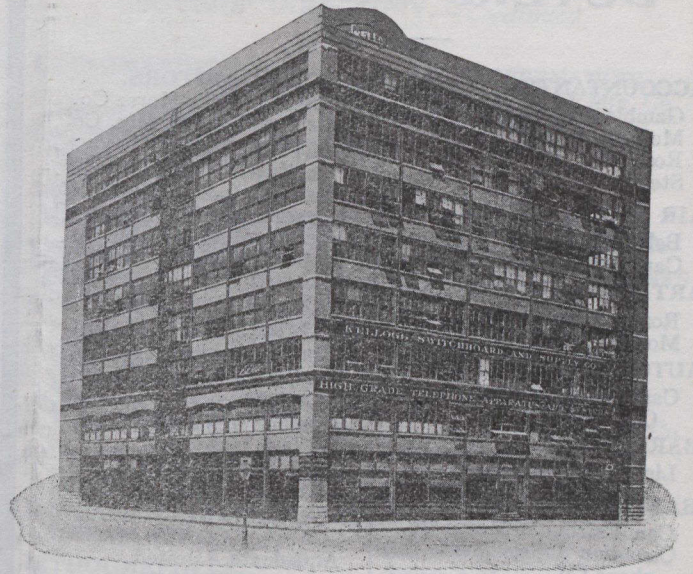


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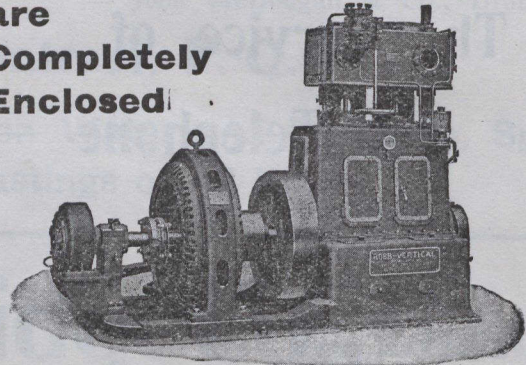
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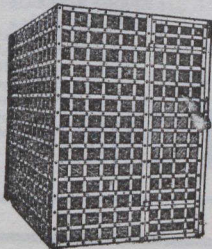
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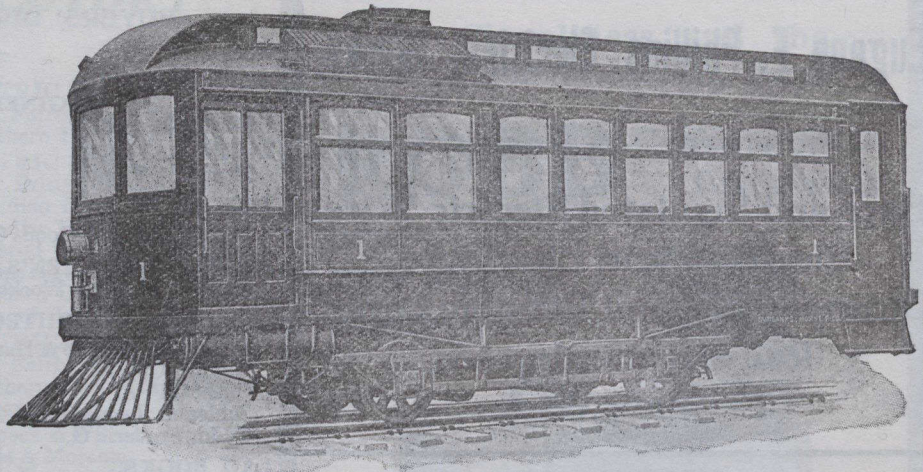
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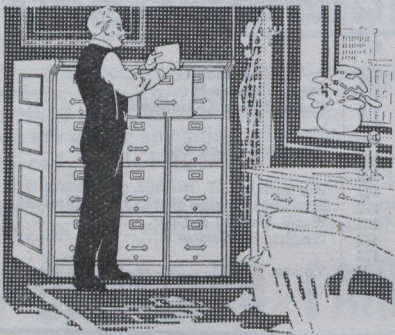
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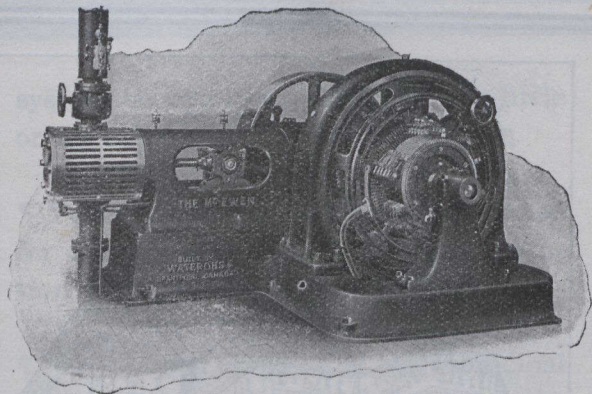
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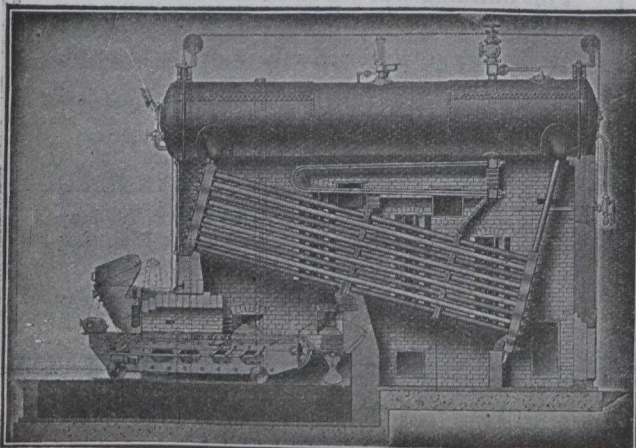


