS

Change of copy should reach this office on 18th of month preceeding date of issue, 10th if proof is wanted.

Entered according to Act of the Parliament of Canada, in the year 1913 by the CANADIAN MUNICIPAL JOURNAL COMPANY, LIMITED, at the Department of Agriculture.

National Municipal League

The 19th Annual Convention of the National Municipal League is to be held in Toronto, November 12th to 15th.

Full particulars can be had from the Secretary, Mr. Clinton Rogers Woodruff, 703 North American Building, Philadelphia, Pa.

Providing Sanitary Conveniences at the suggestion of the Health department

The City of Toronto, at the suggestion of the Health Department has decided upon what is evidently considered quite a new idea. That is, for the City to instal sanitary conveniences in houses whose owners cannot afford the immediate outlay on the Local Improvement system, that is by the City paying the cost, and the owners repaying to the City in annual payments extending over so many years.

As a matter of fact, the idea is by no means a new one, as the City of Winnipeg has had the plan in operation for several years.

Winnipeg has a wisely policy of sending its permanent officials to the different Conventions in which they are interested, and in this way Dr. Douglas, the Medical Health Officer, has been able to keep abreast of all the developments of public hygiene, and inaugurate the latest ideas for his City.

Preservation of Civic Landmarks

The Antiquarian Society of Montreal is making an interesting suggestion to the City Authorities, who are just now altering the surface of the historic Champs de Mars.

It is to leave a permanent park about 4 feet wide on the surface along the lines of the old French fortifications, the remains of which underlie the surface. The covering which will soon be put upon the ground, can, without cost, have introduced in it some light colored material such as broken marble which would give a band showing the outlines of the picturesque old bastions of the fortification walls which lie underneath, and these marks would be one of the most popular and interesting of the tourist sights in the City. The exact lines can be given by the Antiquarian Society.

Slums Neglected

The failure of public health work in Canada has been due to the Governments not taking more direct control in administration. The Governments see that the factories, where the wage-earner spend about one-third of the week day, is sanitary, but do not concern themselves with the home where he lives most of the time and where the wife and children live all the time. The Governments also carefully look after the school where the children spend a small part of their time, but let them live in slums for the rest and greater part.

The state also provides a sanitary home for the criminal, but does not take any steps to prevent his fall; and takes no care of the housing of the honest artisan.

The present Health Laws are inadequate, but those in the West are more thorough than in the rest of the Dominion. British Columbia is the only Province that has regulations with regard to Town Planning.

I would say that no government can justify its existence unless it carefully considers the important question of Town Planning and enacts a law with ample and adequate regulations for dealing with unsanitary houses of all classes of the community, and for conferring power on city, town and village municipalities whereby they may not only control, but in a measure direct, town and suburb planning. Dr. Hodgetts, Medical Adviser to the Commission of Conservation.

The Union of Canadian Municipalities

Officers and Executive for the year 1913-1914

PRESIDENT:

F. P. BLIGH, Esq.,
Mayor of Halifax, N.S.

1ST VICE-PRESIDENT:

C. M. R. GRAHAM, Esq.,
Mayor of London, Ont.

2ND VICE-PRESIDENT:

F. E. HARRISON, Esq.,
Mayor of Saskatoon, Sask.

HON. SECRETARY-TREASURER:

W. D. LIDTHALL, K.C.,
Ex-Mayor of Westmount, Que.

3RD VICE-PRESIDENT:

F. H. HEBERT, Esq.,
Mayor of Sherbrooke, Que.

ONTARIO

VICE-PRESIDENTS:

- 1st. E. H. HINCHAY, Esq., Controller, Ottawa.
- 2nd. J. A. OLIVER, Esq., Mayor of Port Arthur.
- 3rd. HENRY CLAY, Esq., Mayor of Windsor.
- 4th. JOHN O'NEILL, Esq., Controller, Toronto.
- 5th. R. N. PRICE, Esq., Mayor of St. Thomas.

BRITISH COLUMBIA

VICE-PRESIDENTS:

- 1st. A. W. GRAY, Esq., Mayor of New Westminster.
- 2nd. T. F. BAXTER, Esq., Mayor of Vancouver.
- 3rd. JOHN SHAW, Esq., Mayor of Nanaimo.
- 4th. H. BOSE, Esq., Ex-Reeve of Surrey.

NOVA SCOTIA

VICE-PRESIDENTS:

- 1st. F. W. W. DOANE, Esq., City Engineer, Halifax.
- 2nd. R. V. HARRIS, Esq., Alderman, Halifax.
- 3rd. A. ROBERTS, Esq., Town Solicitor, Bridgewater.
- 4th. G. W. STUART, Esq., Mayor of Truro.

Official Organ

"THE CANADIAN MUNICIPAL JOURNAL"
402 Coristine Bldg., Montreal.

QUEBEC

VICE-PRESIDENTS:

- 1st. LESLIE H. BOYD, Esq., K.C., Alderman, Montreal.
- 2nd. W. BESSETTE, Esq., K.C., Alderman, Outremont.
- 3rd. V. E. FONTAINE, Esq., Ald., St. Hyacinthe.
- 4th. J. C. POISSANT, Esq., M.D., Alderman, Montreal.
- 5th. F. J. BROUSSEAU, Esq., Mayor of Sault au Recollet.

ALBERTA

VICE-PRESIDENTS:

- 1st. A. J. SAMIS, Esq., Commissioner, Calgary.
- 2nd. F. W. GALBRAITH, Esq., Mayor of Red Deer.
- 3rd. W. H. DOTY, Esq., Alderman, Medicine Hat.
- 4th. G. H. MAY, Esq., Alderman, Edmonton.

NEW BRUNSWICK

VICE-PRESIDENTS:

- 1st. J. W. MCCREADY, Esq., City Clerk, Fredericton.
- 2nd. E. A. RIELLY, Esq., Ex-Mayor of Moncton.
- 3rd. J. H. FRINK, Esq., Mayor of St. John.
- 4th. W. A. DINSMORE, Esq., Mayor of St. Stephen.

MANITOBA

VICE-PRESIDENTS:

- 1st. T. R. DEACON, Esq., C.E., Mayor of Winnipeg.
- 2nd. THOMAS BERRY, Esq., Mayor of St. Boniface.
- 3rd. R. FORKE, Esq., Reeve of Pipestone.
- 4th. J. W. FLEMING, Esq., Mayor of Brandon.
- 5th. C. E. IVENS, Esq., Reeve of Wallace.

SASKATCHEWAN

VICE-PRESIDENTS:

- 1st. H. C. POPE, Esq., Alderman, Moose Jaw.
- 2nd. J. H. ANDERSON, Esq., Alderman, Saskatoon.
- 3rd. J. E. ARGUE, Esq., Mayor of Swift Current.
- 4th. AARON READ, Esq., Mayor of Kerrobert.

PRINCE EDWARD ISLAND

VICE-PRESIDENTS:

- 1st. C. LYONS, Esq., Mayor of Charlottetown.
- 2nd. JAMES PATON, Esq., Ex-Mayor of Charlottetown.
- 3rd. T. CAMPBELL, Esq., Alderman of Charlottetown.
- 4th. T. A. MORRISON, Esq., Mayor of Summerside.

G. S. WILSON, Asst.-Secretary,
Bureau of Information,
402 Coristine Bldg., Montreal.

13th Annual Convention

Saskatoon, Sask., July 15th, 16th and 17th

The Convention opened with the President, Mayor L. A. Lavallee, K. C., of Montreal, in the chair.

The President:—Your Honour and Mr. Mayor of Saskatoon: It is my privilege to have the honor of opening this Convention under the best auspices, as the Province has deputed the Lieutenant Governor to honor us with his presence. After the address of welcome by the Mayor, you will be delighted to hear the first citizen of this Province, Lieutenant Governor Brown.

Mayor Harrison, on behalf of the Council and citizens of Saskatoon, extending a cordial welcome said: It is not often that we have a body of men presenting such important public interests as you do, and authorized to speak on behalf of so many widely separated communities.

This Union, although counting in its existence such a comparatively short period as twelve years, has exercised a marked influence in fostering an interest in municipal affairs and in provoking a more thorough and sustained discussion of municipal questions throughout the country. The special circumstances of the various Provinces differ among each other in many respects, but the main features of municipal life are everywhere the same, and the experience of local governing bodies in one part of the country is most helpful to those living elsewhere.

Saskatoon is a City which had no existence ten years ago. There was at that time a population at this point of one or two hundred, so that the present City exemplifies the rapidity with which progress goes forward in the West. It is natural that we should have had to cope with unusual difficulties in consequence of such swift growth, and in laying the foundations of the great City, which, in the near future, will be built up at this point. We have made mistakes, and many of them; but we believe that we have also achieved a reasonable amount of success. We take a deep interest in the work of this Union, and in the subjects which

are coming up for discussion. We are now at the very beginning of our career as a City, and we are anxious to have all the light that can be thrown upon the problems which confront us. We believe that we shall benefit greatly by your stay in our midst.

The President introduced His Honour,

Lieutenant Governor Brown

Mr. Chairman: Your Worship: In addressing such an assemblage as this, I feel considerable diffidence and hesitation, because I see before me, representing the Municipalities, a body of men that has to deal with one of the most complex, the most important, the largest problems that it is possible to conceive; many men laboring under different conditions but yet, in the main, administering the most intricate and complex form of government, namely, the municipal government of the different communities which they represent.

When you think of the expenditure of the great city of Montreal and compare it with the expenditure that is possible for the Legislature of the Province of Quebec (and the same might be said of the other provinces), you have some idea of the great financial responsibility that rests upon you, because upon the wise expenditure and the wise carrying out of the great schemes that are necessary for the development of the various communities, depends largely the success of the country at large. When you think of the complex questions that you have to deal with, the different conditions in which you are situated, you might ask: why are we brought together here today to discuss these questions at all? It is only because by coming from the different parts of our broad Dominion, you are able to find the questions that you all have to deal with in common, and are thus enabled to go back to your own particular spheres and work out the local conditions in connection with the great general principle that underlies the whole administration of municipal affairs in this country. When you think of the importance that must be attached to the success of your work, that the comfort of our homes and the credit of our country, depends upon the executive ability that must be developed in each and every municipality in order that the success which we may look forward to may be obtained, then we may have some idea of the width and breadth of the outlook. We feel in the Western Provinces of Canada that we have a clean sheet, as it were, upon which to write, but, on the other hand, we are surrounded by inexperience and are dealing with new problems.

In Eastern Canada and in the older Provinces, you perhaps find many mistakes to correct, but you have also the great advantage of the experience of those who have gone before, and it is in order that the West—the newer parts of the country—may have the advantage of your experience, and that you may have the inspiration that comes from the development of a completely new country, that you are gathered here, and we all look for great results from conventions such as these.

Speaking of the money stringency—I do not intend to go into the financial side at all—but I think you will agree with me that the prosperity of Canada depends upon the prosperity of every constituent that goes to make up this great country. There can be no good times in the West and bad times in the East; and there can be no good times in the East and bad times in the West. As Canadians we ought to forget that there is an East, or a West, but realize that we are each one of us, in our own particular sphere, working out to the very best of our ability the problems that have been set before us, so that the result will be the very greatest measure of success to our beloved Dominion. If you were to ask me what perhaps, after all, would be the greatest benefit to be derived from a Convention such as this, I would say that it is the bringing together of men representing the responsibility of which I have spoken from the different parts of the Dominion, letting them interchange their ideas and thoughts, and meet each other and learn to sympathize with each other. Perhaps we in the West are apt to feel that all the difficulties and all the problems lie in our country, and the people in the East will no doubt think the same thing; but when we come together, when we calmly discuss the questions that are uppermost in our minds, we find that the East is working out great problems for the West, and the West is undertaking great things for the East, and that the prosperity of our country at large depends upon the earnest co-operation, sympathy, and an intelligent and brotherly interest in each other. Talking of co-operation, what is a municipality but a great co-operative society? What are any of our great institutions of civilization but co-operative societies? And he who looks most into that problem of co-operation best realizes that the good of his fellow-men means his own good; means the development of an interest in each other that we would not have where co-operation and co-operative principles are not at work. And we will become better citizens when we begin to believe more fully than we do at the present time that having an interest in our fellow-men means our own success, and our own prosperity as well.

I welcome you all from the various parts of Canada to this new Province; I welcome you to this land of the prairie. We extend to you a welcome as broad as our prairies, with hearts as light as the sun which shines upon us together, and we meet you as fellow-Canadians engaged in a common cause and in a common work. And we hope that when this Convention separates we will, through having come in contact with each other, have a broader sympathy, a broader outlook with regard to the welfare of this great country of which we claim to be citizens.

Mayor Bligh, Halifax, N.S., and Mayor Oliver, Port Arthur, Ont., on behalf of the delegates, replied to the addresses of welcome.

Mayor Lavallee read the

President's Address

Honor is a thing which costs very dearly. I never felt that sentiment as much as I do today. I can assure you that I could not over-estimate the value of being the President of the Union of Canadian Municipalities, but I suppose everybody must pay his debts and it is a heavy debt that I have to pay, and the effort to pay it is very great.

I have been connected with this work for the last eight or nine years, and the more I attend these Conventions, the more I become convinced of their utility, and I am sure that every one of you has come to the same conclusion. It is through these conventions that we establish an exchange of ideas between the extreme east and the extreme west, and between the north and the south. We have, in every Province, each our ideals. We administer the municipal affairs according to local conditions and under rules and laws that are given by the representatives of the people in each Legislature. But as wisdom is not always measured with the same yardstick, we have not the same rules. But a thing which I may say without fear of being contradicted is that in each Province and in each municipal council, you will always find the same devotedness, the same zeal for the fostering and the advancement of municipal affairs.

I trust that the Union of Canadian Municipalities will continue united, that every year they will meet, that they will study up the different problems which have to be solved in the best interests of Canadian Municipalities, and that they will advance and push forward the interests of small and large municipalities. I think that good, intelligent municipal administration, is the sinew, the backbone, the strength of the country, and I trust that this Union will live many years and that every municipality will aid it, for it is a duty to send delegates to whatever might be the place of convention.

I cannot take my seat without offering my thanks, as President of this Union, to the Lieutenant Governor of this Province for the honor he has done this Convention; or without seizing the first opportunity, as President of this Union, to tender my most sincere and cordial thanks for the way in which the Mayor and the Aldermen of this Municipality have received the delegates of this Convention.

Ex-Mayor W. D. Lighthall, K.C., read the

Report of the Honorary Sec.-Treasurer

The great interest of the present Convention is in the return of our Municipal Parliament to Western Canada, the extraordinary interest of whose developments is in no respect more striking than in the development of its municipalities. In our last visit, four years ago, we were struck by the splendid promise of the growing cities and towns, and our reports up to date have been such as to cause in us the most profound interest in the improvement we expect to find out of what we then saw. But besides that, large fresh developments have also taken place, especially along the Northern routes, and all our delegates will doubtless learn much that will be of advantage to their communities.

During the past year Legislation at Ottawa has for us been freighted with much preparation, but the political issues have prevented immediate results on the Statute Book. The questions arising from the judgment of the Privy Council in the case of North Toronto and the Toronto and Niagara Power Company, which was the subject of one of the principal resolutions at the last Convention, and involved the great matter of control of streets in general, was the subject of a large and influential delegation to Ottawa, in reply to whose representations the Dominion Government promised relief by legislation. Much work was spent during the Session of Parliament in following up these representations. It was understood that the solution would be found in an amendment to the Railway Act. Other questions were also involved in a pending revision of the Railway Act, to which we paid close attention, notifying the Government of the vital points of interest in that Act to municipalities, which it was necessary to carefully protect in revising it. The Revised Act is ready, but was crowded out like much other matter, by the prolonged Naval Debate. All the other resolutions of last year were pressed forward by the Executive as instructed. In particular, the International Municipal League, suggested at the Windsor Convention, has been established and is getting into operation. The Secretary appointed,—the widely known Mr. Clinton Rogers Woodruff, Secretary of the National Municipal League of the United States,—has thrown into the matter all his usual zeal and ability. Several of the principal British Municipal Associations, and those of South Africa, New Zealand and Australia have taken favorable action, and negotiations are in progress with the International Municipal Association of Europe at Ghent this summer.

A very important matter taken up has been the movement by the Union for the construction by, or in conjunction with the Governments concerned, of an Interprovincial Highway of good standard construction across Canada. Most of the principal cities and towns of the Dominion have sent their resolution favoring such a road, accompanied with many comments in support. On approaching the Dominion Government it has suggested a petition representing the voice of the municipalities, small as well as large, in which case there is no doubt such a Highway would follow. It would be the principal link of a general Highways policy, and would fit into either a Provincial or Dominion or Local policy.

The subject of town planning has occupied of course considerable attention, being one of the principal and most urgent questions of the day, and I am sure the present convention will give to it a fair share of its attention.

The usual Executive meeting of the Union was held at Ottawa on the 31st January where the subjects of Uniform Municipal Statistics, Revision of Railway Act, Whistles and Bells and other matters were taken up and attended to.

Regarding Municipal Statistics, the Dominion Department of Statistics has embodied in its able report an endorsement of the plan of the Union for introducing the system in Canada, and this matter will doubtless be taken up at the next Session, having been crowded out in the same manner as the Railway Act.

An event of some importance has been the organization of the Union of Quebec Municipalities which is ably officered, and from which good results may be expected. It will hold its regular convention this autumn.

A bill was again introduced into Parliament to prevent pollution of waterways by municipalities. It once more brought protests from Halifax and other maritime places, where its application would be objectionable. Would it not be wise to suggest that the opposing views be brought into harmony by exemption of certain regions or classes of localities? A resolution of this Convention might be of assistance.

The cement duty question came up again and the Union took the same stand as formerly. The Government refused any rise in the duty.

A bill to allow the Postmaster General to fix rates of post office carriers on electric railways attracted some attention, being caused by a heavy demand by the Tramways Company in Montreal. But we found that the bill did not apply to municipally owned railways.

The work of our Bureau of Information and of the "Canadian Municipal Journal", our official organ, have been constantly effective.

This being the first of the years of celebration of the Hundred Years' Peace, it may be fitting to remark on the propriety of a representative body such as this expressing itself on the subject, since no bodies are more interested in peace than the municipal governments.

Upon motion of Mayor Hebert, Sherbrooke, Que., seconded by Ald. Boyd, Montreal, Que., this was received and adopted.

Mr. G. S. Wilson, Assistant Secretary, read the

Financial Report

The Financial Report of the Union, with statements of receipts and expenditures in detail, for the year ending December 31st, 1912, shows that the revenue of the Union is steadily increasing.

Our Auditor, Mr. H. J. Ross, has cheerfully given his time and supervision gratis, as usual; and his report is herewith attached.

Receipts.

Cash balance, January 1st, 1912.....	\$ 289.83
Bank Interest, 1912.....	14.64
Annual Fees of Municipalities.....	5,278.00
Contributed by Saskatchewan Union.....	50.00
Contributed by Nova Scotia Union.....	100.00
Contributed by Manitoba Union.....	100.00
Total.....	\$5,832.47

Expenditures.

General Expenses Account.....	\$2,270.05
Advisory Agent.....	825.00
Assistant Secretary, Salary, Rent, Stationery, Postage, and Official Organ.....	2,000.00
Total.....	5,095.05
Balance.....	737.42
	<hr/>
	\$5,832.47

Auditor's Report.

I beg to report having audited the books of your Assistant Secretary, Mr. G. S. Wilson, and have this day certified as correct a Statement of Receipts and Expenditures for the year ending December, 1912.

Montreal, June 15th, 1913.

H. J. Ross,
Auditor.

Upon motion of Mayor Graham, London, Ont., seconded by Mayor Oliver, Port Arthur, Ont., this was received and adopted.

Mr. Harry Bragg, M.J.I., read the

Report of the Official Organ

It is an annual pleasure to attend this Convention and to present the report of your Official Organ, "The Canadian Municipal Journal."

As on previous occasions, I have to extend our thanks to the many friends of the "Journal," not only in Canada, but in other parts of the world.

Since my last report, another Provincial Union has been formed, the Union of Municipalities of the Province of Quebec, and I am proud to say that your Official Organ was chosen to be the Official Organ of the latest offshoot of the Federal Union. You may have noticed that the Official Report of the inaugural meeting was printed in both English and French.

A new feature has recently been introduced, and that is a section devoted to the Municipal Improvement Movement. It arose from a request of the City Improvement League of Montreal to have special representation, and after consulting the Honorary Secretary of the Union, arrangements were made by which the Journal became the Official Organ of the League, giving two pages in each issue. It is hoped by the Montreal League that this may be the nucleus of a Canadian wide movement.

But pleasant as is the editorial side of the Journal, the business side is not so delightful; and it appears as if this should be brought into this report.

To appreciate the situation, it is needful to recall the history of the inception of the Journal, nearly nine years ago.

At the London Convention, 1904, the Assistant Secretary made a proposal which was accepted. This was, that for a subsidy of \$2,000.00 a year, he would provide the salary of the secretary, rent of office, etc., and stationery; and send a copy of a monthly paper to the Mayor and Clerk of every Municipality in Canada.

It was difficult to secure enough capital to start the paper, as the Union was then \$1,400.00 in debt; but, finally, an amount was secured as a loan, which was not only never repaid, but which has had to be increased. That investment has been locked up for over eight years without any interest being obtainable.

Meantime, the condition of the Union became more favorable, and it will be generally admitted that its present position of power and comparative affluence is due, in some measure, to the existence of its Official Organ. Not only has the old debt been wiped out, but

the income of the Union has risen from \$3,000.00 in 1904 to \$5,440.00 in 1911, and over \$5,800.00 in 1912.

Unfortunately, it is only the expenses that have increased for the Journal, so far as the Union is concerned. The costs of printing and office have advanced; the number of copies sent out is larger; but the amount of the subsidy is just the same as it was in 1905.

And while the Journal carries good advertising, it should be understood that much advertising is withheld because the Journal voices the views of the Union for Municipal liberty.

The work of fighting for public rights is intensely interesting, or the speaker would have dropped it long ago.

It is difficult to have spoken in this way, when so much kindness and appreciation are offered to the Journal; but sometimes the only way to bring a matter forward, is to talk about it, and this must justify this part of the Report.

Again we have to plead for increased advertising support from the Municipalities, in the way of tenders for work or debentures; and once more let us assure every Municipality that we welcome news from them.

Let me again repeat how very grateful and encouraging are the kind of works of our many friends, and how much they aid in keeping up the courage necessary for the work.

Upon motion duly seconded and carried, this was received and adopted.

Then followed the Report of Mr. Fred. Cook,

Ottawa Representative

As usual, notices of all applications to Parliament were sent by the Assistant Secretary Treasurer to all cities and towns likely to be affected by, or interested in, the proposed legislation. There were not many requests for the special aid of the Union's representatives, evidencing that the watchful methods of the past few years at Ottawa are appreciated by the membership of the Union.

During the session of Parliament which closed on the 5th June, 151 private bills became law. Of this number 12 were for the incorporation of Railway Companies; 41 were amendments to existing Railway Charters; 32 were for the incorporation of miscellaneous companies; 22 amendments to existing private Acts (not railways); 8 extensions of letters patent, and 36 divorces.

The remarkable educative influence of the Union upon Parliament is shown by the prompt way in which clauses for the protection of municipalities are inserted in Bills under consideration by the Railway Committee of the Commons. There are three clauses which, through the instrumentality of the Union, were first incorporated in Railway Charters a few years ago, and are now called "The standard clauses for the protection of municipalities."

One clause provides that, in the event of any railway or power company securing the right to acquire or produce electric or other power or energy and to sell it to municipalities, the rates or charges shall be fixed by the Board of Railway Commissioners for Canada.

The second clause requires that the consent of municipalities shall be secured for the erection of poles, etc., for the transmission of electric light or power.

The third clause imposes upon a railway company, the obligation of securing the consent of a municipality to run its line along any street or highway of such municipality.

At the recent session of Parliament, not only with regard to new Acts of Incorporation of railway companies, but with respect to companies chartered years ago and seeking extensions of time or increased powers, these protective clauses have been made to apply in all to 19 companies, as follows:

- Bill No. 38.—The Alberta Ry. and Irrigation Co.
- Bill No. 39.—The Algoma Eastern Ry. Co.
- Bill No. 40.—The British Columbia Southern Ry. Co.
- Bill No. 41.—The Campbellford, Lake Ontario and Western Ry. Co.
- Bill No. 42.—The Guelph and Goderich Ry. Co.
- Bill No. 43.—The Kootenay and Arrowhead Ry. Co.
- Bill No. 44.—The Manitoba and North Western Ry. Co.
- Bill No. 49.—The Ottawa Northern and Western Ry. Co.
- Bill No. 54.—The Collingwood Southern Ry. Co.
- Bill No. 70.—The Huron and Ontario Ry. Co.—(Name changed to the Toronto and Northern Western Ry. Co.)
- Bill No. 79.—The Cariboo, Barkerville and Willow River Ry. Co.
- Bill No. 83.—The Southern Central Pacific Ry. Co.
- Bill No. 93.—To incorporate the Quebec Rapid Transit Ry. Co.
- Bill No. 96.—The Canadian Northern Ry. Co.
- Bill No. 99.—The Canadian Northern Quebec Ry. Co.
- Bill No. 105.—The Canadian Northern Ontario Ry.
- Bill No. 110.—The Canadian Pacific Ry.
- Bill No. 135.—To incorporate the Nipissing Central Ry. Co.
- Bill No. 159.—The Brantford and Hamilton Ry. Co.

It requires no special effort now on the part of the Union to secure the inclusion of these clauses. Mr. E. A. Lancaster, M.P., Chairman of the Railway Committee of the House of Commons, and always a warm upholder of municipal rights, simply makes the suggestion to the Committee in every case, and the clauses are inserted.

Bill No. 80 to incorporate the Huron Lake Shore Railway Company was rejected at the instance of Mr. R. G. Code, K.C., representing the Ontario Government. The Company asked authority to build a railway from Sarnia to Meaford, through the counties of Lambton, Huron, Bruce and Grey. The extraordinary powers sought by the promoters were responsible for the defeat of the measure. The Company, among other things, asked permission to generate and sell electric or other power or energy. This provision, it was thought, might interfere with the work of the Hydro-Electric Commission in Ontario, and was instrumental in defeating the Bill.

It was expected that the bill to revise and consolidate the Railway Act of the Dominion would be before Parliament at the last session. The work of revising the Act has been entrusted to Mr. Samuel Price, K.C., of St. Thomas, and Mr. Price was engaged upon the work for several months. Following up the recommendation of the Executive Committee of the Union, the Honorary Secretary, Mr. Lighthall, had several conferences with Mr. Price, and submitted to him suggestions for the further protection of municipal rights. Mr. Price had completed the draft Bill before the prorogation of Parliament, but by reason of the length of the session, it was deemed advisable to postpone the consideration of the measure until next session. It is expected that the Bill will be brought down early, and after it has received its second reading will be referred to the Railway Committee. An opportunity will then be afforded

to all interests to make their representations to the Committee.

An important amendment to the Railway Act was made by Parliament at the recent session. It provides that if a railway company makes a change in the location of a terminal or divisional point, the company shall compensate its employees as the Board of Railway Commissioners deems proper, for financial loss caused to them by the change of residence necessitated thereby. This amendment is calculated to remove a long standing grievance.

A Bill of great importance to municipalities and to electric railway companies "respecting the conveyance of letter carriers on electric railways" was introduced by Hon. L. P. Pelletier, Postmaster General. It provided for the carrying of letter carriers by electric railways on terms approved by the Postmaster General.

The following is a list of municipally owned electric railways in Canada.:

Berlin and Waterloo Street Ry.; Calgary Municipal Ry.; Edmonton Radial Ry.; Guelph Radial Ry.; Lethbridge Municipal Ry.; Regina Municipal Ry.; St. Thomas Street Ry.; Saskatoon Municipal Ry.; Brandon Municipal Ry.; Port Arthur and Fort William Electric Ry. and Toronto Civic Car Lines.

As soon as the Bill was introduced into Parliament, the attention of the municipalities likely to be affected was drawn to it, and steps taken to represent to the Postmaster General that the measure should not apply to municipally owned railways. At a conference of railway representatives specially convened in Ottawa, the opinion was expressed that municipal electric railways would not be affected by the Bill, inasmuch as the word "company" is used in clause 2 of the measure. However, section 1 specifically says "every electric railway in Canada," so that it must be obvious that municipally owned electric railways are included. This view is confirmed by the brief discussion which took place in the House of Commons on May 31, when the Bill was withdrawn.

The Bill originated as the result of a dispute between the Post Office Department and the Montreal Street Railway Company. The letter carriers of Montreal were transported by the street railway for years for the sum of \$8,000 per annum, but this year, according to Mr. Pelletier's statement in the House, the company asked \$20,000 a year. After the Bill had been introduced negotiations took place between the Department and the Street Railway Company and a tentative agreement was made for \$15,000 for this year, equivalent to \$50 per head. Rates paid in other cities of Canada are as follows:

Halifax, 3 cents per trip; Hamilton, \$41 per annum; Kingston, \$25; Winnipeg, \$26.50; Quebec, \$42.50; Toronto, \$34; Ottawa, \$75; Regina, \$25; Edmonton, \$25; Calgary, \$25; Vancouver, \$30, and Victoria, \$30.

In withdrawing the Bill on May 31, the Postmaster General explained that one of the purposes had been secured, namely an arrangement with the Company in Montreal

It is obvious that the Postmaster General is determined to secure a fair rate for the carriage of letter carriers on electric railways. Speaking purely personally, but with an intimate knowledge of conditions at the capital, it seems to me that the wisest course the Union of Canadian Municipalities could pursue would be to assist the Postmaster General in reaching a friendly understanding with all the electric railways in Canada, rather than to place in his hands a lever which might ultimately lead to the fixing of much lower rates for

the carriage of the letter carriers than some companies are now demanding.

Possibly the Postmaster General might be induced to amend his Bill so that the fixing of the rates for letter carriers could be left with the Board of Railway Commissioners, but under any circumstances it seems to me that the efforts of this Union might well be directed towards bringing about an amicable arrangement between the Department and the companies.

Upon motion of Mayor Rathwell, Lachine, Que., seconded by City Engineer Deane, Halifax, N. S., this was received and adopted.

Then followed the Report of the Provincial Unions:

Union of Manitoba Municipalities

Presented by R. FORKE, Secretary

This Union is today a live organization and doing valuable service for good municipal government and the advancement of municipal interest generally.

The Union possesses the confidence of the people, and the Government, and members of our Legislature have always been ready to give careful consideration and attention to any recommendation coming from this Union.

It can be said that no important changes have been made to the Municipal Act, without consultation with the Union in convention assembled.

Mention might be made of the "Good Roads Act," The "Audit Act," "Remuneration of Heads of Councils," and Amendments to the "Real Property Act," as an evidence of work done before the last session of the Legislature.

A most successful Convention was held in the City of Winnipeg last November, a very large number of delegates representing most of the Municipal Councils in the Province were present. The proceedings were orderly and dignified throughout the whole convention.

The Hon. Mr. Coldwell, Municipal Commissioner, was present, and in conveying his good wishes, expressed his appreciation of the services rendered his Department by the Union.

A number of instructive and valuable papers were read by gentlemen, experts in their particular line of work.

The Manitoba Municipal Union appreciates the value of affiliation with the Union of Canadian Municipalities and extends to this Convention a hearty greeting, and a sincere desire that the "Union" may continue the good work of making the Municipal Government of Canada something worthy to be proud of.

Union of British Columbia Municipalities

Presented by H. BOSE, Hon. Sec.-Treas.

On behalf of this Union, I beg to state that our Convention last October at Revelstoke was attended by more delegates than any previous one.

The work of our Union during the last twelve months has resulted in having a "Local Improvement Act" passed last session, and the Royal Municipal Commission has drafted a new "Municipal Act" which is in print, and will be discussed at our next Convention and then passed next session of our Legislature.

As to the report of the work of the Royal Municipal Commission, I cannot do better than refer to page 210, June number of the "Canadian Municipal Journal," which is attached hereto.

Union of Alberta Municipalities

Sent by George J. KINNAIRD, Sec.-Treas.

In presenting the report of the Union of Alberta, Mayor Short of Edmonton stated that it had been decided to divide the Report, and that he and Mr. G. J. Kinnaird would each discuss the matters pertaining more particularly to his own class. Mayor Short referred to an amendment to the Alberta Towns' Act. A new Towns' Act had been passed by the Government and there were one or two little matters that needed amendment as the experience of the year had shown that an improvement could be made, and these matters were taken up by the Executives of the Municipalities, and by the Secretary of the Department of Municipal Affairs, Mr. Perry, and in accordance largely with their suggestions, amendments were brought in at the least session of the Legislature.

