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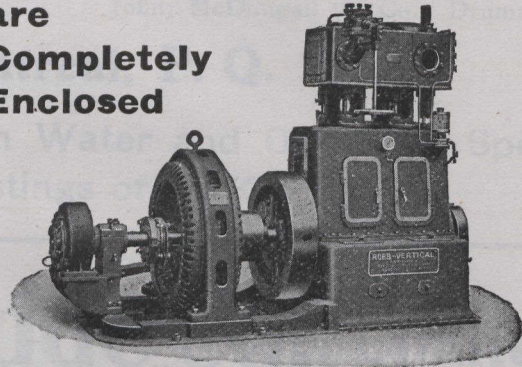
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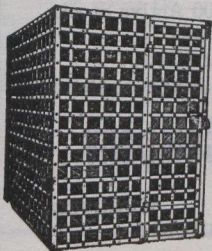
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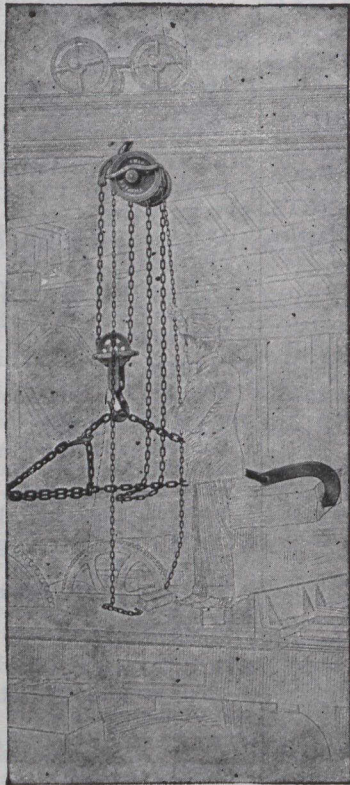
# The MODERN PRINTING COMPANY

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## BUYERS' DIRECTORY.—Conti nu ed

- ILLUMINATING ENGINEERS.**  
Morton-Wright, P.
- INCINERATORS.**  
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Can. Wire & Iron Goods Co.
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Waterous Engine Works Co.
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ALPHABETICAL INDEX OF ADVERTISERS

	PAGE		PAGE		PAGE
Ambursen Hydraulic Cons. of Can.	326	Dunnington-Grubb & Harries	339	Naugle Pole & Tie Co.	324
American Bank Note Co.	332	Dutcher, Maxwell & Co.	337	Northern Electric & Mfg. Co.	308
Aqueducts, Limited	336	Fairchild, Jones & Taylor	338	Office Specialty Co.	309
Austen & Chapdelaine	337	Francis Walter, J. & Co.	335	Outhet, R. A.	339
Babcock & Wilcox, Limited	309	Frew, J. F.	336	Partridge Dyer Lumber Co.	324
Bank of Montreal	329	Fuce & Scott	336	Paterson Manufacturing Co., Limited	320
Bank of Ottawa	331	Galt, Eng., Co., The John	338	Phillips Electrical Works, Eug. F.	307
Bayfield & Archibald	334	Gladwell, Wilson & Co.	326	Phillips, Stewart & Lee	338
Beaubien, DeGaspe	336	Higman & Doctor	335	Potter, Alexander	337
Bellis & Morcom	333	Haylor, Guy Wilfrid	339	Robb Engineering Co.	306
Bowman & Conner	327	Imperial Bank of Canada	331	Robertson Limited, J. M.	337
Bowring & Logan	337	Imperial Wire & Cable Co.	308	Roman Stone Co., Limited	327
Brandies, Charles	336	Isdale, John S.	335	Ross, H. J.	327
Brent, Noxon & Co.	330	Jacobs & Davies	338	Ross & Co., R. A.	334
Brit, Insulated & H. Cables Ltd.	324	Keefer & Keefer	336	Royal Bank of Canada	329
Brit, Insulated & H. Cables Ltd.	324	Kellogg Switchboard & Supply Co.	305	Saint-Cyr, J. B.	334
Burnett, Geoffrey K.	339	Laurie & Lamb	334	Sask. Well Drilling Co.	306
Canada Cement Co. . . . . Cover Page	2	Lea, R. S. & H. S. Ferguson	335	Schlemm, Leonard E.	339
Canada Iron Corporation	340	Lighthall & Harwood	327	Smith, Kerry & Chace	336
Canadian Bank of Commerce	329	London Concrete Machinery Co. . . . . Cover Page	4	Standard Underground Cable Co., of Canada	324
Canadian Bridge Co., Ltd.	340	Leofred, A.	336	Stein Co., W. T.	324
Canadian British Insulated Co.	324	Martin & Co., Jos. R.	326	Surveyer & Frigon	334
Canadian Fairbanks-Morse Co.	308	Mather, Yuill & Co.	338	Todd, Frederick G.	339
Canadian Wire & Iron Goods Co.	307	McLaren Belting Co., J. C. . . . . Cover Page	4	Topp, Charles H.	334
Can. Independent Telephone Co., Limited	323	McMeen & Miller	338	Trussed Steel Concrete Co.	330
Can. Inspection & Testing Laboratories	335	McCulloch, A. L.	334	Valentine-Clark Co.	324
Carswell Co., The	326	McIntosh & Hyde	309	Warmington, J. N.	340
Carritte-Paterson Manfg. Co.	320	Merchants Bank of Canada	329	Waterous Engine Works Co., Limited	309
Cartwright, Matheson & Co.	335	Modern Printing Co.	307	Wood, Gundy & Co.	332
Chipman & Power	335	Moon & Silvertown	336	Wright, P. Morton	339
City & District Savings Bank	330	Morrison & Co., T. A.	327	Young, C. R.	337
Cleveland Br. & Eng. Co. . . . . Cover Page	4	Murphy & Underwood	337		
Clement, E. E.	338	Murray, T. Aird	337		
Cleveland & Cameron	334	Mussens, Limited. . . . . Cover Page	3		
Dagger, F.	338				
Davidson Mfg. Co., Ltd., The	340				
Dietrich, Limited	333				
Dominion Bridge Co., Limited . . . . . Cover Page	4				
Dominion Securities Corporation	337				
Dominion Sewer Pipe Co., Limited	340				
Dominion Wood Pipe Co.	306				



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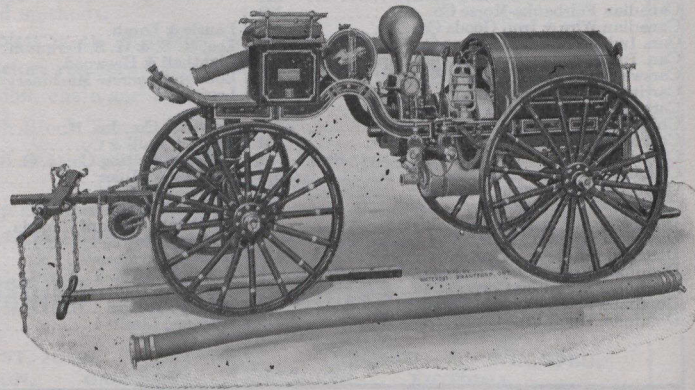
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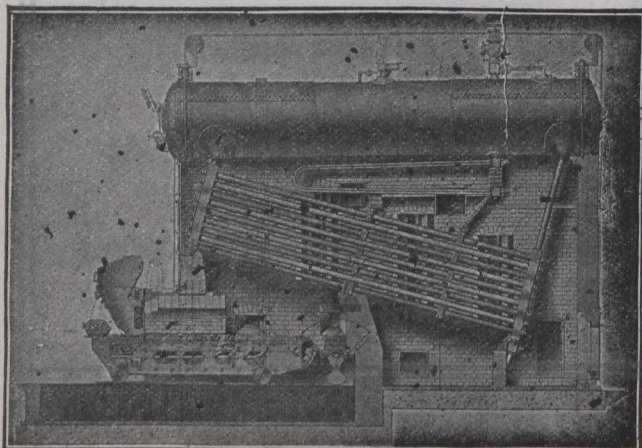
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Protect your town from fire loss with a Waterous Gasoline Fire Engine. Built in sizes from 500 to 800 gallons per minute pumping capacity. They cost little to buy, less to maintain, and will pump full capacity in any temperature. Over 600 hundred sold in the towns of United States and Canada are the best proof of its merits. . . . .

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FOR CANADA

Branch Office: TRADERS' BANK BUILDING, TORONTO

# THE CANADIAN MUNICIPAL JOURNAL

AND REVIEW OF CIVIC IMPROVEMENT

HARRY BRAGG, EDITOR

## Impressions of the Convention

According to the rule that the Conventions of the Union of Canadian Municipalities should be held in Eastern, Western and Central Canada, with two turns to the middle parts, as more accessible for all, the 13th Annual Convention was held this year in Saskatoon, Sask. The usual date was changed from August to July in deference to the wishes of Toronto who hoped, if the change of date could be made, to have sent up the whole City Council.

While two Conventions have been held in the West, one in Winnipeg, Man., eight years ago, and one in Medicine Hat and Calgary, Alta., four years ago, this was the first to meet in the Province of Alberta.

Arrangements were made for a private car from Montreal, but several who had promised to go, failed to appear and only sixteen left Montreal on the Wednesday, 9th July.

Of the warm welcomes extended by the cities at which we stopped on the way to Saskatoon and after the Convention, full details will be found elsewhere. Suffice it to say that, as on previous occasions, the comradeship of men working in the municipal field was again evident; while the well known Western hospitality was acknowledged by the visitors from the East.

One very delightful impression was the great progress made by every place since our last visit four years ago, and the solid basis upon which municipal work is being carried on. New buildings of substantial character; numerous dwellings of all kinds, owned for the most part by the occupants; wide streets, well paved and lighted, and boulevarded in the residential sections; municipal ownership, not only existing but flourishing; policemen wearing ribbons that told of military or naval service, and the cross of St. John which told of their ability to render "First Aid to the Injured;" Industrial and Publicity Commissioners showing that the Western cities are sensible, and know that even a city can be increased by business methods; school buildings which put those of the East to the bush, and equipped for technical training of both boys and girls.

Such are some of the impressions that crowd the mind of those who, in less than a month, travelled over six thousands miles, and yet did not nearly touch either the Western and Eastern parts of the great Dominion.

One thought voiced by Mayor Lavallee was evident, we were not English, nor French Canadians; we knew no East nor West; but Canada, and Canadians, speaking either French and English.

And of that wonderful Railway over which we travelled, what can be said? Looking back to the time not half a century ago, when the prairies knew nothing but the Red Indians chasing the herds of buffalo, and civilization was only seen in the scattered forts of the Hudson Bay Company, the courage of the men who believed that the Canadian Pacific Railway would ever pay, even for axle-grease, seems enormous. Today the prairies are dotted over with lines, and because one line

has demonstrated the possibilities others are following—in many places far too closely.

One continual testimony of not only the success of the C. P. Ry. Company but of its constant endeavour to keep pace with the development of the country, and to provide safe and easy transportation, was the lines of work trains, and camps of workmen, incessantly seen on our route. Double-tracking was in constant evidence, while alterations in the line, so as to save curves and grades, were seen at every point; while the splendid motto held by the Company before its men, "Safety First," was distinctly to the front. One of our party, too, was able to tell us of the wide spread training of employees in the admirable work of St. John Ambulance Association, the Company now having a special official, whose sole duty it is to supervise this life-saving branch of their varied lines of work.

Many of the station yards are made spots of beauty by the Floral Department of the Railway Company which supplies any employee with flower seeds and bulbs, and not only is the eye of the passenger pleased with the bright gardens, but the employees are kept from the mischief often brought by the lack of a hobby.

Another interesting feature was the planting of rows of trees to replace the snow fences in many places.

As Canadians, we felt justly proud of a Company which has done such enormous work in making the Great West a place in which the enterprising men can grow bread for the world.

At Calgary, we came in touch with the Land Department, itself a huge industry, handling no less than three million acres of irrigated land alone near Calgary.

One matter that attracted attention was the regulation of traffic in the Western cities. Policemen in duty at the intersections of the streets were seen in almost every place and—good it was to see—their signals were all promptly obeyed by the numberless motors, as well as by streets cars and horse vehicles.

Did we notice the Western enthusiasm? Certainly, and understood how a man must needs be optimistic to extreme with all the wide-spread possibilities around him, and the great hemisphere of sky above him. No wonder the West is optimistic. No one who has never seen the West can understand it. A Canadian does not know his own country until he has been West,—day after day—travelled through the great open prairies; and then, through those monumental works of the Great Creator, reached the blue Pacific.

And of what value was the Convention itself?