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# THE CANADIAN MUNICIPAL JOURNAL

AND REVIEW OF CIVIC IMPROVEMENT

HARRY BRAGG, EDITOR

## City Government League of Edmonton, Alta.

The City of Edmonton, Alta., has been for some time enjoying the reputation of having very up-to-date municipal legislation.

It has not only adopted the Single Tax—or rather the Land Tax—but has also abolished the Ward system, except by considering the lately annexed City of Strathcona as a ward, with certain privileges on the old lines.

It has published the success of a so-called Commission form of Government, though the Commissioners have been only salaried employees engaged by the City Council, which has—so far—been allowed to remain.

It now appears that all these modern innovations are not enough for some of the citizens, and a "City Government League" has been formed, whose "purpose is to tell the story of Elective Commission form of Government."

It has already engaged the services of printers' ink and a circular issued by it now lies in front of us.

Naturally, with such a "purpose," the presentation of Elective Commission Government is in the most rosy colors. The cover makes one understand that the Elective Commission Government means "Government of a City through Direct and Continuous Force of Public Opinion."

This is far too much to claim for any system of Government, for that fickle jade, Public Opinion, is very apt to go to sleep or even disappear after some victory of moral reform, until the never-sleeping forces of evil become too assertive and confident. The intended argument in favour of Elective Commission Government is too sweeping to be worth very much.

On the next page is a definition of this ideal system. We read that: "City Government by Elective Commission is the modern and approved plan whereby people directly govern themselves. It is the government of a city through direct and continuous force of public opinion. Its simplicity is exceeded only by its effectiveness."

That of course ought to settle the whole question, but the statement is open to criticism. Who has power to make it the "approved plan"? There are still a good many cities which have studied it, and have not "approved" it. There are still many students who have been studying it for the whole of the few years of its short existence, who do not "approve" it. There are many more who sensibly want further experience, and who have not as yet "approved" it.

■ The claim that by it "people directly govern themselves" cannot be confined to this new system. It is equally applicable to every elective system. The citizens of Edmonton are governing themselves directly today. So that this is quite misleading.

Its "simplicity" is a matter for debate. Unfortunately, as its rabid supporters admit, it must be accompanied by the new ideas of Initiative, Referendum and Recall, which are acknowledged in the pamphlet to be "safeguards" lest the Elective Commissioners should prove to be tyrants or boodlers. Now the "simplicity" of this complicated system, as compared with a municipal Government as formed in Canada,

seems rather a joke, while the necessity of "safeguards" makes one suspicious of its being so very perfect.

A weak point in the plan laid down in the pamphlet is that, after election, the Commissioners divide the different departments among themselves as they like. So the citizens have not the opportunity to choose a man for a certain position because he is specially qualified for it.

So far the pamphlet is merely enthusiastic and one-sided, but the third page starts off with a sentence which is absolutely misleading. It says:—

"There is a reason why over 300 cities in the United States and Canada have adopted the Elective Commission Form of City Government. The old system of city government, embracing aldermen, failed to get results. Unsatisfactory conditions prevailed. Hence the change."

This evidently implies that at least several cities in Canada have adopted the system. Do the authors know that only a single city in Canada, St. John, N.B., has adopted the Elective Commission Government? If they do not, they should not rush to the public with wild statements; if they do, they should not issue statements which must mislead those who do not know.

"There is," quite truly "a reason why" 300 cities in the States have adopted Elective Commission Government, but it is because conditions existed there that do not obtain in Canada. As we have pointed out more than once, the long ballot, with its party symbols, and the consequent party domination, is largely responsible for the willingness to change to any form of government which seemed to offer relief. Municipal government in American cities is so entirely different from our Canadian system, that it is absolutely unfair and ridiculous to say that because American cities are wise enough to make certain changes, Canadian cities should follow their example.

The authors of this little circular should obtain a copy of a pamphlet by Prof. William Bennett Munro, Professor of Municipal Government in Harvard University entitled "Should Canadian Cities adopt Commission Government," and they would get the opinions of an expert of high standing. We reviewed this and based an editorial upon in our February number, and wish that those responsible for this League would read his pamphlet.

Of course, these who believe in the new idea are at perfect liberty to advocate it, but they should try to understand all the circumstances which made for its adoption in the States; study the entirely different conditions here; and then avoid making misleading and erroneous statements to support their plea for its adoption.