For the past year the activities of our Union have been mainly directed towards the improvement and perfecting of our new "Town Act" and the many problems confronting us in the application of a new law before knowledge and experience have reconciled us to it and it to all our conditions and requirements. The Alberta "Town Act" is very similar to that of Saskatchewan, and was, in fact, drafted from that statute. The basic principles are, control by a Government Bureau, and the raising of revenue by taxation of land values only. Both of these measures have the hearty approval of our Union and our best endeavours are being used to make them effective. The Department of Municipal Affairs has initiated its regime in a most commendable spirit of leniency and consideration, which we feel calls for our best services in co-operation and support, and our efforts in this direction are recognised and appreciated.

The principle of raising revenue by the taxation of land value only (popularly miscalled "Single Tax") was endorsed by our Union prior to the passing of the Act, but it was not anticipated at that time (1912) that it would be made imperative and of immediate application. However, our legislators ordered otherwise and the result is that some of our Municipalities were not prepared for the sudden change, and the embarrassing situations produced were the principal topics of discussion at our last convention. Some resolutions were adopted with a view to modifying the Act in some respect, but the consensus of opinion was still in favour of the measure. Acting in accord with the overtures of the Union an amendment was passed last session providing for the levying of a business tax for a limited period on application to, and approval by, the Minister of Municipal Affairs and it is hoped that this will afford a sufficient relief in most cases at least. It appears to be an undeniable fact that some of our Western towns are unjustifiably extravagant and both the Department and the Union may find profitable work in inculcating more rigid economy, but the area of a townsite must be of considerable dimensions to permit of sufficient tax revenue (at reasonable figures) for reasonable expenditure, and it appears to me that a closer study of conditions should be made before charters are granted and the limits of new municipalities are defined. In some of our towns the original land-owner is the C. P. R. Co., and a considerable number of the lots are still unsold and consequently exempt from taxation under the terms of the agreement between the Government and that Company. A large proportion of exempted property is a serious matter where revenue is dependant upon taxation of land alone and the taxpayer who carries other people's burden in addition to his own must be considered.

Whilst firmly convinced that taxation of land values only is the fairest and best, especially, as in our case, where it can be initiated and continued from the beginning of things, and believing that its difficulties

can and will be overcome, we feel it would be unwise to overlook or belittle them and would much prefer to have them freely discussed and their solution hastened.

I trust this subject will have some consideration at your Convention.

Union of Saskatchewan Municipalities

Sent by W. F. HEAL, Hon. Sec.-Treas.

In the absence of Mr. W. F. Heal, Mr. J. N. Bayne read the Report of the Union of Saskatchewan. Continuing, Mr. Bayne said: I see they have enclosed here, and have asked me to present a cheque for \$100.00, being their contribution to this Union. Let me supplement what has been stated by the Secretary by saying that of the two bodies which represent our municipal institutions in Saskatchewan, this is the smaller. We have a large organization known as The Saskatchewan Association of Rural Municipalities. It has no direct connection with villages, towns or cities. Its numbers, however, between four and five hundred. It met last March in the City of Prince Albert; it was a three days' session, and was orderly, business-like and effective. As I have some little connection with the municipal legislation of the Province, I may say that the suggestions made by these two bodies receive close and careful attention at the hands of the Provincial Government. I am pleased to be able to report that the relationship between the Municipal Associations and the Provincial Government is of most cordial, and is making towards the betterment of municipal life in the Province.

On behalf of the Union of Saskatchewan Municipalities I have great pleasure in submitting a brief report of the work of our Union during the past year.

First it falls on us to extend a very cordial welcome to the Parent Organization on this, your first Convention in our Province, and to assure you of the keen appreciation with which the proceedings of your Convention will be followed.

Owing to the fact that the municipal associations in Saskatchewan are divided into two bodies, one dealing with the Rural Municipalities, and the other with the Urban Councils, the membership of our Association, which is the Urban one, is not as large as some other Provincial organizations. We had, however, for the current year a paid up membership of thirty-five municipalities, which is the largest in the history of the Union.

In June the 8th annual convention was held at Indian Head, at which some 65 delegates were in attendance. The meetings were of considerable interest and were closely followed by all the members present. Some 31 resolutions, dealing with various matters of Provincial legislation, were discussed, and, as has always been the case at our conventions, received very careful consideration before being voted upon.

The work of a Municipal Union of this nature has of necessity a considerable sameness from year to year, and there is therefore no outstanding feature to mark our last year's work. The Union has made steady progress, and as a result of its meetings a number of changes have been made in the Provincial legislation. Our Executive Committee has no doubt that the Union has come to stay and will be a permanent factor in the life of the Province.

Union of Nova Scotia Municipalities

Sent by ARTHUR ROBERTS Sec.-Treas.

Our 7th Convention was held in August, last year in Antigonish, and a report presented by our Vice-President, Mr. F. W. W. Doane, City Engineer of Halifax, to your Convention at Windsor. Our Convention for 1913 will be held during the last week of August. So that this report refers only to the work of our Executive in the interim between the two Conventions.

The proceedings of our Convention of 1912 were printed during the Autumn of that year by the Government of the Province, and were given a wide circulation.

A meeting of our Executive Committee was held at Halifax in March, during the sittings of the Provincial Legislature. Following this meeting a conference was had with the Executive Council of the Province, with whom our relations are most cordial.

This conference had to deal principally with resolutions passed at our 1912 Convention, asking: (a) for the appointment of a commission by the Government to enquire into the system of municipal assessment and taxation; (b) that the Department of Industries and Immigration summon a conference of all interested in the development of the tourist traffic, to formulate a comprehensive policy; (c) for legislation for the establishment in each town, city and municipality of a fire prevention board, and, (d) referring papers on "Provincial Public Offices' Inspection and Reform" and "The Public Health Act," to the Executive for action. The Bill then before the House, and since made law, providing for the building and maintaining of sanitariums for the care of patients suffering from tuberculosis was endorsed, and the Government complimented upon such legislation.

The Government was asked to have the Board of Commissioners of Public Utilities make a comprehensive investigation and report as to the assets and rates of The Maritime Telegraph and Telephone Company, Limited, a monopoly against which many charges and complaints have been made.

We were given a sympathetic hearing on all these matters and to all of them the Government promised careful consideration.

Our Executive Committee was given a hearing before a Committee of the House in regard to two Bills, viz:

- (a) Amendment to the Bank Assessment Act, and
- (b) Abolishing payment of taxes as a qualification for voting in towns.

We asked that the first mentioned Bill be passed and that the other be rejected. Our influence with the Legislature has been growing and our opinions are treated with respect. The above mentioned Bills were disposed of as we requested.

All legislation before the House was carefully watched in the interest of the Municipalities. On the much advertised fight between the city of Halifax and the Tramways Company we took no part on the question of municipal ownership, but insisted that the Company should be under the control of the Board of Commissioners of Public Utilities, and that the so-called "Municipalities' Amendment" be inserted in its charter.

At our last Convention an interesting paper was read on "The Evils of the Cement and other Mergers," and was afterwards referred to our Executive. The effect of the cement merger is keenly felt in Nova Scotia, and to add to this, last year a brick merger was formed which has had the usual effect of raising the price. Our Executive earnestly desire that this question be kept as a live one before the Conventions of the Union of Canadian Municipalities, with the hope of ultimately securing legislation that will to a considerable extent control these trusts and combines and materially reduce the cost of such supplies to municipalities.

Our membership continues to increase every year and at the present time only a very few of the smaller municipalities remain outside the Union. It is also gratifying to report that public sentiment steadily increases in recognition of our Union as a most useful and influential body in the public interest and of great educative value.

Union of New Brunswick Municipalities

Sent by J. W. McCREADY, Hon. Sec.-Treas.

The last annual convention of this Union was held at St. Stephen in October, 1912. The chief topics considered were taxation and good roads. Dr. W. C. Kierstead, Professor of Economics at the University of New Brunswick, opened the discussion on Modern Taxation with an able paper in which he reviewed the modern systems of taxation, and as well those in operation in this Province. His conclusions were that "our present property tax which makes all property homogenous and taxes it at the same rate is unfair in principle and inefficient in administration. It should be broken up into a tax on land, a tax on improvements and a tax on personalty. Then personalty should be broken up (a) tangible wealth such as stocks, mortgages, etc., (b) the goods of merchants or manufacturers; and the taxation of each of these classes should be on a different basis." "There is no single panacea of tax reforms. We need to perfect our methods of tax administration, to secure a full appraisal of property and income. We need equity and justice to all and the abolition of privilege. We want fearless, honest, efficient well-paid permanent officials as administrators. And we must take heed to our expenditures and not add recklessly to capital account, or fail to provide sinking funds to liquidate our obligations. It is both in method and in administration, and in the controlling of expenditure, as well as in the raising of revenue, that we must seek reform."

The discussion on good roads and how best to secure their improvement resulted in the adoption of resolutions recommending the employment by the Province of one or more expert road engineers to supervise and direct road construction; the establishment of a patrol system, so far as same may be reasonably carried out in the Province; and the construction of trunk line highways connecting this Province with Nova Scotia, Quebec and the State of Maine.

In 1870 the N. B. Legislature passed an Act exempting from taxation the property of railway companies in the Province. A demand is now being made by the Municipalities for the repeal of this Act. At the last session of the Provincial Assembly an Act was passed authorizing the Government to tax the property of railway companies in this Province, the amount or rate of such tax to be fixed by the Lieutenant Governor-in-Council, but this is not satisfactory to the municipalities and the subject is to be further discussed at our next convention.

Mr. James Vroom, Town Clerk, read a paper before the convention which he called "Roadsides". Its merit is high and only needs to be read to be appreciated, and would well repay reproduction in every municipal blue book in Canada.

This Union wishes to convey its best good will to the parent Union and to express the earnest hope that the present session of this great college of municipal affairs for Canada may give a further uplift towards the higher development of municipal life and ideals throughout the Dominion.

On motion of Mayor Hebert, Sherbrooke, Que., seconded by Ald. Boyd, Montreal, Que., the foregoing reports were received and adopted.

Mr. W. D. Lighthall read the Report on Resolutions passed at the last Convention, and the Special Meeting of the Executive at Ottawa, which, upon motion of Mayor Oliver, Port Arthur, Ont., seconded by Mayor Rathwell, Lachine, Que., was duly adopted.

Controller T. L. Church, Toronto, Ont., gave notice of a resolution to the effect that the Union use its influence to discourage lobbying.

Sec. Lighthall read a notice of a resolution that had been handed in, urging that cities be given the representation in the different Legislatures and in the Federal Parliament that their population warranted.

Alderman May, Edmonton, Alta., gave notice of a resolution to the effect that an increment tax be placed on real estate values in excess of the assessed values.

These notices of resolutions were referred to the Committee on Resolutions.

The President appointed as members of the Committee on Resolutions:—

Mayor Graham, London, Ont.; Mayor Hebert, Sherbrooke, Que.; Reeve Forke, Pipestone, Man.; Ald. Boyd, Montreal, Que.; Con. Church, Toronto, Ont.; Ald. Gleason, Victoria, B.C.; Mayor Short, Edmonton, Alta.; Mayor Harrison, Saskatoon, Sask.; Mayor Bligh, Halifax, N.S.

The President called for the first paper on

City Development

Mayor SHORT, Edmonton, Alta.

This may be looked at from various points of view. First: there is the merely physical growth, the adding of house to house, street to street, industry to industry; second: the exercise and increase of the powers of local self-government; third, the administration of the City's affairs, and the systemizing and perfecting of the machinery for that purpose. I prefer to confine myself to the two latter.

To begin with, we should ask Government to provide that no Townsite shall be laid out or extended upon land not reasonably suitable for the purpose, and not then, unless a reasonable water supply and drainage facilities are possible. Throughout Western Canada, Townsites have been laid out, often with little or no regard to the fitness of the site itself, or to the possibility of securing these advantages. What is done may not be amended. There is still nearly half of the four great Western Provinces to be taken care of, and let us ask Government to do so. And persons putting Townsites on the market should be first required to provide therein water, sewer and pavements, for these are absolute necessities of civic life. The enormous un-earned increment that has been swept away from our Citizens in the past ten years by the exploitation of Townsites is quite large enough to have provided these improvements.

Again, there should be provided, streets not less than 80 feet and lanes not less than 20 feet, the latter to carry sewer, water, gas, light, telephone, or other wires; and these should be laid out in harmonious relations to each other; and there should be radials capable of extension, so that it would be possible to get to all points of the compass readily from a common centre.

There should also be boulevards, wider than ordinary streets, so as to permit of buildings of a public, or semi-public character, located to form views calculated to impress.

There should be parks and breathing grounds for rest or recreation scattered regularly throughout the townsite. All places of special scenic beauty, such as the banks of a river, or a ravine with boulevards skirting the same, should be dedicated to the public use. Broken ground, or such places as only with difficulty and great expense could be rendered amenable to general civic purposes, should be likewise retained for parks. It certainly seems unfortunate that lands entailing expense for fitting up far beyond their intrinsic value should be allowed to be utilized for townsite purposes. Provision also should be made that certain classes of buildings and business should in a general way be kept each in its own location.

Turning from this more purely physical point of view, one meets the more difficult problem of administration.

Here is the difficulty of getting trained men. The problem is that of **the man**. Whether the final executive control is placed in the hands of a Board of Commissioners, a Board of Control, a Burgomaster, or an Executive head under any other name, the problem is pretty much the same. Separate your activities into departments. Chart the duties of all who are required to administer the work, but, above all, get a good managing head for each department. It is easy to get men who will carry out work, but hard to get those who will carry it out efficiently and with economy.

Far too little do City authorities realize that they are spending trust moneys. Far too much do they assume that money and economy are last to be thought of.

Having thoroughly organized, having chosen heads who have demonstrated their integrity and managing ability, let us then provide for a thorough audit of all expenditures; not by an Auditor who is the equivalent of a girl with a comptometer, but by a real Auditor who gets to the bottom of every expenditure and the why and wherefore of it. As his complement, let us appoint an efficiency officer whose duty it will be, not only to see that the work done is such that should be done, and that it is done in the right way, but also that we get a hundred cents' worth for every dollar we spend. Let us standardize the method of keeping accounts, and of doing work, then let us ask the Government to establish a Local Government Board with general supervision over the activities of all Cities and Towns whose special duty it shall be to see that our standardization is made effective.

Turning again to the Governmental side, one finds a new problem. Local self-government is the Legislative problem of today. A few years ago powers were dealt out to cities, towns and villages by schedule, and only those on the list could be exercised. From year to year, new needs arose. Demands were made, and, grudgingly, powers were widened. Today there is a letting-down of the barrier, and it is beginning to be realized that civic government embraces wider fields than were dreamed of a few years ago. In the Edmonton Charter, which in itself is a departure, the powers of the City were defined as being to make laws for the peace, order, good government and welfare of the City. In effect these are the words of authority given to the Dominion Government. The difference in exercise of the powers is merely in the scope wherein they are to be exercised. Under them it is our privilege to grow, to develop with succeeding years. That which now seems beyond the powers of the City will, with growing public opinion, become entirely proper a few years hence. What Canadian City twenty years ago would have thought of installing and operating water, light, telephone, street railway systems, or providing a prison farm for the weak and neglected? Yet, within that time, these powers have been granted and acted upon, and that action is looked upon as a reasonable and proper exercise of municipal authority. The people themselves, upon the ground, conscious of their needs, can, when charged with the duty, more readily evolve rules and regulations to meet the case, than can a Parliamentary body hundreds or thousands of miles away.

How then shall we justify this broadening of powers of local self-government? Let us undertake no activity that is not clearly within the scope of municipal adventure. Let us obtain the right kind of men to administer the powers and responsibilities. Here there is need of educating the public. Too much our best men reserve their activities for the wider fields of Dominion or Provincial affairs. Too little do they give attention to

the responsibilities of local self-government. Let us set to work to get out our best men. How, then, are we to obtain this? Will increasing the powers of a City increase the capacity of its representatives? Experience does not seem to lend color to that view. Still, men strive to be representatives of a class or clique, and still, the more experienced and more capable business men are unwilling to face the campaign, often of personality and mis-representation. Until we change that, civic development will not come to its own. There is no system of government that is perfect. The best in the world will fall down in the hands of incapable and irresponsible persons. On the other hand, a crude and unscientific system in the hands of good men will yield good results. One conclusion seems inevitable, and that is that bureaucratic government is just as dangerous today as it ever was, and that no system should be adopted which takes out of the hands of the people and their elected representatives the ultimate authority.

Mr. Bayne: I would like to mention one particular statement made by Mayor Short with reference to the power given to that city under the head of "peace, order and good government." I knew of a city with that wide and sweeping clause that tried to pass a simple by-law providing for early closing. The City Solicitor advised the Council that they did not have the power to pass such a by-law, but that special legislation had to be passed by the Provincial Legislature allowing the city to do so. Another case was with regard to the question of noxious weeds within the city limits. This was again questioned by another solicitor. Now, I would like to know from His Worship whether that particular portion of the Charter of the City of Edmonton has ever been attacked.

Mayor Short: With regard to the question of early closing, the Legislature of Alberta passed a law making it obligatory on any Council to pass a by-law for early closing where a certain number of signatures of those affected were obtained, so that the question never arose. As to the question of noxious weeds, that has not arisen, but let me speak on the general question. The fact is that a fair interpretation of the words means that so long as you pass a by-law in the general interests of a municipality not contrary to the law of the Province or of the Dominion, the words are amply wide enough to confer all the power that is necessary.

In our own Charter we have the power that validates the bonds automatically so that the by-law under which they are issued is one sixty days old; and there seems no good reason why anything further should be required.

Controller Church, Toronto, read, on behalf of Mayor Hocken of Toronto, a paper entitled:

The Increasing Complexity of Municipal Government

Mayor H. C. HOCKEN, Toronto, Ont.

It will be admitted, I think, by all who have anything to do with the government of our large cities, at the present day, that the contrast between the present and former days is a very striking one with respect to the range and importance of the matters which are dealt with in our municipal administration. In earlier days the administration was simple; in the present day it is complex, and is increasing in its complexity.

By way of illustration let us consider the City of Toronto, which I have the honor to represent. The earliest printed financial statement of Toronto which I am able to find is that for the year 1858. The ordinary expenditure for that year may be set down under the following principal headings:

Public Hall, public markets, weigh houses; street watering, lighting, and repairing; fire protection, by a volunteer brigade; education—common schools and grammar school; police protection, and administration of justice; health protection—in a small way, including, it may be remarked, care of "cholera shed"; care of insane; public walks and gardens; care of poor, prin-

cipally by the House of Industry; and construction of sewers.

The financial statement for 1880 does not differ much in its scope from that of 1858. The principal changes are the substitution of a permanent fire brigade for that of a volunteer force, a larger proportionate expenditure for street watering and repairing, and in the interval, the transfer of the care of insane persons to the Provincial Government. Parks in 1880 were given more attention, street cleaning formed a more important item, and there was some expenditure for a small pox hospital and for vaccination.

An examination of the estimated expenditure for the year 1913 reveals a vast difference in character and scope as well as in the magnitude of the figures. Under the headings "Works" and "Health" the change is a striking one.

In former days the expenditure for protection of health was insignificant; today it is large. The Health Department with a skilled and leading member of the medical profession at its head, is one with a large staff, combatting diseases of a contagious and infectious character, maintaining an isolation hospital and a small-pox hospital, and vaccinating people free. It tests milk and regulates its sale to see that the business is carried on under clean conditions. It sends its inspectors out to the country to examine the dairy farms and enforces compliance with sanitary regulations. It fights the white plague by sending out nurses to the houses of the poor to direct the care of those suffering from tuberculosis and to prevent others from being infected. It has a dental clinic which does a large work principally in treating the teeth of school children. It has a laboratory for contagious diseases, for testing milk, and for making a daily and continuous analysis of our City water. Plumbing construction and appliances are regulated and inspected, and house drains are supervised and regulated. In addition, a vast system of inspection is carried on to suppress insanitary conditions in houses and premises, and to prevent the growth of slum conditions. Food offered for public sale is also inspected, and the conditions surrounding its display, its handling, and its delivery are regulated. Perhaps in no department of civic government is the change so marked as in that of the care of the public health. It would be nearer the truth to say that this branch of our municipal government is altogether new. It has arisen out of the great advance made of late years in sanitary science and preventive medicine, and I think that in its detection of contagious diseases, in its limitation of them, and in its prevention of epidemics with attendant enormous loss of life and trade, the Board of Health is a paying insurance.

The people demand free libraries, and one was established in Toronto in 1883. The maintenance of our Public Library Board takes one-quarter of a mill in the dollar of our annual taxation. Not only is there a large central library, but the residents of the outlying sections demand branches which are provided and maintained. Skilled and trained officials are in charge.

Children's aid societies, industrial schools for boys and girls, and a juvenile court for the discriminating and sympathetic treatment of boys and girls who commit offences which bring them into the hands of the police, are among the new institutions of recent years with which we have to deal. The system of dealing with juvenile delinquents is largely preventive, and on the whole it is successful.

An industrial farm has been provided to which to send prisoners from the City Jail, in order that regular and

healthful work may restore them to physical vigor and enable them to overcome their craving for drink. Incidentally, they earn the cost of their maintenance.

A few years ago we established a public bath house. This has been so successful in a central location that baths have been demanded for other sections of the City.

The people call for band concerts in the public parks in the summer, as well as free bathing facilities at the Island; and in the winter they call for skating rinks and toboggan slides in the parks.

We are establishing a public abattoir at a large expenditure for building and equipment.

In connection with street cleaning, the great area to be cleaned and swept, and the extensive system of garbage collection, require the erection and equipment of incinerator plants at different points in the City, and a reduction plant outside the limits of the City where garbage is to be reduced and by-products utilized. The initial expenditure for all these plants will total about one million dollars.

Education is widening out. To the former common and high schools are added those for technical instruction, with a very large expenditure for building and equipment.

Public ownership of public utilities is the new order of the day. It began with the acquisition of the Water Works. It has extended to the establishment of a municipal electric lighting and power plant in close affiliation with the Hydro-Electric system of the Province of Ontario, and the construction of street car lines by the municipality, and my hope is that before long we shall have ownership and control of street railway transportation and electric power distribution on every street and every part of our City.

Main drainage, sewage disposal, storm overflow sewers, bridges and viaducts, water works problems and extensions, are all subjects which require careful thought and the employment of skilled engineers and experts. These are important matters with which the municipal rulers of earlier days were not required to deal.

All this increasing complexity of municipal government demands the service in the Council of men who have had some special training in municipal administration. It must be apparent to any thinking person that a man cannot approach this work, and render substantial service, until he has had a chance of making a study of at least some of the problems with which a large City Government has to deal in these days.

This ever widening range of responsibility will compel the men who are elected to administer the affairs of the great cities, to specialize in the different departments of civic government. It is only by special application to particular problems on the part of a group of men sharing this responsibility that the best results can be attained.

When Toronto was a City of under 100,000 people, thirty-five years ago, one man was City Commissioner and Health Officer. He inspected works in course of construction, and had charge of health, street cleaning, street watering, public markets, public halls, and other miscellaneous work. No city in Canada of a population of 100,000 would dream today of putting such a load on any official, because the duties of each branch have been so amplified that it would be a physical and mental impossibility for the official to carry the responsibility.

The people demand that our municipal government shall protect them and their property against criminals and fire. They ask for protection against disease, whether it comes from diseased persons or from food or

water. They ask to be cleansed by public baths, and to be amused in summer and winter. They ask also to be provided with books and periodicals to read. In short they ask to be guarded at almost every point, and, as in the last analysis, they rule as well as provide the funds, their demands must be complied with. The experience of Toronto is, I believe, similar to that of other cities.

Sec. W. D. Lighthall read a letter from Mayor Gray of New Westminster, B. C., regretting that he was unable to attend, but sent his paper, which was read.

B. C. Commission on Municipal Government

Mayor A. W. GRAY, New Westminster, B.C.

I have gone carefully through the Report and found it full of suggestions and recommendations with regard to amending the Municipal Act, and for Legislation tending to better government of Municipalities in this Province.

Some of these I will touch on; but if this paper is not to exceed 800 words, it is impossible to give the subject the consideration it merits.

Many controversial questions are touched upon and a vast mass of evidence was taken at Sessions held in 16 towns and cities of British Columbia, besides which, the systems in vogue in a number of cities in other Canadian Provinces and the United States were also investigated.

Taking up the question of the best form of Government, the report does not view the proposal of government by Commission with favor, regarding it as a system that places too much power in the hands of a very few men, with a possibility of its getting into the hands of one. Further, such a system would practically do away with the publicity given civic transactions at present.

The device of the "Recall," whereby it is proposed to provide against such obvious dangers in the commission system, is characterised by the Commission as clumsy.

While condemning the Commission form of Government, the report recommends a Board of Control, amenable to the Council to the extent that its suggestions may be defeated by a two-thirds vote of the Council. This system might be adopted where it was thought desirable to relieve the Aldermen of their executive duties to some extent.

It recommends that municipalities having a population of 15,000 or more shall have power to introduce a by-law, which must be submitted to a referendum vote, providing that the Council shall consist of a Mayor or Reeve, the usual number of Aldermen or Councillors, and from two to four Controllers. That the Mayor or Reeve shall be elected annually; that the Aldermen or Councillors and Controllers shall be elected for a term of two years, half the number retiring each year; that the Controllers shall give all their time to the Municipality and be paid for their services; that the Board of Control, consisting of the Mayor and Controllers, shall have power to employ or dismiss all employees of the municipality, including heads of Departments; that the Board of Control shall have full authority over all the executive work, subject to the right of the Council to reject, vary or refer back its actions by a two-thirds vote.

The Commission did not view with favor the suggestion of the Union of B. C. Municipalities that any new Municipal Act should be divided into four parts, one governing cities over 20,000 population; one for cities between 10,000 and 20,000; one for cities under 10,000; and one applicable to district municipalities.

The report expresses the opinion that such a classification could have no beneficial effect, and would cause needless trouble. Under the present policy, all cities have the same powers, except as to borrowing power, and should any attempt be made to take away any powers possessed by cities under 10,000, such as Kamloops, Nanaimo, etc., intense dissatisfaction would result. On the other hand, with the growth of cities, there would be constant applications for increased powers. The special charter, as held by the City of Vancouver, is viewed with favor by the Commission as applied to a city of that size.

The provisions of the Municipal Law regarding the incidence of the expense of Local Improvements is reported as susceptible of great improvement, and it is urged that the same provisions should apply to all municipalities. It is also recommended that the expense of advertising by-laws in the press should be done away with in favor of the cheaper method of advising property owners by written notice.

A recommendation which is, perhaps, of interest is that a Commission be appointed to regulate public service corporations, such as the B. C. Telephone Co., which has, in the past, been granted wide powers by Acts of the Legislature, and to control arbitrary actions of which complaints are frequent.

It is recommended that municipalities be given power to own and operate telephone lines.

One of the most important suggestions is that a Municipal Department should be established by the Provincial Government, not to interfere with the principle of home rule, but to protect and assist municipalities by such methods as securing proper auditing of accounts, and certifying the validity of debenture issues, which would guard the latter from attacks that might be made.

Regarding the investment of sinking funds, the Report condemns the power that permits municipalities to invest in mortgages on land as dangerous, and the Commissioners state that they were pleased to find that few municipalities had availed themselves of this power.

The present condition of the Municipal Franchise, under which a holder of an agreement of sale, no matter how much he may have paid on his purchase, or whether he is paying the taxes on the property, is deprived of a vote, was severely criticized. It was recommended that the owner of the property should be allowed to vote if he paid the taxes. That the owner of the agreement of sale should be allowed to vote if he paid the taxes and was otherwise qualified.

Many other questions of importance to our Province were treated. Suffice it to say that the Commissioners are now drafting a new "Municipal Act" for submission at the next Session of the Legislature, and it is the general opinion of those who have studied the Report that the work of such a Commission, taking evidence at first hand in the municipalities of the Province, must prove of great benefit in assisting the cause of better Municipal Government.

Mayor Short: I would take great pleasure in hearing that report discussed. It deals with some measures that we have tried to deal with. It reports against government by Commission. For some years past the affairs of the City which I have now the honor to represent have been administered by an executive Commission, and as the old system of government was an anomaly, a survival of the old days, I should like to hear the reasons why government by Commission was voted down. I should like to hear in what respect a Board of Control has given better results, or why they should give better results.

The Chairman: I think the report gave the principal reason that government by Commission would give too much power to men, who might be practically one man, from their point of

view; and that it was better to have the power distributed by the Council, and through a Board of Control whose decisions might be upset by a two-thirds vote of the council.

Mayor Bligh, Halifax, N.S.: In Halifax, I claim that, previous to the Board of Control, we had one of the best forms of government that any city ever possessed: but there is a restlessness all over this country, and over other countries as well. Now, what I believe in is this: that it is no odds what you call it, Control or Commission, it is the men you have that make the whole thing. How are you going to get the best men? The Mayor of Edmonton has suggested that perhaps the popular man gets in rather than the able man. Why shouldn't he? The man who takes the popular vote! Are you going to shift your form of government? Why have a different form of government in your cities from your provincial or federal government? You might as well have the Governor General of Canada select eight or ten men to run this country. I say what we want is popular government. We want the man who represents the people, who knows the pulse of the people, and they generally do right.

Mayor Graham, London, Ont.: Two such addresses as this convention has just listened to from Mayor Bligh and Mayor Short are sufficient warrant to justify a discussion on any paper. I think a discussion is very helpful to the representatives, and will in turn, I believe, be for the benefit of the communities represented.

Controller Hinchey, Ottawa, Ont.: I may say that the opinion of Mayor Bligh coincides with my own. I intended to ask for some information because I know in the city of Ottawa at the present time there is a very great difference of opinion regarding the different forms of government. There is a section of the people who are agitating for a commission government. The form of Commission government differs considerably from that which I understand is in vogue in some of the western cities. Mayor Short states with regard to the commissioners appointed in some of the western cities that their services may be dispensed with at any time on a two-thirds vote of the board of aldermen. Now that is not the form of Commission government that is spoken of and advocated in some of the eastern cities. The principle advocated there, in many cases, is that a commission of five (one of whom shall be the Mayor) will be elected for a period of one, two or three years, as the case may be, and that the recall system be in force. But there are those, on the other hand, who advocate the continuance of the present system in our large cities; that is, a Mayor, a Board of Control and Aldermen. They contend that the Board of Control reports are discussed at length by the Council generally, and consequently they are dealt with in a much better manner than probably they would be by a smaller body. I think that a matter of this kind should be discussed and be considered very carefully in all its aspects because the decision of a convention such as this is far-reaching in its effect. I am not prepared to express a definite opinion with regard to the proposed system of municipal government, or the present dual system of Aldermen and a Board of Control. My position in regard to that matter is that a change of that kind, if it is decided upon, should be decided upon by the people, and I, for one, consider that the proper means to adopt in a case of this kind is to submit it to the popular vote and let the majority of the people rule, as they always should.

Controller Church: The City of Toronto is governed by a Board of Control. We believe we have adopted a system which has all the advantages of commission form of government without its defects. The commission form of government has been tried in the States; I have read several articles recently in which it has been demonstrated that generally there is no advantage at all, that it is a costly and unsatisfactory system. My contention is that the key to good civic government is to have strong, capable, vigorous heads of your various departments. Give them a free hand and let them engage their help, and hold them responsible. What is good for private corporations should be good for municipalities, because the administration of our civic affairs should be founded on sound business principles. Under the other principle you will have graft, incompetency, and a figurehead government.

Mayor Clay, Windsor, Ont.: I don't want to take up any of your time with regard to this discussion because I think a few words would settle it. There are a great many things in this report which I think are valuable. The publication of by-laws in the paper is a useless expense. They should be sent directly to the persons who have to be taxed for them. The question of a municipal department is valuable. These things are practicable.

Mr. C.J. Yorath, City Commissioner, Saskatoon, Sask.: I am City Commissioner of Saskatoon, and I feel in duty bound to speak in defense of the form of government which we have here, although it might be thought that perhaps I am supporting the position which I hold. I have only lately come to this country, and I would say that the form of municipal government in the old country is being very much criticised at present, for this reason, that the men who are elected to the Councils cannot devote the time to properly take up the subjects which are getting to be of a very complex nature. It is the duty of the officials in that country

to report to various committees which are appointed by the Council. The result of that is this, that as the committee men are busy men as a rule, they cannot devote the time to the proper consideration of the subjects which are brought up by the various officials, and in consequence of that, the official generally rules the roost. If he is a strong man, he has his own way because the Councillors or Aldermen have not got the time to properly criticise his report. With regard to the form of Commission Government over here, I think that if you have the men who have a certain amount of municipal experience, they can take these reports of the various officials and thoroughly thresh them out, and then you get an independent opinion upon the opinions of the various heads of the departments, and these reports are brought to the Council. These reports are considered and discussed by the Council, and they can throw them back if they so desire, so that you have complete control. You have, in that form of government, control through the Council and through the Aldermen who are elected by the public, so that you have not got an autocratic government by certain men who are elected; and in that form of government there is no likelihood of wrong procedure which may be adopted in the American form of Commission Government.