Its object is a grand one. To study how to make conditions of life in Canada better, so that Canadian citizens can live more comfortably and that the rising race may be better citizens, morally and physically.

And the journey and the Convention made every man more wise and practical to do his duty, and more determined that Canada should be governed well.



# THE CANADIAN MUNICIPAL JOURNAL

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ASSOCIATION.

CHIEF CONSTABLES' ASSOCIATION OF CANADA.

MONTREAL, AUGUST 1913

### CONTENTS

	PAGE
MUNICIPAL AUDITING.....	313
ELIMINATING THE SLUM.....	314
W. Bowman Tucker, M. A., Ph. D.	
CITY PLAYGROUNDS IN REGINA.....	318
N. A. Ruse, Regina, Sask.	
REVIEW OF CIVIC IMPROVEMENT.....	316
IMPRESSIONS OF THE CONVENTION.....	311
THE TRIP TO THE CONVENTION.....	321
Civic Notes.....	326
Editorials.....	311
Engineering News.....	334
Equipment and Engineering.....	322
Financial Notes.....	332
Financial Echoes.....	330
Telephone News.....	323

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### Why They Were There

"I am here gentlemen," explained the pickpocket to his fellow prisoners, "as the result of a moment of abstraction."

"And I" said the incendiary, "because of an unfortunate habit of making light of things."

"And I" said the forger, "on account of a simple desire to make a name for myself."

"And I" added the burglar "through nothing but taking advantage of an opening which offered in a large mercantile establishemnt."—New York Call.

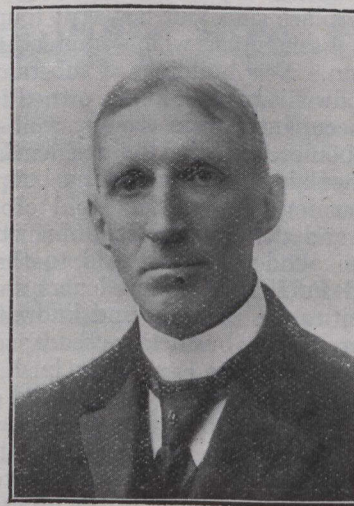
### AN INTERNATIONAL ASSOCIATION

"Garden Cities and Town Planning," which is the organ of the Garden Cities and Town Planning Association of Great Britain, has the following announcement in the last May issue:

"As a result of the enormous amount of correspondence relating to Town Planning and the Garden Cities in different parts of the world and the formation of various associations in different countries to deal with the propagandist side of these movements, an International Garden Cities and Town Planning Association has been formed. For the present the Offices will be at 3 Gray's Inn Place, London, W.C., and Mr. Ewart G. Culpin will act as Hon. Secretary. Already a number of organizations dealing with these important matters have intimated their willingness to join such an international movement, and it is proposed to have periodical conferences in the various countries represented in the membership.

"During the last two months over two hundred requests have been received from different parts of Europe, Asia, Africa, America and Australasia for information on civic matters. These have in the past been dealt with by the Garden Cities and Town Planning Association, but the growth of the work both in Great Britain and abroad necessitates the promotion of the new Association in order to link together the various bodies that are being formed in different parts of the world.

"Among the countries represented by these enquiries are the United States, France, Germany, Russia, Poland, Hungary, Austria, Rumania, Sweden, Belgium, Holland and Spain; each of the States of Australasia and South Africa and the Canadian Provinces; India and Burma; and Trinidad."



MAYOR F. P. BLYH  
Halifax, N.S.

The newly elected

**PRESIDENT**

OF THE

**UNION OF CANADIAN**

**MUNICIPALITIES**

## Municipal Auditing

The great importance of having municipal accounts properly audited has often been insisted on in these columns, and we feel that the subject is of such vital importance that it can hardly be discussed too often.

There are two very pronounced sources of weakness in municipal accounts.

First, in the small municipalities, local men are appointed whose sole qualification too often is friendship with the Councillors; indeed, there may easily be no men obtainable who are practical bookkeepers; and then the remuneration is so small that little time can be afforded even by competent men to keep the accounts.

Second, in the larger places there is a tremendous increase not only in the actual volume of work, but also in the varied lines now undertaken by the municipalities, and the consequent number of different accounts. This increase too often overwhelms the Treasurer, who was perfectly competent to keep what really amounted to a cash account, but who is baffled by accounts for Local Improvements, Electricity, Street Railways, Waterworks, and other developments of municipal activity.

The report of the Provincial Municipal Auditor of Ontario, reviewed recently, proves the leakages which result from the lack of proper municipal auditing, and which are often revealed too late to rectify them when an audit for several years is undertaken.

The experience of the City of Calgary, Alta., should be of the greatest interest to every municipality in Canada.

Calgary is one of the cities of wonderful growth. From a tiny village, Calgary has developed into a large and active city, and as the population has increased, the work of municipal bookkeeping has grown in a natural way; but the inception of municipally owned public utilities has caused an increase in work far beyond that due to the increase in population.

Like every live city, Calgary has witnessed much criticism of its elected Council and this body has been changed often.

Recently, the question of having the City's books audited by expert accountants was mooted and it was decided to have this done. The well-known firm of Macintosh and Hyde (which, by the way, is the oldest firm of accountants in Canada) was retained to make a thorough audit.

This firm made an exhaustive enquiry and the report is a very voluminous one and its tenor bears out what is said above, that the office staff failed to keep pace with the increase in volume and varied lines of the work, although there was an evident desire to do so.

"There is evidence," says the report, "that the accounting ability in the Treasurer's department has fallen short of the necessary standard, although the tendency has been towards improvement," but "the work outgrew the system and organization in both volume and importance."

The fact that many vouchers were missing, as a consequence of lack of space and of a fire, points out the vital necessity of having ample space, and fireproof protection for keeping public documents.

But the report does not simply point out that the system was weak, it shows how various sums of money have been lost to the city. It shows that the public utilities have not been paying such great profits as was claimed, because proper charges were not made against

them; that the general fund has been charged with amounts properly belonging to waterworks, electric light and street railway.

While the amount of the sinking fund was below what it ought to be, yet now there is an excess of over a hundred thousand dollars.

One important point—and this affects very many places—is the failure to charge up the money lost by discount in selling debentures below par, to the proper fund. Thus in Local Improvement work, the City, by meeting the discount in the price realized, pays what should be charged to the proprietors benefiting by the work.

As to depreciation, the auditors found that in the waterworks, no depreciation had been charged at all prior to 1912. This, it is claimed, was due to the fact that the system was losing money. But the auditors are quite correct in pointing out that this should be rectified. They suggest that about \$500,000 should be provided to make this right, and that either the water rates should be increased, or meters installed.

Another too frequent error is present in the large amount of uncollectable taxes, and this is pointed out by auditors. A complaint is also made that there is a laxity in checking the tax receipts.

The auditors express their opinion upon the management of the public utilities to the effect that they should be "charged every expense that a private company would have to pay, and that any surplus should remain for the purpose of betterment of the services or reduction of their rates." As to the former part of this recommendation, there can be no two opinions. As to whether any surplus, after reasonable rates are charged, should, or should not be used to lighten taxation, is a matter of opinion.

One curious fact brought out by the audit is that the reports of the Comptroller and Treasurer do not agree! This seems incredible, even with the lack of co-operation that is stated to be a factor in the situation.

One very satisfactory feature of the report is that—as might be expected from the firm employed—there is no scathing denunciation of the men or the methods employed. It is a dignified criticism of the situation, followed by carefully considered recommendations as to how improvements can be made.

The only ugly episode connected with the finances, that of an ex-employee being sued, is passed over without any criticism.

The auditors have fully explained the situation and pointed out what should be done. It is up to the Council to appreciate the one and carry out the other.

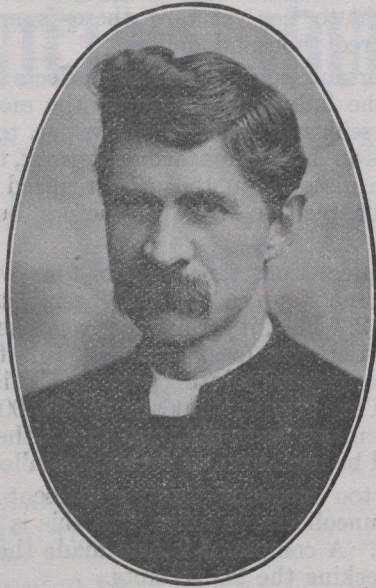
A corollary of the report would be that fewer changes should be made both in the election and appointed offices. A longer term of office for the Council is advisable. Great care should be exercised in engaging the best men; they should be given good salaries, and made fully responsible.

The moral of the Calgary audit is that it pays every municipality to have expert auditors. The audit cost Calgary a good sum of money, and it would have been much cheaper to have had the services of Messrs. McIntosh and Hyde annually for the past ten years than to have had them crowd ten years' work into one, and find out many things too late.

The foundation of all municipal work is financial, and the sooner municipalities realize that the proper condition of this foundation is most important, the better.

## Eliminating the Slum

How the Montreal City Mission is attempting it



W. BOWMAN TUCKER, M.A., Ph. D.

The Montreal City Mission proceeds upon the assumption that environment and potentiality are two co-ordinating factors in the making of life. Neither effects much without the other.

That is, the worst, festering, disease breeding heap will not affect a stone because it has no life in it. It will affect the human organism and the more effectively the human organism which is most highly developed.

Let your environment be good (as in the case of good houses, broad and clean streets, parks and gardens, and a potentiality depraved and untaught will trample down the gardens, litter the streets with rubbish, and fill the house with uncleanness, untidiness and destructiveness. The person who has in him no aptitude for the slum, cleans it up and converts it into purity and health. Get the slum out of people and they will either betake themselves from the slum locality or they will clean it up and raise it out of the slum condition.

We begin then with ideas. Words are formed to express ideas; we do not first form words and then find ideas for them. In the formation and expression of ideas objects are used.

People have come to live in Montreal who previously lived in huts with clay floors and worked for thirty cents a day, and who wore the rudest of clothing. The women labored like beasts of burden and the men lounged and lazied as if they were kings of circumstances. No wonder there was poverty! And no wonder that these people can be content to live in cellars overcrowded and unsanitary.

The first thing the Mission attempts is to get these people out of their unhealthy surroundings. But how is this to be accomplished? By showing them better conditions and within the reach of people with little money. The Mission premises must furnish an object lesson. So the common wooden floors are painted. The walls are hung with pictures, mottoes and texts. The windows are clothed with curtains. Plants and flowers are introduced. A library is established. And in general things are made nice. Then comes the

lesson in cleanliness—the wash basin, soap and towel, the mirror that makes its suggestion, and then the bath tub.

After two years we can count some results. Here is a family—first found in Bronsdon Lane. It was necessary to climb stairs that were little better than a perpendicular ladder. A trap-door was lifted and it admitted one through a hole into the attic. This upper



Some future Canadian Citizens.

room with two small dormer windows and with no partition, was the home of father, mother, two children and three men boarders. The family has found it possible to move many times but a house with two flats, well furnished kitchen, bedrooms with floors scrubbed as clean as it is possible to make the unpainted floor, and front rooms looking out on a main



Two Polish Children

thoroughfare and covered with oil cloth and carpet, with sewing machine, bureau, iron bedsteads and white spreads, and with every bit of bric-a-brac which the City Mission has supplied, treasured and used—all this bears testimony to the fact that indirect methods of education are effective and people can be lifted and Canadianized.

Once during the hot summer we spent half a day in company with two Polish mothers searching for houses to let—one wanted a five roomed house, and the other



Willie and his Mother

a house with two rooms. The patience and plodding in the search were fruits of our labors in introducing visions of refinement through the Mission.

We introduced the newspaper reporters into overcrowded unsanitary places. And what was the effect? Jewish landlords read what the reporters had to say and

Galician who came here dressed in sheepskin and duck, complained during his second year that "Canada not much good country. Only send home \$300.00 to my mother." Most of us think that a pretty good saving for a year. But the young man who saved that amount did not live as we count living.

Educational processes are necessary in the matter of food and dress. Style is not merely a matter of pride, it becomes a matter of health and even manhood. Religion gives scope for the highest expression of man, but that again involves the type of thinking, and so people must be told plainly about their thoughts.

Then there comes in the question of cleanliness. The City Mission that began with boys who were utterly indifferent to dirt, took them in hand and washed them and presently created a standard of excellence. Then it introduced its bath tubs which have been used by from six to twelve persons a day, until there is a standard of housing created and these people are talking about houses that have bathrooms in them.