■ Edmonton has been fortunate in securing the services of able and public spirited men to act as its Mayors and Aldermen, and in the present Mayor has a careful student of civics.

■ But neither Edmonton nor any other city need expect perfect government—of any form—unless perfect men can be procured. As for Public Opinion—that can be just as powerful under the present system as under a new fangled one.



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MONTREAL, NOVEMBER, 1913

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## Sherbrooke, Que., in Line

Sherbrooke, Que., is proving its claim to be a really live city by taking up the question of sewerage purification. The existing sewerage system will be improved and a purification plant installed.

Sherbrooke is only forestalling what is certain to be made compulsory within a very short time.

It is appalling to think of the callous way in which practically every city turns its raw sewage into any convenient stream, regardless of the fact that the same stream furnishes the drinking water of other places.

## No Evasion of Building laws

A real estate Company in Montreal has purchased the site of the old "Herald" building at the corner of St. James Street and Victoria Square, Montreal, and have asked the permission of the city to put up a sixteen storey building—they even went so far as to have plans prepared for such a building.

But the Building By-laws of Montreal—very wisely—limit the height of buildings to 10 storeys, and 160 feet in height.

And—again very wisely—this restriction will not be withdrawn, even though one side of the site points on a fine square, where the limit might easily be different from the narrow streets.

The Building By-Laws of Montreal are worthy of imitation in preventing sky-scrapers which are as unnecessary as they are hideous in any place except New York, where the city is hemmed in by water on both sides. They would be more reasonable and sensible if the limit were even lower on the narrow, old-fashioned streets. For the true standard for the height of buildings up to a certain maximum, is to be set by the width of the streets or squares on which they front

It is a pity that Toronto did not stick to her By-laws, instead of allowing breaches for certain buildings the result of which will be to intensify the congestion at that already crowded corner where Yunge ond King Streets cross.

In respect of maintaining her By-Laws, Montreal is certainly ahead of Toronto.

## Schools—or Police

According to Dr. M. P. E. Grossman, of Plainfield, N.J., the founder of the National Association for the Study and Education of Exceptional Children, the amount annually spent on police and protection in the United States is half a million dollars more than on education.

This is a statement of fact, and can easily be verified.

But Dr. Grossman goes further and claims that if more was spent on education, the necessary cost of policing the country would be less.

This is not a statement of fact, but an opinion.

But we fully agree with the Doctor, if he will include supervised playgrounds as an intrinsic feature in education, and add to his programme the possibility of home training in decent surroundings.

The occasional criminal found in the educated classes is a lapse from general training and environment, as well as from educational advantages.

Too few of us realize that our moral and law-abiding characters are the result of inheritance and environment, as well as of education.

The police forces everywhere are far too costly, and they could be materially reduced if the public grasped the meaning of Prevention being better than Cure.

## Calgary's Municipal Success

Calgary, Alta., is again giving the lie to those who say that municipally owned utilities never pay.

The report of the municipal street railway for the past year shows the handsome profit of \$64,492, after charging all up fixed charges, and allowing fully for depreciation. Out of the gross earnings of \$200,000, there was set aside \$84,000 for interest on bonds; \$30,723 for sinking fund, and \$35,502 for depreciation outingencies.

And yet the man who poses as *the* authority on municipal ownership states that he does not know of a single case where it has proved profitable!

## The Single Tax

In a recent number that admirable paper, the "Outlook", published an article on "The Single Tax" which is of great interest to Canadians.

After a brief description of the inception of the idea, the writer discusses the progress made since Henry George's book "Progress and Poverty" first advocated it 34 years ago.

In New York and New Jersey "there is a definite movement in favor of increasing the taxes on land and decreasing them on improvements." But it is an admission that is confirmed later that "it has surprized us to learn what the progress of the Single Tax has been in various parts of the world in the last four years."

The article then gives this progress in different parts of the world.

In Great Britain, Lloyd George's Act of 1909 is given, and though the change is qualified as "a short step", we hardly agree with this. For a nation which has been admittedly largely under the control of the land-owning class to adopt an increment value duty is, we believe, a very tremendous step.

In Germany, the success of an increment tax on the Colony of Kiaochan led to its adoption by Frankfort and Cologne and others, until in 1910 the increment tax had been adopted by 457 cities and towns, and in the following year an Imperial increment tax was introduced.

In Australia, Queensland has exempted all improvements, and the other states are following.

New Zealand began with a graduated land tax in 1891.

Turning to the Dominion, the article points out that in British Columbia since 1892, municipalities could not tax on more than 50 per cent of the value of improvements, and the Government has declared that all Provincial revenues will be raised from the land.

In Alberta by an act last year all municipal taxes are to be levied on the cash value of the land only.

In Saskatchewan a new act requires rural municipalities to tax land only, and to tax unoccupied lands at a higher rate.

In Ontario, 300 municipalities have petitioned for power to reduce taxes on improvements.

The deductions of the writer are very interesting. He says:—

"In contrast with these gradual, patient British and Colonial attainments, the record of the United States for actual achievement is a comparative blank. This condition in the birthplace and home of the great expounder himself is not easy to account for.