Mayor Short: This is one of the questions of interest. I have been a student of municipal affairs now for some twelve or thirteen years, and have given very great attention to them, and have (shall I be permitted to say) procured the adoption of several departures in the way of municipal government that have been adopted throughout the west; and in asking for a discussion I was merely asking for enlightenment. Now, I may say that we have not the kind of Commission government that has been indicated by Mr. Controller Church. I must say for myself, and for the city that I represent, that I do not think that the form of government we adopted has been carried out quite perfectly, but I wished to hear it discussed to find out why it could not be done. The Council decides on a certain expenditure, upon a certain course of conduct, and then authorizes the Commission to see that it is carried out. That is what our Commission form of government means. In Dominion affairs you have the election by the people. Out of that a small body is chosen for their long experience and superior knowledge and ability. In the Provincial government the same takes place. In the Council it is not so. The Council is itself the executive body, and that, I claim, is an anomaly, and that is why it seems to me we should have some form of government that places in the hands of men of greater experience the executive functions of that body.

The President called for a paper on

Abolition of The Ward System and Administration by One Body Only

Mayor Arsène LAVALLEE, K. C., Montreal.

As it has readily been admitted by all those who have deeply studied civic history that, to a very great extent, the success of any municipal administration depends largely upon the system of government in vogue, it may be interesting perhaps if I touch upon the experience Montreal has had with the method of government selected.

Up to a few years ago the custom was to allow two aldermen for each ward of the City. History repeated itself; it was found that in a multitude of councillors there was far more delay to business than despatch. Business was so impeded that the press of the City demanded a smaller representation, with the result that when a measure was put to the people asking them if the representation should be reduced to one alderman per ward, the vote in the affirmative was an overwhelming one. At the time this was submitted, a little over three years ago, the question was also put as to whether or not a Board of Commissioners, or Controllers, should be elected which should have practically the management of all the financial affairs of the City. On this question also, there was a large affirmative vote. It will thus be seen that Montreal has seen a drastic change of government during the past few years. This change, I might add, did away with a dozen of civic committees, composed of seven members each, whose duty it was to pass upon all reports, which were then sent to the Finance Committee for approval, and finally for adoption to the City Council. Under the present administration

the Commissioners or Controllers consider all reports, and it takes a two-thirds vote of Council to amend any of them. As it is almost impossible to get such a majority, the result is very few of the reports are altered.

I will now briefly touch upon what has been the experience of the City during the past three years, with the system of one alderman a ward, and with a Board of Commissioners or Controllers.

If we are to judge by the expressions of opinion of a large section of the press, and if we are not at sea in regard to the opinion of the majority of the electors, the confidence in administration by Controllers has in no wise been impaired. On the other hand, while the electors may not have arrived at the final conclusion that the aldermen should be done away with, I do think I am right in making the assertion that there is a very strong feeling that there should be a decided change in regard to the manner of electing the representatives to Council. In other words, it is not at all unlikely that, at the next session of the Provincial Legislature of the Province of Quebec, a bill will be presented asking that the City be divided into four or five electoral districts, and that four or five aldermen be elected for each district. This, of course, will mean the abolition of the single ward system of election. It is not at all unlikely, moreover, that the Legislature may decree that the aldermen must be elected by the entire City—as are the Commissioners or Controllers and the Mayor.

The trouble with the single ward system of representation is, that certain aldermen can nurse small wards for years, and make sure of election no matter what the general sentiment may be. Ward representation has evinced one glaring weakness, that of the most utter disregard of the aldermen for the welfare of the City as a whole, and the banding together of city fathers so their particular wards may get the lion's share of the revenues. It will not be necessary for me, I am sure, to dwell upon how manifestly unsatisfactory, from the standpoint of the general good, any such system of the government of a City must be.

After over thirteen years of experience in the City Council of Montreal, both as Alderman and as Mayor, and after having given the most careful study to civic conditions, I have frankly come to the conclusion that the best government for Montreal is by one body only. I may be permitted to say that I frankly urged this at the last session of our Legislature. Had the Citizens' Association of Montreal also urged it, I have the best of reasons for believing that the law would have been amended so that there would have been but one governing body today.

During the three years the Board of Commissioners or Controllers has had the administration of the City, endless friction has arisen between them and the City Council. The Council strongly resented the curtailment of very many of its powers by the Legislature, and consequently lost no opportunity of delaying business by sending back a great many important reports to the Commissioners for further consideration, etc. I have already stated that Council was not unanimous enough to amend reports from the Commissioners by casting the required two-thirds vote.

The Montreal Board of Commissioners, or Controllers, is composed of four members, elected by the entire City, with the Mayor as chairman. My belief is that our City would have a far more satisfactory administration were the City Council abolished and seven Commissioners (or perhaps nine) elected by the City at large. Of course, you will find people who imagine that government by Commission will not prove a panacea for all civic ills and that no single change, no matter how drastic, will

work the desired miracle. I respect their opinion, but what have they to say of other cities throughout America which have adopted this system and which would not for one moment dream of returning to the old order of government? I will admit, though, that invaluable aid comes through the education of the masses who hold the franchise and the cultivation and development of public opinion.

This was the case in the cities I refer to, where it was realized that the main problem rested in the task of arousing the civic conscience of the best citizens in the affairs of City government, so that they would become willing to give time and personal effort for the general good, not spasmodically, but persistently, as one of the essential duties of life, and as the unstinted evidence of good-citizenship.

In any event such is the nature of the work of the Board of Commissioners or Controllers, and so far-reaching are its powers, that the City Council has, in reality, little or nothing to do but to assent, or delay, reports from the Board. Experience has now made it quite plain that the business of the City would be transacted in a tithe of the time were there no reports to be sent to Council. As Council only meets once a week, and not as often as this during a portion of the summer, all reports of the Controllers must be delayed for the sanction of Council. In other words, I think the time has come when we would find every advantage in assimilating our form of government to that of every large industrial Company where all is done by a board of directors, who have under them a staff of officials whose experience, efficiency and earnestness are a guarantee of the best results.

Let no question of race or religion intermingle with this evolution. Let us all forget to what creed we belong, let us not consider that we are English, Irish, Scotch or French; that we are Jew or Gentile; but always bear in mind that we are citizens of Montreal, first and always.

In speaking in this frank way I have no personal feeling against a single member of the City Council; I am simply trying to give a concise idea of the transformation the government of Montreal has passed through; what are its lessons, and what are the possible changes it may be called upon to face in the very near future. In a word, it appears two governing bodies in Montreal do not lead to dispatch of business, rather the reverse; hence the logical conclusion that one governing body is necessary for the future good government of the City.

EVENING SESSION.

Secretary Lighthall read a letter from the National Municipal League inviting the members of the Union of Canadian Municipalities to attend the Convention in Toronto on November 12th to 15th.

Moved by Mayor Oliver, seconded by Mayor Berry, St. Boniface, Man.: "That the President, Vice-President and Secretary who will be elected shall be authorized to represent the Union at the Convention." Carried.

The President called for a paper on

City Control of Waterfronts.

Mayor J. A. OLIVER Port Arthur, Ont.

The title was selected for me and is somewhat misleading, and would have been better described as "Municipal Control" or "Citizens' Control," because the Towns and Villages are as much interested as are the larger cities.

Possibly no other problem has confronted Municipal Representatives with as many difficult and serious problems involved, and, judging by my own experience, I should say no question is more vital to a City's interest, and at the same time more hemmed in with almost

unsurmountable difficulties. In writing this paper, I want it distinctly understood that I would prefer to have you read it as an advice to do what I say, rather than follow what we, in Port Arthur, have done and what many of our Cities and Towns have done in the past.

I think that we can assume that one and all agree that from every standpoint it is beneficial to every City to have complete untrammelled control of its Waterfront. From a scenic or landscape standpoint, from a sanitary standpoint, from a commercial and industrial standpoint, there can be no opposition to civic control. Instead of this, however, we find the waterfront of almost every City and Town littered with the flotsam and jetsam of stream or lake; the derelicts of commerce stranded on the beach; sewers drained into the water; impurities of every imaginable character poured or dumped into the same. Docks, elevators, warehouses and boathouses are placed in positions beneficial only to the owners, while railways own the whole or the greater portion of the Waterfront, which becomes a net-work of tracks and spurs. To aggravate the trouble, many streets are closed, and the traffic is thus thrown on a few, and conditions become dangerous. This all goes to show that in the strenuous rush for individual and corporation gain, natural beauty, scenic grandeur, landscape planning, sanitation, pure air and breathing spots have all been ruthlessly swept aside. At the same time, opportunities for civic commerce are restricted, municipal authority ignored, and the public—whose birthright has become the possession of the transportation corporations,—struggles as ineffectually as the fly in the web to win back the vital right of free entry with which we light-heartedly parted a short time before.

Let me briefly draw a few mind pictures for you. Fancy a City or Town without a single municipal dock where building materials can be landed, where yachts and excursion boats can land, where tramp freight boats can deliver local freight—all suitable sites being held by railway corporations who will not receive or deliver a car of freight without extra switching rates which the citizens must shoulder. Picture to yourself a long Waterfront with the north half held by one road, the south end by another. Picture industries flocking to your doors desiring sites on the Waterfront with free service from two or more roads. In the north end the one company fights against a spur from any other road crossing their property, and the other road does the same in the south. Should a water main have to run from the lake, some consideration has to be given for crossing the property of a private corporation. Picture to yourself a beach with no bathing, a boat house with no access. Even where streets are left open, notice the dangerous crossings and constant fights for subways.

Now that I have pointed out some of the objections to existing conditions, let me briefly suggest some means of betterment. It cannot be contradicted that every Municipality should control, and if possible own, its own water lots, and also the lots facing on the 66 foot road allowance on the shore of every navigable stream or lake. How this can be accomplished is the whole problem.

To me it seems a wrong principle that as soon as a town site is laid out and plans adopted, that the owner of land facing the shore can apply to Government and receive deeds for the water lots in front thereof. I would suggest therefore, that Legislation be enacted to govern all new town sites, villages, etc., hereafter established, making it imperative that the Government

grant the municipality the said water lots under a condition that the title can never be transferred by the City to any individual or corporation; said Legislation should also allow Cities to expropriate and hold water lots already deeded, subject to similar conditions. By doing so, the City can advance trade and assist industries leasing sites carefully selected so as not to interfere with any civic plan, at a good rental with a reasonable increase from time to time.

I would further suggest that a stated case should be taken to the Dominion Railway Board and a ruling obtained, to the effect that no individual or corporation can prevent any person from gaining access to the waterfront or withhold trackage or spurs where asked for, when the petitioners are willing to pay for any land necessary; because a persistent refusal is a restraint on trade and injurious to the general welfare of Canada.

Further, where conditions have already become acute, it would be advisable to take all ways and means to have the railroads themselves operate their railways and trackage within the City limits as a Terminal Railway, thus avoiding the necessity of duplicate and triplicate spurs and tracks, or the running of more than one company's cars and engines on one spur; the latter being almost tabooed by railways today. Still better, however, would it be for the City to own and operate her own terminal railway as a Municipal Franchise. In the young City, this would of course, be difficult and expensive, but the Municipality would be better to be saddled with a debt for a few years than to be cursed with the present load of trouble for ever.

A Municipal Terminal would have to be managed by a Commission, and the Commission could have in addition all the authority of a Harbor Commission. A Harbor Commission such as now exists in Montreal cannot be too strongly commended, uniting as it does assistance to trade and commerce, with sanitary cleanliness and the retaining of natural scenic and landscape beauties.

In closing let me say, "Let no individual or corporation get between you and the water privileges if you can avoid it. Hold fast to every inch of waterfront you have. Acquire the balance by any reasonable means in your power. Control your Waterfront and, if necessary, operate it, and stand for nothing that is a restraint on your trade and advancement, your sanitary requirements, and your pure air and water needs; and by all means endeavor to place something on the statutes to prevent the Towns to be established in the future from having to make the same up-hill fights that the majority of our Cities on the Waterfront are now facing."

Mayor Oliver: At the request of the Chairman, I shall endeavor to prepare resolutions embodying the facts. There is one point that I would have liked to enlarge on had the limit permitted.

Possibly many of the towns that are not on the water front do not understand what a terminal railway means. In Winnipeg today, the Canadian Northern and the Grand Trunk Pacific enter all their traffic at the Union Station, and where they require the shunting of engines and interchange of traffic, it is all handled by a terminal railway which consists of a representative of the Canadian Northern Ry. and a representative of the Grand Trunk Ry. and a Chairman appointed by these two railroads who is changed every year. They have been handling this matter on a business basis; they have handled it on the terminal plan. Now, if you had a spur which was going to an elevator in that system, and you had a car billed from the Canadian Northern from a town in the west routed for that siding, they both receive it, although it might have to go on to another spur where no two engines are received representing different railways. The one handles it and delivers it, and they don't charge you in addition the ordinary \$5.00 per car, but they handle it at actual cost to their two companies, and the man that is sending the goods and the man that receives them both get the benefit of shipping at actual cost. In other words, the railway assumes the cost.

Moved by Secretary Lighthall, seconded by Mayor Clay: "That the resolutions referred to by Mayor Oliver be referred to the Committee on Resolutions." Carried.

Mayor Clay, Windsor, Ont.: The situation with us in Windsor is a very serious one. We have a terminal railway, which helps to some extent, but we have difficulty in getting access to the water front.

The President called for a paper on

Abolition of the Ward System in Civic Government.

Mayor GRAHAM, London Ont.

Abolition of the ward system in civic government was adopted by the City of London in 1901. In 1898 it was first introduced as a motion in the Council, but was laid over until the following year, when a by-law was submitted to the electors and carried by a large majority. By a special Act of the Provincial Government, the City was given permission to elect the aldermen by general vote, and, at the same time, to reduce the number of wards from six to four, thereby reducing the number of aldermen from eighteen to twelve—three to each ward. All are elected by a general vote, every voter having the privilege of voting for one to twelve. In this way every ratepayer has a vote on every aldermen who has a say in the spending of his taxes. By the old system a ratepayer might own a property in one ward assessed for \$500,000 and only have the power to elect three men in his ward, while all the other aldermen had as much to say in the spending of his money. In case of a vacancy, the thirteenth candidate takes the vacant seat in the Council without another election.

Election by general votes has tended towards doing away with the professional alderman who had a following in his part of the city, as it has been found that he has no chance of election when he presents himself to the City at large. Business men offer themselves for election, and have but little canvassing to do. Meetings of the Council have become business sessions with but little talk to the public. Business methods have been adopted in dealing with municipal questions. Important city problems have been dealt with from a city point of view without sectional intrigue or bias.

Election by general vote has done away with ward grabbing. Under the ward system the city was practically divided into six or more smaller cities, the different aldermen forgetting that they were representing the city as a whole. In fact it was always "our ward" and not the city which secured their interest. Under the present system we rarely hear the word "ward." This is as it should be. Under the present system it does not matter in what part of the City the aldermen live. Under the ward system the aldermen had to reside in the ward they represented. As a matter of fact, the majority of the aldermen elected have come from one part of the city, but there has been no complaint of any part being overlooked.

An alderman has a better chance to be elected on his record. Men who have never canvassed for a vote, never sought favor by yielding to local wants, and who have refused to bend to party influences have, again and again, been elected in the top half at the poll. On the other hand, men who had local ends to gain have been defeated at the poll.

In striking the Standing Committees, men may be placed on the Committee for which they are best suited. Under the old system, one from each ward was placed on each Committee. This made it very difficult to get the best results from the men themselves, and made more possible ward grabbing.

Business men find that they can serve the City because the heads of the departments have been given more power in detail work. The heads of departments, as experts, are held responsible for the work under their charge.

The aldermen are freer from importunities of rate-payers as a result. The officials attend to the carrying out of the policy adopted by the Council, and, as the aldermen have to answer to the city as a whole for their acts, less attention is paid to the individual seeking a walk or curb.

Our twelve years' experience has convinced many of us that it is a big improvement and one good step towards Commission Government. If it did nothing more than bring the better class of men to give time to study the whole city in regard to the larger questions coming before the Council for the present and future up-building of the City it would be desirable. The Councils of today work with the departments, studying out the best way of improving the City, instead of acting as ward foremen themselves.

After all has been said of the various forms of civic government, the character of the men who govern is far more important, and a general vote of the ratepayers tends towards this class offering themselves for election and of securing their election. Petty graft, sectional grabbing, and ward politicians have disappeared and results produced show a marked improvement along business methods and economical management.

Continuing: We have in London two public utilities which are owned and operated by our city, the waterworks department and the hydro-electric department; also a municipally owned hospital. All of these are run by small boards or 'commissions' of representatives elected by the city at large, but we have from the time of the incorporation of our city administered our civic affairs by a council and mayor, as we now do, only the Council was elected from the individual wards of the city. When we had a population of 15,000 we had eight wards, with three aldermen in each ward. When the city got to be about 35,000 it reduced the number to six wards, with three aldermen in each ward. We have now in the city of London between 50,000 and 60,000, and have abolished the ward system entirely.

Alderman May, Edmonton, Alta.: I congratulate Mayor Graham on having abolished the ward system in his city. Edmonton has also abolished the ward system. But although we are practically supposed to have it, I want to tell you how it works out. In the amalgamation with the City of Strathcona, we allowed them a certain representation, which practically makes what is now Edmonton South a ward of the City of Edmonton, because they are guaranteed three aldermen. I have watched these three aldermen and their sole thought and interest is, where the paving is going to go on the south side of the river, regardless of any other parts of the city. I would like to see Mayor Graham bring in a resolution tomorrow endorsing the abolishment of the ward system.

Mayor Oliver: I heartily endorse what Mayor Graham said in his paper. We find it works out perfectly. I can give an example that might explain conditions more accurately. In Port Arthur, we have one ward in which there are about 7,000 people of whom about 5,500 are foreigners, who have not been long enough in Canada to any more than know exactly how they are to vote. They do not know anything about government, nor do they try to study it, and by voting at large we try to get the aldermen elected who have the best interests at heart.

At this point the Secretary stated that the Resolution Committee had recommended that several papers be taken together on this question, "The Commission Form of Government," and it was decided to take up any papers bearing on this subject.

Mayor F. W. Galbraith, Red Deer, Alta.: While the majority here are interested in what concerns the larger cities, it was thought wise to have a paper on the commission form of government in the smaller places. While you are not very much interested in it as applying to your own conditions, still there may be some ideas in it that may be helpful in the general discussion.

The Commission System Government as applied to Municipalities from 2,000 to 10,000 population

Mayor F. W. GALBRAITH, Red Deer, Alta.

It is not necessary that I detail what is meant by the Commission System of Municipal Government. To set it out briefly; it largely transfers the executive and administrative work of the Municipal Councils in Cities and Towns formerly carried on by committees,

to a smaller appointive, or elective, or both, Salaried Board, and places the control of the City work and employees in their hands. To the Council is left the equally important legislative and appropriative powers of the municipal government and the dominant control of the municipal affairs. The relation between the Commissioners and the Council is somewhat akin to that between the Cabinet and Parliament, though, if the Commissioners are wise, they will see to it that the Council is much more than an echo of the Commissioners' views.

Red Deer's system of Commission government was founded six years ago by Mr. H. H. Gaetz, and it has proven very satisfactory, so far as I am aware. The Commissioners are the Mayor and the Secretary-Treasurer. No new official was appointed, but the Mayor was paid sufficient remuneration to enable him to devote part of his time and thought, practically every day, to co-operate with the Secretary-Treasurer in the oversight and direction of all the administrative work of the Corporation. The Mayor is expected to be "on the job," within certain flexible limits of time, as regularly as the Secretary-Treasurer. The enlargement of the work and the powers of the Secretary-Treasurer and of the Mayor is the essential feature of this Commission system of government as applied to smaller municipalities.

Duplicate daily reports are required from the Chief of Police, Foreman of Public Works, Chief of Fire Brigade and Weigh Master (one officer), Parks and Boulevards Superintendent, and Sanitary Inspector. These reports show number of men employed, how employed, hours and rates per hour, supplies received, collections and any other detail arising out of their work of the previous day. Any matters therein requiring attention are dealt with by the Commissioners, after which they are filed for reference. The monthly accounts are largely checked from these daily reports. Annual reports, inventories and recommendations are also asked from the permanent heads. The Commissioners cannot expend above \$50,000 unless such sum has been authorized by the Council. They can suspend any permanent official until the next Council meeting, but the power of dismissal rests with the Council.

The Commissioners report to the Council at each regular meeting twice a month on all business done by them, with recommendations, if advisable, on any correspondence or as to any future action or work. A monthly report of receipts and disbursements is also submitted. Typewritten copies of these reports are placed in the hands of each councillor on the afternoon of the regular meeting for his consideration before coming to Council; in case of estimates or other important matters, the reports are in the hands of the Council several days before. These reports are regularly published in the papers, and keep the ratepayers fully informed of the City's business. The reports are usually adopted without material amendment:—

First, because on important matters, the Commissioners as a rule make no recommendations, preferring to have their views made known to the Council in conference, and leaving action to be taken by the Council by resolution.

And second, because the Commissioners are usually glad to have any clause of their report amended if further information and discussion in Council shows that the mind of the Council is inclined to modify or change their recommendations. In any case, the Council, by a majority vote, can amend or reject the Commissioners' report or any part of it, as it pleases. In case of disagreement between the Commissioners, the

Mayor's report becomes the majority report, and his presence is necessary to give effect to any Commissioners' meeting. Informal minutes of the daily Commissioners' meeting or meetings are kept by the Secretary-Treasurer.

When the City has an Engineer who gives his full time to the city, I would still favor having him subordinate to the Secretary-Treasurer and the Mayor, instead of forming a board of three. I would have each head of department in this way associate with the Commissioners in the conduct of his own department alone. I believe in the system of the Secretary-Treasurer being the managing director of the city business, with the Mayor as advisory colleague. In my judgment, such a board of Commissioners, even in large cities, would be preferable to boards of three, four, or five members; the more bosses, the more trouble.

The advantages gained by this system in Red Deer are these:

The Citizens generally believe that they get a better class of Aldermen, inasmuch as the Aldermen are relieved of committee detail, and the leading citizens do not find the Council work too much of a tax on them;

The Secretary-Treasurer becomes the managing director of the City's municipal board, and any dangers or suspected dangers of a one man autocratic government are avoided by associating the Mayor with him in the administrative work in the larger matters of detail. The Mayor, since the adoption of the Commission system, has always graduated from the Council;

Instead of the estimates being prepared from the view point of the several committees, each striving for its own apparent needs, or from the viewpoint of the year then present, the estimates are prepared by the Commissioners who have a more thorough grasp of the needs and conditions affecting the finances past, present and future. Of course the estimates thus prepared are subject to revision by Council;

By the adoption of the same system of business administration which prevails in most other concerns handling interests of more or less magnitude, the selfish personal element or power in municipal government is excluded to a greater degree and permanency, cohesiveness and public advantage given to the procedure. Better results are shown for the money expended.

The Commissioners aim to give the Council and citizens the fullest information in their power concerning civic affairs. They remember that they are the servants of the Council and the people, and that there is ample room in Council discussions and with the people, for the exercise of their legitimate influence in the settlement of any important course of action, without attempting to dictate such course of action. If the Commissioners by this policy have to bear some of the sins of Council for which they are not responsible, it may be that with the electors the Council have to stand for some of the sins of the Commissioners. But the attitude of full publicity, of consideration for the Council's legitimate and important functions, and of reasonable give-and-take, together with adequate, daily, systematized, available, recording of business done or needed, and the most careful efficient and loyal administration of the Secretary-Treasurer with the aid of his department heads, has brought forth the best of results in our small City.

(It should be remembered that this is not "Commission" Government as it has been adopted in the United States, and as it is generally understood.—Ed.)

The Chairman: Would you tell this Convention to what size of city you could apply these principles?

Mayor Galbraith: I think it would be good up to 15,000.

Mayor Graham: What salary would the Mayor receive for all that work and responsibility-

Mayor Galbraith: The Mayor was paid \$3,000. It was somewhat similar to the system in Port Arthur. We use the Secretary-Treasurer, who is the recognized official in all small communities, and he has his utility commissioner.

Mayor Bligh: As for the abolition of the ward system; theoretically, it sounds pretty well, and we hear that it eliminates the professional politician. In my judgment the opposite is the case, as when you have the aldermen elected at large, and paid salaries, then you begin to have the professional aldermen. In Halifax, an alderman does not receive a cent. When you have three aldermen and a candidate has to get ten thousand votes, it costs a man something. In Halifax the tendency, I believe, is more and more along that line, but yet, at the same you cannot get many men in Halifax. As to the Board of Control: in our last election there were about nine or ten men for four positions. It would be impossible to get men in the city of Halifax to stand for the whole city when it costs them from \$5,000 to \$10,000 for transportation and circulars and advertising and legitimate expenses. Now, if you abolished the ward system they would not be liable to run. I am opposed to the commission form of government in toto, either the American or the Canadian system. I believe it will prove a failure. It has not had time to justify itself yet. It may be successful in the City of Edmonton, run as it is now, but as I understand their Commission, every city has a commission system. The board of control in some cities might be called a commission form of government, but as I understand, it is getting away from the direct election by the people. It is all right to call in experience to govern a city, but let the people be represented, let them vote for the representatives of their districts. Carried to its logical conclusion, the only way to run a city, according to the views of some gentlemen here, is simply to have the German system (perhaps it is the best one) of having a Burgomaster or Mayor, who takes charge of the whole business and who has a staff under him. The ward system was working all right with us in Halifax, and we were not paying aldermen a salary.

Mayor Graham: I wish to explain that the aldermen in London get no pay. It does not cost an alderman \$5,000 or \$8,000 to get elected to the council. We have many industries, each alderman represents an industrial institution. We have a Bureau of Industries consisting of the Board of Trade, the Builders' Exchange, the Real Estate Owners' Association, the Progressive Organization, and any other boards that wish to affiliate with it, and the executive members of these different bodies get together and discuss the question of nominating proper men for aldermen, and we put it up to our business men that it is up to them to give a couple of years of their time that they otherwise might use for golf and for sporting purposes, for the welfare of their city. We also take the Trade and Labor Unions and ask them to nominate two or three men, and we endorse these two or three men, and we always have members of these bodies in our Council, and we all work together for the benefit of our city. We do not spend money electing our aldermen.

Mayor Bligh: Who pays for the advertising of candidates, don't you even send out cards?

Mayor Graham: In the past five or six years any good, practical business man that we had on our Council, who has offered himself for re-election and has been included in the men we suggested for the following year, with one or two exceptions, has been re-elected. We make up a little fund; the candidates pay in about \$50 or \$75 each, and we put a list of the men that the Citizens Committee are supporting in the papers and they are advertised as a whole. We do not send out individual circulars. We had 24 candidates; there were ten endorsed. The thirteenth man was 700 votes below the twelfth man, and all the others ran down to 400 or 500 votes, and some of those who got four or five hundred votes spent \$200 to \$300 trying to be elected. You have to work gradually up to that sort of thing. We think at the present time we have the finest organization ever running our city by having the stamp of men we do.

Mayor Read, Kerrobert, Sask.: Most of the talking has been done by the larger cities, but there are a great many representatives from the smaller towns. I would like to say a few words with regard to the ward system and voting at large in the smaller cities. I am Ex-Mayor of an old town, in the neighborhood of 12,000 or 14,000 now, but when I was in it there were about 8,000. The town was in a position that many other towns are in; they own their waterworks, gas and electric light. In 1889 we abolished the ward system. Before that I had been Chairman of the Board of Works, and I had about \$8,000 to spend in a year. There was a different man every year on that Board of Works from the different wards. We had four wards, and by the time we got through with that \$8,000 it was scattered over the town, so that the Chairman of the Board of Works could not do anything. We abolished the ward system and next year it was more satisfactory.

Ald. Boyd, Montreal: We have heard from some of the smaller cities and some of the smaller towns, and I have been very much interested in the paper that Mayor Graham has read, because the

question, as far as the City of Montreal is concerned, is a vital one. Four years ago we had a complete change of government. Before that time we had 46 Aldermen, 2 for each ward. The Legislature changed our Charter, reducing the Aldermen to 23, giving one Alderman for each ward instead of two. At the same time they created what we call a Board of Commission or Control. The Board is four in number, and are elected by the people at large. The 23 Aldermen are elected by the voters of each of the wards. The Board of Control are the administrators of the city, the Aldermen are the legislators. All money reports originate with the Board of Control, and these reports are submitted to the Council, and the Council has the right, by a two-thirds majority, to remand; they may, on a bare majority, refer back for future sittings. The question of wards is a vital one with us, for this reason; in the year following after the new system of government was introduced, there were eight wards added to the city. That is, we took in eight surrounding municipalities, and to each of these municipalities, when they were annexed, we gave the right to be represented by one Alderman; so that today we have thirty-one Aldermen. Now the difficulty we find by the annexing of so many municipalities is this: we have some wards with only 200 voters represented by an Alderman. On the other hand, the largest ward we have has 10,000 voters, so you see the inconsistencies of the ward system so far as representation is concerned. There is an agitation today to alter our administration in some way, and it has been suggested that the City of Montreal be divided into five districts, each district represented by five or three Aldermen. There is a further suggestion that the Aldermen should be elected by the people at large. There is no question that with the ward system certain Aldermen are bound, because upon what they do for their voters will depend the result at the next election. It appears quite natural, if a man is sent to represent a certain district in his city, for him to do the best he can in its interests.

Of course, in the City of Montreal, which is, as you know, a city divided between French-speaking Canadians and English-speaking Canadians, we will probably have more difficulty as regards representation if we have the Aldermen elected by the people at large. There is another difficulty we have experienced: the Board of Control was elected for a period of four years. The Aldermen are elected for two, so that it does not seem fair that the Controllers who are responsible to the people at large, should only come back and give an account of their stewardship every four years, whereas the Aldermen have to come back every two years. At the same time the Mayor has to give an account of his stewardship every two years, so that I believe when we come to read a just our system of administration, that the term for both Commissioners and Aldermen should be the same period of time. At present, from 1914 and on, two of the Controllers will retire by lot every two years, but the Aldermen will retire every year. There is some suggestion that the period of term for both Controllers and Aldermen should be four years each, so that when there is an election, that all the representatives of the people, both the Commissioners and the Aldermen, will give an account of their stewardship together.

Secretary Lighthall said that he had been asked by the City of Westmount, Que., to report on the experiment of a City Manager. This has only been in operation since early in April, and the General Manager was so unwilling to commit himself on the result of the system that he very modestly stayed away from this Convention for that special reason. The only thing that I can say is that his duties are to manage the affairs and business of Westmount, under the Council. It is a small Council, more like a Board of Directors and a President. The Mayor goes there about an hour every day and issues his orders; the Committees sit as usual, but the General Manager carries out the whole thing just as a manager of a private corporation would do. He gives all orders, makes all arrangements, fulfils all ordinary functions of hospitality and everything of that kind. The population of Westmount is about 20,000, of high class residential character.

The Chairman: Do you think that if a City Manager had a population of 600,000 to manage, and an amount of \$25,000,000 to expend, that he would be in a position to handle the details of administration?

Mr. Lighthall: I would not like to pronounce on that. It is a very interesting experiment, and it is apparently suitable to the kind and size of place Westmount is.

The next paper was

The Improvement and Preservation of our Great Inland Waterways

Controller Thos. Church, Toronto, Ont.

This is one of the most important subjects that the Union could deal with, on account of its importance to the municipalities.

The improvement and preservation of our great inland waterways includes all the great lakes, rivers

and streams of our Country. No Country in the world has such great wealth in this respect, and it is deplorable that the people of Canada have not done more to develop this great heritage. The magnificent waterfalls should be conserved for the benefit of the people, and not given away free by our Legislatures to private greed and exploitation.

The conservation of these great natural resources means their proper utilization, and where can this be worked out better than in the use of inland waters for improving transportation and preserving the magnificent power interests for the people. It is a business question mainly and an engineering question secondly.

The St. Lawrence River and the chain of Great Lakes, with the Lake of the Woods, Lake Winnipeg, the Saskatchewan and other rivers, could be utilized with deepened canals to provide an up-to-date route to transport the grain and increased volume of traffic to the sea-board, which would result in a great lowering of freight charges by the railways.

The reason assigned by the officials of the C. P. R. before the Dominion Railway Board, in the recent investigation over Western freight rates, for lower rates in the East was the water competition on the canals. This competition between water and rail is the most effective, if not the only, method of regulating railway rates.

It is a well-known fact that transportation by water is not only cheaper than rail, but often much quicker. It has been estimated in the United States that the average movement of freight by rail is only twenty-five miles a day, or but one mile per hour, including, of course, all delays at stations and terminals where cars are frequently side-tracked for several days.

In this connection, Sir Robert Perks said in London the other day, "Whenever I have been out West, I have been struck with the fact that no organized and effective efforts has hitherto been made to use these magnificent waterways, which after all are the cheapest form of traction.