Perhaps this is enough to say concerning the view point of the City Mission on the slum question. In substance it is this—give a vision of the better way of housing, eating, drinking, dressing, thinking, cleaning; there will follow more intelligence in laboring, in choosing, in spending, in pleasure and recreation, and in the aims and ideals of life. Then the parents will help the children to climb up out of the gutters.



In the School Room

were mad. They reported to their many Russian and Polish tenants, and these too got mad. But there came a move on. The result is that downtown streets have fewer inhabitants, and the foreigners are spread out into the north and east where they secure more room and for less money.

It is not all a question of poverty and money—it is a question of knowing how to use money. A young

(The volume of work may be estimated by the 500 meetings held last year, and the attendance of 6099, exclusive of street services).

(The variety in raw material it seems is in the distribution of literature in : English, French, German, Italian, Greek, Syrian, Yiddish, Bulgarian, Romanian, Hungarian, Servian, Russian, Polish, Rutherian, Lettish, Lituianian, Swedish, Norwegian.—Editor).

# REVIEW OF CIVIC IMPROVEMENT

Conducted by

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

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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.

## A Good Citizen

The monument to the late Prof. L. E. Gregor, which has been secured by the Montreal City Improvement League and given to the City of Montreal, has recently been placed near the childrens' playgrounds on Fletcher's Field.

It keeps in remembrance the active assistance which Prof. Gregor gave to the cause of Civic Betterment, and to his work as an official of the League.

The epitaph, "A Good Citizen," puts tersely what Prof. Gregor was, and should act as an incentive to others to follow his example of self-sacrifice for his fellow citizens, so that they may deserve a similar tribute.

The monument, designed by Mr. Henri Hebert and carried out in the stone work by Mr. J. G. Picher, consists of an upright column of Indiana sandstone, seven and a half feet high, tapering to a crown piece which represents three conventional dolphins.

On each of the three sides is placed a bronze basin, with a jet of bubbling water, which is projected into the mouths of those using it, and dispenses with the need of the common drinking cup.

The three following inscriptions "Leigh R., Gregor, 1860-1912," "A good citizen" "Un bon citoyen," are placed, one on each of the three faces of the fountain.

A cut of the fountain appears on the following page.

## "City Clubs" and City Improvement

We have before us the latest bulletins of the "City Clubs" of Chicago, Philadelphia, Milwaukee & Kansas City.

These city clubs are business men's meeting places for daily meals, special discourses, round table conferences and active Committee work on Civic Affairs, such as City Planning, Housing, Good Government and General Civic Improvement.

Their committees get things done quickly. Business men must eat, and must have their smoke. Sub-committees thus meet at the club in the heart of the city conveniently, and while refreshing the "inner man" are also helping on the man on the street, by planning useful reforms for him and others.

We would recommend the perusal of their reports.

## Business Men and Civic Improvement.

The same day's mail brought the programme of the 40th Annual Session of the National Conference of Charities and Correction held at Seattle, Washington, July 5, 1912, and a copy of the "Nation's Business" (Vol. 1, No. 12) published by the Chamber of Commerce of the United States of America, at Washington.

A glance at the former revealed the fact that a General Sessional Meeting was entirely devoted to the relation of Commercial Organizations to Social Welfare. The papers read were "Commercial Organizations and Public Welfare, a new ally in the fight for Better Living;" "A Chamber of Commerce Militant"—"Fifteen Years Work in Cleveland;" "The rôle of Commercial Organizations in Social Welfare on the Pacific Coast;" "Harnessing the Commercial Forces of the Nation: the New National Chamber of Commerce."

Turning to the "Nation's Business" we find an example of the Conference at Seattle in action. This journal contains four large pages (14 x 10 in., three columns) under the caption "Commercial Organizations in Social Welfare,—affecting Charity, Housing, Recreation, Labor and other Conditions," another page on "The Children's Bureau."

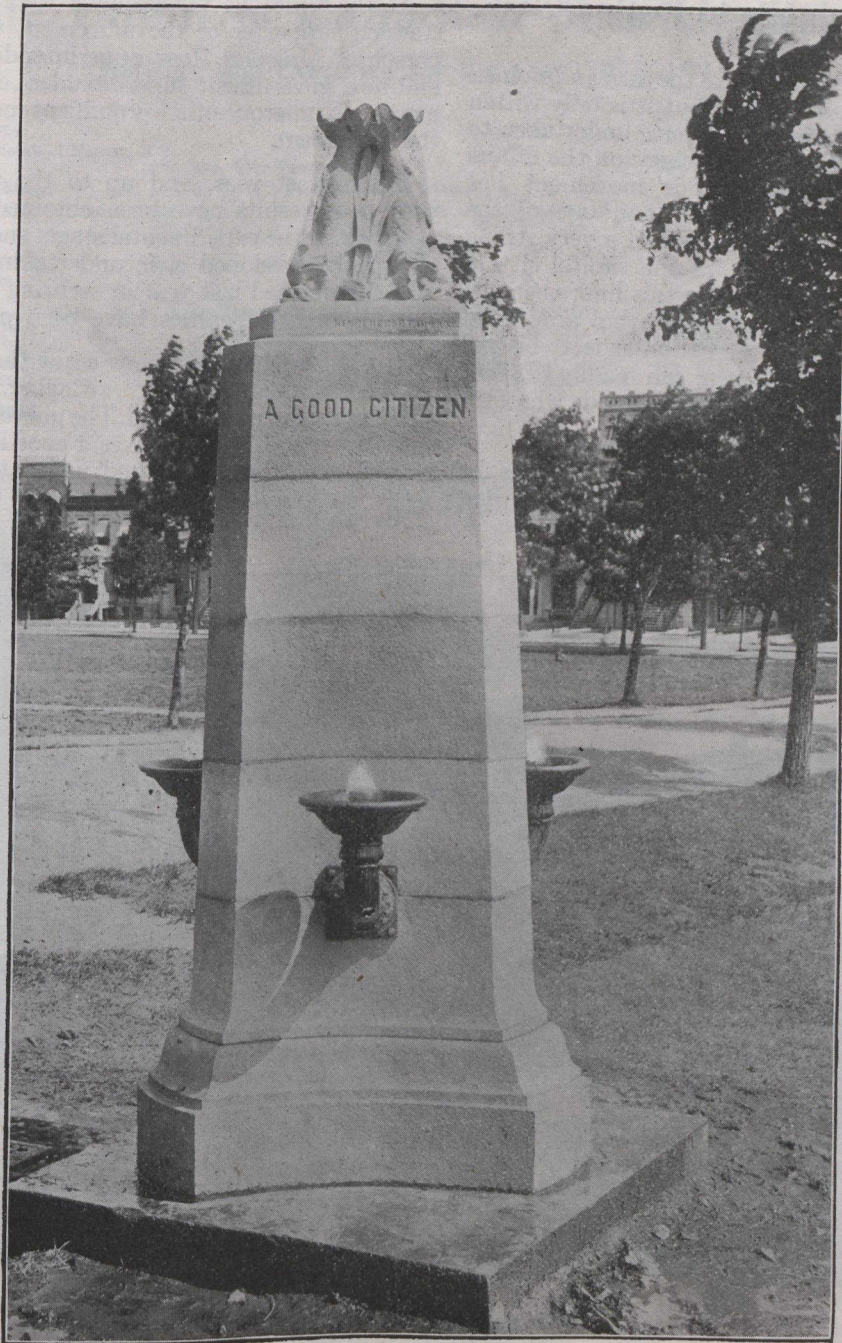
A leading article is self explanatory and offers the following thoughts for Canadian Boards of Trade. These "four pages are devoted to showing various phases of Social service and of interest in Social Welfare that are carried on by organizations, which according to the exact meaning of their names, should be devoted to business and to business alone."

"The rapid development of the City and its problems which may be said to characterize the last thirty years of American life has made it necessary that the business men, themselves leaders in the Community, shall undertake to guide the development along the higher lines of Community needs, while still attending carefully to commercial and material needs."

Our own Canadian bodies of business men, such as the members of the Chambers of Commerce and Boards of Trade show great interest in civic Improvement. All honour to their attempts to upbuild the new country.

## Summer School of City Planning

At the Hampstead Garden Suburb, August 2nd to 16th, is being held the Second Annual Summer School of Town Planning. It is too late for Canadians to go this year, but there will likely be another next year about the same time and we wish to warn beforehand our readers and others who may find themselves bound next year for the other side, to bear in mind the prospect of "A 'happy 'olliday on 'Ampstead 'Ealth" next year. The programme is a most attractive one, the places to be visited from it most instructive, and the social amenities of a Summer School itself alluring. But it is no use crying over spilt milk.



He did not gather up enormous wealth;  
 No crowded factories owned his powerful hand;  
 No Merger's watered stock enriched his life;  
 No Real Estate boom stained his simple mind.  
 He only strove to see that others shared  
 The simple comforts of a humble home;  
 That little children had their rights restored,  
 To play and prosper in God's light and air;  
 The noisome slum he strove to put away;  
 The foetid yard to fill with fragrant flowers;  
 To brighten lines of toil and pennury;  
 To made this world a little better since—  
 He had lived in it. So he passed away.  
 No splendid funeral his. But there remains  
 The work he did, and that shall onward flow  
 As freely as the water in the fountain,  
 While Gregor's name shall still be kept alive.

V. A. Grant.

## Children's Playgrounds in Regina, Sask.

N. A. RUSE

That boys and girls of to-day make the men and women of to-morrow is a common saying, but it is only within recent years that the municipalities have undertaken to develop strong men and women to carry on the affairs of "To-morrow." The playgrounds' movement has gained a good foothold in Canada, and one of the Dominion's Provinces where it has gained a very strong hold is Saskatchewan. Regina, as the capital city of the province, first took steps along this line; then the other cities fell into line. The benefits that are bound to accrue from such healthful recreation as is to be had on Regina playgrounds by children, can readily be seen, and the city councillors are not slow to provide whatever funds are necessary for this purpose.

It was but a couple of years ago that playgrounds for children were first mooted, but at that time the city had no means of making a grant to a Children's Playground Association. The city Act made no provision for grants to any such organization. The city councillors were of one mind with regard to the expenditure. It was therefore decided that the parks committee spend the

At the time the playgrounds were first mooted, a staunch supporter of the movement was found in the person of Malcolm Ross, superintendent of city parks, and now government superintendent of parks' improvements. Numerous other prominent men also got behind the movement.

During last year, and up to the present time this year, good results have been obtained. The work has now passed the experimental stage, and might be classed as a fully developed civic undertaking. Some trouble was experienced last year in securing good supervisors, but all such difficulties have been overcome.

Hundreds of children now enjoy the privileges afforded them of "giant striding", swinging, and the numerous other amusements provided. The photo reproduced in connection with this article gives a good idea of the number of children who make good use of the playgrounds.



A Regina, Sask. Playground, showing supervisor in charge.

necessary amount of money in having equipment for playgrounds installed in one of the city's parks and at several of the school grounds. This resulted in more than a mere grant of money to the work, it resulted in the active co-operation of five of the ten aldermen. The first year's work might be considered more experimental than otherwise, but the experiments seemed good and the work was continued. At the present time the city has a playground on almost every school ground in the city, in addition to having set aside one of the city's large parks, within several blocks of the centre of the city, for this work.

So popular has the movement become in Regina that recently a delegation comprised of representatives of the various sporting organizations in the city and the Board of Trade, while asking the city council to carry out an extensive scheme with regard to providing more baseball practice grounds, also asked that additional playgrounds for children be provided.

## "Canada Monthly" Changing Its Shape

The announcement made by "Canada Monthly" that, beginning with its August issue, the magazine is to be the size and shape of the "Literary Digest," 9 $\frac{1}{4}$  inches wide by 12 inches high, comes as a surprise to its readers. Although several of the American magazines have made a similar change, this is the first of the general monthly magazines in the Canadian field to come out in the larger form.

This is almost identical with the size of this Journal, which has proved satisfactory for wide and narrow columns and for cuts.

It is undeniably true that the more generous pages give a better effect and more room for reading matter; and, according to magazine publishers, the "flat" form is much better for magazine purpose than the small-paged, bookish size in which monthly magazines have been made. It will be interesting to watch the evolution of "Canada Monthly" in its new form.

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## PROPOSED CONSTITUTION OF THE INTERNATIONAL MUNICIPAL LEAGUE

I.—The name of this League shall be "The International Municipal League."

### Objects

II.—1st. To facilitate co-operation of its members in the investigation of Municipal problems.

2nd.—To promote international exchange of reliable information and counsel, in regard to plans and methods proposed and adopted, and results achieved, in connection with the management and improvement of modern municipalities.

3rd. To secure publication of such information as will be useful to the members of the League and students of municipal affairs.