"The chief factor in the practical attitude of the two nations is the difference between the English and the American methods of procedure. In England the voters begin at once to discuss among themselves and within themselves the advantages of the land tax, and straightway, by the very cohesion of a common thought, they set about to get it, with, as it were, one heart and voice, by enactment of land laws. In this country the voters are of different type; they are mostly too busy to concern themselves with making even their own laws. Consequently the cause has been consigned to scattered organizations, which have proceeded to discuss the theoretical possibilities and impossibilities and probabilities of every phase of the Land Tax question, combined with other questions more or less related, to the end of the catalogue.

"The moral is that education and not partisan propaganda is the surest path to the triumph of that economic justice which alone can solve our economic problems."

It is satisfactory to see a magazine of the standard of the "Outlook" thus point out the way in which public opinion in the British Empire is gradually formed, and then changes the laws without any great outburst of public feeling.

Like most other reforms, that of the taxation of land is being urged forward—not by its ardent advocates, but by the entirely selfish attitude of the land speculator.

## A Powerful Monopoly

The power of some of the monopolies which operate public utilities, great as it is, is being discounted by the creation of "holding companies." These have been formed to accentuate the power of their component companies by combining.

The old Cataract Company, for instance, was bad enough. It secures power at Decew Falls, near Hamilton, Ont., and was credited with having the lowest cost of production. But, as it formerly controlled the City of Hamilton, Ont., and had great power in London, Ont., it was able to sell power at the highest price that prevailed in the Province. Of course, its wings have been clipped by the Hydro-Electric Commission, and by its gradually losing control of some city Councils. But it is now controlled by the Dominion Power and Transmission Company.

This is a "Holding Company" which controls the following Companies:

Hamilton Radial Electric Rway.  
 Brantford and Hamilton Elec. Rway.  
 Hamilton Street Rway.  
 Hamilton and Dundas Street Rway.  
 H. Grimsby and Beamsville Rway.  
 H. Elec. Light and Cataract Power Co.  
 Dundas Electric Co.  
 Lincoln Electric Co.  
 Western Counties Elec. Co.  
 Brantford Electric and Operating Co.  
 Welland Electric Co.  
 Hamilton Terminals Co.

The Company's net earnings for 5 years have been:—

1908.....	\$625,671
1909.....	\$727,747
1910.....	\$861,323
1911.....	\$1,020,643
1912.....	\$1,204,000

Thus the earnings in 1912 are 90 per cent. larger than in 1908. And as 64 per cent of the earnings come from railways and lighting, it means that the public were paying last year nearly double to the Company, compared with 1908.

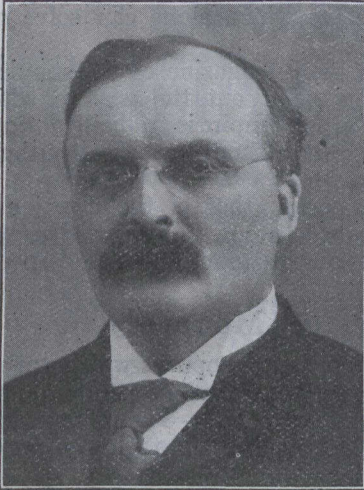
The question arises, how much was the Company giving to the public in increased accommodation and better service in return for this enormous increase?

## Professional Accounting

The city of Edmonton, Alta., has fallen into line as to the advisability of having its municipal accounts audited by a firm which is not only independent, but also fully competent to do the work satisfactorily and to give a report which will not be prejudiced nor cynical. The firm chosen is Mess. Macintosh and Hyde, whose head office is in Montreal, and who recently completed an audit of the books of the City of Calgary, Alta., which we noticed in a recent issue. The need of civic auditing which is both independent and competent is gaining ground everywhere.

## Prison Reform in Ontario

HON. W. J. HANNA, Provincial Secretary



It may not be amiss to refer briefly to the origin of prison labor and its introduction into Ontario. Within living memory society dealt with its criminals as a class only to be punished and, if necessary, exterminated; idleness was enforced; torture was substituted for reform. Then it was recognized that the merely punitive policy had completely failed, that torture should be abandoned and that enforced idleness was as cruel as bodily torture. At first, as a remedy, resort was made to labor merely as a means of punishment. Prisoners were set to exhaustive work without any regard to its being productive. This was the age of treadmills, of loaded cranks, of shot drills and the carrying of heavy loads from place to place. In time the failure of those as a reformatory measure was admitted and the necessity for productive labor was advocated.

Today only extremists say that prisoners should not be employed at productive labor. Everybody else agrees that from every point of view, physical or moral, practical or humane, prisoners must be put to productive work. The problem is to reduce the competition of convict labor to a minimum, and especially to reduce the proportion of prison-made goods that are sold in the open market. This problem has been ever present since productive labor was advocated.

Because Prison Labor in this Province, as well as elsewhere has been a difficult problem, the Provincial Government in 1907 appointed a Committee of the Legislature, whose report was adopted in 1909, and as a result early in 1910 we purchased the farm at Guelph; and in April moved up our first lot of prisoners, and put them to farm work, without lock or gun or prison garb.