"I do not know whether you have ever been down the Danube, and watched the huge flat barges carrying very often 3,000 tons, half a dozen of which are towed down the Danube with a small tug, all loaded up with grain. The cost of carrying grain by this method is almost infinitesimal, and were a system of this sort adopted in the West the value of the vast grain crossing Prairie Districts would be incalculable."

These magnificent resources should be conserved for the benefit of the people, both as regards the subject of transportation and from the power standpoint.

As Mr. John Kennedy, C.E., Consulting Engineer of the Montreal Harbor Board, said at the Nomads' Club Dinner, Montreal, there are Companies today who could carry the St. Lawrence River West of Montreal with its water power and give us a free canal to Prescott; i.e. west from Montreal to Lake Ontario; and one Company of the Long Sault Rapids has offered to place dams and locks for deep-water navigation at this point, in turn for the privilege of developing power and for the use of the power thus produced. This Company, besides incurring all the expense of construction, were willing to pay the Government an annual rental per H.P. per annum.

There is no reason why the Government should not, with all convenient speed, deepen the St. Lawrence River west of Montreal and vigorously push forward the deepening of the Welland Canal, and the magnificent chain of waterways from the Lake of the Woods westward to the Prairie. If this work was undertaken in a business-like way, without politics entering into

it, the people would get the benefit of the power in the cities and towns and farms of the Country.

The magnificent pioneer work of the Honorable Adam Beck and Sir James Whitney in the Hydro Electric System of Ontario is an example to all governments in the Country. The people get the benefit in their homes and the farmers on their farms.

This movement, which has been such a great success after an uphill fight, has reduced the rates for power by one half in many cases, and has resulted in a large saving to the people of the Province.

The Hon. Adam Beck has been so far in advance of public opinion on this all-important question as to have been its standard-bearer, and there is no reason why the work which he so faithfully and ably begun should not be extended by the Federal Government in different Provinces, in dealing with all the other water-falls of the Country.

I believe that the Government, first of all, should improve the St. Lawrence-Welland-Great Lakes Route, which is the existing waterway, and on which little or nothing has been spent west of Montreal since Confederation.

In this connection, it is an extraordinary thing that the Railways of Canada have shown such open hostility to the development of our natural waterways, whereas in European countries, governments own and operate the railways and the most is made of these natural waterways because water transportation is the cheaper and the purpose of such governments in providing either rail or water facilities is simply to give the most advantageous and efficient service to the people; whereas private corporations when controlling the waterways take the fullest advantage of the possibilities, because the exploitation of them is profitable to the corporation.

On the other hand, in countries where railways are operated purely by private corporations, these companies try to dominate and nullify the advantages which nature has provided.

The advantages to the urban and suburban man is reciprocal and there is nothing that the Municipal Union can work for better than the improvement and preservation of these great inland waterways and save them for the people.

Several commissions have been appointed and I am sorry that in the selection of them, representatives from this Union have been ignored.

These Commissions should approach these questions from the point of view that these are firstly business questions and secondly, engineering matters.

United effort and mutual benefit should be the watchword. Let there be no sectionalism, for that is a relic of the past generations. What is for the benefit of one Inland Harbour is for the benefit of them all. Onward and forward should be the watchword.

Let us see to the adoption of a comprehensive plan and plan ahead for the future—the future needs of our canals and harbours: also get modern and more effective aids to navigation, and up-to-date methods of handling freight.

Take a broader, saner, truer and more businesslike, patriotic and national view of this problem and the requirements and future rapid growth and development of Inland Canada. In this way alone can the Transportation Problem on our great Inland Waterways be solved once and for all. Have faith in your country, towards the success and development of which Providence has done so much and Governments and man so little.

Controller Hinchey; Ottawa: I don't wish to criticize in any way the substance of his paper, but Controller Church,

among other things, has stated that Toronto is expending some fifteen millions of money upon a harbor, and the Dominion Government is supplementing this by some five millions more. That is very progressive on the part of Toronto, but I don't think that this expenditure necessarily means that the Welland Canal and the route proposed by Mr. Church should be adopted rashly by this meeting. This is one of the biggest questions that concern the Dominion at the present time. There are different routes by which waterways to the great west can be found. There is more than one course under consideration, and there is one course that is very much shorter. Now, I have no objection whatever as a representative of the City of Ottawa to a recommendation being made to the Dominion Government to investigate the route proposed by Controller Church, but in view of the fact that at the present time an investigation is being made of the waterways east of Montreal to the seaboard, and through the great lakes to Port Arthur, I do not think it would be wise or prudent for this Convention to make a recommendation such as outlined in Controller Church's paper.

If Mr. Church will modify it and request the Dominion Government to make an investigation along these lines, I personally am prepared to support it, but an investigation is one thing and the adoption of the recommendation of Mr. Church is quite a different matter.

Mayor Clay, after considerable discussion by the members, moved that, without endorsing any specific route, the Union press upon the Government the necessity of doing something in the way of developing the inland waterways.

Mayor Graham moved an amendment to the effect that the paper read by Mr. Church be referred to the Committee on Resolutions. Mr. Clay, after withdrawing his motion, seconded Mayor Graham's amendment, which was thereupon placed before the meeting and carried.

The President then introduced Ex-Mayor Sandford Evans, of Winnipeg, who gave an address on

Municipal Finance

Ex-Mayor Sandford Evans, Winnipeg, Man.

If affords me very great pleasure indeed to attend another Convention of this Association. I understand that I am still upon the list of members, by virtue of the fact that I once held the honourable post of President of this Association. I have no formal paper, but with your permission, I shall try to outline some of the considerations in connection with municipal finance which under existing conditions seem to me worthy of attention.

From the standpoint of financing on Capital Account, we may say, in general, that there are two classes of Municipalities in Canada. In the first class are those municipalities which, largely because of their size, population and assessment, are justified in issuing securities in sufficient volume to enable them to go direct to the large money markets, particularly London. The second class includes all other municipalities. I have had some practical experience with the first class, and during the past twelve months I have been brought in contact with, and have given a good deal of thought and a good deal of time to the position and problems of the second class.

This second class includes our towns, our villages, our rural municipalities, and for the most part, our school districts, that is other than the school districts of the larger cities. These Municipalities, speaking generally, have been confined to Canada for the market for their securities. Some few have gone occasionally to the United States, and perhaps an odd case to England or the Continent, but the chief market has been Canada. The securities of these municipalities cannot be made suitable for the larger markets, because individually they are not in sufficient volume to meet the requirements of those markets.

At the present time, as you all know, as everyone knows, these municipalities of the second class are experiencing great difficulties financially, as, indeed, are many of the cities. There is practically no market for their securities.

We say that money is tight. Probably the proximate cause of the critical stringency now prevailing in Canada is the fact that we have not received, within twelve months, the full supplies of outside money which we have been receiving for years past, and which are absolutely necessary to sustain and finance development at the rate at which we have been proceeding. It is an unquestionable fact that Canadian financial resources alone cannot possibly meet the demands of the wonderful expansion of the last few years. Therefore, we have been dependent upon the supplies of outside money. We have not this year received these supplies in sufficient volume, due to world causes, and we have therefore been thrown back upon the financial resources of Canada. This has meant that our financial institutions have had to undertake a bigger burden, and this has meant that practically every interest has had to undergo a certain amount of paring down, so that we can all get in upon the basis of our own financial resources.

I may say that, personally, I am not at all pessimistic with regard to the conditions or the outcome, but we must learn to make ourselves comfortable in rather cramped surroundings. Now, incidentally, I should like to say that to me it does not appear to be true that the banks have "shut down." If you take the last Bank Statement issued, that for the end of May, I think you will find that the loans in Canada by the Canadian Banks at the end of May were \$63,000,000.00 greater than the loans in May of 1912, while deposits of the public in Canada in the banks were over \$6,000,000.00 less than the year before. With six millions less of public money, our banks, at the end of May, had loans sixty-three millions greater than the year before, so that, relatively at least, our banks have been doing very much more this year than a year ago. But they have had to carry more of the total burden, so very many interests have had to do with proportionately less.

I think there have been no interests which have been more seriously affected than the municipalities of the second class. Not only have they had difficulty in securing accommodation from the banks, even in connection with current accounts, but they are faced with a situation in which, as I have said, there is practically no market at all for their securities. This, again, is capable of some explanations. In the first place, the individuals and institutions which have ordinarily consumed these securities either have less money available, because of general conditions, or they have the feeling of caution which is apt to prevail at such a time, and are not so much inclined to purchase. Then the bond houses, (which are the primary market for municipalities of this class, purchasing in bulk and distributing in smaller lots) find they cannot carry the securities as they did before, and if they buy from you \$100,000.00 of securities it is necessary to carry part at least for weeks or months until all can be distributed. Since they have not bought, they are not trying to sell; not only are the individual purchasers less inclined to buy, but the selling machine has been largely paralysed, and the result is that there is no market at all for your securities. That seems to me in a word to be the general situation. But it may be, and in my opinion it is a fact that even if this particular crisis, due to outside conditions, had not arisen, we were approaching a crisis in the finance of this class of municipalities, and perhaps I may suggest one or two of the reasons which have led me to that conclusion.

The financial institutions, such as the Insurance Companies, have been in the past very large purchasers

of your securities. They are less disposed to purchase today, mainly because of the attractiveness of the first mortgages. Some financial institutions, and I think our Western Insurance Companies particularly, began to invest their funds in first mortgages at eight per cent. The result was that other Insurance Companies, feeling that they could not have their showing of income fall behind other companies, began to look towards the same investment, because of the higher returns. Your market has been correspondingly restricted. Then the other investors in Eastern Canada are being very rapidly educated to the attractiveness of the preference stocks and bonds of industrial and other corporations, and a large amount of those securities are being consumed. The first mortgage and the preference stocks and bonds of corporations are your rivals, in what is, at best, a narrow market, and these tendencies appear at the very time when the needs of the smaller municipalities have extended enormously, largely because of the great number of new municipalities which have sprung up, particularly in Western Canada. It seems to me, therefore, that we have been rapidly approaching a time when something must be done to open up another market for these securities or to enlarge the market in some way. I say this because I do not think those responsible for municipal finance would be wise to assume that if the causes of this special stringency pass away, therefore all the difficulties may be removed for a considerable period, for I do not think they would.

Another word simply in passing. We cannot fairly say that our banks are not doing a great deal, because they are doing very much more than last year. Nor do I think we can assume that the banks would necessarily discriminate against the municipalities, although I doubt if there is a member of a Council of any small municipality, at least in Western Canada, who has not felt that the banks have discriminated. But there are many reasons why municipal accounts are not particularly in favor with banks, quite apart from the fact that they are carried at the lowest prevailing rates of interest. One most important reason why even the current accounts of municipalities are not in favor with the Banks, is that our municipalities, as a whole, are not prompt or aggressive in collecting their taxes.

The fundamental theory of banking, in this country at least, is that the Banks finance an annual turn-over, or a shorter turn-over, but the account must be cleaned up at least once a year, and our municipalities are lax in this matter; therefore, the Banks by preference will not take municipal accounts as long as they can get accounts that are promptly and regularly cleaned up. This point must be faced by the municipalities and some changes in methods and in the law may be found advisable. In this Province of Saskatchewan, for example, if the taxes are not paid by December 31st, eight per cent is added on the first of January by way of penalty. Nothing more is added for a year. What does that mean? It means that a man is supplied with the strongest reason for withholding overdue taxes for a whole year. Between January 1st and December 31st he can continue to use the money without cost. In Alberta 5% is added on the 1st of January, and 5% on the 1st of July. The tendency there would be to postpone the payment of these taxes for six months. Discount can be given in Alberta but not in Saskatchewan, for prompt payment. By giving discounts, and by using some logical method of adding penalties, and by resorting to more stringent methods of collecting, as all well-run business do, this difficulty may be met. I know it is one of the very serious points which

municipal financiers must meet if they expect to keep their standing with the Banks, as compared with other applicants for loans.

Now I am one who believes very strongly in the importance of the town, the village, and the rural municipality. Our towns, villages, and rural municipalities have a very important function to perform in the development of a country, and as citizens of Canada, we should desire to see our towns made as attractive and as comfortable as it is possible to make them. We want good people to live in the towns. It is not wise to have towns rambling and unattractive so that if a man makes a little money, and proves he is a good business man, he will wish, as soon as possible, to rush off to some other place, probably to increase the congestion of the cities. We want to keep good people in our towns, and these towns should, therefore, be comfortable. I am of the opinion that there cannot be in any country many places of very large size. I do not doubt that many of our towns in the west have aspirations as to magnitude which will never be realized, but any town which has a right to exist at all is justified in having reasonable public works and conveniences, and if there is any place where the town-planning expert should be employed, it is in making our towns the most attractive and comfortable places they can be made. Similarly, a wise public policy must support a reasonable standard of improvements in our villages and rural municipalities. I say this so you may know that anything which may appear like a criticism, is not due to lack of appreciation of the function and importance of the lesser municipalities.

Our Municipalities in this country are creatures of our Provincial Legislatures. In every country the municipalities are the subordinate creations of some legislature. It is right, and it is unavoidable, that our municipalities should be subject to control. Now, there are two general principles of control. In Canada we have what may be called legislative control. We go to our Legislatures for everything, and there is no session in which every Legislature in Canada is not engaged in amendments to special charters or amendments to general municipal acts, to meet changing conditions. Those who purchase your securities require that in some Act passed by the Legislature there shall appear the exact description of the thing you are proposing to do and of the powers you are undertaking to exercise. Otherwise you cannot sell your debentures. Courts interpret municipal law very strictly. As new needs and desires arise, even about details, and as defects, small or great, are discovered in practice, you must go to the Committee of the Legislature, and explain there as best you may, and the amendment is passed or it is not passed. When I was in municipal work, I thought that a very unsatisfactory system. It is not a logical method of control, and it is not a very intelligent way of settling these intricate and expert matters, because those before whom we go are not, in many cases, really versed in these particular problems.

As distinguished from this, the other method may be called administrative control, as illustrated, for example, in the system in the British Isles. The difference may be shortly expressed in this way. Under the principle of administrative control the Legislature grants to the municipalities certain general powers, but they cannot act under these powers until they secure the consent of an administrative board, which is established for that purpose. In England it is the Local Government Board. The English Municipalities do not have to go to the Imperial Parliament for the adjustment and readjustment of details, as we go to our Legislatures,

but under their general powers they prepare their plans, which they then lay before the committee of experts, and if this Committee, the Local Government Board, decides that the proposition is sound and gives its approval, then it is a valid and legal thing for the municipality to carry out. Personally I always felt, when I was engaged in municipal work, that I would infinitely prefer to go to a committee of experts and lay my case before them, rather than to go to the Legislature. Further, I believe competent administrative control would be very greatly in the interests of our municipalities, not only as tending to prevent extravagance and mistakes, and thus give us better service at lower cost, but as tending also to establish greater confidence in the financial markets and thus facilitate the sale of securities. In suggesting to your minds this principle of administrative control, I am suggesting something which has been tried out in England and has been found to be practicable.

I do not believe there is any representative before me of a municipality, at least of the class we are particularly considering, who would not welcome the opportunity of going before a Board having the highest engineering and town planning experts in consultation, to get their advice and their approval in respect to any proposed work. In our municipalities of that class the representatives are subject to very great pressure, and very unfair pressure really, to do things which their own judgment may hardly justify. This pressure comes from citizens with an interest, especially a property interest, to serve, who look rather to the moment than to the future. And then there is the enormous pressure resulting from the rivalry between the towns. In Western Canada, for example, if one town puts down a granolithic sidewalk eight or ten feet wide and two blocks long, every other town is under pressure to put down a granolithic sidewalk twelve feet wide and four blocks long; and this rivalry tends to be dangerous, unless it is under control. It seems to me, therefore, that not only is it desirable, but in the interests of the Municipalities themselves and of the whole country it has become necessary that we should have some such direction and control as a Local Government Board could provide. There have been instances where mistakes have been made, even in what should be simple engineering problems, in our towns, and money wrongly spent in consequences, although I may say I believe there is actually less money wasted by municipalities than by other large spending corporations. But we cannot afford to waste any money in municipal expenditures. The men who handle municipal finance are subject to a stricter criticism than the managers of business corporations. They cannot cover up their mistakes by a showing of profit. No cash profits appear, and therefore each particular investment must be just what is necessary to accomplish the object of a sound public policy.

With these general considerations in mind, I wish to call to your attention a suggestion made within the past few weeks by one of the three or four strongest financial brokers of the City of London in this class of finance. Not anticipating an occasion of this kind I, unfortunately, did not obtain this gentleman's permission to use his name publicly. In discussion with him in Winnipeg, I raised the question of the financial problem of the lesser municipalities and I found that he had come to Canada with the suggestion that the Government (whichever government was the proper party, and I explained, of course, it would be the Provincial Government) might, and should make an issue of stock in some form, and take up these securities itself, while the Government stock went to the London market and

provided the money. I said to him, "Do you realize what that would mean? At the present time London is taking practically none of this class of securities at all, and yet you make a suggestion under which London might take them all, and you do this in face of the fact that there are frequent criticisms at the amount of Canadian applications?" He said, "What would the total amount to?" I could not tell him accurately but we assumed what seemed an ample estimate. He thought a moment, and said, "I think we could handle it." If any man of his standing made that remark to me in that way with regard to any financial proposition in which I was personally interested, I would not worry about the money.

It may be said this suggestion is not new, and of course it is not. The Imperial Government issues a Local Loan Stock, the proceeds of which it advances to municipalities in the United Kingdom for certain purposes, and the suggestion has been heard before in Canada. But the new thing and the important thing, is that one of the strongest active financial men in the city of London, after considering the whole situation in Canada, and with a view to strengthening and improving the whole financial position in Canada, has expressed the opinion that the City of London, if the financing were done in this way, might be able to handle all the money that was really necessary.

This plan is intimately bound up with the problem of control, for Governments could not lend their credit to the municipalities unless they were absolutely satisfied as to the purpose and the wisdom of the expenditures, and competent supervision would be necessary also to establish that confidence in the investing public, without which the plan could not succeed. If, however, the problem of control can be worked out along some such lines as I have indicated, would not this plan prove the solution not only of the financial difficulty we are now in, but of the difficulty we may continue to be in after this present crisis is past? The initiative would probably have to come from the municipalities. If you would like to be relieved from the anxieties and uncertainties of marketing your securities, and if you would be satisfied, in consideration of that assistance, to submit to the same kind of control the municipalities in England submit to, and if you would approach your Provincial Governments, there does not seem to be any reason why this plan could be put into effect. If it were, the benefit to Canada as a whole as well as to the municipalities, would be enormous. To relieve our narrow market of that burden which it is bearing today, would have a great effect in stimulating other enterprises, because it would release that amount of money, which could go into our industrial and other productive undertakings.

There would be no constitutional difficulty about the creation of a Board with somewhat similar powers to the local Government Board in England, but in this country it might be better to make it an independent Commission. We would be met undoubtedly, by the fear that the changed conditions might in some way afford an opportunity for the exercise of party political influences in municipal affairs. But in a matter of such importance, it seems to me any Government in Canada would select the men, irrespective of party politics, with a view alone to their ability to deal with these problems, and if the Board or Commission were once constituted, and if the men were of good calibre, they would soon develop independence as well as competence.

There are two ways in which the financing could be carried out. First, the Provincial Government could

issue a special class of provincial stock. If this stock were given a special name, it would, not in the opinion of the authority I have quoted, limit the borrowing powers of the Government for its own purposes. In England money for municipal loans is raised by means of Local Loan Stock, whereas the Government's own securities are called Consols, and the one does not affect the other in the market. As a second method, the Provincial Government might constitute the Board a corporation with power to issue stock of its own, which the Provincial Government would guarantee. Now, the stock of a Board of that kind, guaranteed by the Provincial Government, and a special class of Provincial stock would sell at the same price on the market. From that point of view, it would not matter which were done, and the choice would be left to the Government. The Board would receive from the municipalities, in good time, the estimates of their requirements for the year, representing works that had been approved. Even before the estimates came in, it could closely approximate the total probable requirements, and it would know from experience, if not from the municipal officers direct, the distribution of these requirements throughout the year. It would therefore be in an excellent position to finance soundly, issuing its stock in such accounts and at such times as would suit the market as well as the needs of the municipalities.

The advantage of financing on this scale and on the direct or indirect security of a Provincial Government would be enormous. This stock (and, of course, bonds might be issued instead of stock) could reach any financial market in the world. Our lesser municipalities are now almost exclusively confined to the Canadian market. Then the municipalities, not only because of the exigencies of their narrower market but for a variety of practical reasons, could not possibly make the same definite and effective arrangements to have money in hand at the time it was actually needed. The Board would become experts in finance or would employ experts, which can hardly be expected of the Municipalities. Then cheaper money would be obtained. Under present market conditions the rate would probably be $4\frac{1}{2}\%$. It would not be expected, and might not be fair to other interests, to hand on the money to the Municipalities at the same rate. If cities were not included in the scheme, but were left to finance for themselves, it would be inequitable. And even if the cities also came under the supervision of the Board and could avail themselves of its financial assistance, thus unifying all municipal finance, it would probably be equitable to grade the municipalities, letting some have money at one rate and some at another. The difference between the rate paid by the Board and the rate charged the municipalities could constitute a fund with which the ablest engineers and town-planners could be employed. The Municipalities could thus obtain services beyond their reach today and even then have cheaper money than the market will give them individually.

In view of the difficulties of Municipal finance, this plan, recommended by men who understand the problem and are leaders in the money markets, is well worth our serious attention. In any case, the question of more efficient control and direction of municipal expenditures demands consideration. If the principle of administrative control through a Provincial Board, or Commission, is adopted, it might make the acceptance of such a scheme easier if the legislation were not made compulsory but permissive. The Legislature could pass

an Act providing full machinery and full powers, under the operation of which a Municipality could bring itself by by-law or by some other formal action. It should be a general Act, applicable to cities as well as lesser Municipalities, because it seems to me the tendency would be for the cities, at least after a time, to desire to come under its provisions. The attitude of investors, who seem disposed to insist on better evidence of the justifiableness of expenditures, would be an important determining factor. If, as we would expect, competent men were appointed and the Board were established in a reasonably independent position the scheme should work out to the very great benefit of our Municipalities.

The Chairman thanked Mr. Sanford Evans, on behalf of the Convention, for the very able address given by him, and suggested that a motion be framed, expressing the appreciation of the meeting.

Secretary Lighthall moved this, seconded by Mayor Berry, St. Boniface, and it was carried unanimously.

Mayor Bligh: I think that, if only out of courtesy, some discussion of the address should take place. As the speaker intimated, this is a matter altogether for the different Provinces, and probably different legislation in the different Provinces might be necessary. I presume that in an old and established province such as Nova Scotia, with only the two cities of any size at all, neither of whom had ever sought to dispose of its bond issue in the market of the world, legislation might not be necessary, whereas it might be in the great Provinces where conditions are so rapidly going ahead. These conditions are so varied that a general principle cannot be laid down.

I should like to ask under the Local Government Board in England, is there is a special issue of the bonds by the British Government under different names from their Consuls. I had understood that the Government simply guaranteed these bonds.

Mr. Sanford Evans: There are several different ways. I confess I do not know enough about the English method to explain it in detail, and I would not care to attempt it.

Commissioner Yorath, Saskatoon: The Local Government Board in the old country do not issue or control stock for any municipality, but they do this. All schemes of any municipality which are to be financed by capital expenditure have to be drawn up, with complete plans and complete estimates, and these plans and estimates are submitted to the Local Government Board. After they have considered them, they send an engineer and inspector, who is an expert in the particular branch, to the town, and he holds an inquiry at which the public are admitted, so that if there is any difference of opinion as to the advisability or otherwise, of the scheme, the inspector receives the whole of the information. Not only does the inspector inquire into the details of the scheme, but he inquires into the assessable value, the amount of the rates, the capital indebtedness, and other things of interest, which would help him to come to some decision. At that inquiry it is often necessary to have experts to explain the different sides of the situation, and after that, the inspector returns to the head office and draws up the report upon information he receives, and upon that information the Local Government Board grants their consent.

Now, with regard to the issue of stock of the municipalities going on the market when they consider it favorably, the Board does not guarantee the stock, but the fact of their receiving the sanction of the Local Government Board greatly strengthens their hand, because financiers know that they are not borrowing beyond their powers, that their scheme has been properly designed and properly carried out.

Mayor Short: I wish to express my appreciation of the address of Mr. Evans. It is one of the things that makes it worth while to have a Convention of this sort. I feel that I would be difficult to induce the Provincial Governments to guarantee municipal bonds. The particular phase of the discussion which is of the greatest possible benefit is that of the Local Government Board. There has been in the past indiscriminate waste in the manner in which the municipalities have carried out their works. They have done temporary things in expensive ways. A properly constituted Government Board would eliminate a great deal of that; they would eliminate a great deal of mis-spending of money, that spending of money which comes from a desire to be equal with, or greater than, the neighboring municipality. It would cut out a great deal of bad engineering. The benefit of such a Board would be, rather, in that it would have standardised methods, standardised expenditures, it would have insisted upon the getting of a better and more permanent class of work, and in the certificate that it would give to a municipality, the chief benefit would be found.

Mayor Mackay, Swift Current: I should like to give my experience in Scotland, where I was engineer in a small town. The Local Government Board in Scotland is analogous to the Local Government Board in England, but its duties are confined, so far as granting loans are concerned, to the necessary things in every municipality,—a pure water supply, sewage and roads. I know in one town, where I was engineer, we could not afford to go on the market for a loan; we applied to the Local Government Board for a loan when we were to carry out an extension of our water supply, which was costing £10,000; the Local Government Board held an inquiry, passed on that, and advanced us the money without any further trouble. This money was obtained from the Imperial Parliament. As I say, it is only confined to the three matters, water, sewage and roads. No municipality, for instance, could go and simply rush up an electric light plant if they thought fit. They have got to appear before a Committee of the House of Commons, and they hold a public inquiry, and if this is a feasible and wise undertaking to the town, they report to the Imperial Parliament accordingly, then the Bill is passed, but in that case they must float their own debentures.

There is one particular instance in which the Local Government Board is essential in any large country, and that is in connection with sewage disposal. The Local Government Board, I know, in Scotland and England were harassed by a great many cities and towns to do certain things. They had certain rules in connection with sewage disposal, and the towns and cities had to conform to those rules, and it seems to me that more especially in the smaller municipalities in the West, a Local Government Board would be a safe thing, because engineers, more especially in the smaller towns, are very apt to take a parochial view of things and if their plans were submitted to an expert of a Local Government Board, he comes to the subject with a fresh mind, and often makes suggestions which would otherwise not be embodied in the scheme. One fact which strikes a man from the old country in connection with local improvements is that before work can be carried out, the by-law must be submitted to the people. That seems to be a dangerous thing, that the people should have a say, for instance, whether they are to have a pure water supply or whether they are to continue to have Typhoid Fever.

The matter of the Inter-Provincial Highway, referred to in the proceedings yesterday, was again brought before the meeting by Secretary Lighthall, and after some further discussion it was moved by Mayor Short, seconded by Controller Church: "That this Union is in favor of the making, in conjunction with the Government concerned, of an Inter-Provincial Highway of good standard construction across Canada."

Mayor Galbraith: We are faced with three resolutions, one for the Inter-Provincial Highway, one for the deepening of the Welland Canal, and one for Senate Reform. Now, this Union, as I understand it, is for the government of the Municipalities. Are we not in danger, by going into this and pronouncing on these matters for which organizations are already formed? Our business is largely over matters that are common to all municipalities, and these matters are not, in a sense, common to all municipalities, as distinctive municipal concerns. That is, they affect some municipalities, but do not affect others, except in a general way, and I want to have the Convention think of it as to whether our influence might not be dissipated by going after these things, of which we have very little knowledge, and weaken our influence for our legitimate purposes.

After some further discussion, the Chairman suggested that all reference to things which did not pertain to the affairs of this Convention be struck out of the reporters' shorthand notes; the meeting agreed, and the reporters were instructed accordingly.

Commissioner Neill, North Battleford, Sask.: What is the use of that Inter-Provincial Highway? What we want is lines leading from the various farming districts down to a railroad line. You are not going to haul grain over the Inter-Provincial Highway. When you have got farmers at the present time in Western Canada, and possibly in Eastern Canada, that are 25 and 30 miles away from existing railroads, I contend it is not diplomatic to ask the Government to give consideration to the building of an Inter-Provincial highway. What we want in Canada is a railroad line within ten miles of every farm, so that the farmer can get out on the ordinary prairie trail and have to drive only ten miles to meet a railroad line.

Mayor Short: Speaking of my Province, there is not any reasonable ground for objection in the matter of railroad accommodation, but there is not only reasonable, but unreasonable and every kind of objection that can be thought of in the matter of roads. I believe that the time is past when there should be legislation for the benefit of the few; I would like to see legislation for the benefit of the many, and I do not know of any subject

which is so intimately bound up with benefit to the vast body of citizens as the question of good roads.

If we have an Inter-Provincial Highway of good construction from Winnipeg to Vancouver, or from Winnipeg to Prince Rupert, passing along the Saskatchewan River, possessing the scenic advantages that such a road would have, it would be black with automobiles, our farmers would be selling hundreds of thousands of pounds of dairy produce to the visitors who would come here. I do not know if there is a single thing that can be said with regard to this that does not come within the compass of the Union of Municipalities, and I hope there will be no hesitation in passing this, or any other resolution, that makes towards good roads.

Mayor Bligh: I think no more important question than building permanent highways through this country could come up, and it would be a pity to turn down the resolution that we should press upon the Dominion Government to continue the course it has adopted.

After a good deal of discussion, it was remitted to Mayor Oliver, Port Arthur, to frame an amendment to the resolution, to cover the suggestions offered.

Commencing Yorath, read-a-paper on "Town Planning," which will be found in the engineering section, page 426.

AFTERNOON SESSION

President Lavallee presided and introduced Hon. C. Stewart, Minister of Municipal Affairs for the Province of Alberta, who said: I did not anticipate that I would be called upon to address you, but I am very glad indeed to have dropped off the train at you, but I had an invitation to this Convention, and assure you that it is a pleasure, as well as a duty, to be here. I am glad to know that you have representatives from the whole of Canada, but I came here very much more with a desire to learn than to say anything, or to ventilate any views that I might have on the question of municipal affairs.

In Alberta we do not touch, perhaps, the theme that you are discussing most, namely, the question of city government, because our cities are all operated under special charters. They are a law unto themselves. With the towns and villages and rural municipalities and local improvement districts it is somewhat different. The Government does have some say in the local self-government of our towns, villages and rural municipalities, but with the cities it is quite another matter. However, the City of Calgary has asked us to authorize or to put our certificate upon their debentures whenever they issue fresh debentures for any purpose whatsoever. Whether other cities will follow suit or not I am not prepared to say at this time.

There is just one thing that I would like to express an opinion on, and that is this: at our meeting of the Union of Alberta Municipalities, the question of bonusing came up. I do not know whether you have it on your papers for discussion, but as our cities are operated under a special charter, and our Towns' Act prevents the bonusing of any industry whatever, we were in hopes that the cities would follow suit. This is a subject that is perhaps particularly close to us here, in that I believe that we in Western Canada, just at this time, are having a slight lull, in what we have been pleased to call the fluctuating prices of our real estate. What I fear is that our municipalities will be flooded with the gentlemen who was so well known in the East, namely, the gentleman who was hunting for special privileges for the location of industries. It seems to me that in Western Canada we would be taking a step in the right direction if, at this early date, cities, towns, villages and municipalities should set their face against this thing.

I hope that the Convention will be beneficial to me as well as to yourselves, and I shall take great pleasure in listening to the various topics that come up this afternoon.

Mayor Oliver of Port Arthur then read his amended resolution to the effect that the Union exert its influence with the various provincial governments to take up the idea of a great inter-provincial highway, and that the Federal Government be urged to assist the scheme by liberal subsidies. Mayor Berry of St. Boniface seconded the motion, which was unanimously carried.

The Secretary then read a resolution framed by Mayor Oliver with regard to lots on the water front, which after discussion was referred to the Executive.

The Wants of Rural Municipalities

J. N. Bayne, Deputy Minister of Municipal Affairs
Province of Saskatchewan,

Among the important requirements often found lacking in the new rural municipality is the existence within its borders of men experienced in municipal life. No matter how public spirited and well meaning a citizen

may be for service in the interests of his fellow rate-payers, he is laboring under a handicap until he has been made familiar with the details of the duties expected of him. This need or want of experienced men is being rapidly overcome in the province which is today honored by the presence within its confines of the Union of Canadian Municipalities. From personal experience let me say, that the average reeve or councillor of our rural municipal organisations, quickly and aptly grasps the necessity of whole souled application to the office with which he is honored, and a few months of practical work soon equips him for greater usefulness. It may be said right here that the elected official needs, in turn, the support and sympathy of his fellow citizens to a greater degree than they often know. Very often the reeve or councillor is required to have the knowledge of an expert in road construction and maintenance, but that knowledge must be secured very often, not through some perusal of theory, but by actual work. He of all men must learn to do by doing.