4th. To further international friendship, harmony and progress through the foregoing means.

### Membership

III.—The League shall be composed of:

National and State associations of municipalities; National and State associations of municipal officers; National and State associations for municipal improvement and study;

City corporations; and comprising such as may be in sympathy with the objects of the League and approved by its Executive Committee.

### The Council

IV. Each national association of municipalities, and each national organization for municipal ends, which is a member of the League, may appoint one or more delegates not exceeding five in number, and the delegates so appointed shall constitute a Council, in which each organization so represented shall always be entitled to one vote to be cast by its delegate or delegates or a majority of them. In this, as in all other cases in the League, appointments and votes by telegraph, cable, mail, messengers, or proxies, shall be valid. All delegates to the Council and all appointees of the

League shall retain their positions until their appointments are cancelled or their successors appointed.

### The Executive Committee

V.—An Executive Committee of five persons shall be appointed by the Council and shall have all necessary powers for the appointment and direction of officers and employees, the adoption of by-laws, the collection and disbursement of funds, and in general for carrying on the work of the League and promoting its objects. Provided always that there shall never be any attempt to formulate or express the opinion of the League as an organization in regard to any municipal or political question or contest, and provided also that no member of the League shall ever be subjected to any dues or assessments or any kind of pecuniary liability nor committed to any enterprises involving such, without the written consent of its delegates.

Appointments to the Executive Committee may be cancelled, and vacancies may be filled, at any time by the Council upon the suggestion of any member of the League.

### Quorum

VI.—After reasonable notice of a meeting of the Council or of the Executive Committee, delegates representing members of not less than three nationalities shall constitute a quorum.

### Officers and Secretaries

VII.—The Council, or in its default, the Executive Committee, shall name a national office and national Secretary in each country concerned;—which shall be the principal office, and one of the officers, of one of the members. One such office and secretary shall be designated as the General Office and General Secretary respectively of the League.

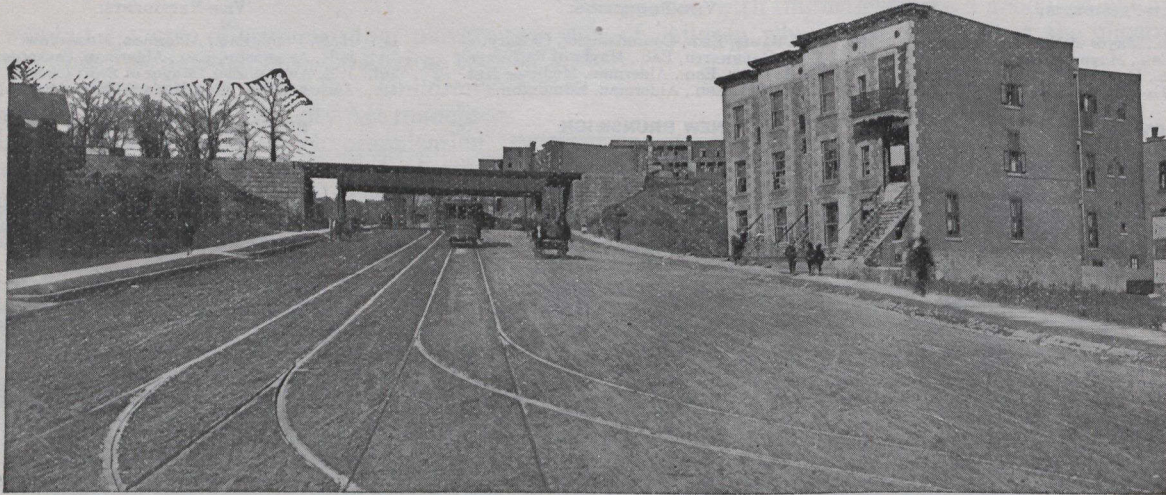
### Amendments

VIII.—Amendments to this constitution may be adopted at any time by a three-fourths vote of the Council after notice mailed two months previously to all the members.



# Tarvia

*Preserves Roads  
Prevents Dust~*



Atwater Avenue, Montreal, Quebec. Constructed with Tarvia Modern Pavement.

## Tarvia vs. Plain Macadam

**T**HE right-hand side of the above roadway was built with "Tarvia X." The left-hand side is plain macadam. The tarviated side is adequate to cope with the traffic. The plain macadam side is in persistent disrepair.

In previous years this roadway washed and gullied very badly in the spring and many tons of macadam were dislodged from different parts of this hill and deposited at the bottom by the spring rains.

Now, after a rain, the tarviated side drains quickly and easily to the gutter. The plain macadam side gets muddy and stays so for some time.

The tarviated side gets more than its share of the traffic because it affords superior traction, yet it is free of dust except for what is blown upon it from its dusty neighbor on the other side of the tracks.

As to maintenance, the tarviated side needs no attention, while the plain macadam is in frequent need of care. The cost of upkeep in the long run will be considerably greater for the plain macadam, and the results will be very inferior.

The initial cost of the plain macadam may have been a little lower, but the high maintenance more than wipes out the saving.

"Tarvia X" which was used on half of this road is a dense, viscid coal tar product which is immune from damage by water and frost. It forms a dense, plastic matrix about the stone, prevents internal movements of the roadway, and by reason of its plasticity, develops a surface that grows smoother with traffic.

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## The Trip to the U.C.M. Convention at Saskatoon, Sask.

(By the Editor.)

The Eastern delegates left the Windsor St. Station of the Canadian Pacific Railway in Montreal in the car "Wolseley", which was attached to the "Imperial Limited" express train on Wednesday evening, 9th July. It consisted of Mayor Lavallee, K.C., President; Controller Dupuis, Ald. L. A. Lapointe, Leslie H. Boyd, and Dr. Poissant, Montreal; Mayor Bligh and City Engineer F. W. W. Doane, Halifax, N.S.; Mayor Hebert and Mrs. Hebert, Sherbrooke, Que.; Ald. V. E. Fontaine, St. Hyacinthe, Que.; Ald. Kyle, Longueuil, Que.; Mr. L. E. Bruner, Ste. Rose, Que.; Mr. W. D. Lighthall, K. C., Hon. Sec.-Treas., Mr. G. S. Wilson, Asst.-Sec. of the U. C. M.; Mr. L. Dupuis, Montreal; and the Editor, who, as Chairman of Assessors, represented St. Lambert, Que.

The crowd in the station, and the long train proved the popularity of the Railway and the volume of immigrants which it is carrying into the western parts of Canada.

Thursday, as the train sped along through the wild scenery of this part of the trip, informal discussions on municipal questions, and interchange of experiences, made the time pass quickly and pleasantly, while all day long were evidences of improvement of the railroad.

On Friday morning the travellers saw the beautiful expanse of Thunder Bay, the furthest inland harbour of the wonderful Canadian waterway system, guarded from the storms of Lake Superior by the "Sleeping Giant," and the more common-place Pie Island, while Mount Mackay formed a picturesque background to the Twin Cities of Port Arthur and Fort William.

At Port Arthur, Ex-Ald. and Mrs. McGovern joined the car to welcome the delegates, an attention warmly appreciated by those who had received similar welcomes from them on previous visits.

At Fort William, those who remembered previous visits, were delighted to see Ex-Mayor Dyke. The party went to the City Hall, and entered autos driven by the Aldermen of Port Arthur, and were taken to Westfort, through Fort William to Port Arthur, and all over the City, pulling up at the Prince George Hotel of the C. N. R., where a luncheon was tendered by the City of Port Arthur, at which Mayor Oliver presided.

Brief speeches were made by the Chairman, Mayors Lavallee, Bligh and Hebert, Ald. Fontaine, and Ex-Mayor Mathews, of Port Arthur.

A move was made to the Harbour, and the party and local friends boarded the splendid yacht "Sigma," which is owned by the Great Lakes Dredging Company, of which Mr. James P. Whalen is President, and which is at the disposal of either City for any public service, without cost—quite an asset to both municipalities and an example worthy of being copied. Mr. Whalen was unavoidably absent, but was ably represented by Mr. Wolven and Mr. Moore. The "Sigma" breasted the choppy sea across the Bay, and entered the quiet waters of the Kaministiquia River. The descriptions given by Mr. Burdette, Industrial Commissioner of Fort William, in a running talk through a megaphone, made the trip very interesting, and the growth of commerce along the bank was very marked to those of us who had paid previous visits.

An interesting feature was the "Jack Knife Bridge," built for the Can. Pac. Ry. Co., by the Canadian Foundry Co., which is the largest in the world.

But when the "Sigma" turned down the Mission River, the recent changes were tremendous, even to one who has been kept closely posted on what was going on. The river itself, from a canoe stream, has been made navigable for large lake vessels, while huge slips and piers, backed by a great elevator, represent the terminals of the Grand Trunk Pacific Railway.

The hospitality of Fort William only ended by a pleasant dinner at the Avenue Hotel, after which the travellers sought their rolling home in the comfortable car.

At noon on Saturday, the train rolled into the huge station of Winnipeg, and there found a warm welcome from Controllers Douglas and Cockburn, and Comptroller Evanson, while City Clerk Brown and City Solicitor Hunt once more welcomed friends who had been in Winnipeg previously. Publicity Commissioner Wade, and Asst. City Engineer Wilson took charge, and the visitors were whirled off to the wonderful new Industrial Exhibition, and given a too brief chance to examine a small part of its most interesting contents.

The ride to the City Park occupied only a short time, thanks to the splendid roadways in Winnipeg; and there we admired the matured beauties of the pavilion, where creepers and flowers added to the refined design of the building.

At the luncheon, Controller Douglas presided and called upon Controller Cockburn to welcome the representatives of the sister cities, which he did in a short, but forceful speech. Replies were made by Mayors Lavallee, Bligh and Hebert, and Industrial Commissioner Roland briefly spoke. Mayor Lavallee related that his grand father had been a resident of "Fort Garry" long ago, and had told him of the wonderful west.

Autos then carried us to the Exhibition, where there was a chance to see something of the products of both city and adjoining country.

The most interesting feature was an inspection of the model of the City's hydro-electric plant at Point du Bois, which was graphically explained by Controller Cockburn, the "father" of the enterprise. As we shall publish an article later, on this most interesting municipal undertaking, all that need now to be said is that in ten months, the enterprise is on a paying basis; that the Electric Company has cut its rate **from twenty cents per K. W. H. to three cents** to meet the city rate; and that in this way, the citizens of Winnipeg are saving \$600,000 a year.

We earnestly submit this proposition to the painstaking and enquiring author of "One Hundred Municipal Failures," Mr. Glenn Marston.

Supper in the Exhibition closed the pleasant day, and the delegates returned to the "Royal Alex.," behind which lay the car.

Sunday was spent by the Delegates as each individually pleased, many having friends in the City whom they were glad to have a chance to see.

Mayor Berry of St. Boniface, entertained several of the party at dinner on Sunday afternoon.

(To be Continued.)

# Equipment and Engineering

Interesting Notes on the latest  
Municipal and Telephone Appliances.



One of the famous road rollers manufactured by the Waterous Engine Works, Brantford, Ont., has had a novel experience out of which it emerged with a splendid character for immunity against accidents.

The town of Granby, Que., recently purchased a 15 ton roller, and it was duly unloaded and set to work under the supervision of two of the employees of the Waterous firm. The men were rather suspicious about crossing an iron bridge which was said to be equal to a forty-ton load, but as the Council guaranteed all damages, it was started off and crossed safely.

Then came the idea of testing it on a newly gravelled piece of road on Mill Street. The crowd was admiring the way in which the huge machine was flattening the road into a decent level, when they were terrified to see the roller give a sudden lurch, and then all but disappear into the earth. It appeared that an old coal cellar existed under the roadway and the wooden roofing had given way under the unusual weight. Fortunately, the driver escaped unhurt, but it was a long and arduous piece of work to get the roller out. Of course everyone wondered how much \_\_\_\_\_ would be found, and were surprised at the faith that the Brantford men had in their machine. After working all Saturday and Sunday, the roller was brought out and put on the solid roadway. It was then found that the total damage to the \$3,600 roller amounted to less than thirty dollars. This is one of the best testimonials that the Waterous Engine Works could possibly get for the substantial character of their output.

## PRESS NOTICE

In order to protect the valuable records of the Government from danger by fire, Congress has made an appropriation for the installation of a modern system of auxiliary fire protection for three of the largest buildings occupied by the Department of the Interior in the city of Washington, D.C. A committee has been appointed to investigate the relative merits of systems adaptable to the buildings of the Department and to prepare plans and specifications. All communications regarding the subject should be addressed to the Chief Clerk of the Interior Department, Washington, D. C.