The fall of 1910 found us with 180 men and the winter saw teaching for a couple of hours a night established in the Institution.

How have the men been employed? From the very outset there has been more work than men. There were the lands to clear, fields to cultivate, ditches to open, tile drains to put down, roads to build, bridges to construct, fences to build, temporary premises to erect, quarries to open.

This was followed by the construction of our lime kiln, lime hydrater, brick and tile plant, sand and gravel pit, temporary sewage system, followed by a permanent one, (the effluent from which will be as harmless as modern science can make it,) waterworks, quarries for lime purposes concrete and roads, building tone, and the construction of permanent buildings, as far as possible with our own material and with the work of the prisoners themselves.

Then there were the field crops, hoe crops, vegetable garden, dairy, hogs and hens. There is a lot of useful work in growing 6,000 bus. of potatoes, 8,000 bus. of grain, 300 tons of ensilage, with 20 acres of mangels and turnips for upwards of 100 cattle, and enough table vegetables to meet not only our own requirements, but with considerable to spare for other institutions as well.

The dairy is essentially our own,—our own material dug and quarried on the premises, with brick and till manufactured by the men, with some of the best work in the way of floor and manger construction supervised by a prisoner who took as much interest in it as if it were his own. This dairy with its 80 cows takes the work of seven or eight prisoners.

In our north-western country round, Fort William and Port Arthur, we have an average gaol population of 65 prisoners with accommodation for thirty.

When we took up this question of moving back to the lands the Minister of Crown Lands found unlocated some 1,000 acres of fertile land with all the timber standing.

Last summer we established a camp on those thousand acres of 50 prisoners.

The men set to with a will, and in five or six days, cleaned up five or six acres, which were immediately planted in turnips and potatoes with the result that

last year we grew some several hundred bushels of roots of splendid quality.

In the last six months, they have chopped and windrowed about 300 acres, cut roads around and through that thousand acres where roads were surveyed, and have built themselves permanent quarters. They have also put down wells.

We have fed them well and they have worked well, and have given us a good return.

The men have worked on with an interest that is most encouraging. More than once a prisoner whose time was up on Saturday morning would ask if he would be permitted to remain until Monday morning.

How many men have charge? But four paid men, all told. We have but one man as guard over the whole lot of forty-five or fifty men who form our average population and who frequently operate over an area of 200 or 250 acres of land. We have a watchman, but he is himself a prisoner.

How about escapes? We had at Fort William camp some three or four escapes, but will anyone say that work should be stopped, or plans abandoned because out of a population of some 200, some two or three have failed to live up to the trust reposed in them?

We are to-day looking into that north country for other locations, because we have a lot of men at the Soo, and at North Bay. We purchased near Whitby some 600 acres for the transfer of Toronto Asylum. There was much work to do. Farm work, of course, but with that we did not trouble the prisoners. But there was construction that we did try to do with patients, and we went to Central Prison and selected some 40 or 50 prisoners, sent them down to Whitby, and set them to do what?

The site covering many acres of land was laid out, there was drainage, there were railroad sidings, sewers. And we set those 45 prisoners at that work. We carried at Whitby an average population of about 65, all out in the wide open, all doing work subject to rules, regulations and discipline, but all working without lock or gun.

These men have given in return for the confidence that we have reposed in them a full efficiency in work, just as full as we could have purchased at \$2.00 per day, and we have yet to have the very first attempt at breach of discipline or violations of the rules.

So we have at Guelph, 320 men; at Fort William, 50 men; at Whitby, 70 men, all working in the open. That is to say, 440 men, giving a full percentage of efficiency, everyone of whom four years ago would have been confined in the old time prison with all that it entailed.

## The Government of Montreal

The question of making changes in the government of Canadian cities is exciting a good deal of interest in all kinds of circles, both municipal and otherwise.

As will be seen by referring to the Report of the U. C. M. Convention in our last issue, considerable time was occupied in discussing the various varieties which are called—and mis-called—Commission Government; and there was a great variety in the opinions expressed.

Reference was made to the government of Montreal by Mayor Lavallee and Ald. Boyd, both of whom believed that the present form would be changed or modified.

For many years the ordinary system of Canadian City Government prevailed, that is by electing a Mayor by all the citizens, and two Aldermen from each ward; then dividing up the actual government into Committees of the Council. Of course, the elections were never mixed up with Federal or Provincial ones; nor were they ever obscured by the election of paid officials.

But the wards in Montreal grew by annexation, and Council became unwieldy, so a change was sought, and what may be called the Canadian form of civic government was adopted; that is a Mayor and four Controllers were elected by the city, and one Alderman from each ward.

A body of business men of all races, creeds and parties was formed as the Citizens' Association, and this was largely instrumental in securing the new form of government and in the election of the Council, and it speaks well for the broad spirit of the citizens that the guidance of this body was followed, though many would have voted otherwise.

Unfortunately at the second biennial election, some men were returned who would not act harmoniously and who have tried to prove that the system is wrong.