Among the appointed officials there is a need of technical men, be that officer a road foreman, inspector, engineer, secretary, assessor or treasurer. Very often a rural municipality cannot, or may be under the impression that it cannot, afford to hire a skilled man as engineer for the laying out of proposed improvements. In a new country professional men of the kind are often scarce and their fees apparently high, so that as a result much experimenting with municipal public works is the result, costly in the extreme and demonstrating the fact that the proper preparation by way of securing competent advice at the start is highly desirable. Permit me to repeat therefore that technical services are a want in many rural municipalities, but fortunately it is being speedily overcome. Its absence is often simply the temporary lack of funds with which to meet the expenses.

Another want which might be mentioned is the lack of continuity in the policy of the organisation concerned. This is due in the majority of cases (and of this fact we are all well aware) to the constantly changing councilboards. Too often a ward or division is represented for five years by as many different councillors. Each one may tire of thankless unremunerative service and at the end of the year glides out from under the mantle of responsibility. Appreciation of his work by his fellow electors would doubtless obviate a change of this kind. It may be mentioned in passing that certain people are harsh enough to say that some councillors stay in office only long enough to see that a particular stretch of road is completed, which road is suspiciously convenient to the said councillor's home. In many cases where such a statement is made it is simply a slander and is often the product of a prejudiced mind.

Another want which should not be overlooked is the knowledge on the part of every rate-payer whether resident or non-resident, that he is an integral part of the municipal institution. That the business of the organisation is his business, that he is a partner in a mutual co-operative benefit establishment. In speaking of the municipality and its officials he should learn to use the term "we" instead of "they."

Let me add another want to those mentioned and unmentioned. It is "money" and again "money." The municipal creation finds like the average individual that its wants are always returning. I will not dwell on this point, it is, in this year, a rather sensitive point which requires no elaboration from me.

But my allotted "eight hundred words" are being rapidly consumed. Before closing, however, I desire to give a general statement or two regarding municipal

development in Saskatchewan, now the third largest province in confederation, yet sharing with Alberta the distinction of being the youngest.

On September 1, 1905, the day on which Saskatchewan first came into being, there were only two rural municipalities, today we have two hundred and ninety, sixty-three villages have increased their number to two hundred and fifty-five. There were sixteen towns on the first mentioned date, now there are seventy-two; three cities were in existence on September 1, 1905, and to this number was added Saskatoon, in May, 1906, and in the same month in 1913, North Battleford became a city and thus reached the highest possible municipal status for any organisation to attain.

While the last eight years have seen wonders in Saskatchewan's municipal progress, yet we are just started. Truly the future looms large and let it be said that in the proper development of this phase of the province's activities municipal unions and associations such as that now before me have played an important part.

The Secretary read the proposed resolution introduced by Mayor Short with regard to providing permanent paved roads throughout the rural districts. Seconded by Alderman May.

Mayor Oliver: I would like to say that I was talking to Mayor Short and I used the word "permanent." I said, "It does not go far enough for our ideas." I called his attention to the fact that in the older Provinces they do not require paved roads where they have so much crushed rock to put down, and I understood that after this resolution was carried that matter would not be pressed.

Controller Church then presented a resolution to the effect that in the interests of the public an annual valuation of public service corporations be urged. Seconded by Mayors Graham and Hebert and carried by a substantial majority.

The Secretary read a resolution handed in by Commissioner Neill of North Battleford, to the effect that legislation be procured to have taxes collected monthly. The resolution was not well received, however, and after considerable discussion, it was moved by Mr. Lighthall, seconded by Mayor Graham, that the question be referred to the Executive for suitable action. This was unanimously carried.

Mayor Oliver of Port Arthur moved that at future Conventions more topics of interest to rural municipalities should be discussed. This motion was seconded by Mayor Galbraith, and unanimously carried.

The Secretary read a resolution proposed by Commissioner Neill, to the effect that the Dominion and Provincial Governments be urged to enact legislation which would prevent erroneous statements being printed in reports to the papers. Moved by Controller Hinchey, seconded by Mr. Howard, that this resolution be referred to the Committee on Resolutions to report at the next sitting. Adopted and carried.

The Chairman then proposed a vote of thanks to the Hon. C. Stewart, Minister of Municipal Affairs, which was enthusiastically carried.

EVENING SESSION.

Mayor Argue, Swift Current, pointed out that many important questions on the programme had not been discussed, and that it was on the understanding that these topics would be taken up that many of the delegates had been sent by their city councils to the Convention.

The Secretary explained that every effort had been made to obtain leaders for these subjects, but without avail.

Alderman Lapointe endorsed the position taken by Mayor Argue, and believed that if a delegate who had proposed to give a paper could not be present, he should send one to be read.

Mayor Oliver suggested that any subject brought up at a Convention of the Union had to lie over for a whole year before being reported upon.

A suggestion was then made that in future, papers promised to the Convention shall be printed beforehand and distributed so that when the Convention meets, even though the writers are present, their papers can be taken up and discussed.

On the suggestion of Mayor Read, Mr. T. Aird Murray, Consulting Engineer for the Province of Saskatchewan, was then invited to read a paper on the subject of sewage disposal.

Sewage Disposal

T. AIRD MURRAY, C.E., Toronto, Ont.

I did not come here with the idea of entering into any discussion or giving any talk upon any subject. I came here to learn

and to get into touch with what are the ideas that are running through the minds of those who are managing municipalities, in order that I might perhaps more efficiently guide the department of which I am Consulting Engineer in connection with this Government.

I do not want to enter into any detailed question with regard to engineering; but perhaps I may be able to say something which may be of practical interest, gathered during the last three years of experience in connection with the sewerage work in this Province. We have a law in this Province (and other Provinces have similar laws, I understand) which demands that all plans of any projected work shall be submitted to a Department of the Government for the purpose of examination. Plans in connection with all water supply, and sewage, and sewage disposal, come before me, and are duly examined and passed upon, and we have a law that no debentures can be issued until sanctioned by the Department which I represent. We have also assistants who go around and examine the work from time to time as it progresses. This Department came into being because it was felt that there was a necessity in the Province of Saskatchewan to insist on some system of sewage purification, owing to the very limited amount of water that we have in the Province, and the fact that it is absolutely necessary to keep that limited amount of water, so far as creeks and rivers are concerned, as pure as possible, so that the water may be available for domestic supply, and for watering stock.

There is one practical point which I might lay a little stress upon, and that is on this question of sewage disposal. Sewage disposal is an expensive thing; it is an important thing, and it bears no return, and cannot be called a utility. There is no income from it, and it is a thing which one would rather, from an economic point of view, leave alone; but there is a growing feeling in Canada that it is necessary. That feeling is pronounced, even in Dominion politics as well as in Provincial. Sewage disposal can either be made costly or it can be made less costly; and it can be either efficient or inefficient. Whether sewage disposal may be less costly than otherwise, and that it may be efficient, depends entirely upon the method of sewerage, and the system of sewers which are adopted for cities, towns and villages. I lay stress upon this, because in many cases you may not be able to meet the question of sewage disposal at once, but you must lay down your sewer system. The main point is this: What will sewage disposal cost from the efficiency point of view, and from the economic point of view, when you have two systems of sewerage? When you have a system of drainage which deals with the storm water and surface water separate from the domestic sewage, there is no necessity whatsoever to apply the modern methods of purification to storm water, but there is a necessity to apply the modern methods of purification to domestic sewage, because in domestic sewage we have the ingredients which will cause disease and which we wish to eliminate. Many people run away with the idea that to put in two systems of sewerage is expensive, and that it is not so economical as putting in one sewer, which will take charge of the whole of the water in one pipe. While, as a matter of fact, to put in the two systems is less costly, and apart from the question of sewage disposal, it is really more efficient. For if you have a separate sewage system, that is, one only taking the domestic sewage, you have a calculable quantity of discharge. You have a discharge which is practically equal to your domestic water supply and you know how much water you pump in a day, and you know that that water will be turned practically into sewage, and you have a fixed amount. You also have a chemically fixed quantity. You have something which you can understand, which will be constant in its quality, and you can put down works which will deal with that because of its fixed quantity and quality. On the other hand, if you put down a system which is going to take these huge thunder storms, which may be half an inch in ten minutes, you are going to land down on your sewage disposal works at times as much as fifty or sixty times the ordinary normal flow of domestic sewage; therefore your sewage disposal works have to be built to take that extra flow, and must be fifty or sixty times larger than would be necessary for the proper care of domestic sewage. So you see, from the economic point of view, that it is better that they should only purify that which it is necessary to purify. On the other hand, it is more efficient, because you know exactly what you have to deal with. Now, from the other point of view, when you are making your trenches it is almost as easy to put in two lines of pipes as it is to put in one. Your surface water and storm water drains need not be so deep as your sewer drains; the question of freezing does not apply to them because when there is frost there is no water running to freeze in the pipes. You can also turn this into the nearest point of discharge, and you can divide it and deal with it as a separate item. On the other hand, you keep your small drains for your sewage. Now, if you are putting in your pipe of a diameter and of a size in which it will run about half full, you will get a velocity which will carry forward the solids, for the velocity is the same when a drain is half full as when it is full. You will get a condition where the solids are not stranded

in your sewers. If you put in a sewer which is large enough to take forty times the domestic sewage when you have no rainfall, whatever the velocity is extremely low in these large sewers, the result is that the solids are left stranded, and these sewers become long cesspools and you get bad odors from the manholes. So, when you are starting on this question of a sewerage system, it is well to remember that sewage disposal is almost bound to come in this country for inland towns, and it is well to consider that the sewerage system be kept entirely separate from the storm system. You can either put your domestic sewers in under general taxation as a whole, or as may be provided; but keep your storm water drains entirely separate; make that a part of your road work, and assess that on the local improvements. It has nothing to do with sewage; it is an item which should be included in your question of road pavements and on making roads. That is a very important point, and I will tell you another. You know when you get big storms sometimes, where you have combined sewers running, and when you have cellars which are discharged into these drains, the result is that during the storms the drains will not take this discharge of water and its back into the cellars and you have great damage. On the other hand, where it is kept separate, it is not affected by any rainfall whatsoever, and you obviate this question of flooding cellars. (In answer to a question):

At the present time there are no disposal works at Saskatoon, but the plans are being prepared. Ultimately it is intended to put down the ordinary sludge separating tanks. I may say that the system has been in the West to put in tanks which will effect the separation first of the solids. These are conveyed into separate tanks where they are allowed to putrefy, and when they have become inert, they are taken out and spread upon the mat and allowed to percolate through filter beds, and finally the effluent is disinfected. Regina, Moose Jaw and Swift Current have got very complete systems. Saskatoon has been making very great efforts; she has been spending a very great deal of money in completing a trunk sewer along the river front and is making all preparations to treat the sewage here. The system I have mentioned is, roughly, the general system which is being adopted in the West. The reason that that has been adopted is that it takes a very small area and it can be covered in and kept safe from the frost conditions.

Mr. Clark, City Engineer of Saskatoon, has prepared a very interesting paper upon the local filtration plant which has been in operation for twelve months, and is giving absolute satisfaction. He has that paper prepared and he has lantern slides and he has efficiency data and cost data, and I asked him if he would give that paper and he said he would if he was asked. I think he could put that paper before this Convention.

Alderman Lapointe asked that the paper be received and printed in the Official Organ.

Mayor Hebert: In order not to diverge from the form adopted that no paper is allowed to be printed until it has been communicated to the meeting, would it not be better, although I have no doubt that the ideas and information that Mr. Clark will give are perfectly correct and based upon experience, that the paper be received and referred to the Executive, and if they find it in the interests of the Municipalities in general, that then they give it publication.

Mr. Bragg: I have pleasure in saying that if I can arrange with Mr. Clark, as no doubt I can, we will publish in the Journal Mr. Clark's description of these works.

The matter being put before the meeting, this motion was unanimously carried.

The Chairman then suggested that the discussion of "Paving" be taken up, and requested Mayor Oliver to speak on the subject.

PAVING

MAYOR OLIVER, Port Arthur, Ont.

I am just going to give a short experience of our own, believing that it will be of interest to you.

It is some eight years since we first laid a pavement in Port Arthur, though we had experience in putting down macadam two or three years before that. The first pavement we laid was Bitulithic. Two years after we laid one block of Granatoid pavement; two years after three blocks of Bitulithic, and followed by a mile and half of block asphalt pavement, and the same year a mile of sheet asphalt pavement, and we have since done away with them all and have been continuing to lay bitulithic, or asphaltic concrete, which I understand is the same thing, but the word "Bitulithic" being patented, is only allowed to be used for the one company's product. I would like to say that the first Bitulithic pavement that has been laid in our city has been found, after seven years' use, only to have lessened in thickness $1/32$ part of an inch. It would be safe to say that piece of pavement is as good as when laid. In connection with Granatoid, it has not been used with such heavy traffic as the other. The first year we found a large number of cracks; it is noisy also, but it is giving us good

service. The sheet asphalt is very slippery in our part of the country. Bitulithic, also, on the faces of the hills is very slippery, and I would not advise anyone to use it there. I want to say that the great thing is to have a good concrete base. The thickness varies according to the district. We have frequently thick foundations underneath, and we have had to increase it from 6 to 8 inches thicker than the rest, which will run from 18 to 20 inches but we usually allow from 10 to 12 inches. We do not have to use it so heavy where we have a long hill, but on the ordinary ground, sand or clay, we have to lay a good piece of from 10 to 12 inches. I wish to say in connection with the block asphalt that we have an exact sample of laying the foundations between the city in which I live and Fort William. They used a block asphalt one inch thicker than we did as surface. They laid it the year before, and at the present time it is all holes. Now, the recommendation that goes with that pavement is that you can lift out the blocks when they are worn and just lay them upside down and place them back again. We have taken ours up that have been laid five years, and we found that the blocks had only varied $1/8$ th of an inch. However, in Fort William, where it has been taken up, it has been found that the bottom of the block asphalt was all honeycombed or rotten, and that it would be unfit for use by turning upside down. The fault was that the surface water had in some way got in between the concrete and the top pavement; in fact, it all seemed to be treated chemically, as with a solution of very strong manure, and it has varied in thickness from $1/2$ inch to $1 1/2$ inches, and it is very uneven, and the vibration of traffic wears it away very much quicker. The secret of pavement is the laying of the concrete base. Be sure that you have it laid by a competent engineer, and of the proper thickness method. It is necessary to have a good inspector on the work, and I believe that on a good base, carefully laid, any of these pavements will give satisfaction, but we have found that Bitulithic has been best for us. In connection with the hills, we have tried several pavements. We have tried Tarvia, and it has given us a certain amount of satisfaction. Other cities are not in the same position, as we have an enormous quantity of rock which we can use to advantage. We have another pavement that is taking very well in our city, that they call Roc-mac pavement. We have laid it in two places that we have always had difficulty with before. These were places where the water used to carry away our pavement. It is now in the beginning of its fourth year, and on that hill we have better satisfaction and better pavement than the day it was laid. I might simply explain that the reason why that pavement is said to be good, and I believe the reason is a good one, is that it has to be treated with a small coating of crushed stone with a solution on top of it, which solution they claim will last for five years. During the time the chemical action takes place you have something to withstand the heat and something to offset the frost, and after three years of settlement you will not be liable to have the same difficulties with your road. We have tried it on the low ground also and did not find it so satisfactory, but the blame probably rested with ourselves because we had no crown on it. In that case it has not worn so well as it would have done if it had got a crown. During the first six months of use it is very dusty. It is not advisable to wash it off until it has settled down, but during the second year it can be washed. It would be wrong to treat it with oil, but there is a chloride solution used which gives very good results.

Mayor Hebert in moving a vote of thanks to Mayor Oliver, suggested that the various representatives should, during the ensuing year, make particular note of their experience with regard to paving in their respective cities, so that at the next convention they might be in a position to give their ideas in regard to this important matter.

Mr. Lapointe moved that Mayor Oliver give to Mr. Bragg a copy of his paper for printing in the Journal. Carried.

Mr. Pratt, Medicine Hat, Sask., asks Mayor Oliver: Is the work done by contract or is it a municipal undertaking?

Mayor Oliver: Up to date we have done it by contract, because we have not had the plant necessary to lay it. We consider now that we have got educated to the fact that we could lay asphaltic concrete (which is the same thing without infringing any patent) that we may put in a plant of our own.

Mr. Pratt: Do you consider it good business, from a municipal standpoint, to put in a municipal plant for street paving, or to do it by contract?

Mr. Oliver: My advice would be to do it by contract first and satisfy yourself that you have got what is right, and afterwards put in your own plant, believing you can do it cheaper. Winnipeg is laying its own asphalt and concrete; with their quantity of work, it saves considerable money. Possibly in a place the size of Medicine Hat it might not be wise to put that plant in, but you would have to judge by your own experience if you have laid a certain proportion of paving in your city.

Commissioner Yorath: I should like to give some information as to the question of paving. The Kent County Council, with

the sanction of the Road Board, and the Road Board contributing, laid down on a certain section of road leading from London to Brighton, which takes a heavy motor service, twenty-three different sections of material, and these were laid down with the view of obtaining information as to which was the best class of pavement. The first section laid down was macadam; that was 4 inches of crushed granite, about 2 inches stones laid on 9 inches of brick foundation. The second section was granite coated with tar, and the other sections consisted of Durax, that is granite in 4 inches cubes on 6 inches concrete and grouted with tar. Another section was Roc-Mac, another Trinidad asphalt; another Pitchmat, granite grouted with pitch and cement.

All these were under the same conditions of traffic, and it was found that the best section out of the twenty-three was Tar-mac (that is the proprietary name of the article). The composition of that is slag impregnated with tar. The slag is treated with tar while hot, and the reason of doing this is that it prevents any moisture from getting into the stone before it is coated, which is a very important consideration where you are treating stones of any description with tar, because if any moisture gets in it is liable to prove a failure. With regard to granite, and the using of granite with tar, it is found that under the action of traffic there is a certain amount of movement of the stones, and eventually, if the stone is too hard, the tar works off the stone to the surface and it is worn to the sides by the action of the traffic and eventually the stone breaks up. Rock-Mac did not prove satisfactory, but that material has been laid on the Thames Embankment, which is one of the heaviest traffic roads in London, and there has proved to be a very satisfactory pavement. Adjoining that is Trinidad Asphalt, and Rock-Mac compares very favorably with that. In London you will find about 75 per cent. of the streets are laid with creosoted fir blocks 5"x9"x3".

We find that the fir wears very much more evenly than the hard Australian red gum, which wears just at the anas of the block, and makes a very uneven surface. The life of the fir block is about ten years; it will preserve its even contour for about ten years under the severest conditions of traffic.

No other paper being forthcoming, the Chairman announced the election of officers, which resulted as shown in the heading.

Mr. W. D. Lighthall nominated Controller Church of Toronto, to the office of Hon. Past President. Carried.

Chairman: Before choosing a place of meeting for next year, I would like to have the new President, Mayor Bligh, sit in my stead. Before leaving the chair, I must thank the authorities of Saskatoon, and the civic authorities of all the cities we have visited on our way here. It shows that there is a great spirit of cordiality between the workers in municipal affairs, and this proves to me that this association is useful. I must thank you personally for the cordial way in which you have accepted my decisions during the time I have had the honor to preside over your deliberations. I shall always remember the occasion you furnished me in presiding; it will be one of the greatest chapters in my life. I thank you most cordially and invite you, if you come to Montreal, to visit our City Hall, and my colleagues from the Board of Controllers and Council will do their best to help me, not perhaps to receive you as royally as you did us; we cannot equal you but we will do our very best.

Mayor Bligh, on taking the Chair, said: Gentlemen, I thank you very sincerely for the great honor that you have conferred upon me in electing me to this that I consider one of the most important gifts within the power of the people of Canada, because you are the representatives of nearly all the people of Canada. I know that I will have the support of the Executive, and I believe no more competent men have ever been elected than have been elected here to-night.

Again, I thank you for the great honor; I consider that a greater honor could hardly be conferred upon any man in Canada than to preside over such an important body as this, and I only trust that in some degree I will prove worthy of the trust that you have reposed in me.

Next place of meeting.

Invitations were extended from Mayor Hebert, Sherbrooke, Que., Controller Hinchey, Ottawa, Ont., Controller Douglass, Winnipeg, Man., by letter from the Mayor of Victoria. On being put to the vote, Sherbrooke was selected and made the unanimous choice.

Ex-President Lavallee then moved that the convention extend its thanks to the City of Saskatoon for its cordial welcome and entertainment. A standing vote was taken and three cheers given for the city.

Mayor Harrison replied on behalf of the City of Saskatoon.

Votes of thanks were also moved to the retiring officers, the press, and to the ladies of the Third Avenue Methodist Church for the luncheon tendered the delegates.

The following Resolutions were passed by the Convention.

Moved by Ex-Mayor Lighthall, Westmount, Que.; and seconded by Mayor Berry, St. Boniface, Man.:—

"That this Union of Canadian Municipalities endorses the suggestion of Ex-Mayor W. Sanford Evans, of Winnipeg, Man., that the Provincial Governments of Canada be requested to forthwith study the question of establishing Local Government Boards for the purpose, among others, of facilitating sound finance in municipalities, and of giving such endorsement of proper loans by them as would enable them to borrow favorably and sufficiently for their legitimate needs; and the Executive of this Union are instructed to follow up the matter without delay."

Moved by Mayor Oliver, Port Arthur, Ont.; and seconded by Mayor Berry, St. Boniface, Man.:—

"That this Union of Canadian Municipalities request the various Provincial Governments to provide liberal grants for the construction of good, permanent trunk Roads, having in view the ultimate development of a complete inter-provincial highway from coast to coast; and that we memorialize the Dominion Government to provide very liberal subsidies to assist and supplement the grants of the Provinces believing as we do, that good permanent roads are an immediate necessity to the development of the rural districts in marketing their produce, and at the same time assisting in decreasing the high cost of living in cities and towns."

Moved by Mayor Short, Edmonton, Alta.; and seconded by Ald. May, Edmonton, Alta.:—

"That in the opinion of this Convention of the Union of Canadian Municipalities, there is no one domestic measure which, if carried into effect, would so greatly benefit the people of Canada as a measure to provide permanent paved roads throughout the rural districts; and that from the point of view of mere economy such method of constructing roads would in a period of fifty years prove less expensive than the methods now in vogue."

Moved by Controller Church, Toronto, Ont.; and seconded by Mayor Graham, London, Ont.:—

"That the Dominion and Provincial Governments be requested to enact in Canada a law similar to the Lafollette-Adamson law requiring a public valuation annually of all Public Service Corporations, in the interest and protection of the public."

Moved by Ex-Mayor Lighthall, Westmount, Que.; and seconded by Controller Church, Toronto, Ont.:—

"Whereas many of the cities of Canada have grown enormously of recent years, and are still to grow much larger, and, having greatly outgrown their representation in Parliament and their Legislatures, they suffer many inconveniences from this fact; and whereas it is incontrovertible that every citizen ought to have an equal presentation;—that Parliament and the Legislatures are earnestly urged by this Union of Canadian Municipalities to remedy the evil by enlarging the number of members of Parliament and of the Legislatures in cities so as to make it equal to that of other constituencies."

Moved by Mayor Oliver, Port Arthur, Ont.; and seconded by Ald. Fontaine, St. Hyacinthe, Que.:—

"That the Executive of this Union of Canadian Municipalities be requested to take the proper steps to apply to the various Governments for legislation to govern all new townsites, &c, facing streams, lakes, &c, that the water lots and the lots facing the 66 foot reserve be granted free to the municipality under a condition that the title can never be transferred to any person or corporation for any purpose; also that the Act should give to municipalities full power to expropriate at any time water lots and property fronting on the 66 foot reserve, the said lands also to be absolutely non transferable;

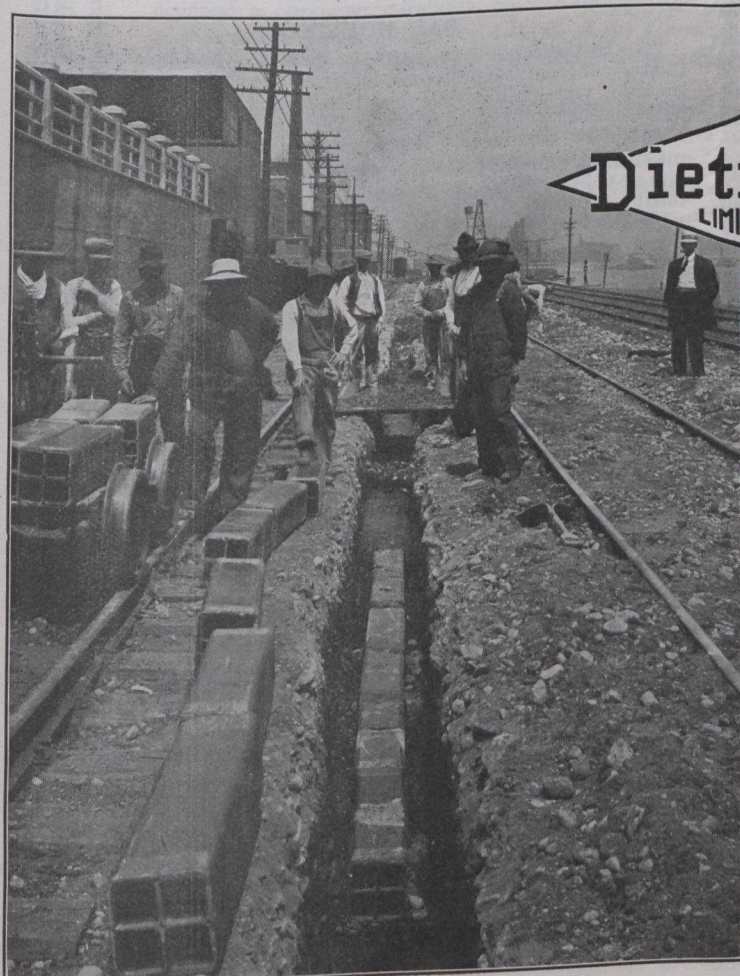
"And further, that the Executive consider the question of corporations blocking tracks and spurs to water fronts, and either apply for legislation to enable petitioners to reach the water front and receive trackage accommodation from more than one Railway when desired, or if considered more advisable, to prepare a stated case, and have the same passed upon by our higher courts."

Moved by Mayor Oliver, Port Arthur, Ont.; and seconded by Mayor Galbraith, Red Deer, Alta.:—

"That in our opinion more topics of interest to the rural municipalities should be taken up and considered at future sessions, and every means possible should be considered that will rouse the interest and co-operation of the smaller places with a view of having a great increase in their representation at future annual meetings."

Convention of the Union of Canadian Municipalities

"The Union of Canadian Municipalities held its thirteenth annual convention at Saskatoon on July 15, 16 and 17. This organisation is Canada-wide in its operations, embracing the nine Provinces of Confederation. Mayor Lavallee, of Montreal, proved a capable presiding officer. His successor is Mayor Bligh, of Halifax. The programme of the convention was replete with subjects close to the interests of each municipal delegate present. Practically all the Provinces had representatives from their various municipalities, and one of the most successful conventions of the Union was thus recorded in the Province of Saskatchewan. Mr. J. N. Bayne, deputy Minister of Municipal Affairs, gave an address on the "Wants of Municipalities." Mr. Sandford Evans, ex-mayor of Winnipeg, gave a speech on the financial situation of today as it affects municipalities both urban and rural, which was listened to with more than ordinary attention. Interesting papers were given on Canada's inland waterways, and of the proper disposal of refuse in cities, towns and villages, which were followed by lively discussions. The popular subject of town planning was dealt with by experts. At the close of the convention the city of Saskatoon showed to the delegates their modern water filtration plant as well as other municipal utilities." "Public Service Monthly" issued by the Saskatchewan Government.



Dietrich
LIMITED

Designs Underground Conduit Systems

correctly and instals them properly no matter what natural difficulties may present themselves.

¶ Repeat orders indicate the satisfaction of our clients.

¶ The cut shows the fourth contract we have received from this railroad.

300 Read Bldg., = MONTREAL

A Manufacturing District.

What Regina, Sask., has done.

To segregate the wholesale and manufacturing plants, and that to the direct advantage of these concerns, is what has been accomplished by the city of Regina, Sask. It is only within the past two or three years that the city has budded out into a manufacturing centre, although for a number of years past it has been considered an important point of distribution.

Back about six or eight years ago, when city councils of western cities dreamed of future expansion, a little movement was started in Regina to segregate all warehouses, and thereby prevent the cutting up of the city by spur tracks. As the city owned considerable land, both in the residential section, and also on the north side of the railway, it was not hard to find the means of carrying out the scheme. Once the merits had been explained, the councillors were quite willing to give it a trial. A half section of land was set aside for the purpose, and sites were offered at the exceptionally low price of \$200 per lot to bona fide concerns. The property so reserved for warehouses and factories was situated immediately across the railway tracks from the business section of the city.

The low price placed upon the lots effectually prevented competition on the part of the real estate men. As property increased in value, and the sites became very valuable the charges were slightly increased until at the present time a price of \$1,000 per lot is asked. The lots are all assessed at \$3,000, and are worth considerably more than that price.

However, cheap property and good location were not the only two points the City Council of Regina had to consider. It was necessary also that the warehouses be served by spur track. An arrangement was made with the Canadian Pacific Railway several years ago to serve the entire area from a track constructed along Eighth Avenue. Later an agreement was entered into with the Canadian Northern Railway to serve the property from a track constructed on Seventh Avenue, and still later when the Grand Trunk Pacific line had been built into the city, the Council granted a right of way along Winnipeg Street from the city limits, thence along Fourth Avenue, in order that this railway company could also serve the wholesale section. The result has been that the choice wholesale and warehouse sites are served by spur tracks from the three trans-continental railways, and at the same time are within a very short distance of the business section of the city.

But a much better result has been obtained for the city at large. It is possible to walk through the general business section of the city, and also the residential districts without having to cross a single spur track.

Within this half section of land, reserved for spur track sites by the City Council, has grown up an implement distribution centre, through which approximately \$25,000,000 worth of implements is handled yearly. Over 30 implement houses have been erected within the district, and now Regina is recognized as the largest point of distribution of farm implements in the world. In addition to the implement houses there are about 150 other warehouses and factories.

In addition to providing a compact warehouse and manufacturing centre, the City of Regina has been able to finance the construction of the street railway by means of the proceeds of the property sales. All moneys received for properties in the wholesale section and also in other districts have been diverted to pay the cost of building the street railway, which, by means of the

large revenue now being derived, helps materially to reduce the general tax rate of the city. The general tax rate for 1913 is 10 mills, and that together with the rate for public schools, library, and collegiate, makes the rate of taxation for all purposes 14 mills.

With the building up of the warehouse and factory section, has come the necessity for more railway lines, permitting distribution. The railway companies however have attended to that, there being at the present time no less than twelve railway lines radiating from Regina at the present time, namely.

Canadian Pacific Railway:—Main line east; Main line west; Arcola-Winnipeg line; Bulyea line; Colonsay line, and Weyburn line.

Grand Trunk Pacific:—Regina-Winnipeg line; Regina-Boundary line, and Regina-Moose Jaw line.

Canadian Northern Railway:—Regina-Prince Albert line; Regina-Winnipeg line, and Canadian Northern line west.

Canadian Northern:—Regina to Edmonton, and Regina to Minneapolis.

Grand Trunk Pacific:—Regina to Brandon, Regina to Saskatoon, Regina to Lethbridge, Regina to Edmonton, Regina to Minneapolis, and Regina to Hudson Bay.

Minneapolis & St. Louis:—Regina to Minneapolis.

With the completion of the Regina-Boundary line of the Grand Trunk Pacific Railway, the Great Northern Railway of the United States will have running rights into Regina, according to an official announcement of the railway officials. What this means to Regina cannot be under-estimated.

Other lines contemplated, for which bonds have been guaranteed, will bring the total number of railways radiating from Regina up to 22.

BAD HOUSING

"Go to the schools to learn the danger of bad housing—not to study it from the professor, but from the children sitting side by side, your child, with the child from the slums. With his daily lessons your child takes in a lesson in foul language, vile habits, low standards. Both visualized and repeated, these make a lasting impression. Nor is this all. From the drinking cup or other contact, your child is in danger of contracting the most loathsome diseases. There is still more to fear. An inky current sweeps from the slums to your very door, and is tracked into your homes by those who enter as carriers or servants. The germs of disease are brought into your homes in foodstuffs and clothing that pass through the slums in process of making. On the streets, in crowded public buildings, your wife and daughters touch elbows with those who are sooty enough, morally, to rub off." — Extract from article by Albion Fellows Bacon, published by the National Housing Association.

IMPROVED SEWAGE DISPOSAL

A new plant was opened in 1912 at Oldham, Lancashire, England, for the disposal of sewage sludge. It is stated to be the first of its kind dealing with the sludge in a hygienic manner, and is said to produce automatically (within a small area) dry fertilizer, the sludge being completely separated from the grease and fatty substances.