## COPPER CLAD WIRE LITIGATION DISMISSED

Important litigation in regard to Copper Clad Wire which has been contending in the United States Court in Pittsburgh, Pa., for the past two years between Duplex Metals Company of New York, complainant, and the Standard Underground Cable Company of Pittsburgh, Pa., defendant, was virtually decided June 25th when the case came before the Court on motion made by complainant to dismiss the bill in respect to Patent Infringement. The bill as originally filed charged infringement of the patent and infringement of a trade mark. The motion made by the complainant was to dismiss without prejudice; that is to say a dismissal leaving the complainant in a position to renew the suit at its pleasure. The motion was opposed, defendant contesting that the bill should be dismissed in this regard

and a dismissal should be on the merits of the question. The Court so ordered, the order reading:

"Complainant having admitted that defendant's product referred to in the proofs herein does not infringe the Momot Patent in suit No. 893932, it is ordered, adjudged and decreed that the bill of complainant herein, in so far as it is based on alleged infringement of said patent be, and the same hereby is dismissed on the ground that defendants have not infringed said patent."

The order of the Court directs that the Complainant pay the costs. The only portion of the suit not thus disposed of is in regard to the right to use the trade name "Copper Clad" and thus is expected to go to a hearing in the early fall.

## PEDLAR PEOPLE LIMITED ADD TO STAFF

In keeping with the policy of the house as originated and developed by the late Mr. Geo. H. Pedlar, additions to the force at Oshawa Head-quarters have recently been made which will further increase the efficiency of an already strong and capable organization.

Mr. W. R. Geikie, formerly Branch Manager of The Pedlar People Limited, at Toronto, and with a thorough knowledge of the financial end, gained through a long experience while with the Dominion Bank, as Manager of various Branches, will, in his capacity as Managing Director, bring this ample knowledge into good use, which, added to his experience in selling sheet metal products as Manager of Branch at Toronto, will enable him to gauge the situation correctly as applying to trade conditions in sheet metal lines.

The Operating Department has been strengthened by the addition of Mr. W. Loach, formerly connected with the management of Canada Foundries Ltd., Toronto, and with a wide and varied mechanical and manufacturing experience in United States and Canada. Several new developments are now under way, which will be of general interest to the trade when particulars are announced.

A further addition has just been made in the person of Mr. A. T. Enlow, in general charge of sales and advertising. Mr. Enlow is a steel man of large experience, having been connected with the manufacture and sale of Steel in the United States for the last twenty years. He was Plant Manager for the U. S. Steel Corporation, and later Sales Manager of Berger Mfg. Co., and General Sales Manager of the Stark Rolling Mill Co., both at Canton, Ohio, and while in that capacity developed and marketed the famous anti-corrosive Toncan Metal sheets, for which The Pedlar People Ltd. are Canadian Distributors.

It is safe to say that the addition of these three experienced men to the already strong and aggressive staff of The Pedlar People Limited, Oshawa, Ontario, of which Mr. W. H. Hall and Mr. F. L. Mason have been prominently associated in the development of the great business as active co-workers with the late Mr. Pedlar, means a continuation of the policy which has kept the firm at the head of sheet metal working activities in Canada and abroad.

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# TELEPHONE NEWS



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& 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.

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**CANADIAN INDEPENDENT  
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**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.**—This invention has for its object the provision of a new system employing devices and connections by means of which the operation of telephone exchanges is rendered partially automatic and greatly simplified.

It further provides a system wherein the least possible number of circuits are idle and, consequently, reduces the number of circuits necessary to provide the required service.

Frans Gunnar Agrell, Stockholm, Sweden. 1,061,650.

**TELEPHONE SYSTEM.**—The object of this invention is to do away with that part of the operation of the exchange which consists in connecting the calling subscriber's local line with a switching circuit, this being accomplished automatically by the use of the invention. A calling subscriber is in this system automatically connected to a switching circuit controlled by an operator or other means which is not busy at the time.

Frans Gunnar Agrell, Stockholm, Sweden. 1,061,651.

**DIAPHRAM OF TELEPHONIC RECEIVERS AND LIKE INSTRUMENTS.**—This invention relates to improvements in the method of and means for mounting the diaphragms of telephonic receivers, transmitters, talking machines, and the like or other diaphragm instruments which diaphragms are supported at and around their peripheries only.

Alexander Marr, Manchester, Eng. 1,061,766.

**TELEPHONY.**—This invention consists in certain improvements whereby telephonic systems are rendered more efficient than heretofore and the intensity of the received sounds is increased.

The improvements can be used in connection with a microphone transmitter, or with a relay for the purpose of magnifying the electric or sound waves in the receiver.

Sidney George Brown, London, Eng. 1,061,813.

**TRANSMITTER.**—This invention has particular application to telephone transmitters of that type employing a diaphragm and a carbon electrode. It provides a transmitter wherein the diaphragm will be at all times under tension and the carbon electrode in a similar condition so that the transmitter will, in effect, be tuned in such manner as to transmit sound waves with ease and facility and bring about a clear reproduction of such waves at the other end of the line in which the transmitter is installed.

Francis Kayser, Philadelphia, Pa. 1,061,849.

Rural telephone companies in Western Ontario want long distance connection with the Bell Telephone lines without the necessity of long distance contracts; the Western Counties Telephone Association has memorialized the Government to amend the railway act; under existing conditions when the Board has ordered connection of a rural line with a long distance one, the Bell refuses connection unless long distance contracts are signed.

The Telephone Commission of Manitoba Government System has recommended that employees' wages be increased, meaning a pay roll increase of over \$44,000 per annum.

**PORT COQUITLAM, B.C.** There is a proposal to establish a municipal telephone system in opposition to the B. C. Telephone Company; the new system will be on the automatic principle.

Eight large cities in England, including Liverpool and Leeds, are installing the stronger Automatic Telephone System, owing to the publicity in the English press of the success of this system in Alberta.

**THIEF RIVER FALLS, MAN.,** has voted to buy the Telephone plant, with a majority of 144.

**Some Fly Aphorisms**

Aphorisms are much resorted to by public health workers. The following dealing with the fly, are culled from various sources:

"It is better to screen the cradle and wear a smile than scoff at the precaution and wear mourning."

"Flies in the dining room usually precede nurses in the sick room."

"Screens in the windows prevent crepe on the door."

"Flies, as well as bad water, spread typhoid."

"A fly in the milk may mean a member of a family in the grave."

"A fly has natural enemies; the most persistent and most effective should be man."

"It costs less to buy a screen door than to get sick and lay off for a month."

"It's a short haul from the garbage can to the dining-table via the fly route."

"If at first you don't succeed, swat, swat, swat again." The Chataquan.

**Results from Liverpool**

The result of re-housing in Liverpool is an extremely satisfactory indication that large cities faced with large slum problems should deal with them with a bold and vigorous policy, Liverpool's figures up to December 31, 1912, are as eloquent as they are simple; they read as follows:

Total number of sanitary dwellings erected..	2,663
Erected prior to 1897.....	629
Erected since 1901.....	2,034

(These are for labouring classes, and they are reserved for the dishoused).

**Some Results**

Death rate—Declined from 50 to 27 per 1,000.

Tuberculosis—Declined from 4 to 1.9 per 1,000.

Typhus Fever—Once never absent; in 1910 not a case.

Typhoid—In 1896, 1,300 cases, in 1911, 200 cases.

Police prosecutions—Have fallen fifty per cent.

Cash saving to City—at least £65,000 per annum, or double the cost of the re-housing work.

"Garden Cities and Town Planning."

The re-burial of bodies interred in the vaults of Notre Dame Church, Montreal, in those of the Sulpician Mother House, on Sherbrooke Street, is an impressive witness of the age of the Commercial Capital of Canada.

Among them was Bishop Henri Marie Dubreuil de Pontbriand, who died in 1760. And this one example shows how far back in the history of Canada is found the city of Mount Royal.

No wonder that in it are found the narrow streets and granite houses which were perfectly consistent with the times of the fur traders and the moccasin footed coureurs des bois.

The ancient city of Smyrna is to have an electric street railway.

Berlin's, Germany, street railway is to be electrified at a cost of \$6,000,000.

Pittsburg may supply free tennis courts for the poor.

Mayor Henry Hunt, of Cincinnati, declaring that a public emergency exists, the board of health ordered the health officers to seize and operate all ice plants in this city and to use every available means of distributing ice to the general public.

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## CIVIC NOTES

### EASTERN PROVINCES

ALBERTON, P.E.I. The Bank of Nova Scotia has opened a branch here.

AMHERSTBURG, ONT. The business men have organized a Board of Trade, with a special industrial committee, which is to secure new industries for the town; plans were discussed for the converting of the site of old fort Malden into a national park, and it was urged that representations be made to the Government to have the project carried through without loss of time.

ANTICOSTI ISLAND, QUE. A cement plant is among the projects planned for the development, the necessary mar and other deposits being there in abundance.

AURORA, ONT. The by-law for a contract with the Toronto and York Radial Company to supply light and power to the town, was carried almost unanimously, in preference to the contract of the Hydro-Electric Commission.

BELLEVILLE, ONT. The contract for a wharf and dredging has been let.

BRAMPTON, ONT. A shoe company and a lithographic firm have agreed to build factories here, in consideration of loans.

FORT WILLIAM, ONT. The street lighting system, which is said to be the best in Canada, is being rapidly increased.—The Board of Trade appointed a committee to interview the City Council in regard to the steps being taken to have the Grand Trunk Pacific Railway build a large hotel here, similar to those the Company is building in western cities.—Two cannons which were used here when the place was a Hudson Bay trading post, have been presented to the city and will stand in front of the City Hall.

GANANOQUE, ONT. The by-law to give the Electric Light Company a ten-year contract and a thirty-year franchise, was carried by a big majority.—The by-law for the Gananoque and Arnprior Railway was also carried.

HALIFAX, N.S. The Board of Control is doubtful whether the city can afford to assist the Summer School of Science, much as it would like to.—The Council adopted and recommended the Board of Control's report for the construction of the Northwest Arm sewer from Chebucto Road to Point Pleasant and the extension to Dutch Village.

HAMILTON, ONT. The Board of Trade has appointed a committee to solve the housing problem.—The Dominion Power and Transmission Company will erect a \$1,000,000 auxiliary steam plant; there is so much trouble with needle ice at Decew Falls, that an auxiliary plant is a necessity.—An American firm, to be known as the Victor Saw Works, Limited, is opening a branch here, beginning with 75 hands, principally skilled mechanics.—The Council and the National Gas Company have come to an agreement, which will be submitted to the ratepayers at an early date.—It has been recommended to the Council that a new style of flaring arc street lights be adopted for the central district instead of the five-light cluster.—The Council will ask the Dominion Railway Board to intervene in the case of the railway right-of-way.—A local company has offered to purchase the Miller

gas and distribute it to customers at a 40 cent rate; the company is able to supply 60 miles of mains.

HOMER, ONT. The town has been celebrating the centennial anniversary of the battle and victory of Beaver Dams, which took place where the town now stands.

KINGSTON, ONT. Work has commenced on the new causeway across the harbor as a part of a national harbor scheme.

LACHINE, QUE. Owing to the financial stringency all work has been stopped except sewer construction and electric lighting.—A new \$50,000 hotel is to be built.—A plant for the manufacture of liquid gas has commenced operations.

LEVIS, QUE. The contract for the new Government dry dock here has been awarded.

LONDON, ONT. A hospital for sick children will soon be started here.

MONTREAL, QUE. The Harbor Commission will extend all the piers at a cost of \$7,000,000.—There is a by-law being prepared for the regulation of steam trucks.—There is a discussion about using wood blocks for pavements on busiest streets.—The City will expropriate the plant of the Montreal Water and Power Company, in St. Mary's Ward.—The first of the City's playgrounds for this season was opened the beginning of July.—The Public Utilities Commission has approved of the plans of the Montreal Electric Commission for the underground conduits to contain all the present and future wires of the various companies on Bleury Street and Park Avenue, and on St. Catherine from Guy to Atwater Avenue.—Many new car lines are being built by the Street Railway, as a means of solving the congestion.—The Board of Control is considering the building of crematories for garbage in three main centres of the City and the stopping of its dumping in abandoned quarries; the latest type of crematory would earn by means of its by-products twenty per cent. of the cost of the plant; at the present time the City saves nothing in destroying its garbage; there is already one of these crematories in the north end.—The Board of Control has refused the request of the Federal Government for a wireless station on Mount Royal.

NEWMARKET, ONT. The Mayor and Council having resigned, because the Radial by-law was defeated, a new election has been held, and Col. Allan was elected Mayor, by a large vote over the Radial Candidate.