As a result the Citizens' Association proposed some amendments which are modifications of the existing system, the principal one being the division of the city into five large wards, which are to elect three Aldermen each. So that the Council will consist of the Mayor, four (or five) Controllers, and fifteen Aldermen.

The problem of the government of Montreal is an exceptionally difficult one owing to local conditions.

The population for many years was overwhelmingly French speaking. And yet the "unwritten law" of the Mayor being alternately an English-speaking Protestant, an Irish Roman Catholic and a French speaking Roman Catholic, was always honorably observed.

This balance in the population has gradually changed until now the English speaking and French speaking citizens are nearly on a par—though the former include the foreign element.

As will be seen by the table of wards and electors on another page, there is a tremendous difference between them; for while the East Ward (in the business section of the city) has only 786 electors, Laurier Ward (a suburban district, recently annexed,) has 10,498. This is one reason why the re-distribution into five wards is advocated, so that each alderman will represent a fairer proportion of the whole. Of course in the older wards, the value of property is quite as large as in the newer suburban wards.

The difficulty therefore lies in keeping the proportion between population and business values.

As an old servant of the City said in discussing it with us, "We French speaking citizens have to

recognize that the vast business interests of the English speaking citizens demand as much consideration in city government as do our more numerous citizens. It is," said he, "a difficult problem, when some fanatic of either language may raise a sectional cry at any time."

But it is most encouraging to see the leaders of all parties, sects and languages uniting in a serious study of what is best for the city as a whole, and not for any party or section.

The solution must be based on the City's motto, "Concordia Salus," "There is Safety in Harmony."

## Protecting the Law Breaker

A little over two years ago women and girls were burned to death in the factory of the Triangle Co., New York, because they were all locked in.

Like most evils, good arose from this culpable accident, and a law was passed making it penal to lock the doors of factory lofts during working hours.

One of the Triangle Co., Max Blanck has just been found guilty of the crime for which the new law was introduced, he having locked in 150 women and girls.

His case came before Chief Justice Riddell and Justices Kernochan and Herrman in special sessions. These learned judges have the option of fining the accused up to the terrible amount of \$50, or sending him to jail for 20 days.

What did they do?

They fined the miscreant the minimum penalty of \$20, practically apologizing for being obliged to take money from such a public-spirited citizen!

Is it any wonder that socialism is rampant?

Is it marvellous that members of American Bar Association spoke of the judiciary in the way they did?

Is it any wonder that tragedies occur almost daily?

Evidently these ornaments of the bench thought the whim of an employer—for locked doors in a factory are unnecessary and ridiculous—more worthy of consideration than the risk of the lives of 150 women and children.

## Canadian Public Health Association

At the third annual Congress, recently held in Regina, Sask., the following officers were elected:

Dr. M. M. Seymour, Provincial Health Officer for Saskatchewan, President. The names of Hon. W. J. Hanna and Hon. George Langeley were added to the Honorary Presidency and Vice-Presidency. Vice-Presidents, J. W. Page, Quebec; T. Aird Murray, C. E. Toronto; Duncan Anderson, Toronto; Prof. J. A. Amyot, Toronto University; A. R. Whitla, Edmonton, and H. B. Lustin; General Secretary, Major Lorne Drum, Ottawa; Treasurer, George D. Porter, M. S., Toronto.

Fort William and Port Arthur were selected for the congress of 1914.

The association elected the following members as an executive Committee for the ensuing year: The President, General Secretary and Treasurer, ex-officio; Dr. C. J. Hastings, Toronto; Dr. C. A. Hodgetts, Ottawa; and Dr. Duncan Anderson, Toronto.

## Another Board of Control

A proposal has been made by one of the aldermen that the City of Quebec should adopt the system of a Board of Control.

Quebec is evidently not carried away by the American fashion of Commission Government, in spite of the enormous crowd of American visitors who come to see the Plains of Abraham.

**Wards in Montreal**

The table below shows the existing 31 wards in Montreal, and the way in which it is proposed to group them into 15 wards. It will be noticed how the population varies. In the olders ones, residences have given way to business blocks whose sole occupant, from a legal point of view, is the caretaker and his family. In some of the newly annexed ones, the area is largely fields, subdivided into lots, but with few buildings on them:

No. 1—	West.....	1,659
	St. Ann.....	5,183
		<u>6,842</u>
No. 2—	St. Lawrence.....	5,481
	St. Louis.....	6,477
		<u>11,958</u>
No. 3—	St. Andrew.....	3,634
	St. Cunegonde.....	2,553
		<u>6,187</u>
No. 4—	St. George.....	3,452
	St. Joseph.....	4,441
		<u>7,893</u>
No. 5—	St. Gabriel.....	4,464
	St. Paul.....	910
		<u>5,374</u>
No. 6—	East.....	786
	Centre.....	1,242
	St. James.....	3,375
		<u>5,403</u>
No. 7—	St. Henry.....	6,975
		<u>6,975</u>
No. 8—	Notre Dame de Grace.....	2,944
	Mount Royal.....	792
	Cote des Neiges.....	208
	Emard.....	1,773
		<u>5,177</u>
No. 9—	Laurier.....	10,498
		<u>10,498</u>
No. 10—	Ahuntsic.....	1,029
	Bordeaux.....	982
	Part of St. Denis, (approx).....	6,000
		<u>8,011</u>
No. 11—	Part of St. Denis (approx).....	6,800
	Delorimier.....	3,705
		<u>10,505</u>
No. 12—	St. Jean Baptiste.....	5,406
	Duvernay.....	3,512
		<u>8,918</u>
No. 13—	Lafontaine.....	5,794
	Part of Papineau (approx).....	3,000
		<u>8,794</u>