By this process 1,000,000 tons of valuable fertilizer can be produced, while 50,000 tons of phosphates and 50,000 tons of potash salts, together with nitrogen equal to 100,000 tons of sulphate ammonia, can be taken back to the land. The intrinsic value of these constituents is calculated to amount to \$12,200,000, and they would be available for fertilizing not less than 3,000,000 acres of land. The fertilizer recovered by this process is said to be of a brown color and odorless, and to consist of a perfectly sterilized powder; the results obtained from its use on farms are reported to have been good.

At the new sewage-purification works at Barnsley, Yorkshire, England, there are 4 detritus tanks, each 20 by 15 by 3 feet; 8 septic or sedimentation tanks, each 80 by 40 by 7 feet; 8 circular percolating filters, each 100 feet in diameter, and 1 filter 120 feet in diameter, each filter having 6 feet of filtering material, consisting half of small broken gritstone and half of small broken washed furnace slag, both stone and slag being graduated in size from 2½ inches to 6½ inches, the larger being at the bottom.—Improvement Bulletin.



TELEPHONE NEWS



OFFICIAL INFORMATION
OF THE
CANADIAN INDEPENDENT TELEPHONE ASSOCIATION
& C, & C, & C,

AUTOMATIC TELEPHONE SYSTEMS

We take pleasure in announcing to all the municipalities throughout the Dominion that our automatic telephone systems have proved, and are proving to be, very successful, both from the standpoint of operation, and from the great satisfaction given to the telephone subscribers and users.

We are manufacturing in Canada, employing Canadian labor and capital, complete automatic telephone systems, switchboards, substations and supplies of a very superior type. We are prepared, and offer, to supply on reasonable notice, complete automatic telephone equipment for any size of exchange from 100 lines up to 10,000 lines or more, and at reasonable cost.

Our automatic telephone system lends itself to any desired subdivision desired for the purpose of saving in trunk line installation, cheapening of service and installation, and for flexibility, adaptation to conditions, economy in operation, durability, positive contacts and superior talking circuits, automatic party line telephone service where required, together with all of the other advantages and savings afforded by the superiority of automatic over manual telephone apparatus and operation.

We take this occasion to again inform the officers and all municipalities throughout the Dominion, as well as the general public, that the Canadian patents owned and controlled by our company, cover the essential principles of automatic telephony, and that it is our opinion and belief that no system of automatic telephones or semi-automatic telephones of any considerable size can be operated without infringing upon the claims of our Canadian patents, and that we are manufacturing in Canada under our patents and are selling and offering for sale automatic telephone equipment in accordance with the rules and practice and Patent Laws of Canada and that we will hold all infringers, both public and private, responsible.

The great saving in cost of installation and operation of automatic telephone systems over manual telephone systems is becoming generally recognized both by the public and by telephone engineers and experts generally. The superiority and general desirability of automatic telephone service over that of manual telephone service has been so thoroughly demonstrated that it is now recognized generally, and we will be pleased to correspond with any and all municipalities and individuals, corporations and associations desiring further information or contemplating the installation of telephone apparatus.

All of our telephones and telephone equipment, both manual and automatic, are fully guaranteed both as to quality and workmanship.

Canadian Independent Telephone Co.,
LIMITED

18-20 Duncan St., TORONTO, Ont.

Surplus Government 'Phones

The government-owned telephones in Alberta are expected to yield during the present year a surplus of \$100,000.

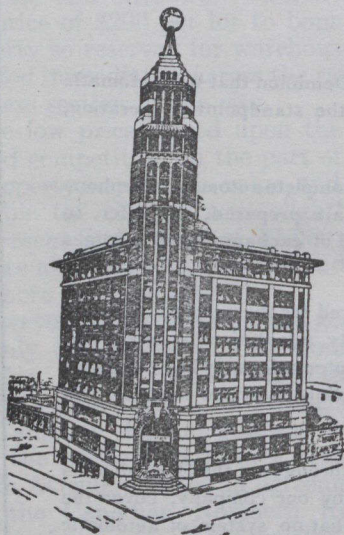
This information was given the Legislature yesterday by Premier Sifton who is Minister of Railways and Telephones for the province. Last year the surplus yielded by the telephone department was \$62,283.

The oldest established firm of Chartered Accountants in British Columbia

W. T. STEIN & COMPANY

CHARTERED ACCOUNTANTS

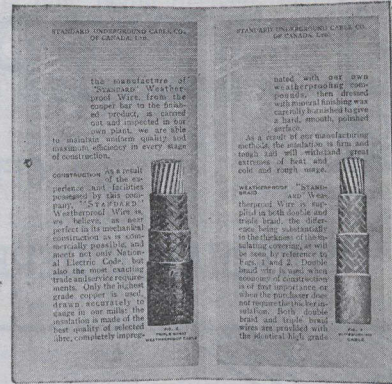
Chartered Accountants, Edinburgh, 1889
 " " " " British Columbia, 1905
 " " " " Canada, 1909



MUNICIPAL AUDITING A SPECIALTY

With our staff of trained experts, we are prepared to handle any Municipal work, and submit complete and accurate Reports before the elections for the ensuing year.

319 Pender Street, Vancouver, B. C.
 P. O. BOX 816 PHONE 461



It will be profitable for you

to read this booklet describing how high quality waterproof wire is made. We control every step in the manufacture of our wire from the copper bar to the finished product and can afford to stand back of it with our reputation.

"Standard" Weatherproof Wire

has been tested by over 30 years of successful service under various and exacting conditions. In addition to superior quality we offer all the advantages of a home-made product — adaptability to your service, economical prices, prompt shipments, in short, better service.

Write for Weatherproof Wire Booklet No. 226

Standard Underground Cable Co. of Canada, Limited
 Hamilton, Ont.

Montreal, Que. Winnipeg, Man.
 Boston, Mass. Seattle, Wash.

MICHIGAN WESTERN
CEDAR POLES
 SHIPPING FROM MAIN YARDS ASSURES OUR CUSTOMERS PROMPT DELIVERY AND SELECTED STOCK AT LOWEST PRICES CONSISTENT WITH QUALITY AND SERVICE.
THE VALENTINE-CLARK CO.
 MINNEAPOLIS MINN. 507A

NAUGLE POLE & TIE CO.
 5 SO. WABASH AVE.
 CHICAGO, ILL.
 The Trinity in Poles
 "Service-Price-Quality"
POLES

PARTRIDGE-DYER LUMBER CO.
 Dealers in White Cedar Products.
 POSTS, POLES, PILING.
 WRITE FOR PRICES
 BEAUDETTE, Minneapolis

Head Office : PRESCOT, England PAID UP CAPITAL \$8,500,000.00 Works : PRESCOT, HELSBY and LIVERPOOL, England

British Insulated & Helsby Cables

LIMITED

ELECTRIC LIGHT AND POWER CABLES

Sole representatives for Canada
 CANADIAN BRITISH INSULATED COMPANY LIMITED

MONTREAL, QUE.

CANADIAN INDEPENDENT TELEPHONE ASSOCIATION

OFFICERS FOR 1912-13 :

President: G. W. JONES, Clarke, Ont.

Sec.-Treas.: F. DAGGER, 21 Richmond St. W., Toronto.

Abstract of Telephone Patents granted in the United States

Prepared for *The Canadian Municipal Journal* by
Edward E. Clement,
Telephone Patent Expert, Washington, D.C.

TELEPHONE SYSTEM.—The invention relates to telephone systems having automatic calling mechanism and automatic operators control mechanism. The principal objects are to provide improved means for automatically calling subscribers when connection is made with their lines; improved means for automatically controlling such calling apparatus; and improved means for controlling the operator's connection with the various cord circuits of the system.

Elmer R. Corwin and Charles A. Bals, Chicago, Ill., Assignors to Corwin Telephone Mfg. Co., Chicago, Ill. 1,071,207.

TELEPHONE SYSTEM.—This is a system of the Kellogg common battery multiple switchboard type. It provides novel means for controlling the operator's testing circuit and a novel automatic ringing scheme.

Elmer R. Corwin, Chicago, Ill., Assignor to Corwin Telephone Mfg. Co., Chicago, Ill. 1,071,208.

TELEPHONE EXCHANGE SYSTEM.—This invention has for its objects the provision of improved means whereby the line signal may be employed as clearing-out signal; means for governing the operator's telephonic outfit; means whereby the signal which is adapted to act as a line signal and a clearing-out signal is caused to act as a calling signal, which indicates during its manifestation that the called subscriber has not responded; means to inform the calling subscriber that the called subscriber is being signaled; means whereby a source of current for signaling purposes may be instantly excluded from circuit when the called subscriber responds, and means for enabling the calling subscriber to disconnect the calling generator before the called subscriber's response.

Elmer R. Corwin, Chicago, Ill., Assignor to Corwin Telephone Mfg. Co., Chicago, Ill. 1,071,209.

TELEPHONY.—This invention may be described as a telephone system which includes a plurality of telephone lines, a plurality of trunk lines extending to the stations of said telephone lines, apparatus whereby one station, which is an attendant's station, may establish telephonic communication with the remaining stations, means whereby all stations may establish connection with the trunk lines, telephone switch-hook operated test controlling means at the stations having communication with the attendant's station, means at the attendant's station co-operating with the latter means for enabling the attendant to test the trunk lines, a visual signal apparatus at the attendant's station, and means at the other stations for operating the visual signal apparatus while the telephonic apparatus thereat is disassociated from the trunk lines to indicate that the stations associated with the trunk lines desire to retain control thereat.

Elmer R. Corwin, Chicago, Ill., Assignor to Corwin Telephone Mfg. Co., Chicago, Ill. 1,071,210.

TELEPHONY.—The invention relates particularly to that class of telephony employing two or more telephone lines; a third telephone line; means whereby either of the first telephone lines may become connected with the third telephone line; means for automatically effecting an extension of the third telephone line, as, for example, would be the case if such third telephone line were a trunk line extending from the stations of the first telephone lines to an automatic or semi-automatic exchange.

Elmer R. Corwin, Chicago, Ill., Assignor to Corwin Telephone Mfg. Co., Chicago, Ill. 1,071,211.

TELEPHONY.—This is an intercommunicating telephone system including three or more telephone lines, a busy test circuit apparatus at the stations serving partially to establish the busy test circuit and common to said lines, and means for completing the busy test in cooperation with apparatus at the station of the line seeking connection with the line taken for use.

Elmer R. Corwin, Chicago, Ill., Assignor to Corwin Telephone Mfg. Co., Chicago, Ill. 1,071,212.

LOCK-OUT TELEPHONE FOR PARTY LINES.—The invention consists essentially in the novel construction and arrangement of parts, whereby the means for connecting with the main

line in all the instruments on the line may be controlled from any one instrument, and whereby the polarization of the armature of the lock-out magnets is rectified automatically on the release of the receiver hook.

Elhanan Bowman, Elmwood, Ont., Canada, Assignor of One-Half to Christian Roth Miller, Berlin, Ont., Canada. 1,071,292.

SUBSTATION TELEPHONE SET.—The object of this invention is to provide a novel and convenient means for attaching a metal shelf to a subscriber set box in such manner as to use the minimum number of mounting screws and still insure that the attachment will be in perfect alignment with the set to which it is attached.

William O. Beck, Ridgefield, N. Jersey, Assignor to Western Electric Co., New York. 1,071,601.

SIGNALING SYSTEM FOR PARTY LINES.—This is a step by step selective party line system in which the sending apparatus at the central station for controlling the selective apparatus at the substations is so arranged that when a sending key is operated the line with which that key is associated will be automatically connected with the contacts of the impulse transmitting relay, and will be disconnected therefrom when the call is completed. This is preferably accomplished by providing for each line a line relay the magnet whereof is in a circuit with the magnet of the impulse relay and is controlled by the sending keys associated with that particular line, the line relay when operated being adapted to close contacts which connect the line with the impulse circuit.

Richard F. Spamer, New York, Assignor to Western Electric Co., New York. 1,071,652.

AUTOMATIC BATTERY CUT-OUT FOR TELEPHONE CIRCUITS.—The object of the invention is to permit the receiver at a substation to be connected across the line without closing the local battery circuit, whereby the subscriber may listen in to ascertain when the line becomes free without wasting current or running down his battery. In order to attain this object, an interlocking contact device is provided, one element of which is mounted on the switch hook and the other on the ringing generator, in such a manner that when the receiver is removed from the hook, the receiver circuit is closed without the battery or transmitter, and in order to close the latter, the generator must be operated.

Anton R. Nelson, Janesville, Cal. 1,072,400.

ATTACHMENT FOR TELEPHONE TRANSMITTERS.—One of the objects of the invention is to provide an improved attachment of this class whereby a clear and distinct sound will be delivered to the transmitter, while at the same time the message when spoken into the attachment, in the ordinary or a lower tone, cannot be heard by another person in the same room.

Edmund M. Schollenberger, Chicago, Ill., Assignor of one-half to Lee A. Stahl, Chicago, Ill. 1,072,513.

INDIVIDUAL TELEPHONE MOUTHPIECE.—This invention relates to improvements in individual telephone mouth pieces, the object of the invention being to provide a mouth piece of this character which may be readily attached to and moved from the mouth piece of a telephone transmitter.

Clarence S. Warren, Milford, Ohio. 1,072,537.

SIGNALING AND TELEPHONE SYSTEM FOR RAILROADS.—This invention relates to improvements in signaling and telephone systems for use on railroads and has particular application to systems of this type whereby trains approaching each other will cause the operation of signals to notify the engineers in charge of such trains of the condition of the track ahead and whereby the engineer of a train may have telephonic communication with the engineer of another train within the same block and with the dispatcher's office or station master.

Warder J. Bailey, Cedarville, W. Virginia. 1,073,018.

LARGE ORDERS

The City of Calgary, Alta., have recently placed an order with the Imperial Wire & Cable Company, Limited, Montreal, for Lead Covered Paper Insulated Underground Cable. Approximately 40,000 feet will be installed by the City under the supervision of Mr. R. A. Brown, City Electrical Engineer.

The Imperial Wire & Cable Company, Montreal, received an order recently from the City of Winnipeg, for 12,000 ft. Paper Insulated Lead Covered Underground Cable.

A Contract has been awarded the Imperial Wire & Cable Company, Limited, Montreal, by the Toronto Hydro-Electric System for approximately 22,000 feet of 2 and 3 conductor paper insulated lead covered Underground Cable, conductors ranging from #6 B. & S. to 500,000 C. M.

The City of Ottawa have placed an order with the Imperial Wire & Cable Company, Limited, Montreal, for the supply and installation of 47,000 feet 3 Conductor #2z0 B. & S. paper insulated lead covered cable, and 1,000 feet 3 Conductor #2 #0 B. & S. steel taped cable, both insulated for 3,300 volts.



**CONCRETE
PAVEMENTS**

**ARE HERE
TO STAY.**



Kahn Steel Expansion Joints

INCREASE THE LIFE OF CONCRETE PAVEMENTS. WRITE FOR INFORMATION.

Concrete Bridges, Retaining Walls, Silos and Buildings are strongest and most economical when reinforced **ACCORDING TO THE KAHN SYSTEM.**

OTHER PRODUCTS. Hy-Rib—for Concrete Walls, Partitions, Floor and Roof slabs. Rib Metal—for Concrete Sewers, Floors, etc. Trus-Con Chemical Products—for Waterproofing and finishing concrete. Kahn System Sash—for Strength, Fireproofness and Maximum Light. All Sizes of Lights and Ventilators.

LET US QUOTE YOU

TRUSSED CONCRETE STEEL Co.

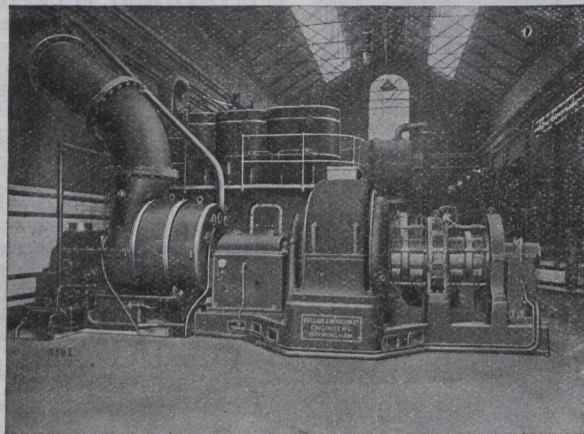
OF CANADA, LIMITED

HEAD OFFICE AND WORKS, - WALKERVILLE, Ont.

BRANCHES: 23 Jordan St., Toronto. Coristine Building, Montreal. Union Bank Building, Winnipeg. Hutchinson Bldg., Vancouver. Chronicle Bldg., Halifax.

BELLISS & MORCOM ENGINE AND EXHAUST TURBINE
PLANTS FOR MUNICIPAL USE

INCREASE THE CAPACITY OF YOUR PLANT 50% BY INSTALLING AN EXHAUST TURBINE WITH CONDENSER. . . .



A BELLISS RECIPROCATING ENGINE COMBINED WITH AN EXHAUST TURBINE GIVES UNPARALLELED ECONOMY. . .

RECIPROCATOR AND EXHAUST STEAM TURBINE
DARLINGTON CORPORATION

MANUFACTURED BY MESSRS. BELLISS & MORCOM
BIRMINGHAM, Eng.

REPRESENTED BY

LAURIE & LAMB

211-212 BOARD OF TRADE - - - MONTREAL

NEWS—NEWS

Boom your "Town".
Advertise in the "Civic Notes."
There is no charge.

ROMAN STONE

is specified by the most fastidious Architects and recommended by the most careful Engineers. Made from pure white marble and machine tooled after casting, Roman Stone has proven itself a building material worthy to be used in the finest structures.

Send your plans for an estimate and write for descriptive literature.

The ROMAN STONE CO. LIMITED

50-100 Marlborough Avenue. TORONTO

Montreal Representatives:

T. A. MORRISON & CO.
204 St. James Street

H. J. Bowman, D.L.S., M. Can. Soc. C.E.,
A. W. Connor, B.A., C.E.,

BOWMAN & CONNOR

Consulting Municipal and Structural Engineers
Concrete and Steel Bridges and Buildings

Cement Testing | 36 Toronto St., TORONTO
Branch Office: BERLIN

A VENDRE
"TAMCO" Pierre Concassée,
de toutes dimensions. Gravois
pour couvertures. Pierre arti-
ficielle "Roman." Brique pressée
"Milton." Concasseurs de pierre.
Pompes à incendies, etc.
T. A. MORRISON & CIE.
204 Rue St-Jacques,
Tél. Main 4532. Montréal.



W. D. Lighthall, K. C., M. A., F. R. S. L., etc.
C. A. Harwood, B. C. L.

CABLE ADDRESS: "LIGHTHALL"

LIGHTHALL & HARWOOD

BARRISTERS, SOLICITORS,
ADVOCATES, ETC. . . .

CHAMBERS

New York Life Building,

Place d'Armes, - Montreal

H. J. ROSS,

ACCOUNTANT TRUSTEE

(Member, Special Committee of the U.C.M. on
Uniform Municipal Accounting)

Municipal Audits a Specialty.
Municipal Bonds Negotiated.
Estates Managed.

180 St. James St., Montreal

— SEND —
**TENDERS
NEWS
SUBSCRIPTIONS**
TO
CANADIAN MUNICIPAL JOURNAL

CIVIC NOTES

WESTERN PROVINCES

BLAIRMORE, ALTA. A waterworks system is to be installed shortly.

CALGARY, ALTA. Local and American capitalists are planning to erect a \$1,400,000 plant, which will include a large terminal elevator, as well as a flour mill, with a daily capacity of 6,000 barrels.—Ratepayers are petitioning for the extension of Centre Street to Elbow River, the land required is owned by the City but is rented to a private citizen for a lawn.—The population is 89,935 according to the new city directory.—A syndicate of local and American capitalists will soon commence the erection of what is claimed, will be the largest flour mill in the British Empire; it will be built in four units costing \$1,400,000 each; it will have a capacity of 6,000 barrels of flour per day.

GROUARD, ALTA., has just been incorporated as a town, with a population of 1,000.

LETHBRIDGE, ALTA. The campaign of the associated Boards of Trade for the opening of the 250,000-acre Blood reserve, is being actively pushed forward; small farmers are anxious to use the land for grazing purposes.

MEDICINE HAT, ALTA. The by-law to grant various concessions to the Taber Candy Company, was passed.—The by-law to purchase 240 acres of land from the Dominion Government was passed.

NELSON, B.C. The construction of the first cement street will commence shortly.—The Council is negotiating for the purchase of the Nelson Gas and Coke Company's plant to take it over as a municipally-owned public utility; the city already owns its electric light plant, and will probably take over the street railway system shortly.

NEW WESTMINSTER, B.C. The City is proposing to purchase the Westminster Gas Company's business and property, to be run as a municipal gas plant.

PRINCE ALBERT, SASK. The by-law for the erection of a new steam power house and plant, was passed.

SASKATOON, SASK. As an aid for town planning and beautifying, a city map, twelve feet square, is being drawn.—The Board of Trade inaugurated this past spring a workmen's Garden Competition; the object of the scheme has been more than achieved.—Contractors have to keep all excavations free from stagnant water.—An expert has been engaged to prospect systematically for natural gas.—Two new schools have been opened.—The

City has secured a twenty-year franchise for the construction and operation of a street railway in the neighboring town of Sutherland.

VANCOUVER, B.C. The plans for \$1,000,000 additions to the C.P.R. hotel have been approved.

WINNIPEG. The Dominion's first great land products exhibition will be held here in October.

SPECIAL NOTICE TO CONTRACTORS

Re GREATER WINNIPEG WATER SUPPLY.

(Estimated cost \$13,500,000.00)

Notice is hereby given to Contractors that tenders will be invited early in the year 1914 for the construction of works necessary for the delivery of water from Shoal Lake to the Greater Winnipeg Water District. The following is a brief description of the proposed works:—

1. A dyke and channel for the diversion of the Falcon River into Snowshoe Bay.
2. 85 miles Concrete Aqueduct.
3. 10 miles Pipe Line. (Probably 1916 work).
4. 900 lin. ft. tunnel under Red River.
5. 85 miles of Construction Railway.
6. Telephone line.
7. Clearing and Ditching.

The fall season of the year affords the best opportunity for inspection of proposed route of the aqueduct, and it is recommended that contractors having a view to tendering on the work should send their inspectors over the line at as early a date as possible.

Particulars as to estimated cost of the work and map of approximate location and profile of aqueduct may be obtained from the undersigned.

M. PETERSON,

Acting Secretary of the Administration Board,

Greater Winnipeg Water District

City Hall,
Winnipeg, Man., Canada.

October 6th, 1913.

NOTE.—Copy of report of Consulting Engineers, plan and profile of work and typical details of design may be seen at the office of this magazine.



EASTERN PROVINCES

BRANTFORD, ONT. The ratepayers threatened a strike, in protest against paying debentures of a paving company.

BRIGHTON, ONT. The town has recently had a new water system installed.

BROCKVILLE, ONT. A nine-o'clock curfew by-law went into effect recently for all children under sixteen.

CHANDLER, GASPE CO., QUE. The Bank of Nova Scotia has opened a branch here.

FORT WILLIAM, ONT. The City will take over its share of the Electric Street Railway this autumn; heretofore, the City of Port Arthur controlled the street railway in the Twin Cities, under a joint board; formal steps have been taken in connection with the operation and interchange of service between the cities.—The contract has been let for a big wholesale house.—Coal has been discovered near the city.—The first modern apartment house for the city is being erected.—The foundation for the new city incinerator plant will be completed this fall.—New docks are to be built for the Superior Rolling Mills.—Work on the plant of the Steel Company is being rushed.

GUELPH, ONT. The new census shows an increase of 1,000 in the population, which brings it up to 16,400.—A 200-foot retaining wall is to be built and an additional span to the Neere street bridge; this is expected to put an end to the spring floods.

HALIFAX, N.S. There are to be four lines of railway tracks on the big new pier, now nearing completion; a two-storey immigration building of solid concrete will form the superstructure.

HAMILTON, ONT. The contract for the construction of the underground conduit system has been awarded to a Montreal firm, this does not include the wiring; the cost is divided between the city, the Cataract Power Company, and the two telegraph companies.—A new \$200,000 hotel is planned.

KINGSTON, ONT. There is a proposal before the City Council for the establishment of a factory for the manufacture of iron tubes.

LINDSAY, ONT. The town will have a street lighting system shortly.—The by-law for street lighting was carried.

LONDON, ONT. Three New York water experts who are engaged in a thorough investigation of plants in leading cities on this continent, have said that the local plant and system compare favourably with the very best privately owned or municipally owned on the continent.—A Publicity organization will be formed, the City Council and the Board of Trade being the moving spirits.—Work is being rushed on the new artificial ice plant.

MONTREAL. It is expected that construction on the new Court House will begin next year.—Assurances have been given that the Canadian Autobus Company will commence operating on the streets of the city very shortly; service was to have commenced about June.—The Marconi Wireless Company wishes to erect a high power station on Mount Royal but considerable opposition has developed; the wireless station on Tarte Pier is quite inadequate for the amount of business.—Owing to the big increase in the number of fires, the Fire Chief is recommending more fire stations, a fire boat, and the installation of new and extra fire fighting equipment down town; he will engage seventy-five more firemen.—The plans for the two new harbor sheds, to be built at once, have been filed.

PORT ARTHUR, ONT. The Board of Trade has entered into negotiations with a San Francisco gas plant expert, with a view to the introduction of gas into the Twin Cities.—There is quite an agitation for a modern incinerator plant.

PORT HOPE, ONT. The by-law ratifying a ten-year's franchise with the Seymour Power Company to instal a lighting system, in addition to the present equipment, was carried by a big majority.—The new \$43,000 Central School has been opened.

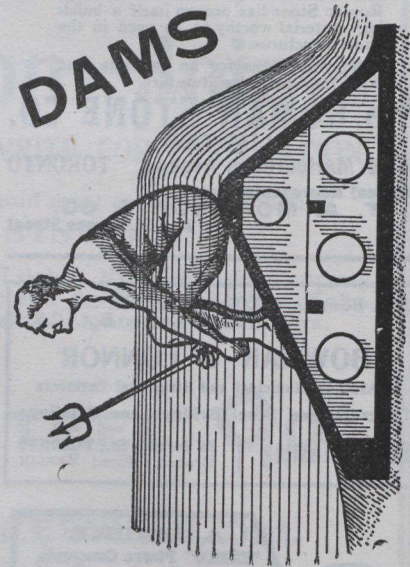
SARNIA, ONT. The Provincial Board of Health has instructed the town to use double the quantity of chlorine to keep the water supply free from pollution.

SHELBURNE, ONT. The by-law for a waterworks system was passed.

SHERBROOKE, QUE. The City is retaining the services of a Montreal engineer in connection with a scheme for the drainage and water purification systems made necessary by the rapid development of the city.

**AMBURSEN
HYDRAULIC
CONSTRUCTION
COMPANY
OF
CANADA,
Limited.**
405 Dorchester St., West,
MONTREAL, Que.
**TIGHT, PERMANENT
and inexpensive**

DAMS



Cast Iron Water Pipe

SEND YOUR ENQUIRIES

TO

JOS. R. MARTIN & CO.

Board of Trade Bldg., Montreal

**DALY'S CANADIAN CRIMINAL
PROCEDURE**

1911

The model work for Magistrates
in every Province

HALF-CALF, \$6.50

The Carswell Company, Limited
TORONTO, Canada

OVER 65 YEARS' EXPERIENCE

PATENTS

TRADE MARKS
DESIGNS
COPYRIGHTS & C.

Anyone sending a sketch and description may quickly ascertain our opinion free whether an invention is probably patentable. Communications strictly confidential. **HANDBOOK on Patents** sent free. Oldest agency for securing patents. Patents taken through Munn & Co. receive special notice, without charge, in the

Scientific American.

A handsomely illustrated weekly. Largest circulation of any scientific journal. Terms for Canada, \$3.75 a year, postage prepaid. Sold by all newsdealers.

MUNN & Co. 361 Broadway, New York
Branch Office, 625 F St., Washington, D. C.

The Oldest Established Accountant Firm
in Saskatchewan

GLADWELL, WILSON & CO.

Successors to GAMBLE, GLADWELL & CO.

Chartered Accountants

Auditors, Liquidators and Trustees

MUNICIPAL AUDITING A SPECIALTY.

Dominion Trust Building, Regina.

CHAS. V. GLADWELL,
C. A. Auditors.
Offices at Weyburn and Swift Current

City of Regina.
Towns of Moosomin,
Arcola, Melville,
Lumsden, Estevan,
Swift Current,
Carlyle,
North Battleford.

F. J. WILSON,
C. A.

ECHOES FROM MUNICIPAL FINANCE

WE BUY
AND SELL

MUNICIPAL DEBENTURES

If YOU wish to dis-
pose of this class of
bonds do not fail to
write us.

Brent Noxon & Co.

Canada Life Building,
TORONTO, Ont.

WOODVILLE, ONT. The by-law authorizing the expenditure of \$4,000 on a distributing plant, was passed.

STRATFORD, ONT. The City Council has decided to increase the salary of the City Treasurer, Mr. W. Lawrence, by \$200 per annum.

WALKERVILLE, ONT. Two by-laws were passed recently, the one for \$16,234 for an incinerator plant, the other for \$8,123 for paving.

WOLSELEY, SASK. The by-law to raise \$14,000 for the purchase of the plant of the Central Light and Power Company of this town, was passed.

WINNIPEG. The City Council passed a \$13,500,000 by-law for the construction of a water system from Shoal Lake; the by-law will be submitted to the ratepayers at an early date.

Mr. D. H. Minaker, Town Clerk of Cobourg, Ont., for twenty-one years, has resigned.

Mr. T. H. Parker, Mayor of Woodstock, Ont., in 1878-79, died recently aged 86.

The Merchants' Bank of Canada has opened branch offices in Chateauguay, Que., which has just obtained its charter as a town; and in Limerick, in Saskatchewan.

LOANS MADE TO:
BONDS BOUGHT FROM:

Municipalities

A. P. LESPERANCE

MANAGER

City and District Savings Bank

MONTREAL

Advertise Your

BONDS and DEBENTURES

IN

The CANADIAN
MUNICIPAL JOURNAL

THE BANK OF OTTAWA

ESTABLISHED 1874

HEAD OFFICE, - OTTAWA

Capital Authorized - \$5,000,000
Capital Paid Up - 3,500,000
Rest - - - - - 3,900,000

The Bank transacts every description of banking business and gives the most careful attention to any business entrusted to it.

BRANCHES AND AGENTS

THROUGHOUT THE DOMINION

IMPERIAL BANK OF CANADA

Capital Authorized - - - - - \$10,000,000
Capital, paid-up - - - - - 6,925,000.00
Reserve and undivided Profits - - - - - 8,100,000.00

DIRECTORS:

D. R. WILKIE, President, Hon. R. JAFFRAY, Vice-President,
Wm. Ramsay of Bowland, Elias Rogers, J. Kerr Osborne, Peleg
Howland, Sir Wm. Whyte, Winnipeg; Cawthra Mulock, Hon.
Richard Turner, Quebec; Wm. Hamilton Merritt, M. D.,
St. Catharines; W. J. Gage.

HEAD OFFICE, - - - - - TORONTO.

BRANCHES:

Ontario	Nashville	Quebec	Alberta
Amherstburg	New Liskeard	Montreal	Athabaska Landing
Belwood	Niagara Falls	Quebec	Banff
Bolton	Niagara on the Lake		Calgary
Brantford	North Bay	Manitoba	Edmonton
Caledon East	Ottawa		Red Cliff
Cobalt	Palgrave	Brandon	Rocky Mountain House
Cottam	Port Arthur	Portage la Prairie	Lethbridge
Cochrane	Porcupine	Winnipeg	Red Deer
Elk Lake	Port Colborne		Strathcona
Essex	Port Robinson		Wetaskiwin
Fergus	Ridgeway	Saskatchewan	British Columbia
Fonthill	Sault Ste. Marie	Balgownie	Arrowhead
Fort William	South Porcupine	Broadview	Chase
Galt	South Woodlee	Fort Qu'Appelle	Cranbrook
Hamilton	St. Catharines	Hague	Fernie
Harrow	St. Thomas	Moosejaw	Golden
Humberstone	St. Davids	North Battleford	Kamloops
Ingersoll	Thessalon	Prince Albert	Michel
Jordan	Timmins	Regina	Nelson
Vineland	Toronto	Rosthern	New Michel
Kenora	Welland	Saskatoon	Revelstoke
Listowel	Woodstock	Winkie	Vancouver
London		Wynyard	Victoria
Marshville			Wilmer

SAVINGS DEPARTMENT.

Interest allowed on Deposits at all Branches of the Bank throughout the DOMINION OF CANADA.

Drafts, Money Orders and Letters of Credit Issued Available in Any Part of the World.