OJIBWAY, ONT. The new Town Council held its first meeting, and elected a mayor, a town clerk and a treasurer.

OTTAWA, ONT. The contract for the reconstruction of Rideau Hall has been given to a Montreal firm; the work will be rushed.—The contract for the new Custom House on Sussex Street has been let.

REGINA, SASK. The reconstruction of the exhibition buildings and grand stand will soon be completed, replacing those burned in a recent fire.—Large sums are to be expended on improvements, including paving, sewers, plank sidewalks, water mains, trunk sewers, park improvements.—The by-law for the operation of cars on Sundays was passed.

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# CIVIC NOTES

## WESTERN PROVINCES

**BRANDON, MAN.** The street car service is in operation, and so far the receipts are sufficient to cover costs of operation as well as interest charges.—The big Dominion Fair closed with a very good attendance.

**BROOKS, ALTA.** Gas wells are to be sunk at the Sutherland colony near here and enough gas for commercial and house heating uses can be secured, piping will be laid for a radius of 60 miles.

**CALGARY, ALTA.** The Crystal Ice Company has applied for a suitable site on which to erect a cold storage plant and ice-making factory; the request will be granted on certain conditions.—The City will take over Riley Park for the time being, until a by-law can be submitted; a caretaker will be installed and the park kept in good order at the Council's expense.—The C.P.Ry. will spend \$500,000 on their station.—A big motor truck factory is expected to locate here; a free site is being offered to them.—The City Plumbing Inspector finds that the local plumbing installation compares favorably with other cities, according to reports at the Plumbers' Convention recently held in Winnipeg.—The Council has rejected all the tenders for the street paving as the difference between the tenders and estimated cost of work if done by the city's plant, was too great.—If the Government builds a terminal elevator, a \$200,000 linseed oil factory will be established here.—The plans for the proposed new Centre Street low-level bridge, provides for a reduced grade, a public square or oval at the entrance and diagonal approaches; this would also wipe away Chinatown.—The petition from Hillhurst residents against a garbage collecting station on Gladstone Road, was signed by 400 names.—Women may be made eligible for places on public school board.—The City is willing to build a grand stand for the base ball club.—It is reported that G. T. P. is buying the Eau Claire property for station and yards.—It is probable that pure water will be supplied to the city from the upper reaches of the Elbow River, where a survey is now being made.—The new gravity intake will be in operation by October.—Mr. H. E. Lambert has offered to donate a large number of charters of American and Canadian cities, as the nucleus of a civic library for aldermen and civic officials.

**CARMEN.** There is a proposal to build a concrete dam across the Boyne River here, to raise the water five or six feet, to provide for boating on the river, and assuring an adequate supply of water for all town purposes.

**EDMONDS, B.C.** Several deputations have asked that the water system be extended, but the Council has replied that no extensions could be carried out at present.—The Government is prepared to pay its share of the cost of the paving of Kingsway.

**GRANBY, B.C.** A mammoth 2,000 ton daily capacity smelter is being installed here; the underground ore-storage and crusher system being unique.

**HUMBOLDT, SASK.** The present population is 2,300.—The civic improvements include waterworks, sewage and electric light.—The new buildings going up include a \$150,000 Court House, a \$35,000 City Hall, a power house, a church, a \$50,000 hotel, a big flour mill, a public school and some 50 new houses.

**KERRISDALE, B.C.** The by-laws recently voted on were all carried by good majorities; the municipality will now be able to purchase the water and sewerage systems on Shaughnessy Heights, provide for parks, fire hall and an incinerator; property holders on Shaughnessy Heights will have the privilege of voting on all municipal questions; the school by-law also passed by a large majority.—A special committee has been appointed to look into the telephone tariff.

**MEDICINE HAT, ALTA.** According to the new City Directory the population is 15,288.—A large number of police and firemen received their awards as members of the "first aid" class.—The City Engineer has been authorized to make arrangements for the installation of additional electrical units to increase the efficiency of the power plant.—The contracts for the drilling of nine gas wells have been let.—The great demand for school accommodation necessitates the erection of cottage schools.—A candy factory is commencing operations very shortly; a site, natural gas, water and electricity have been granted.—A cold storage warehouse and creamery will be established.

**MONITOR, ALTA.** The Canadian Bank of Commerce is opening a branch here.

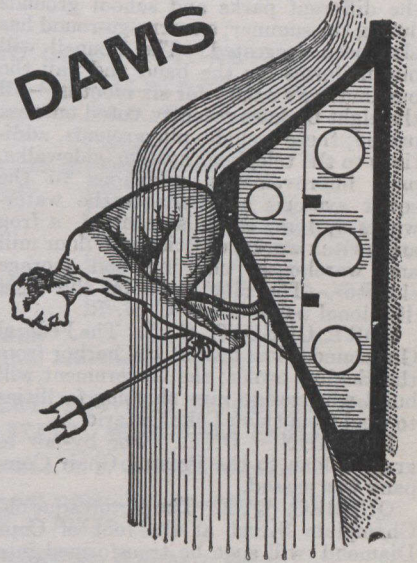
**NELSON, B.C.** All but two aldermen are disqualified from voting on the Street Railway guarantee by-law, because of their being stockholders in the Company.

**NEW WESTMINSTER, B.C.** Work has commenced on the harbour improvements.

**OKANAGAN, B.C.** The Provincial Road Superintendent for this district stated that \$260,000 had been appropriated for improvements on the 1600 miles of roads and trails.

**POINT GREY, B.C.** The delegates who asked the Provincial Government for three park reservations, were successful; the land referred to consists of three ravines breaking inland from Marine Drive representing an area of 63 acres; the Government does not convey the land to the municipality but prevents it being acquired for any other purpose than for parks.

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**PORT ARTHUR, ONT.** An excursion of 500 members of the Detroit Board of Commerce arrived here recently, making this city the terminal point of their trip.—The Port Arthur Waggon Works will erect 40 workmen's houses on the property to provide accommodation for the extra hands needed.—The joint street railway board has had several claims for damages.—The Playgrounds Committee intends to purchase slides, swings, horizontal bars, etc., for use in the different parks and school grounds during the summer; a merry-go-round has also been suggested.—The Council will buy uniforms for the band and pay the bandmaster's salary for six months.—All the eight by-laws recently voted on were passed; these include: playgrounds, additions to the telephone system, sidewalks, park improvements, additions to the sewer system; additions to the water-works system; establishment of a frog and switch works, erection of a flour mill and warehouse, cleaning and storage elevator.—The city is to be the chief divisional point of the C. N. R.

**PORT CREDIT, ONT.** The Federal Government has bought the harbor from the English owner; the Government will build wharves to give shipping facilities to Peel County on Lake Ontario.

**PRESTON, ONT.** The by-law to grant a loan to the Preston Chair Company was passed.

**QUEBEC, QUE.** The picturesque old Champlain Street at the foot of Cape Diamond will soon be transformed into a busy waterfront railway station, for the Harbor Commissioners have commenced laying the crib work of a wharf 4,000 feet long, on the river frontage, and the contractors of the Transcontinental Railway are beginning to lay a double track east of Cap Blanc Chapel.—It is said to be the intention of the city authorities to buy

the plant of the Dorchester Company, which is furnishing the City with light and power, and run its own civic electric plant.

**ST. LAMBERT, QUE.** Business men in the towns of Longueuil, Montreal South, Greenfield and St. Lambert are incorporated in the South Shore Board of Trade, to promote the interests affecting the district facing Montreal, of an industrial and residential nature. The secretary is Mr. H. Wisely Bragg.

**TORONTO, ONT.** On the day that the new General Hospital was formally opened, 30,000 people inspected the building.—The entire Hydro-electric transmission has been gone over to clear off all dangerous and defective insulators, and new specially tested ones will be installed on their place; there are 297 miles of transmission lines and over 1,000 miles of circuit; this work is due to the recent breaks, which were due to German insulators.—The Council has not power to appoint a Vice Commission, as requested by the Local Council of Women.—It has been decided to appoint a Purchasing Agent.—The Board of Control has recommended legislation for improvements in annexed areas for local improvements.—The Civic Parks Committee has recommended an expenditure of \$25,000 on the boulevard scheme.

**TWEED, ONT.** The agreement between the municipality and the Tweed Electric Light and Power Company for the purchase of power, was passed.

**WELLAND, ONT.** Negotiations have been closed for the erection of a huge plant, which is to be erected by the Union Carbide Company, employing a thousand men. A contract has been closed with the Hydro-electric Commission for the largest block of power ever contracted for with them by any one firm, being 17,000 h.p.

## PERSONAL

Mr. Gordon Philips, who has been on the staff of the Industrial Commissioner, Winnipeg, Man., has been appointed Publicity Commissioner of London, Ont., at a salary of \$3,000.—The Council has voted \$500 for 2 pages in a book. "The Imperial Highways."

Mr. A. J. Richards, Superintendent of the Alberta Government Telephone system since its inception, has resigned to enter the contracting business.

Chief Kapple, Cobalt Ont., has been appointed Fire Chief of Stratford, Ont., at a salary of \$1,600; he succeeds Chief Durkin, who was killed recently.

Toronto. It is rumoured that Mr. R. J. Fleming, the present Manager of the Street Railway, will be continued in office if the city buys out the system.

Constable D. H. Felker of Brantford, Ont., has been appointed Chief of Police of Edson, Alta.

Mr. George W. Gibson, a member of Vancouver's first city council, died recently, aged 87.

Mr. George Howard, ex-mayor and an alderman for many years of Guelph, Ont., died recently.

Dr. Helen McMurchy has been appointed Inspector of Feeble Minded and Assistant Inspector of Hospitals and Charities, for Ontario, a new position, by Hon. J. W. Hanna.

Mr. R. A. Ross, C.E., of Messrs. R. A. Ross & Co., Montreal, has been appointed by the City of Toronto as one of three experts to value the property of the Toronto Railway Co. and the Toronto Electric Light Co. The other two are Mr. Bion J. Arnold, Chicago, Ill., and Mr. J. W. Moyes, Toronto.



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INCORPORATED BY ACT OF PARLIAMENT.

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

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Capital Paid up . . . . .	11,560,000
Reserve and Undivided Profits . . . . .	13,000,000
Total Assets . . . . .	180,000,000

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# The Canadian Bank of Commerce

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

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TORONTO, Ont.

SWIFT CURRENT, ALTA. The Commercial Club is now seeking incorporation, having obtained the endorsement of the Board of Trade.—Work has been started on the cement factory.

TOFIELD, ALTA. The first unit of a water-works system is being installed.

VANCOUVER, B.C. The Alaska Bedding Company of Winnipeg is starting a branch here immediately.—The new telephone cable from mainland to the Island of Vancouver is already working well.—A huge gas-generating plant, covering about seven acres of ground is to be built; the first unit will serve the city for five years.—The city has decided to purchase the site for the new cemetery.—The Canadian Northern Railway application for the filling up of False Creek has been granted; it is expected that the Government will formally declare the entire east end of False Creek closed to navigation, then the City will begin expropriating, and bonds will be prepared between the city and the company.—Greater Vancouver has a population of 200,000 according to a directory census.—Four new branch libraries have been established in connection with the Carnegie library, bringing the number of branches up to eight.—The civic water committee is considering the erection of a dam 45 feet high at Seymour Creek; the basin would contain enough water for four million people.

VICTORIA, B.C. The Grand Trunk Pacific is now running two steamers from this city to Prince Rupert, and calling at the Queen Charlotte Islands en route.

WEYBURN, SASK. The population now amounts to 5,413, and the town has made application for enrollment in the list of cities.

WINNIPEG. The citizens are organizing a Welfare League, to meet problems arising out of the immense immigration.

RODNEY, ONT. The by-law to raise \$20,000 for bridge and road work in the Township of Aldborough, was defeated.

SARNIA, ONT. The by-law to raise \$12,000 for bridge-building, was passed.

SASKATOON, SASK. The municipal Street Railway shows an aggregate surplus of \$1,700 in the sixth month of its operation.

SEDGEWICK, ALTA. The present assessment on rateable property is \$750,000;—Last year the town spent \$400 on local improvements.—The present debenture debt is \$4,500.

STEWART, ALTA. The by-law to raise \$40,000 for roads and bridges, was defeated.

TORONTO, ONT. Ald. Wickett and Anderson have been appointed to enquire into the financial management.—The price of the Street Ry. Co., to the City will be \$21,300,000; of the Electric Light Co., \$7,400,000.—The discount on water rates has been reduced from 20 to 10 per cent.—The tax rates will be 19½ mills.