No. 14—	Remaining portion of Papineau (approx).....	5,730
	St. Mary.....	5,565
		<u>11,295</u>
No. 15—	Longue Pointe.....	1,861
	Rosemount.....	432
	Hochelaga.....	5,889
		<u>8,182</u>

**Washington, D.C. Government**

Washington is a city which is most emphatically not ruled by "the mob." Its executive jurisdiction is in the hands of three Commissioners appointed by the President, and legislative jurisdiction is exercised by Congress. No "wave of popular passion" can affect this government, and if such independence tends to make government better, then Washington ought to be the best governed city in the world—outside of Russia or Turkey. But what are the facts? A congressional sub-committee of which Henry George, Jr., is chairman, has been conducting an investigation, and developments show that conditions could not be worse even under a system of universal suffrage in connection with the Initiative, Referendum and Recall. The documentary account of hearings before the Congressional Committee, together with its report, may be had from Congressmen. While mainly dry reading, as such documents usually are, there is still much within it that is interesting as well as enlightening.

One example of discrimination mentioned in the report is especially noteworthy. John R. McLean, proprietor of the Cincinnati Enquirer and of the Washington Post, is owner of considerable property on the same square as the Shoreham Hotel. Mr. McLean wanted to add the hotel property to his holdings and made an offer for it which was not accepted. But on account of this offer the assessment of the Shoreham property was increased 50 per cent. But this increase was not put on the land but on the building, which is 25 years old. Why? Because had it been put on the land it would have necessitated a similar increase on Mr. McLean's property, and for some mysterious reason the assessor felt tender toward Mr. McLean. It futhermore appears that Mr. McLean has a home on 76 acres of ground assessed at \$3,500 an acre, while other property in the same neighborhood has been sold at prices ranging from \$15,000 to \$40,000 an acre. Mr. McLean's residence and other improvements are assessed at \$25,000, when that sum, according to the testifying expert, Herbert Browne, "will not pay for the stone wall which runs in front of his property." At the same time 40,000 small homes in the District are assessed at their true value. Is there any occasion for wonder that John R. McLean likes this system and in his two papers fights incessantly against attempts to change it?

Another incident well illustrates the effect of a system that levies taxes on labor and its products. A resident of Washington had his porch painted. His assessment was promptly increased \$500 on account of this improvement. Such incidents are, of course, not confined to Washington. They have much to do with discouraging industry. The tendency in progressive cities is to get away from such methods. The people of the District should have authority to rule themselves and to raise their local revenue in the way they think best. But if Congress insists on keeping them in their present helpless condition, it should at least put an end to this inexcusable and disgraceful tax system. "The Public."

## Good Roads' Convention

A very important combined Convention on the subject of good roads in the United States will be held in Philadelphia, Pa., next month, December 9th to 12th. This comprises the 4th American Good Roads Congress; the 10th Annual Convention of the American Road Builders' Association; and the 5th Annual Good Roads Exhibition. The programme includes almost every problem connected with the important subject of Good Roads, and the Exhibition is promised to be unusually attractive. Canada is ably represented on the list of officers by Mr. W. A. McLean, C.E., Chief Engineer of Highways of Ontario, and also appears on the programme, a compliment to the Dominion, as the organizations are "American", and not International. The programme is as follows:

### Subject A.—Organizations

1. Highway Officials, Their Duties and Powers.
2. Division of Expense, Responsibility and Authority Between Nation, State, County and Town.
3. The Relation to Each Other of the Contractor, Engineer and Inspector.
4. Details of Arrangements for the Use of Convict Labor

### Subject B.—Construction

1. Determination of the Amount of Realignment, Grading and Drainage to Be Done in Connection with Road Improvement.
2. Factors Governing a Proper Selection of Road or Street Pavement.
3. Details of the Construction of the Various Kinds of Roads and Pavements.

Ten minute papers on the following subjects: Earth Roads; Sand-Clay Roads; Gravel Roads; Water Bound Macadam; Bituminous Macadam and Bituminous Concrete; Brick; Concrete; Wood; Granite and Asphalt Block; Sheet Asphalt.

4. Unit Price and Lump Sum Contracts and Percentage Work.
5. The Testing of Material for Road and Street Construction.

### Subject C.—Maintenance

1. Sub-Organization for Securing Efficient Maintenance.
2. General Methods of Repairs and Renewals.
3. Bituminous Surface Treatment and Dust Prevention.

Further particulars can be obtained from the secretary, Mr. E. L. Powers, 150 Nassau St., New-York.