Agents in England and Scotland.—Lloyds Bank Limited, and the Commercial Bank of Scotland, Limited, and Branches with whom money may be deposited for transfer by letter or cable to any part of Canada.

Agents in United States.—New York, Bank of the Manhattan Company; Chicago: First National Bank; San Francisco: Wells Fargo Nevada National Bank.

Agents in France.—Credit Lyonnais.
Agents in Germany.—Deutsche Bank.

BANK OF MONTREAL

(Established 1817)

INCORPORATED BY ACT OF PARLIAMENT.

CAPITAL Paid-up \$16,000,000.00
 REST \$16,000,000.00
 UNDIVIDED PROFITS \$802,814.94

HEAD OFFICE—MONTREAL

BOARD OF DIRECTORS

Rt. Hon. Lord STRATHCONA AND MOUNT ROYAL, G.C.M., G.C.V.O.
 Honorary President.

R. B. ANGUS, Esq., President.

H. V. MEREDITH, Esq., Vice-President.

E. B. GREENSHIELDS, Esq., Sir WILLIAM MACDONALD
 JAMES ROSS, Esq., Hon. ROBERT MACKAY,
 Sir THOMAS SHAUGHNESSY, K.C.V.O. DAVID MORRICE, Esq.,
 C. R. HOSMER, Esq., A. BAUMGARTEN, Esq.,
 C. B. GORDON, Esq., H. R. DRUMMOND, Esq.

D. FORBES ANGUS, Esq.

H. V. MEREDITH, Esq., General Manager.

A. MACNEIDER, Chief Inspector and Superintendent of Branches.
 C. SWRENY, Supt. British Columbia Branches.
 A. D. BRAITHWAITE, Supt. Ontario Branches.
 F. J. COCKBURN, Supt. Quebec Branches.
 E. P. WINSLOW, Supt. North West Branches.
 D. R. CLARKE, Supt. Maritime Provs. and Nfld. Branches.

BRANCHES:

At all Important Cities and Towns in every Province in the Dominion of Canada.

IN NEWFOUNDLAND:

ST. JOHN'S BIRCHY COVE GRAND FALLS

IN GREAT BRITAIN:

LONDON, - - 47 Threadneedle St., E. C.,
 Sir FREDERICK WILLIAMS-TAYLOR Manager.

IN THE UNITED STATES:

NEW YORK, R. Y. HEBDEN, W. A. Bog, and J. T. MOLINEUX,
 Agents, 64 Wall Street.

CHICAGO, ILL. SPOKANE, WASH.

IN MEXICO:

MEXICO, D. F.

THE ROYAL BANK OF CANADA

Capital Authorized - - - - - \$ 25,000,000
 Capital Paid up - - - - - 11,560,000
 Reserve and Undivided Profits - - - 13,000,000
 Total Assets - - - - - 180,000,000

Head Office - MONTREAL

BOARD OF DIRECTORS:

H. S. HOLT, President. E. L. PEASE, Vice-President.
 E. F. B. JOHNSTON, K.C. 2nd Vice-President.

Wiley Smith D. K. Elliott Wm. Robertson
 Hon. D. MacKeen W. H. Thorne A. J. Brown, K. C.
 Jas. Redmond Hugh Paton W. J. Sheppard
 G. R. Crowe T. J. Drummond C. S. Wilcox
 A. E. Dymond

OFFICERS

E. L. Pease, General Manager
 C. E. Neill and F. J. Sherman, Asst. Gen-Managers
 W. B. Torrance, Supt. of Branches

Branches in every Province of the DOMINION OF CANADA and in NEWFOUNDLAND; in HAVANA and throughout CUBA; Porto Rico and Dominican Republic; BAHAMAS, Nassau; BARBADOS, Bridgetown; JAMAICA, Kingston; TRINIDAD, Port of Spain and San Fernando; BRITISH HONDURAS, Belize.

LONDON, ENG., OFFICE — Princes St., E. C.

NEW YORK AGENCY — Corner William and Cedar Sts.

SAVINGS DEPARTMENT AT ALL BRANCHES

The Canadian Bank of Commerce

PAID-UP CAPITAL - \$15,000,000
 REST - - - - - 12,500,000

HEAD OFFICE - TORONTO

BOARD OF DIRECTORS:

Sir Edmund Walker, G.V.O., LL.D., D.C.L., President.

Z. A. Lash, Esq., K.C., LL.D., Vice-President.

Hon. George A. Cox. William McMaster, Esq.
 John Hoskin, Esq., K.C., LL.D. Robert Stuart, Esq.
 J. W. Flavell, Esq., LL.D. G. P. Galt, Esq.
 A. Kingman, Esq. Alexander Laird, Esq.
 Sir Lyman M. Jones. William Farwell, Esq., D.C.L.
 Hon. W. C. Edwards. Gardner Stevens, Esq.
 E. R. Wood, Esq. G. G. Foster, Esq., K.C.
 Sir John M. Gibson, K.C.M.G., Charles Colby, Esq. M.A., Ph.D.
 K.C., LL.D. A. C. Flumerfelt, Esq.

ALEXANDER LAIRD - - General Manager

JOHN AIRD, Asst. General Manager

BRANCHES IN EVERY PROVINCE OF CANADA AND IN THE UNITED STATES, MEXICO AND ENGLAND

Montreal Office, H. B. WALKER, Manager

London (England) Office, 2 Lombard Street, E. C.
 H. V. F. JONES, Manager

New York Agency, 18 Exchange Place,
 WM. GRAY and H. P. SCHELL, Agents

This Bank transacts every description of Banking Business including the issue of Travellers' Cheques, Letters of Credit and Drafts on Foreign Countries, and will negotiate or receive for collection bills on any place where there is a bank or banker.

THE MERCHANTS' BANK

OF CANADA

HEAD OFFICE - - - - - MONTREAL

Capital paid-up \$6,784,700. Reserve Fund and Undivided Profits \$6,820,189

Pres.: Sir H. MONTAGU ALLAN; V.-P.: K. W. BLACKWELL.
 E. F. HEBDEN, General Manager.

LIST OF BRANCHES AND AGENCIES:

Quebec—Montreal (Head Office St. James St.), 1255 St. Catherine St. E., 320 St. Catherine St. W., 1330 St. Lawrence Boul., 1360 St. Lawrence Boul., 672 Centre St., St. Denis St., Beauharnois, Chateauguay, Huntingdon, Lachine, Quebec, Rigaud, Shawville, Sherbrooke, St. Agathe, St. Jerome, St. Johns' St. Jovite, St. Sauveur, Three Rivers.

Ontario—Acton, Alvinston, Athens, Belleville, Berlin, Bothwell, Brampton, Brantford, Chatham, Chatsworth, Chesley, Creemore, Delta, Eganville, Elgin, Elora, Finch, Ford City, Fort William, Galt, Gananoque, Georgetown, Glencoe, Gore Bay, Granton, Guelph, Hamilton, Hanover, Hespeler, Ingersoll, Kincardine, Kingston, Lancaster, Lansdowne, Leamington, Little Current, London, Lucan, Markdale, Meaford, Mildmay, Mitchell, Napanee, Oakville, Orillia, Ottawa, Owen Sound, Perth, Prescott, Preston, Renfrew, Sandwich, Stratford, St. Eugene, St. George, St. Thomas, Tara, Thamesville, Tilbury, Toronto, (Wellington St., Dundas St., Parliament St., Parkdale), Walkerton, Walkerville, Wallaceburg, Watford, West Lorne, Westport, Wheatley, Williams-town, Yarker.

Manitoba—Brandon, Carberry, Gladstone, Hartney, Macgregor, Morris, Napinka, Neepawa, Oak Lake, Portage la Prairie, Russell, Souris, Winnipeg, (ditto, Bannerman Avenue.)

Alberta—Acme, Brooks, Calgary, (do. 2nd Street E), Carstairs, Castor, Coronation, Chauvin, Daysland, Delburne, Donald, Edgerton, Edmonton, (do. Naimayo Ave. - Alberta Ave., Athabaska Ave.), Edson, Hanna, Hughenden, Islay, Killam, Lacombe, Leduc, Lethbridge, Mannville, Medicine Hat, Munson, New Norway, Okotoks, Olds, Pincher Station, Redcliff, Red Deer, Sedgewick, Strome, Stettler, Tofield, Trochu, Vegreville, Viking, Wainright, West Edmonton, Wetaskiwin.

Saskatchewan—Antler, Arcola, Battleford, Carnduff, Forres, Frobisher, Gainsborough, Gull Lake, Kisbey, Limerick, Maple Creek, Melville, Moose Jaw, Oxbow, Regina, Saskatoon, Unity, Whitewood.

Nova Scotia—Halifax.

New Brunswick—St. John.

British Columbia—Elko, Chilliwack, Nanaimo, Sidney, New Westminster, Victoria, (do. North End.) Vancouver (do. Hastings St.)

SUB-AGENCIES—Quebec—Bury, Napierville, Quyon; **Ontario**—Addison, Calabogie, Frankville, London South, Lyndhurst, Muirkirk, Newbury, Newington Pelea Island, **Manitoba**—Austin, Griswold, Oakville, Sidney; **Alberta**—Botha, Czar, Rumsey.

A general Banking Business transacted. Savings Department at all Branches. Interest paid at best current rates.

New York Agency: 63 and 65 Wall St.

The accounts of Municipalities kept and advances made in anticipation of the collection of taxes: also, loans for improvement purpose in anticipation of the issue of debentures.

Municipal Fire Insurance.

F. W. W. DOANE, C. E., City Engineer. Halifax, N. S.

(Read at the Convention of the Union of N. S. Municipalities.)

Early in the history of this Union, I considered the advisability of presenting to its members a scheme for mutual municipal insurance, which seemed to promise financial advantages sufficient to justify at least serious consideration. As a matter of fact some statistics were collected two or three years ago, but the demands of more urgent work caused it to be sidetracked for a time.

I have always felt that the members of the Union were not getting all the benefit that could be obtained from membership in such a body, but as we must creep before we can walk, I have felt satisfied that some of the more important problems would be dealt with later.

The admirable address delivered at the last convention of this Union on "Fire Fighting and Fire Prevention" by Mr. Francklyn H. Wentworth, again suggested the train of thought which had lain dormant. The reminder that every man who pays insurance pays the fire loss, was most impressive.

There are some municipal problems which a united body of municipalities can handle to better advantage than any one municipality can, unaided. One problem, which in my opinion, can be solved much more readily by the united body than by the single municipality, is the municipal loan problem, so ably dealt with by Ex-Mayor Sanford Evans at the Convention of the Union of Canadian Municipalities.

In line with these thoughts, it has occurred to me that if one municipality owned all the perishable public property in Nova Scotia, one body would effect all the insurance. Why, then, cannot the Union of N.S. Municipalities or some body, corporate or otherwise, which would represent the municipalities of Nova Scotia, insure for the general good, all the perishable public property in the Province?

The larger risks are carried by several different insurance companies; in some cases it is divided up among a considerable number of companies. There are two reasons for this, one, because it is not advisable to carry too large a risk in a company which is also carrying insurance all around the property; the other, because insurance companies do not desire to carry too large a risk in one particular quarter. Municipal property is becoming one of the best risks for insurance, first, because the greater part of it is being constructed of fire-proof material, and second, because it usually has better fire protection facilities than private property.

A list of questions has been sent out by the writer to the municipal clerks to ascertain what sums are involved in the existing insurance system. Twenty-seven of the towns and six of the rural municipalities responded. The total amount of annual premiums paid by thirty-two municipalities is \$9,717.62, and the amount of insurance carried, \$1,522,884.00. As the six rural municipalities pay \$1,251.61 in annual premium, it is probable that the total amount of annual premium paid by all the municipalities reaches at least \$12,000 per annum. The amount paid varies from \$4.50 per annum for insurance on \$1000 on the court house in one municipality, to \$3,136 paid on nearly half a million of insurance in the City of Halifax.

The largest risk of which returns have been sent in, is \$45,000 on the Academy School in Sydney. The next is \$42,000 on the Chebucto Road School, Halifax.

Both these structures are good risks. Every municipality is already carrying a substantial portion of its insurance risk itself.

I beg to suggest for your consideration, the advisability of providing by legislation that the insurance premiums now paid by such municipalities as may desire to become a party to the scheme, shall be paid annually at the first of the year to trustees, who may be the Union of N. S. Municipalities, a commission appointed by them, a commission appointed by the government, a commission appointed partly by the government and partly by the Union, or a body to be constituted in any way which it may be decided on nature consideration is the best for the purpose. My own opinion is that this Union should have a large share in the management, and membership in the Union should be essential before any municipality could share in the benefit. I would suggest that the trustees be obliged to ensure all public property covered against a maximum loss of any \$100,000, the premium to be paid out of the total premiums pooled. The balance should be invested, say for ten years, by which time the amount of the investment would reach about \$100,000, if there are no losses. According to the returns received, last year the total fire loss was five dollars.

Any fire loss up to \$100,000 would be paid by the insurance companies; over \$100,000, which is very unlikely, would be paid out of the invested funds. After reaching \$100,000 or more, the fund could be trusted to carry the whole risk and it is unlikely that any further premium would be required from any municipality. Provision should be made that in case of serious loss, the municipalities might be required to resume payment of premiums until the fund was again self-sustaining. Provision should also be made for municipalities to pay a premium for new buildings, say for ten years, after which no further premiums would be required, except as suggested, in case of very serious loss. It might also be necessary to have the Union of N. S. Municipalities incorporated.

Municipalities entering the scheme after the beginning, should pay for the same number of years as in the case of new buildings. The same principle should apply when any increase in the amount of insurance carried, is asked for. After five years, or after the time at which the fund assumes the liability for loss, machinery would be required for determining the amount of losses. The investment of the funds should also be properly guarded.

Details must be thoroughly thought out and tested by the municipal financial experts of the Province, assisted if necessary by an insurance expert. I do not presume to stand before you as a financial expert, but let us hope that there are delegates here today who can do so. Please do not dismiss the matter before weighing it carefully, as it may mean much, not only for the future of the municipalities, but perhaps for individual taxpayers as well. The proposal seems attractive, but perhaps experts may be able to tear it to tatters. If after 10 years a sum of \$12,000 is saved to the municipalities of Nova Scotia, membership in the Union will be worth while. Even the smaller municipalities would save every year, by that time, the equivalent of their annual fee, and could afford to carry full protection, while the city of Halifax would save over \$3000.00.

I would suggest that the matter be referred to the incoming executive to obtain an expression of opinion from the members of the Union, and if favourable, to work out the scheme and prepare an act for submission to the next Convention.

REVIEW OF CIVIC IMPROVEMENT

Conducted by

W. H. Atherton, Ph. D. (Sec. City Improvement League of Montreal) in conjunction with the Editor.

City Improvement League of Montreal

PRESIDENT :

J. GEORGE ADAMI, M.D., D.Sc., F.R.S.

HON. VICE-PRESIDENTS :

THE PRESIDENT OF THE BOARD OF TRADE.
LE PRESIDENT DE LA CHAMBRE DE COMMERCE.

VICE-PRESIDENTS :

MRS. J. B. LEARMONT, HON. J. J. GUERIN, M.D., LL.D., J. V. DESAULNIERS, U. H. DANDURAND, FARQUHAR ROBERTSON.

HON. TREASURER :

J. F. BOULAIS, La Banque Nationale Building.

HON. SECRETARIES :

C. H. GOULD, B.A., and J. U. EMARD, K.C.

EXECUTIVE SECRETARY :

W. H. ATHERTON, Ph. D.

402 Coristine Building.

Phone Main 4362

The following are the rates of subscription:

Patrons, donors of \$100;

Honorary Members, \$25.00 yearly;

Sustaining Members, \$10.00 yearly;

Contributing Members, \$5.00 yearly;

Ordinary Members, \$2.00 yearly.

All communications to be addressed to Dr. W. H. Atherton, Secretary of the City Improvement League, office of the "Canadian Municipal Journal," 402 Coristine Building, Montreal.

Objects of the League

To cultivate a good public spirit of citizenship and to promote educational movements by meetings, lectures, committee works, and by the publication of literature, which may further general civic betterment and effect practical reforms. To act as a clearing house of citizen betterment activities and to help associations to obtain their aims quickly and effectively, by affording them co-operation in movements making for the common good.

To Members of the League

We beg to inform members that our bureau is now established as above, in the offices of the Canadian Municipal Journal, which has become the official organ of the League. All the library and information sources of the Journal and of the C. I. L. are at the service of our members who desire to made use of them. The literature of the whole civic field of the English speaking world can be consulted through the Municipal Handbooks and the many exchanges, &c., which come to this Journal and to the City Improvement League. In addition, the staff will be pleased to give individual attention to the inquiries of those interested in any of the many forms of Municipal Activities and general Social work.

A series of articles by experts on Civic Government, the Board of Control and the Commission Form, may be found in the numbers of the Canadian Municipal Journal for several years back. These can be consulted, besides other sources, at the League's offices, 402 Coristine Building.

Canadian Social Work

The Canadian Welfare League

A new Association under the title of the Canadian Welfare League has just been launched and we hail it with unfeigned pleasure. The municipal life of our cities and towns will be strengthened by the organization of the forces making for civic betterment represented by

the co-operation of Associations and of Social experts working for this purpose throughout the Dominion.

This inter-communication and consequent knowledge of one another will produce a unity of purpose and strength which will prove of lasting benefit to the Dominion.

Too long have our Betterment Associations in Canada been living unto themselves only, ignorant of the aims and work of others, profiting little by their experience because this was not easily accessible.

This may now be overcome. A recognized journal as an official organ should be among the first steps to be taken. Hitherto, our own has striven to meet the needs of a medium of intercommunication. At present we are making further efforts to bring the official city workers of the municipalities in contact with the non-official such as are the class likely to be attracted to the new organization. The venture has been largely approved of, though it is somewhat unique in civic literature. We therefore shall welcome news of the activities of the recently formed Canadian Welfare League as proper matters of interest to the already large and increasing number of readers of this Journal.

A brief report of the formation of this new Society will be of interest, we believe, to our readers:

It originated at the recent Convention of the Canadian Conference of Charities and Corrections, held at Winnipeg in the middle of September, and though an outcome, is a distinctly new departure.

While the Canadian Conference was merely a deliberative body meeting once a year for the purpose of discussion, the purpose of the Canadian Welfare League was to establish a bureau which would stimulate an interest in social work all the year round.

At the final meeting there was unanimity regarding the work to be undertaken. A constitution was drawn up and adopted. A meeting of the organization committee was held afterwards, and lines of policy formulated. The first few months will be taken up by the work of establishing relations with the various social organizations in the cities of Canada.

Winnipeg was adopted as headquarters for the present.

Impending Conventions

Three Conventions of importance to the League are now preparing:

National Municipal League at Toronto, Ont., Nov. 12th-15th.

National Housing Association at Cincinnati, Ohio, Dec. 3rd-5th.

American Civic Association at Washington, D.C., in Dec. (date not yet announced).

As the League is affiliated to each of these Associations of the U. S., any who may happen to be in those cities at the above dates should notify this to the Executive Secretary, so that they may be empowered to act as the official delegates of the League, and a report from them would be very valuable.

American Association for Study and Prevention of Infant Mortality, Hotel Willard, Washington, D. C., November 14-17.

The programme will include sessions arranged by chairmen of standing or special committees, and popular

meetings, which will be addressed by distinguished specialists from various parts of this continent. The subjects, which will be discussed, include:

Eugenics; pre-natal care and instruction of mothers; adequate obstetrical care; problems of infant hygiene and infant feeding; standards of training for infant welfare nursing; continuation schools of home making; the relation of vital statistics to plans for social betterment; the relation of the plans for the conservation of infant life to the general ideals of conservation.

The publication of the transactions will take place immediately after the close of the conference.

The address of the Secretary is 1211 Cathedral Street, Baltimore, Md.

MONTREAL WOMEN'S CLUB
1913—1914

President, Madame Heliodore Fortier; Vice-president, Mrs. E. M. Renouf; Sec. Vice-Pres., Mrs. R. E. Welsh; Hon. Rec. Sec'y, Mrs. W. E. L. Dyer; Hon. Cor. Sec'y, Miss Isobel Ferguson, 4473 St. Catherine St. Westmount; Hon. Asst. Corr. Sec'y, Mrs. W. Northey, The New Sherbrooke; Hon. Treasurer, Mrs. J. H. Peattie, 254 Wood Avenue, Westmount.

Preliminary Programme.

1913 Oct. 13—Club Opening. President's Address. Music. Tea.

Nov. 24—A Symposium. "Temperance in its Relation to Religion, Medical Science and Law."

1914.—Jan. 26—"Woman and Labour." Hon. Thos. Crothers, Minister of Labour, Ottawa.

Feb. 23—"World Movements." Rev. Herbert Symonds, D.D., L.L.D.

Mar. 23—"Peace and Arbitration." Hon. Senator Raoul Dandurand, LL.D.

April 27—Annual Meeting.

Home and Education Department.

Chairman, Mrs. C. A. Hayes; Secretary, Mrs. A. Watson Bain, Third Director, Mrs. Fred. Heath.

1913—Oct. 20—"Vocational Training." Jas. W. Robertson, LL.D., C.M.G., Ottawa.

Dec. 1—"Panama Canal." Wm. McNab, Esq.

1914—Jan. 19—"The Home of To-day and Tomorrow." Mrs. Alfred Ross Grafton.

Mar. 2—Current Events. Club Members.

April 6—Musical Day.

Art and Literature Department.

Chairman, Mrs. J. J. Louson; Secretary, Mrs. John Leslie; Third Director, Mrs. J. B. Briggs.

1913—Nov. 3—"Modern Philosophy." Miss Jean Foley.

Dec. 15—"Milton, the Man and Poet." Rev. Frederick G. Scott, M.A., Quebec.

1914—Feb. 2—Current Events. Club Members.

Mar. 16—"Mrs. Browning; the Woman and Poet." Mrs. J. F. Stevenson.

Social Science Department.

Chairman, Mrs. G. A. Kohl; Secretary, Mrs. R. F. L. Picard; Third Director, Mrs. J. A. Henderson.

1913—Nov. 17—"Biology and the Woman's Movement." Prof. Carrie M. Derrick, M.A.

1914—Jan. 5—Current Events. Club Members.

Feb. 16—"Our City." Rev. Canon Almond.

Mar. 30—Scientific Lecture.

On the second Monday of each month during the Club year, a Business and Social Meeting, open to members only, is held at 3.30 p.m.

New Social League

"During the progress of the Canadian Conference of Charities and Correction this afternoon the new Canadian Welfare League, which purposes to cover Canada from coast to coast in its operations, was organized. The plan of the League involves the establishment of a central bureau as a clearing house for special work, and intends to stimulate the erection and direction of community effort in securing trained leadership for social work. The officers of the League are: President, J. Halpenny, Winnipeg; vice-president, A. Chevalier, Montreal; and second vice-president, A. B. Cushing, Calgary. The headquarters of the League are to be in Winnipeg, and Mr. J. S. Woodsworth, Winnipeg, was appointed secretary." (Despatch from Winnipeg, Man.)

The Metropolitan Parks' Commission of Montreal

Mr. Raymond Unwin, the English City planner who has lectured for the League on two occasions, and is familiar with the City planning history of Montreal, recently passing through the city suggested that the deadlock at present existent might be solved by a "Town Planning Act" as in England. Mr. Thomas Adams, the Executive officer of this Act in England, also recommended the plan to the League, two years ago. We might give the suggestion more consideration than we have done.

Death Rate in Tenements

One-room tenements.	40.6
Two-room tenements.	21.9
Three-room tenements.	14.7
Four-room and upwards.	7.5

While the infant mortality per 1,000 births shows even more awful figures.

One-room tenements.	219
Two-room tenements.	157
Three-room tenements.	141
Four-room and upwards.	99

The Smoke Nuisance

1. A thought for manufacturers. "Gentlemen, *Economically* you are thriftless in permitting the emission of vast volumes of smoke from your factory chimneys for you are burning up money. Why waste all that good smoke?"

2. Another. "Gentlemen, as good lovers of your city from which you are making your money, will you not put a stop to the menace to the public happiness and health of the citizens and of your workmens' children especially, that the black smoke from your industrial plants so sadly endangers?"

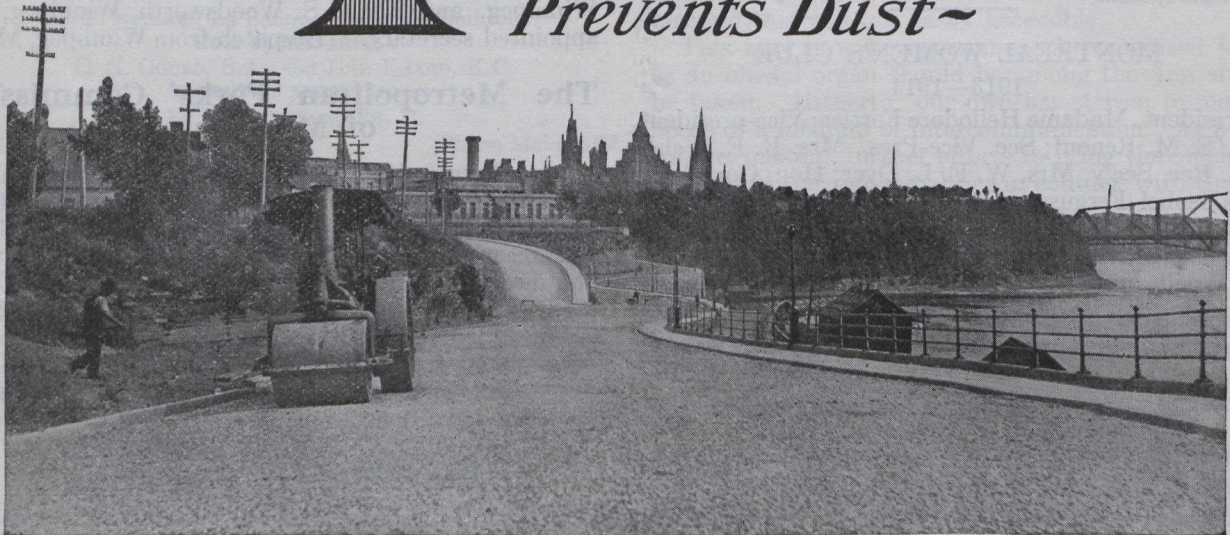
3. A thought for the city. "If moral persuasion does not convince, increase your revenue by a steady infliction of the fines permitted to you by your city charter. (Article 300, sections 49 and 82.)

Another Feature

Arrangements have been made with Mr. J. S. Woodsworth, secretary of the Canadian Welfare League, to secure news of the progress of this new organization, and to include a subscription to this Journal in all his membership fees.

Tarvia

*Preserves Roads
Prevents Dust~*



Lady Grey Road, Government Road, Ottawa, Ont. Canada's Mint in foreground.
Parliament Buildings in background. Tarvia Modern Pavement finished Aug. 1, 1913.

A New Principle in Road Building

IT has long been recognized by engineers that one of the greatest causes of the destruction of macadam road by traffic has been the internal movement caused by the passage of heavy loads. The endless shifting and creeping of the lower courses of stone causes a grinding and pulverization which destroys the stone and breaks the bond.

To reduce this internal movement engineers have buried the larger stone under successive layers of finer stone. This fine stone forms dust more rapidly but the dust serves to protect the foundation of the road by acting as a cushion. Modern traffic makes the use of such dust cushions quite impracticable, for the automobiles not only stir up the dust but create entirely new conditions by scouring the surface of the road and breaking the bond with the backward thrust of their driving wheels.

The possibility of making roads automobile-proof by using Tarvia as a binder from top to bottom of the wearing-course during the construction of the road has now been satisfactorily demonstrated. The Tarvia fills the voids and forms a tough, durable matrix in which the stone cannot shift or grind. Consequently it has become possible to use large stone in a much greater proportion of the construction. The fine screenings and stone chips are used only on the surface as a finishing coat.

Traffic wearing away the surface strikes the layer of large stone in the tarvia matrix and makes little or no impression upon it. The large stone pulverizes but slowly and cannot be torn loose by automobile wheels. It does not change contour, sheds water instantly, is free from dust, costs but a trifle more to build than ordinary macadam, costs much less to maintain.

Booklets on request.

Address our nearest office.

THE PATERSON MANUFACTURING COMPANY, LIMITED
MONTREAL TORONTO WINNIPEG VANCOUVER

THE CARRITTE-PATERSON MANUFACTURING CO., LIMITED
ST. JOHN, N. B. HALIFAX, N. S. SYDNEY, N. S.

FINANCIAL NOTES

**DEALERS IN
HIGH GRADE
BONDS &
DEBENTURES**

**CORRESPONDENCE
SOLICITED**

**DOMINION
SECURITIES
CORPORATION, LIMITED**

**MONTREAL, LONDON, TORONTO
P.C. ENG. ONT.**

Wood, Gundy & Co.
6 KING ST. WEST, TORONTO

**Purchasers of
MUNICIPAL
DEBENTURES**

We especially invite correspondence.

MARMORA, ONT. The tax rate was fixed at 25 mills.—A grant was made to the Stirling Fire Brigade for assistance at a recent fire.

MORRIS, SASK. The by-law to borrow \$8,000 for general expenses, was passed.

NORTH VANCOUVER, B.C. The by-law to raise \$5,250 to purchase part of the Central School site, was passed.—The two following by-laws were defeated, to raise \$28,000 to buy a police station site, and \$30,000 to build a central police court and station.

ORANGEVILLE, ONT. Two by-laws were passed recently, the one to raise \$6,000 for school purposes and the other to provide \$6,000 for a Town Hall.

PRINCE ALBERT, SASK. The by-law to raise \$275,000 for the erection of a new steam power house and plant, was passed by the ratepayers.

ROSTHERN, SASK. The by-law to provide for the raising of \$4,640 for the purchase of a gasoline fire engine, was defeated.

SASKATOON, SASK. The franchise, track, rolling stock, income, personal property and business of this City, in connection with the street railway in Sutherland, are to be exempt from taxation.

SEAFORTH, ONT. The tax rate has been fixed at 27 mills.

SHELBURNE, ONT. The by-law to issue \$12,000 debentures for the construction of a waterworks system, was carried.

SOUTH CROSBY, ONT. The by-law to raise \$15,000 as a bonus to the Gananogue and Arnprior Railway, was defeated.

SOUTH VANCOUVER, B. C. The by-law to raise \$50,000 for the purchase of acquiring and improving park sites, was passed.

ST. JOHN, N.B. The by-law to provide \$10,000 for the construction of the wharf, was passed at a special meeting of the Council.

ST. MARY'S, ONT. The by-law to raise \$8,000 for a new gymnasium in connection with the Collegiate Institute, was defeated.

ARRAN, ONT. The by-law to raise \$10,000 for local improvements, was carried.

BARRIE, ONT. The by-law to raise \$10,000 to purchase the Lont Park property was defeated.

BLAIRMORE, ALTA. The by-law to raise \$15,000 for a waterworks system, was passed.

BRACEBRIDGE, ONT. Two by-laws were passed recently: the one to raise \$2,000 for the purchase of a site and right of way for a proposed rock crushing plant, the other to raise \$10,000 to pay off the floating debt of the town.

BRADFORD, ONT. The by-law to raise \$20,000 as a loan for the Watson Company, Limited, has been passed.

CALGARY, ALTA. The by-law to provide \$27,000 for the purchase of Lowry Park, has been passed.

DUNCAN, B. C. The following by-laws were passed recently: \$65,000 for electric light and power purposes; \$15,000 for school building; \$10,000 for street improvements; and \$25,000 for waterworks.—The by-law to raise \$14,000 for a municipal building was defeated.

ESSEX, ONT. The by-law granting a bonus of \$2,500, a free site worth \$300 and other concessions to the Windsor Pearl Button Company, has been passed; the company will erect a branch factory and instal machinery at a cost of \$6,000.

ESTEVAN, SASK. Twelve shortage by-laws approximating \$120,000 were carried recently by substantial majorities.

HARWICH, ONT. The by-law to raise \$4,000 for the erection of a school house, was passed.

LANSDOWNE, ONT. The by-law to raise \$15,000 as a bonus to the Gananogue and Arnprior Railway, has been passed.

LOUGHEED, ALTA. Two by laws were passed recently, the one to raise \$2,000 for general purposes, the other to raise \$4,000 for school purposes.

SCHOOL DEBENTURES

ST. LAMBERT, Que.

**THE SCHOOL COMMISSIONERS
OFFER FOR SALE \$15,000 20—YEAR,
DEBENTURES BEARING INTEREST
AT 6 PER CENT.**

J. R. BEATTY,

Sec.-Treasurer.

DEBENTURES

HARRISON MUNICIPALITY, Man.

**TENDERS WILL BE RECEIVED FOR
\$3,500, 10 — YEAR, 6 PER CENT.
LOCAL IMPROVEMENT
DEBENTURES BY**

CHAS. CONGDON,

Sec.-Treasurer, NEWDALE P.O., Man.