TRANSCONA, MAN. The following by-laws were recently passed:—to raise \$27,000 to pay for site for town hall, and fire hall; \$15,000 for nuisance ground; \$7,000 for a fire hall in Ward 4; and \$16,000 for town yard and pound.

UXBRIDGE, ONT. The by-law to raise \$6,000 debentures, was passed.

WINCHESTER, ONT. The by-law to raise \$1,500 to help the St. Lawrence and Ottawa Electric Railway, was passed.

WINCHESTER TOWNSHIP, ONT. The by-law to grant a bonus of 1,000 to the St. Lawrence and Ottawa Electric Railway, was defeated.

WINNIPEG, MAN. The first annual report of the civic light and power for the fiscal year ending April, 1913, shows total earnings of \$475,509.57; total charges, including interest on stock and debentures, sinking fund and an allowance of \$52,862 for depreciation, amount to \$529,442.60; the revenue deficit for the year is therefore \$53,024.88; as the power plant only commenced actual earning in September, 1912, and as it took many months to make actual connections with even a fraction of the business that was offering, the showing is considered very satisfactory.—Some of the members of the Board of Control are urging the establishment of a municipal bank.

According to the report of the Board of Valuation and Revision, the total assessment for 1913 is \$259,419.520; the exemptions are \$40,279,460, which places the full amount at \$299,698,980.—The rate of taxation will be 13 mills, one more mill than last year; the total estimates for the year are \$4,325,450.

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## BONDS and DEBENTURES

IN

The CANADIAN  
MUNICIPAL JOURNAL

SAANICH INLET, B.C. The new plant for the manufacture of Portland cement was formally opened by His Honor Lieutenant-Governor Paterson; the works have a daily capacity of 2000 barrels of cement.

SASKATOON, SASK. The C. P. R. is contemplating the building of a direct line from Calgary to this City, which will make the second direct line of communication between the two cities.—The G. T. P. has chosen its right-of-way into the city, according to current reports, and also the site for the station.—If a site is granted a new company will erect a model abattoir plant, cold storage facilities, soap factory, etc.

SEDGEWICK, ALTA. The local water supply is obtained from wells; provision for fire protection is supplied by two chemical engines and other apparatus, operated by a well-organized volunteer fire brigade.

SELKIRK, SASK. There is a proposal to build a railway dry-dock, for the use of boats up to 10,000 tons.

SOUTH EDMONTON, ALTA. The C. N. R. is calling for tenders for the erection of a \$40,000 station, to be the northern terminus of the Strathecona-Calgary line.

SOUTH VANCOUVER, B.C. The Board of Works has approved of the estimates for plank sidewalks, roads, clearing and grading, construction of box culverts, rocking, etc.

# 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

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 Reserve Fund - - - - - 7,000,000.00

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Ontario	Nashville	Athabaska Landing
	New Liskeard	Banff
Amherstburg	Niagara Falls	Calgary
Belwood	Niagara on the	Edmonton
Bolton	Lake	Red Cliff
Brantford	North Bay	Rocky Mountain
Caledon East	Ottawa	House
Cobalt	Palgrave	Lethbridge
Cottam	Port Arthur	Red Deer
Cochrane	Porcupine	Strathcona
Elk Lake	Port Colborne	Wetaskiwin
Essex	Port Robinson	British Columbia
Fergus	Ridgeway	Arrowhead
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 Agents in Germany.—Deutsche Bank.

## A Municipal Paradise

FREDERICK WRIGHT, Montreal

In Europe many towns and cities are self supporting, for instance two towns in England—Harrogate, by its famous wells and Doncaster, by its racing—make enough money to ensure the inhabitants freedom from local taxes. But it has been left to a little German town to show the world what municipal ownership, properly managed, really means to the pockets and the comfort of the citizens. Practically all the utilities in the quaint old city of Freiburg, in the Grand Duchy of Baden, belong to the corporation which operates them successfully, not so much for profit only, but for the general benefit of the inhabitants. The people of this German town own and operate the city railroads, theatres, gas and electric light, water, slaughter houses, saving banks, schools, pawn shops, forest, vineyards, building lots and the newspapers. Each of these many utilities is worked in a business-like way for a small profit; just sufficient is made out of the whole to cover the taxes, which means cheap living in Freiburg and one must say in passing that the Germans, however poor, have been educated up to the best in music and the drama, for throughout the Fatherland the writer never once saw anything at the theatres to which the most exacting could take exception, either morally or artistically. Cheap municipal restaurants, where only wholesome food is sold, at prices that would stagger Canadians, have been in existence some time.

Canadians the drawback to living in this little paradise would be the too paternal interest the authorities take in the individual. One might say that every man is responsible to the police for his actions—almost like a ticket-of-leave man. Each head of a family has

to give, periodically, an account of the doings of the members of his household, even to his servants. Of course this governmental paternalism is not confined to Freiburg, as the system is general in Germany, but one cannot conceive for a moment Canadians, even under such ideal conditions as prevail in this self-supporting town, giving up their sense of personal freedom and responsibility to one not of their own family, to any outsider, even to men in authority. They would rather pay more for their privileges. It would be rather interesting for those who believe in the freedom of the Press to read translations of the two municipal newspapers published in Freiburg. They might be bluebooks for all the interest they would inspire. These colourless sheets are but typical of the country where the Government has taken the place of the parent, where the local trust is the town Council, and where militarism is seen at its best—or its worst form. In no Anglo-Saxon district could such a municipalization of public utilities be carried out so completely as in Freiburg—the nature of the people would not stand for it; it would smack too much of inference with the Divine right of man. But much can be learned by Canadians from the German town, such as the sense of public responsibility that permeates the citizens to bring about such beneficial results. Another factor which impresses the visitor to Freiburg, or to any other German city, is the sense of public duty to the poor. Public soup kitchens are to be seen everywhere, and even in private benefactions, duty, rather than charity, is the predominant note. That every human being has the right to live—not starve—is one of the great fundamentals of German national life (would that it were a British axiom!) with the result that one sees very little real poverty in the cities of Germany.

# FINANCIAL NOTES

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ASSINIBOIA, SASK. Though only eight months old, the assessment has reached \$1,160,000; the assessment is based on equal rating for business or residential sections.

BEAMSVILLE, ONT. The by-law to raise \$20,000 for a new high school, was passed.

BERLIN, ONT. The City Council, at a special meeting, passed by-laws for \$202,316 debentures for various purposes.

BRAMPTON, ONT. The by-law to grant a loan of \$15,000 to a lithographic company was passed; also the by-law to grant a loan to a shoe concern; they will build factories and give the town first mortgages on factories and plants.

BRANDON, MAN. The \$214,926 debentures with accrued interest to the city have been sold at 88; an option was refused on the remaining \$500,000.

BRANTFORD, ONT. The by-law to raise \$8,000 to purchase road machinery, was passed.

BURNABY, B.C. The by-law for \$200,000 for extensions to waterworks was defeated by 135 to 47.

CALGARY, ALTA. To make up the discount on the sale of debentures, \$460,000, a by-law will be passed. For the general expenses the tax rate has been fixed at 18¼ mills. The estimated expenses are: General, \$1,389,209; School, \$403,000; Hospitals, \$74,940; Parks, \$72,075; Library, \$20,000; Debentures, \$555,413; Total, \$2,514,638.—The Commissioners report that the civic public utilities have saved money; \$9,000 saved by the municipal paving plant and \$77,000 by the street railway.

DARTMOUTH, N.S. Out of 800 voters, 70 cast votes on the by-law granting an extra \$10,000 to the Ferry Commission, and of these a majority of 27 was in favor.

EDMONTON, ALTA. There are many appeals against the 1913 assessment, property owners saying in view of the realty depression that they are considerably over-assessed.—A Toledo, O., firm has bought \$1,250,000 5 per cent. 40-year school debentures.—Chief Constable Carpenter estimates that his department needs \$37,000, in addition to the estimate made in January, which was \$156,000.

ESQUIMALT, B.C. The by-law to expend \$400,000 on the sewer system, was passed.

ESTEVAN, SASK. The town is spending \$10,000 on street lights; the main streets are to have standard clusters.

GALT, ONT. The by-law to raise \$70,000 was passed; this provides for waterworks, and for the drain on St. Andrews St.; the gymnasium by-law was defeated.

GLEICHEN, ONT. The by-law to raise \$3,600 for the debt on waterworks and machinery, was passed.

GULL LAKE, SASK. The three by-laws authorizing an expenditure of \$14,000, were passed.

HUMBOLDT, SASK. The town is spending \$315,000 on civic improvements this year.

INGERSOLL, ONT. The tax rate will be 26½ mills on the dollar; this is the same as last year.

KALSO, B.C. The whole of the recent school bond issue, which could not be floated in the east on account of the condition of the money market, has been taken up by the residents; it was issued to meet a portion of the expenditure on a new \$40,000 school, to which the Provincial Government is contributing a large part.

KENORA, ONT. The assessment for 1913 is \$3,837,885; the value of real property exempted is \$903,635, bringing the total up to \$4,564,413, an increase of over \$1,000,000.

MEDICINE HAT, ALTA. The tax rate has been fixed at 15 mills, or 13½ mills net, being made up of 10 mills for general purposes and 5 mills for public school uses; the estimated expenditure for the combined departments are \$400,784.16; gas reserve \$24,000; estimated receipts \$250,000; public schools \$92,000; separate school supporters \$4,000; school reserve \$2,000; the revised net assessment gives a total of \$20,383,925 against \$17,012,585 last year, both being on land only—nothing on improvements.

MONTREAL, QUE. The Board of Control is asking for the renewal of the \$750,000 loan; this was a short loan raised last year and its expiry finds the city no better off to meet current expenses.—Out of the total assessment of approximately \$735,000,000 more than a fifth is exempt from taxes; the following properties are exempt: Dominion Government, Provincial Government, City property, Catholic and Protestant schools, churches, parsonages, benevolent institutions, and some others exempt by by-laws.—The assessment is \$100,000,000 more than last year.—There is a proposal to tax unoccupied church and school lands.

MOOSE JAW, SASK. The total assessment will be \$50,000,000; last year it was \$43,000,000.

MORRISBURG, ONT. The by-law to raise \$15,000 as a bonus for the St. Lawrence and Ottawa Electric Railway, carried.

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ORANGEVILLE, ONT. The by-law to grant a loan of \$30,000 to a knitting manufactory, was passed.

OSGOODE TOWNSHIP, ONT. The by-law to grant a bonus of \$1,000 to the St. Lawrence and Ottawa Electric Railway, was passed.

PORTAGE LA PRAIRIE, MAN. The net assessment for 1913 is \$4,473,612; this is an increase of \$365,267 over last year.

PORT COQUITLAM, B.C. The tax rate has been fixed at 15c. 3-16 mills; the assessable property is \$6,449,887, as against \$5,200,000 last year.

PORT MOODY, B.C. The treasury is in a better condition than at any time in its history and there are sufficient funds to carry out the extensive civic improvements.

PORT PERRY, ONT. The by-law to grant a bonus of \$20,000 for the extension of the Whitby and Port Perry Railway to Lindsay, was passed by a big majority.

RED DEER, ALTA. The following by-laws were passed recently.—\$10,000 for the city's share of cement walks; \$26,000 for water mains, intake wells, etc.; \$8,000 for the grading of streets; and \$1,000 for the improvement of parks.

REGINA, SASK. All the by-laws recently submitted were passed; they were as follows: sewer work, \$143,754.09; paving \$83,772.60; plank sidewalks \$6,324.60; water mains \$190,831.43; trunk sewers \$100,000; park improvements \$40,000.—The tax rate will be cut down by about 2 mills; last year including school, collegiate and library taxation, the rate was 15.88.—The assessment will be about \$80,000,000 and the city's expenditure to be made up out of current taxes will be \$600,000.

RIVERS, MAN. The by-law to borrow \$20,000 for street improvements, was carried.