BUSINESS FOUNDED 1795

American Bank Note Company

ENGRAVERS and PRINTERS

**Municipal Debentures and Cheques
A SPECIALTY**

Head Office, 224 WELLINGTON STREET, OTTAWA.

Branches: HALIFAX, MONTREAL, TORONTO, WINNIPEG.

R. A. ROSS & CO.

CONSULTING ENGINEERS

MECHANICAL STEAM ELECTRIC HYDRAULIC
EXAMINATIONS REPORTS VALUATIONS

80 ST. FRANCOIS XAVIER STREET, - - MONTREAL

211 BOARD OF TRADE BUILDING

LAURIE & LAMB

CONSULTING & CONTRACTING ENGINEERS

STEAM & GAS POWER INSTALLATIONS
FILTERING & WATER SOFTENING PLANTS
REFUSE DESTRUCTORS & BOILER INSTALLATIONS
REPORTS, TESTS & APPRAISALS

MONTREAL

A. L. McCULLOCH, M. Can. Soc. C. E.

CONSULTING ENGINEER

Hydro-Electric Power Installation.

Water-Works. Sewerage and Sewage Disposal.
Examinations. Plans. Estimates and Reports.

NELSON, B. C.

BAYFIELD & ARCHIBALD

Consulting & Constructing Engineers

Plans, Reports, Estimates for Machinery.

Plants for Electric Light, Water Works, Road Making, Etc.

MOLSONS' BANK BUILDING,

VANCOUVER, B. C.

Tel. Uptown 6771

Room 41 Merchants Bank

J. B. SAINT CYR
Quebec and Dominion Land Surveyor

GENERAL LAND SURVEYING

Subdivision, Staking of Lots, Public Highways, Mining Claims, Timber Limits, Etc.
364 University Street, Corner St. Catherine, Montreal

E. A. CLEVELAND

DONALD CAMERON

CLEVELAND & CAMERON

CIVIL, HYDRAULIC AND MUNICIPAL ENGINEERS AND SURVEYORS

1001 TO 1010
ROGERS BUILDING

VANCOUVER, B. C.

GORE & MCGREGOR
LAND SURVEYORS
AND ENGINEERSWATERWORKS AND SEWERAGE
EXAMINATIONS AND REPORTS
MUNICIPAL WORK A SPECIALTY**CHARLES H. TOPP**

M. CAN. SOC. C. E. M. PAC. N. SOC. E.

CONSULTING ENGINEER

P. O. Box 152
Phone L 504Chancery Chambers, Langley Street,
VICTORIA, B. C.

TELEPHONE:

BELL UPTOWN 3808

SURVEYER & FRIGON

CONSULTING ENGINEERS

EXAMINATIONS SURVEYS ESTIMATES AND DESIGNS
TECHNICAL AND FINANCIAL REPORTS

56 BEAVER HALL HILL

MONTREAL.

Engineers—And

Town Planning

CHRISTOPHER J. YORATH, A. M. Inst. C. E. (Eng.)
City Commissioner, Saskatoon, Sask.

Read at the Convention of the U. C. M., see pages to

Aristotle is said to have defined a City as "a place where men live a common life for a noble end", which implies an end or aim.

There can be no question that although the end is not a single one, there has been in the building of every City some object in view, some aim towards which those who have been responsible for its foundation and growth have consciously, or unconsciously, been aiming.

Unfortunately in the majority of cases the aim has been an unconscious one, with the result that cities have grown up in a haphazard manner, and many a beautiful spot turned into an ugly accumulation of bricks and mortar.

Great Britain by the passing of the Town Planning Act of 1909 took the first step towards the undoing of mistakes of centuries, and hopes by planning the future growth of existing and new Cities, to avoid the enormous expense occasioned through the lack of planning.

Until recent years it was thought that the checkboard system of planning was all that could be desired, but anyone who has studied the subject of town planning will realize at once that it is failure, and has necessitated, even in what are known as the New World Cities, large expenditures to rectify some of its many defects. How can a system be called a plan which does not take into consideration local characteristics such as the undulation of the ground, a winding river, and thickly wooded spots?

If Great Britain realizes the necessity of passing a Town Planning Act, surely such an Act would be of infinitely more use to Canada, which at present has only a population of about eight millions, or slightly more than that of London, while its area is 3½ millions square miles compared to 112,000 square miles comprising Great Britain.

A careful study of what wise town planning, the liberal provision of attractive amenities can do, and has done for some of the cities of Europe, will convince the greatest anti-town planner of the wisdom of looking well ahead.

It invariably happens that town planning is not thought of, or put into operation until a certain amount of development has taken place. In Great Britain this does not interfere to any great extent with the planning for the future, as the undeveloped land is not staked out into lots and held by numerous land holders, but is usually in possession of a few; whereas in Canada, owing to the checkboard system, and the selling of outlying plots far in advance of the time when the land is ripe for development, the proper planning of the future is rendered far more difficult, and probably in many cases the difficulties will be so great as likely to make a scheme impracticable without special legislation.

A city attractive by its beauty, by its artistic symmetry and design, and by the convenience which it offers, will gain a reputation and an individuality, of which not only its Council and its landowners, but also its citizens, may be proud.

What then should be the aim of every City? and to answer that question we are at once thrown back upon

what they are doing

the question of what should be the individuality by which the City should be marked and known. Bacon says in his "Essay of Gardens"—"God Almighty first planted a garden. And indeed it is the purest of human pleasures, it is the greatest refreshment to the spirits of men without which buildings and palaces are but gross handiwork." Surely then the aim should be the one implied by the term "Garden City"—beautiful, well planted, and finely laid out, known and characterized by the charm which it can offer to those who seek a residence or dwelling removed from the turmoil, stress and discomforts of a manufacturing district.

The various systems of planning which have been adopted in the past are: rectangular; radial and circumferential; and curvilinear; but the latest schemes for town planning are generally a combination of all three, which allows for the best fulfilment of town planning ideals.

The problem then for the town planner is to consider his scheme in respect to several distinct branches.

The Configuration and Undulations of the Town Site.

The beautiful sites which the Great Architect of the Universe has provided for many of our cities have been wantonly spoilt by the worst form of vandalism, and the lack of a proper system of planning, instead of providing a setting and vista by which the beauty of monumental and public buildings may be shown.

The first essential preparatory to the drawing up of a town planning scheme, is to make a contour map of the site, with contours showing the rise or fall of the ground every five to ten feet. In addition the map should show existing trees, places of historic or local interest, railways, existing public and industrial buildings, waterways, etc.

This map will enable the town planner to lay down the main avenues with the easiest possible grades, to preserve places of beauty; to establish the sites of the most important buildings so as to be in commanding positions; to design his storm and sanitary sewers so as to obtain the maximum amount of gravity flow, and to arrange his water supply in the most suitable zones so that the whole system of public utilities can be built up of units which will ultimately become parts of a completed whole.

Direction of main radial and circumferential Avenues and Boulevards

In London and New York, and many other large cities, great inconvenience and expense is occasioned through not having the most direct means of transit between business, factory and residential districts, and proper connections between these centres and the different railway depots. Again, through the lack of circumferential avenues the traffic in the centre of the city becomes greatly congested.

It is imperative therefore in the planning of a city to exercise the greatest care and judgment in fixing the position and direction of main avenues. If possible they should radiate from the centre towards the principal outlying districts north, south, east and west of the city, and be connected and linked up with inner and outer circumferential avenues. By this means, traffic desirous of crossing from one side of the City to the other, can avoid the centre and more heavily trafficked streets, and in so doing prevent the congestion which so often occurs in the centre of old cities.

London is at present contemplating the construction of circumferential avenues in order to relieve the congestion which occurs in the centre.

R. S. LEA, M. Can. Soc. C. E.; M. Inst. C. E.
M. Am. Soc. C. E.; Hydraulic & Sanitary Engineer

H. S. FERGUSON, M. Can. Soc. C. E.
M. Am. Soc. M. E. M. Am. Soc. C. E.
Engineer, Pulp, and Paper Mills, Power Plants

R. S. LEA and H. S. FERGUSON
ENGINEERS

Specialties: Water Supply, Sewerage, Water Power Development and Transmission.
Steam Power Plants, Pulp and Paper Mills. Examinations and Reports

Birks Bldg. Long Distance Tel. Up. 751. MONTREAL

WALTER J. FRANCIS, C. E.,
M. Can. Soc. C. E.,
M. Am. Soc. C. E.,
M. Inst. C. E.

FREDERICK B. BROWN, M. S.C.
Mem. Am. Soc. M. E.,
Mem. A. I. E. E.

WALTER J. FRANCIS & COMPANY
CONSULTING ENGINEERS

HEAD OFFICE—232 ST. JAMES ST., MONTREAL,
LONG DISTANCE TELEPHONE—MAIN 5643
CABLE ADDRESS—"WALFRAN, MONTREAL."—WESTERN UNION CODE

WILLIS CHIPMAN

GEO. H. POWER

CHIPMAN & POWER
CIVIL ENGINEERS

TORONTO WINNIPEG

CANADIAN INSPECTION & TESTING LABORATORIES, LIMITED
INSPECTING AND CONSULTING ENGINEERS AND CHEMISTS

Inspection and Tests of Waterworks and Municipal Supplies.

TORONTO WINNIPEG VANCOUVER Head Office: MONTREAL

DIETRICH LIMITED
CONTRACTING ENGINEERS

REPORTS, ESTIMATES, PLANS, SUPERVISION, ETC.
CONSULTING CONTRACTING.

300 READ BLDG., MONTREAL.

Telephone 5256 P. O. Box 1695

JOHN S. ISDALE
ELECTRICAL ENGINEER AND SCIENTIFIC INSTRUMENT MAKER

Engineers and Surveyors Instruments. Nautical Instruments.
Electrical Instruments. Electro-Medical Work. Fine Electrical
Work and special Apparatus for Scientific Work. :: :: ::

527 Dunsmuir Street, : : : VANCOUVER, B. C.

CARTWRIGHT, MATHESON & Co.
CONSULTING ENGINEERS

PLANS, SURVEYS, REPORTS,
Superintendence of Construction for Railways, Wharves, Foundations,
Bridges, Buildings, Water Supply, Power Plants and Irrigation.

601 ROGERS BUILDING VANCOUVER, B. C.

ORMOND HIGMAN, Jr. B.Sc. WILLIAM A. DOCTOR, A.I.A.

HIGMAN & DOCTOR
ENGINEERS, SURVEYORS AND ARCHITECTS

Hydraulic, Electrical, Mechanical and Municipal Engineering. Steel and Reinforced
Concrete Construction. Arbitrations, Estimates and Reports.

31, 32, 33, 34 WILLIAMS BUILDING, VANCOUVER, B. C.

WINNIPEG CALGARY VANCOUVER
THE JOHN GALT ENGINEERING COMPANY, LTD.
 CONSULTING CIVIL ENGINEERS
 SPECIALISTS IN ALL KINDS OF MUNICIPAL
 ENGINEERING WORK
 Waterworks, Sewerage, Electric Lighting, Steam and Water Power,
 Concrete Construction.
 JOHN HADDIN E. L. MILES

MATHER, YUILL & CO., LIMITED
 CONSULTING AND CONTRACTING
 ENGINEERS
 Design and Construction of Complete Power, Lighting
 and Pumping Plants for all Municipal and Industrial
 Purposes
 810 London Building, VANCOUVER, B.C.

CHARLES M. JACOBS, J. V. DAVIES, JAMES FORGIE
 Members Inst. C. E., Can. Soc. C. E., Am. Soc. C. E.
JACOBS & DAVIES, INC.
 CONSULTING ENGINEERS
 MONTREAL. LONDON, NEW-YORK
 Foundations, Subaqueous and Land Tunnels, Subways, Railways, Harbours, Water
 power Development, Examinations, Reports Montreal Office: Eastern Township Bank Bldg

FAIRCHILD, JONES & TAYLOR
 CONSULTING ENGINEERS
 AND LAND SURVEYORS.
 STEAM AND ELECTRIC RAILWAYS. ELECTRIC AND WATER POWER
 SEWERAGE AND WATERWORKS.
 LAND, TIMBER AND MINE SURVEYS. TOWNSHIP SUBDIVISIONS.
 ROOM: 608-609 TEGLER BLOCK, EDMONTON, ALTA.

DOMINION AND SASKATCHEWAN LAND SURVEYORS
PHILLIPS, STEWART & LEE
 CIVIL ENGINEERS
 Waterworks, Sewers, Roads and General Municipal Engineering --- Subdivisions
 25-28 CENTRAL CHAMBERS SASKATOON, SASK.

TELEPHONE ENGINEERS

SAMUEL G. McMEEN KEMPSTER B. MILLER
McMEEN & MILLER
 ELECTRICAL ENGINEERS
 PLANS ESTIMATES REPORTS
 Investigations of Public Service Systems of Telephones,
 Electric Light, Power and Gas.
 1454 Monadnock Block, CHICAGO. 333 Grant Avenue, SAN FRANCISCO

FRANCIS DAGGER
 TELEPHONE ENGINEER & EXPERT
 1905. Technical Adviser to Select Committee on Telephone Systems, Ottawa
 1906-7. Expert to Government of Manitoba,
 1907-8. Expert to Government of Saskatchewan.
 21 Richmond Street W. TORONTO

EDWARD E. CLEMENT
 ATTORNEY AND COUNSELLOR AT LAW
 Solicitor of Patents.
 ELECTRICAL EXPERT
 MCGILL BUILDING WASHINGTON, D. C.

Engineers — And

Tramways.

The tramway system should follow the main avenues and as far as possible each route should be linked up one with the other to form easy and suitable means of transit for the public to and from every part of the city. It should be arranged so that new lines could be constructed as the development of the town in a particular district required, yet be part of what would ultimately become a completed scheme.

The tramway system in Vienna is an admirable one. It has been described as follows: "The trams circle round the Ringstrasse, and the outgoing routes branch off like the spokes of a wheel, it soon becomes an easy matter to know where to leave the hub and take the necessary spoke."

Civic Centre

The creation of a fitting civic centre is one of the most important matters which should be considered.

It should be dignified, impressive, whilst at the same time in harmony with the characteristics of the town itself, and in keeping with the resources of the public.

Its situation should be as near the centre of the City as is possible, so planned that its architectural features and beauty can be seen from many points of advantage.

The buildings usually comprised in such a centre are the town and public halls, offices, sessions courts, museum, and Art Galleries, which, suitably designed and arranged in relation to each other, can, and should form a civic centre worthy of the community.

Buildings: the space about same: the limitation of the number of Buildings per acre: their height and character.

The regulations with respect to buildings will be one of the most important parts of a town planning scheme and will need very careful thought on the part of Local Authorities.

In order to obviate overcrowding it is essential that a maximum number of houses per acre should be adopted for different grades of property.

In limiting the number per acre it should be sufficient, in the case of land that is not planned out in detail, if it be stated that the rule should be so many houses to the acre, but that the requirements of the local authority would be satisfied if the average number was obtained over a certain area with due safeguards for the space about each house not being too small. There should also be a maximum number of houses stated more than which should not be erected on any one acre.

Thus, if the number limited was 12 to the acre, the Local Authority might be satisfied if on any ten acres no more than 120 houses were built.

In residential areas the height should also be limited. Houses should not be built more than three storeys, or more than a maximum height to be defined.

It would seem desirable in planning an area that certain centres should be fixed where shops, schools, churches, institutes, and such like buildings should be grouped together.

The grading of districts and the planning out of the constituent parts which build up a City is an important consideration. The higher buildings should be fronting on the main arteries gradually grading back to the residential property. Stores and offices will, of course, be placed along the main thoroughfares, and workmen's dwellings as close as possible to the factories in which the working people are employed.

what they are doing

The main avenues should be laid out with 12 feet sidewalks, slow traffic carriageways next sidewalks, and boulevards on either side of a centre carriageway for fast traffic and tramways.

The secondary business avenues should have sidewalks of a minimum width of 10 feet with a centre boulevard with wide grass margins, so that the actual paved carriageway can be widened as the business of the city extends.

In main and secondary business thoroughfares provision should be made for laying all sewer, water, electric and other mains in underground conduits of sufficient size to allow of proper inspection at all times. The advantages of this method are:

1. The pipes being open to inspection at all times, leaks can be more easily located and repaired;
2. The traffic is not inconvenienced by frequent openings for repairs;
3. The enormous annual expense of opening trenches is saved;
4. The surface of the carriageway, which soon becomes uneven if many trenches are made, retains an even contour.

The residential avenues can be so formed that the sidewalks have a boulevard on either side, which will provide space for pedestrians in the hot weather.

Railways, usually an ugly feature of every city, should be made less objectionable by boulevarding.

Open spaces, Parks and Recreation Grounds.

In locating open spaces, and parks, special consideration should be given to the preservation of places of natural beauty, such as woods, waterways, etc.

With the checkboard system of planning, a large amount of valuable ground is often wasted in the unnecessary provision of paved streets and passages. By carefully planning the main and secondary avenues, through traffic can be avoided and residential districts can be laid out in a far less costly manner, part of the space occupied by paved streets being utilized for open spaces, tennis courts, and children's playgrounds.

Where individual gardens are not wanted, part of the land between the houses might be laid out as allotment gardens, or as gravel playgrounds, or as paved playgrounds, to prevent a lot of derelict gardens being attached to the houses.

People's Parks are universally provided in Europe within or close to the city's gates, namely a large woodland garden or forest intersected by drives and walks, and interspersed with spinnies and glades typical, as far as possible, of rural country.

It is the duty of every city to provide as early as possible, and before development makes the price of land prohibitive, suitable parks within easy access of the public.

Country life is acknowledged to be more healthful, more restful, more natural and less wearing than that of town. It should therefore be the aim of town planners to introduce into the home life of the worker conditions as far as possible which are common to the country, viz:—quiet, the absence of distracting sights, sounds and influences, and the introduction of works of nature.

It has become a very general rule in making arrangements for the development of land on modern lines in Great Britain to stipulate that one acre in ten shall be set aside as public, or semi-public open spaces, this in addition to limiting the number of houses per acre.

J. M. ROBERTSON, LIMITED

CONSULTING ENGINEERS

Mechanical, Electrical, Hydraulic, Steam Gas.

Plans, Specifications, Estimates, Tests, Reports, and Supervision.

SUITE 101 BOARD OF TRADE BUILDING, MONTREAL, QUE.

ALEXANDER POTTER, C.E.

SPECIALIST IN

HYDRAULIC AND SANITARY ENGINEERING

WATER SUPPLY AND PURIFICATION. SEWERAGE AND SEWAGE DISPOSAL.
WATER AND ELECTRIC POWER.

Special Facilities for the Sanitary Investigation and Analysis of Water Supplies for Municipal and Manufacturing Plants.—Plans, Estimates and Specifications.

50 CHURCH STREET,

NEW YORK CITY

C. R. YOUNG

B. A. SC., A. M. CAN. SOC. C. E.

CONSULTING STRUCTURAL ENGINEER

Steel and Reinforced Concrete Bridges and Buildings, Foundations,
Tanks, Towers and other Structures.

318 CONTINENTAL LIFE BUILDING

TELEPHONE, MAIN 3476

TORONTO

PHONE 5488

DUTCHER, MAXWELL & CO.

ENGINEERS AND SURVEYORS

319 Pender Street W.,

VANCOUVER, B. C.

BRANCH OFFICE: CALGARY, ALTA.

Telephone Main 2560

T. AIRD MURRAY

M. CAN. SOC. C. E.

Consulting Engineer to the Saskatchewan Government, and Municipal Consulting Engineer for Sewerage—Sewage Disposal—Water Supply and Purification.

303 LUMSDEN BLDG., TORONTO, CAN.

BOWRING & LOGAN

CONSULTING ENGINEERS

MUNICIPAL POWER PLANTS

332 DONALD ST

WINNIPEG, MAN.

R. G. Austen

E. M. Chapdelaine, P.L.S.

AUSTEN & CHAPDELAINÉ
ENGINEERS, CONTRACTORS & LAND SURVEYORS

Dams, Waterworks, Sewers, Roads, Surveys
Subdivisions, Timber Limits, Etc.

New Birks' Building,

MONTREAL

MURPHY & UNDERWOOD

CONSULTING ENGINEERS

SASKATOON, SASK.

"SPECIALISTS IN ALL MUNICIPAL WORK"

A. A. MURPHY, B. SC.

ELECTRICAL

AND

MECHANICAL ENGINEER

J. E. UNDERWOOD, D.L.S.

A. M. CAN. SOC. C. E.

SASK. LAND SURVEYOR AND

CIVIL ENGINEER

CHARLES H. KEEFER, C.E.,
Consulting Engineer

THOS. C. KEEFER, JR.,
Late Lieut. Royal Engineers

KEEFER & KEEFER

CIVIL ENGINEERS

Reports and Construction Water Powers, Waterworks, Sewerage, Bridges and Railways
METROPOLITAN BUILDING, OTTAWA, ONT.

CHARLES BRANDEIS, C. E.

A. M. CAN. SOC. C. E.

CONSULTING ENGINEER
TO PROVINCIAL GOVERNMENT, MUNICIPALITIES, ETC.

Estimates, Plans and Supervision of Hydraulic and Steam Electric Light, Power and
Railroad Plants, Waterworks and Sewers. Arbitrations, Reports and Specifications.
4 PHILLIPS PLACE - - - MONTREAL

SMITH, KERRY & CHACE

ENGINEERS

HYDRAULIC, STEAM, ELECTRIC, RAILWAY, MUNICIPAL, INDUSTRIAL
W. U. Code used. Cable Address "Smithco".

TORONTO VANCOUVER BOISE (IDAHO) PORTLAND (OREGON)
CECIL B. SMITH J. G. G. KERRY. W. G. CHACE.

DE GASPÉ BEAUBIEN

B. Sc. MCGILL, Ass. M.C.S.C.E., Ass. M.A.I.E.E.

CONSULTING ENGINEER

ELECTRICAL, HYDRAULIC, MECHANICAL AND CIVIL

28 ROYAL INSURANCE BLDG., MONTREAL.

J. F. FREW

A. M. INST. C. E.

CIVIL AND MECHANICAL ENGINEER

PHONE 4698 19 FAIRFIELD BLDG.
445 GRANVILLE STREET, VANCOUVER, B. C.

A. LEOFRED CONSULTING ENGINEER
AND LAND SURVEYOR

PRESIDENT AQUEDUCTS LIMITED

REPORTS, PLANS, CONSTRUCTION
WATERWORKS, SEWERS, WATER POWERS, ETC.

QUEBEC, 39 ST. JOHN. PHONE 545

E. O. FUCE, A. M. Can. Soc. C. E.
Hon. Grad. Univ. Toronto S. P. S.

W. A. SCOTT, B. A. Sc
A.L.S., D.L.S., S.L.S.

FUCE & SCOTT

CONSULTING ENGINEERS

Sewers, Sewage Disposal, Waterworks, Roadways, Reinforced
Concrete Bridges and Buildings.

115 Seventh Ave. W., - - - Calgary, Alta.

C. G. MOON

FRANCIS SILVERTON

MOON & SILVERTON

MUNICIPAL ENGINEERS

518 HASTINGS ST. WEST VANCOUVER, B. C.

Engineers—And

In Vienna the Girdle Line or Outer Boulevard is about eight miles in length; the total width between buildings is 248 feet. A separate trip of the road is set apart for the tramways and fast traffic; a continuous recreation ground or playing space is included in the scheme, well planted with trees to provide shade during the hot season.

Another circumferential avenue in Vienna is the Ring Street or Hub, 178 feet wide. It has a central carriage-way 41½ feet wide, which is principally used by fast and through traffic vehicles. On either side are the tramways on the electric conduit system. A riding track and a promenade for foot passengers occupy the spaces between the trees, and slow and stopping vehicles find accommodation on the two outer roads.

These circumferential routes which connect up the various parks and open spaces are largely used by residents, motorists and cyclists as circular drives.

The layout and construction of Avenues and Boulevards.

It must be born in mind that all objects in the street, utilitarian or otherwise, are things to be seen, part of an organic whole, each having their respective part and place.

Athens and Rome were each crowded with such objects arranged for the most part in picturesque association. Although it will be impossible for young cities to expend much money, if any, upon beautification, beyond the planting of trees, a town planning scheme should allow for such improvements at some future date at a minimum of expense.

Long straight avenues, with buildings of approximately the same height and no object to break the horizon should be avoided. If natural scenic effect cannot be obtained, then provision should be made for some architectural feature to break the skyline. By careful planning it can generally be arranged to place a church, a public building, or artistically designed residence to break the monotony of long streets.

In Germany this branch of town planning is given careful consideration, and long avenues are usually broken by means of "squares" so that the line of sight will be met by a building, the architecture of which, has been previously approved by the local authority.

In planning out the widths of main roads it is difficult to estimate what the future will demand, but in any case it will be better to err on the wide side rather than the narrow.

The various types of streets usually required in a city are:

- (a) Main business avenues with provision for tramways and boulevards; width from 100 to 200 feet.
- (b) Secondary business avenues without provision for tramways; from 80 to 150 feet.
- (c) Semi-residential avenues with provision for tramways, side and centre boulevards; from 80 to 120 feet.
- (d) Semi-residential avenues without provision for tramways, but with side and centre boulevards; from 80 to 100 feet.
- (e) Residential avenues without provision for tramways, but with side and centre boulevards; from 60 to 80 feet.
- (f) Secondary residential avenues with carriageways to take local traffic only, with side boulevards and an established building line of 30 feet; from 40 to 60 feet.

what they are doing

Restrictions of Factories and Works to special areas.

It is very desirable in a Town Plan that the position of these should be fixed and the people should not be allowed to place them where they like.

There will nearly always be natural places in a district which will be suitable for factories and workshops. Contiguity to the railway, easy gradients to same, and the position of the rivers, canals and streams should govern this in most cases.

It is usually accepted as an established fact that factories are unsightly, with untidy and dirty surroundings, but in many places, particularly in Bourneville in England, the headquarters of Cadbury's Factory, the reverse is the case. The whole of the surroundings of the factory, and the workers' houses adjoining are laid out on garden city lines, and is a model of what can be done to make a factory district more amenable than is generally the case.

INCINERATOR AT MOOSE JAW, SASK.

Official Tests

Date of test.....	25th & 26th July	31st July
Duration of test.....	24 hours	8 hours
Grate area.....	90 sq. ft.	90 sq. ft.
Heating surface of boiler.....	1700 sq. ft.	1700 sq. ft.
Ratio of heating surface of boiler to grate area.....	18.8:1	18.4:1
Average steam pressure.....	125 lbs sq. in.	134.4 lbs. sq. in.
Average temperature of feed water.....	45° F.	45° F.
Average temperature of combustion chamber.....	1750° F.	1822° F.
Highest temperature of combustion chamber.....	2000° F.	2060° F.
Lowest temperature of combustion chamber.....	1400° F.	1600° F.
Weight of refuse burned.....	53.51 tons	14.16 tons
Weight of residual clinker.....	11.625 tons	2.85 tons
Percentage of clinker.....	21.73%	20.1%
Refuse burned per hour.....	2.23 tons	1.72 tons.
Refuse burned per square foot grate area (per hour).....	49.6 lbs.	39.3 lbs.
Total weight of water fed to boiler.....	59,700 lbs.	31,845 lbs.
Equivalent weight of water from and at 212° F. fed to boiler.....	*72,655 lbs.	42,562 lbs.
Water evaporated per hour.....	*2,487 lbs.	3,891 lbs.
Equivalent water evaporated from and at 212° F. per hour.....	*3,027 lbs.	5,445 lbs.
Horse power developed (34½ lbs. water evaporated per hour into Steam from and at 212° F. 1 Horse Power.).....	*97.6 H.P.	157.8 H.P.
Water evaporated per lb. of refuse.....	*56 lbs.	1,125 lbs.
Water evaporated from and at 212° F. per lb. of refuse.....	*68 lbs.	1,368 lbs.
Cost per H.P. per hour.....	*1.154 cents	.77 cents.
Cost per ton of refuse destroyed.....	51.8 cents	68.8 cents.
Actual amount of steam available for power per lb. of refuse.....	*44 lbs.	.97 lbs.
Analysis of gases.....	CO ₂ CO O N	CO ₂ CO O N
(Average percentages).....	8.4 .1 3.5 86.2	10.2 1.6 3.4 86.6

*The low evaporation per pound of refuse burned is accounted for by the fact that the safety valves were unable to carry away all the steam generated. The door of the first compartment of the boiler being kept open the greater portion of the first test, allowing cold air to rush in and cool down the gases. During this test the steam rose considerably above blowing off pressure, so this was done to avoid any danger caused by an excess pressure being generated on the boiler. Provision was made to carry away the excess steam generated and a second test was carried out to determine the evaporation per pound of refuse.



FREDERICK G. TODD
LANDSCAPE ARCHITECT
 MUNICIPAL PARK SYSTEMS AND TOWN PLANNING
 Birks Building, MONTREAL.

RICKSON A. OUTHET
LANDSCAPE ARCHITECT
 Fel. Am. Soc. Landscape Architects
 PLANS FOR CITY DEVELOPMENT AND LAND SUBDIVISIONS.
 Beaver Hall Hill, MONTREAL.

DUNINGTON-GRUBB & HARRIES
LANDSCAPE ARCHITECTS
 Consultants on all matters relating to Park and Garden Design, Real Estate and Suburban Development, Civic Art and Town Planning.
 24 Adelaide St., East - - TORONTO.

LEONARD E. SCHLEMM
LANDSCAPE ENGINEER
 Consultant on Landscape Engineering in connection with all matters relating to Town Planning
 43 ST. FRANCOIS XAVIER ST. MONTREAL

GUY WILFRID HAYLER
Landscape Architect, Town Planner and Municipal Engineer
 Member, Institution of Municipal Engineers Member, Royal Sanitary Institute
 Exhibitor, Royal Academy International Town Planning Exhibition.
 Town Planning in all its branches, Real Estate, Civic and Suburban Development
 384 Notre Dame Avenue, WINNIPEG, MANITOBA

BURNETT & MCGUGAN
 (Successors to GEOFFREY & BURNETT)
 CIVIL ENGINEERS AND B.C. LAND SURVEYORS
 PLANS, SURVEYS, REPORTS.
 NEW WESTMINSTER, BRITISH COLUMBIA
 P. O. BOX 886

LIGHTING ENGINEERS

P. MORTON-WRIGHT
ILLUMINATING ENGINEER
 16 University Street MONTREAL.

The Canada Iron Corporation, Limited

CAST IRON PIPE

SUCCESSORS TO:

Canadian Iron & Foundry Co., Limited
Canada Iron Furnace Co., Limited
Annapolis Iron Co., Limited
John McDougall & Co., Drummondville

Head Office : Montreal, P. Q.

Iron Ore, Pig Iron, Car Wheels, Cast Iron Water and Gas Pipe, Specials, Valves, Hydrants, Etc. Castings of All Kinds.

The Canadian Bridge Co., Limited

WALKERVILLE, ONT.

Manufacturers of Railway and Highway Bridges

Locomotive Turn Tables, Roofs, Steel Buildings, and Structural Iron Work of all descriptions.

SEWER PIPES

CHIMNEY TOPS
FLUE LININGS
WALL COPINGS
Ask for Price Lists
and Discounts



SALT-GLAZED and VITRIFIED
True to size
Impervious to water
Will never disintegrate

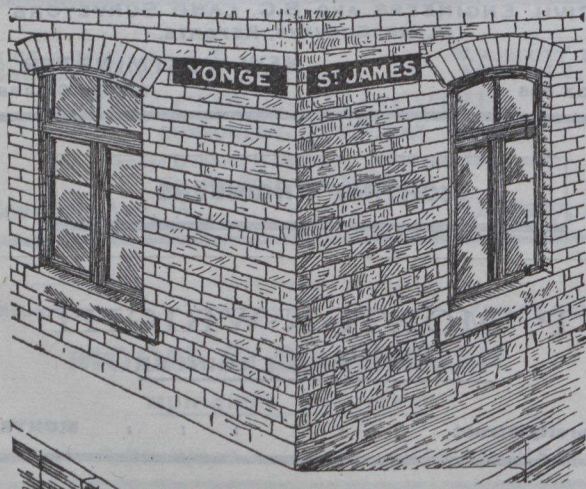
Sizes manufactured and always
in stock, 4 in. to 24 in.

TELEPHONE (Toronto connection) P - RK 1809
Post Office: SWANSEA

Works and Office:
SWANSEA, near Toronto

THE DOMINION SEWER PIPE CO., Limited

The INDEPENDENT
COMPANY



The Principal Cities in Canada
are using our

ENAMEL STEEL STREET NAMES AND HOUSE NUMBERS

THEY LAST A LIFETIME

MADE IN CANADA BY

The THOS. DAVIDSON MFG. Co., Limited

Selling Agent, J. N. WARMINTON,

207 St. James St., Montreal, Que.
Write for prices and samples

Can a Stranger find his way around your City or Town
without difficulty?
Are all Streets named and houses numbered up to date ?