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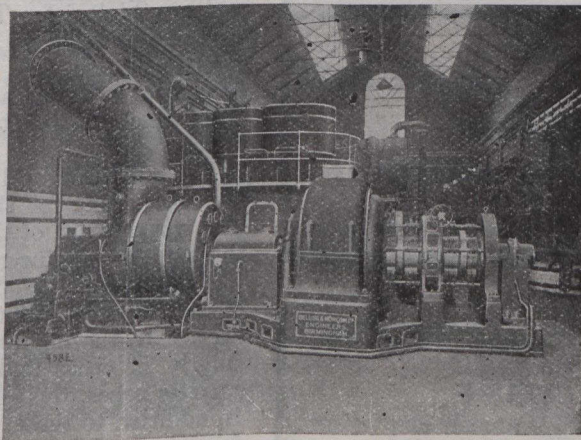
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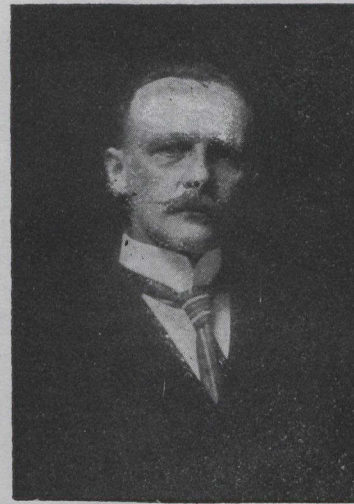
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**Engineers—And**

Refuse and Refuse Destructors



Chas. A. HODGETTS, M.D., D.P.H., Etc.  
Medical Adviser, Commission of Conservation  
(delivered before Stratford, Ont., Board of Trade.)

This question is approached and considered from the standpoint of a hygienist, which includes all health problems' relation,

- (a) to individuals and masses of individuals;
- (b) to environments.

It must in no way be considered that it is dealt with from a medical standpoint any more than it is from a sanitary engineering standpoint.

This introduction is made advisedly, as too much stress is laid to-day upon the American idea that the hygienist should not interfere, indeed should defer to, the sanitary engineer, the sanitary chemist and the sanitary biologist. This as a hygienist I dispute—each is dependent on the other, but the hygienist must co-ordinate, as well as co-operate, with the several specialists in the great field which he must dominate—all of which has for its object the physical improvement of the people.

The collection and disposal of refuse in many of its features is one for the sanitarian to pronounce upon. The working out of the mechanical part of it is one for the sanitary engineer.

The effective disposal of civic waste constitutes one of the greatest difficulties of urban sanitary authorities. In the highest interests of public health, particularly in cities and large towns, the domestic waste such as ashes, dust and refuse food must be removed. In addition to these, there is the debris and waste from factories and workshops, as well as the accumulation of indestructible material such as old cans, pots and pans, and other articles of discarded household use.

The magnitude of the problem of refuse disposal is apparent when it is realized that it is estimated that in cities the quantity of ashbin refuse averages about 200 tons annually for each 1,000 inhabitants.

It is quite true that much of this material could be disposed of in the individual houses if people would burn such materials as bits of paper, rags, potato peelings and the like. It is also true that few householders do so; hence we find, as a result of the omission

# what they are doing

of the domestic act of home sanitation, that our garbage boxes contain an objectionable amount of readily decomposable material which, unless it is systematically and rapidly removed from the premises, soon becomes an actual and serious menace to health.

The disposal of this refuse has hitherto in this country been effected by depositing it on waste ground, constituting that disgusting eyesore to be seen in every part of this continent and known as the "town dump". In most instances the site chosen is either an old pit or hollows. In some instances it is used for the filling in and levelling of marshy land preparatory for utilization of the area as building sites. It can hardly be claimed that the results have been satisfactory; indeed, from a sanitary standpoint, the practice is a most pernicious one and should be discouraged. These "shoots" certainly constitute a serious menace to those, generally the poor, who live in the neighbourhood. Who has not witnessed the indiscriminate manner in which the wind scatters around the paper and lighter material? and who has not encountered the odours arising from the fermentation of the organic matters?—the liquid draining therefrom often spreading beyond the limits of the dump. As a harbinger of flies and vermin commend me to the disgusting dump!

With the growth of the city these muck heaps frequently become the site for buildings and long before the natural agencies have purified the "made soil" (!) all the buildings erected thereon show signs at an early date of defects in the walls owing to settlement.

No well regulated city in Canada can afford any longer to operate these disgusting accumulations of household muck, nor discard the approved methods of accumulation of refuse on the premises and collection thereof in a systematic manner.

The method adopted in all cities having an up to date health department is the burning of all house and street refuse in special furnaces or destructors in which the combustible substances are destroyed and the residuum forms a hard material known as clinkers which may be used as the basis of roadbeds or otherwise made use of.

The object of every destructor is to convert the refuse into fixed and harmless products by means of combustion and to transform the organic matter into innocuous forms of vapour—carbon dioxide and nitrogen. In order to avoid a nuisance during this process it is necessary that complete combustion should be ensured, and all dust arrested before the gases escape up the chimney.

To accomplish this many types of destructors have been designed. Those which have stood the test of experience in the old countries may be divided into two classes:

(a) Slow combustion natural draught low-temperature furnaces,

(b) High-temperature and forced draught furnaces.

The furnaces possess many features in common. They are strongly built of brick with separate cells, each lined with fire brick, the general building being constructed of brick and steel. The destructor is, in most cases, approached by an inclined roadway to the top or tipping platform which is well above the ground level, while in others of a more recent construction the incline is done away with and the bodies of the garb-

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# Engineers—And

age waggons, being moveable, are raised from the truck and carried to the top of the destructor and the contents deposited in a hopper by the opening of the bottom of the body, and the contents are thus fed to the cells by the stokers.

In destructors of the low temperature type a fume chamber is provided, usually at the foot of the chimney. It is, for all practical purposes, a coke furnace, and in it the incompletely burned vapours and fine particles of dust are burned before they can enter the chimney.

In those of the high temperature type a temperature of from 1500 F to 2000 F is attainable by means of a forced draught produced by either steam jet blowers or by fans. Here the combustion is made so complete that the coke furnace is not necessary.

Both systems have their advocates. The steam jet uses from 10 to 40% of the steam produced, while a fan blast uses from 3 to 5%.

The question of adding water gas in combustion is of importance. It must be remembered that the temperature of a destructor cell is usually sufficiently high to decompose the steam and produce water gas during the passage of the steam through the fuel on the grate, and the clinker can be removed from the surface of the bars with comparative ease and the clinker has a hard and vitreous appearance.

The introduction of the forced draught led to the utilization of the waste heat for steam raising for power purposes, and this has led to the introduction of hot air to the blast, thereby increasing the efficiency of cell combustion and the steam production in the boilers.

This hot blast is obtained in the Horsfall incinerator by driving the air through air boxes placed on the sides of the firing bars in the cell.

The following is a brief *résumé* of the American crematories as distinguished from the English destructor:

All of the American garbage furnaces are designated as cremators, crematories or incinerators, following the descriptive titles used by the builders.

Those that survived preliminary stages and can show a record of four or five years of successful use follow the same general form of construction, with minor differences of exterior walls of brick or steel plate, but with the same charging and stoking methods, and the same employment of a secondary fire.

All without exception require fuel for primary combustion of the waste and secondary destruction of the gases.

They were built for the disposal of garbage and light refuse and sometimes included the larger animals and a small amount of night-soil.

They did not dispose of ashes or street sweepings, nor did they deal with the general miscellaneous collection of mixed waste.

They did not employ steam boilers in connection with the crematory, and could not guarantee steam power for any general service.

The exceptions to these general principles apply only to the form of grates, which in one case are hollow iron tubes filled with water, and in another case the burning chamber, instead of being open from end to end, is divided into short cells by transverse partition walls."

Referring to the American type, the Engineering

## what they are doing

News of 1905, in discussing the two types, says: "Some change in the design of American furnaces is imperative."

In the United States fuel is practically always bought and used to burn garbage; in Great Britain it appears that purchased fuel was rarely used to aid in the combustion of the mixed refuse in the early destructors and is never used in the modern installation. Many an American garbage furnace has been shut down for months at a time or finally abandoned because of the alleged excessive cost of fuel.

British destructors have practically always supplied enough heat from the self-burned refuse to meet all the demands for works purposes and to-day they are supplying many hundreds of horsepower for generating electricity and for pumping sewage and water.

Speaking in general terms of the English Destructors, the efficient, as well as the economic working of them depends largely upon intelligent and constant supervision. The maintenance of high temperatures is to be obtained only by continuous feeding. In addition to the regular and proper feeding of the cells, it is necessary for the prevention of nuisances that the fires be stoked regularly and systematically, and that the blast be cut off each time during the clinking process.

Given a good destructor and proper management, civic waste and house refuse is reduced to about one third its original bulk—the residue being innocuous clinker, metallic refuse and dust.

*(To be concluded.)*

### Mr. W. Chase Thomson, C.E.

W. Chase Thomson, M. Can. Soc. C.E., whose experience in bridge and structural covers a period of twenty-three years, as follows: three years with the King Bridge Co. of Cleveland, Ohio; seventeen years with the Dominion Bridge Co. Limited of Montreal; and the past three years as manager for Canada, with the Cleveland Bridge & Engineering Co. Limited of Darlington, England, has opened an office in the New Birks Building, Montreal, for the purpose of practicing as a consulting engineer, and will make a specialty of bridges and other steel structures. He is prepared to furnish designs with specifications and estimates for contemplated works, as well as to make reports on existing structures.

Mr. Thomson is a well known contributor to the Engineering Journals, and has written two books: "Bridge and Structural Design" and "The Design of Typical Steel Railway Bridges" which books are text books that are extensively used both in colleges and engineering offices, throughout Canada and the United States.

### Profits on Sewerage

That sewerage works can be made not only self supporting but profitable—at all events in England—is shown in the experience of Brantford. Last year, the profits on the grease extracted from the sewerage were \$150,000. The town is now spending \$300,000 on new machinery, and hope to increase the profits by another \$100,000 on the grease, and has also found a market for the fertilizer.

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## what they are doing

Meeting are received and discussed reports of Committees, and papers giving the results of researches made by individuals.

The recent Annual Meeting which was the Sixteenth, lasted from June 24th until June 28th inclusive, and of the 1500 members of the Society about 400 attended, bringing with them about 100 ladies.

In regard to the relation between our subject and municipal corporations, we feel that we can but feebly state the case. We will not admit that there is any such thing as "boodling" among civic officials, but still we claim that a very great part of the public's money is wasted by mismanagement and ignorance, rather than wholesale dishonesty.

Councils, you save \$1,000 on your engineers and you lose \$100,000 on your contractors and cheap masqueraders, and then the work is seldom satisfactory. By all means employ honest, intelligent, well trained men, and pay them salaries that will enable them to be so. And so too have at the command of your Purchasing or Stores' Departments, men of knowledge and judgment and put your faith in them, for their pride is quality, economy and efficiency, rather than patronage, slick deals and quick fortunes.

### Queer things about taxation

Once upon a time the editor of this paper became possessed of the laudable ambition to own a home. Having managed to save up a few dollars, he purchased upon the payment plan, some property which had been taken in on mortgage by an Eastern investment company.

The house was in such bad repair that it was not fit for occupancy. The cellar was full of stagnant water, weeds grew rankly about the house, the porches were rotted and sagging, the house unpainted. The lot was a couple of feet above the sidewalk, and the earth had washed and caved, making it impassable. The place was an eyesore and a menace to health; we wanted a home and saw its possibilities.

It was located in a good neighborhood, and from it we had a beautiful view over a pretty valley. Being rather handy with tools, we went to work before and after office hours. We repaired the porches, painted the house, sodded and terraced the yard and drained the cellar and put in curbing and parking. We worked early and late, until at last we had, as many people told us, one of the prettiest homes in the town—and then the assessor came around and doubled our taxes.

We were fined because we had worked hard and converted disorder into order, ugliness into beauty, and had wiped out a plague spot in the neighborhood. It is also true that the owner of a few vacant lots adjoining our place immediately advanced them in price, but neglected to cut the tail weeds which grew on them. It may be added that his taxes were not increased, notwithstanding the fact that he held his lots at a higher price.

We have told this story because the statement itself ought to cause some one to do some hard thinking. There surely is something radically wrong with a system of taxation in which a person is fined for merely being industrious.—Delphos Republican.



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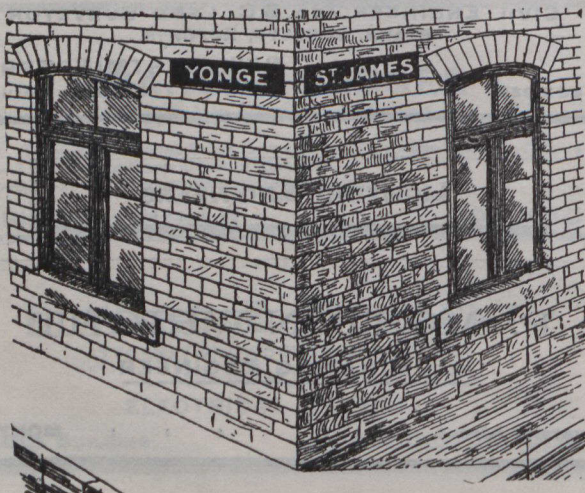
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