## CHILDREN AND HORSES

The following testimonial is condensed from a bulletin issued by the Illinois Bankers' Association:

"In a certain district the farmers decided to improve the breed of their horses. They formed a company and paid three thousand dollars for a very fine imported animal. Realizing that so valuable a horse ought to have intelligent care, they employed a good man at seventy-five dollars a month to look after him. Three members of the horse company comprised the school board for the district. Their most important duty in connection with the school consisted of selecting a teacher. The one they hired was a slip of a girl who hardly knew enough to boil water without burning it, but she had one qualification that proved irresistible to those directors—she was willing to work for thirty dollars a month."

## Charter Amendments

The City of Toronto has decided to apply to the Ontario Legislature for legislation providing for:—

Assessment reform.

The imposition of a wheelage tax on all vehicles used in public thoroughfares and the regulation of the width of tires.

The placing of the medical inspection of schools in charge of the Medical Officer of Health.

Authority to pass by-laws to set aside defined districts for residential purposes only.

The imposition of a charge for the use of portions of highways by builders for the storage of material.

The licensing of public garages and civic control of the location of private garages.

Regulation or prohibition of operation of street pianos by females or children.

Extension of the act governing stationary engineers to include portable engineers.

An increase in the municipal license fee for circuses from \$500 to \$2,000 per day.

Appointment by City Council of a second representative on the Toronto Hydro-electric Commission who is not a member of the City Council.

## A Mistaken Resolution

The City Council has again decided to seek power from the Legislature to abolish the system by which proprietors pay the cost of street paving in front of their properties. The idea of the majority is that the money required should be borrowed. It is unfortunate that such action should be taken. It is trusted the Legislature will not accede to the demand. When the Legislature limited to 1 per cent. of the assessed value of the real estate of the city the extent of the city's power to raise revenue, it practically made it necessary to borrow heavily to provide good roadways, parks, etc. Then much was borrowed and spent on street widening. The result was that for years so great a proportion of the annual revenue was absorbed by the debt charges, that with the exception of water and fire protection not a single municipal service approached the proper standard of efficiency. There has been improvement in the past few years; but even in 1912 of the annual revenue of the city available for use in its departments of \$7,592,000, quite 30 per cent. or \$2,342,000 was required to pay interest and charges upon the debt. What is left is not sufficient. Neither the streets nor the parks are kept in the condition that is to be desired. If the ordinary revenue is to be burdened with the charges involved by recent borrowings for street works and by borrowings for projected new works the amount available for the regular municipal services will again be reduced to an extent that will affect their efficiency. There would be neither economy nor wisdom in the situation. The system of compelling proprietors to pay for works that improve the availability or value of their properties is not wrong in principle, though it may in cases be inconvenient. It has been adopted and it had better be retained.—Montreal "Gazette."

## Civic Pride

Every city needs a distinctive spirit which makes the people of the country sit and take notice. If the civic spirit has nothing back of it more than its pride it soon becomes rusty and useless; to become prominent it must be underlaid with a love which commands the combined energy and activity of all the people and a zeal which promotes the comfort and welfare of the people and the prosperity of every industry and business within its borders.—Halifax, N.S., Echo.

## Modern Sanitation

### The Royal Sanitary Institute

The Royal Sanitary Institute, though it has its headquarters at Buckingham Palace Road, London, England, is not by any means a purely English body, for it has Branches and Examination Boards established in almost every part of the British Dominions; and in the Dominion of Canada, Boards of Examiners have been formed and are being extended in four of the Provinces.

The aim of the Institute is the promotion of Sanitary Science in all its branches, and the diffusion of knowledge relating thereto. The Institute was founded as far back as 1876, just after the passing of the first great Public Health Act in England, and at that time the number of those who took much interest in sanitary matters was quite small. The Institute started with a Membership of 100, but its growth was steady, and in 1888; it amalgamated with another body working on similar lines, "the Parkes Museum of Hygiene". Since that time, owing in large measure to the results of its work in stimulating interest in matters of hygiene and sanitation, it has continued to grow rapidly, until now its Membership is over 4,500, and includes representatives from almost every country in the world.

One of the most striking results of the Institute's educational work may be traced in the broad meaning now attaching to the terms "Sanitation" and "Hygiene". In the early days of the Institute it was difficult to persuade the ordinary layman that sanitation meant anything more than good drainage, and the avoidance of bad smells; "sewers" and "sanitation" were regarded as synonymous terms; but nowadays the activities which are carried on by the Public Health Departments of our advanced Municipalities are infinitely varied and comprehensive. The inspection of dwellings; the control of infectious disease; the supervision of the food and milk supply; the care of Infant Life; the health of school children; the cleansing of towns; the purification of water; the treatment of sewage; all these and many other matters of detail come within the purview of the modern sanitary officer. In fact the sphere of modern sanitation extends from before birth,—in the care of expectant motherhood—throughout life, and after death—in the proper disposal of the dead.

In this widening of the field of sanitation the work of the Royal Sanitary Institute in preparing and examining men for the service of the Public Health Departments of our large Cities has undoubtedly played an important part. This educational work has created a public sense of the importance of hygiene, and the Institute has at the same time met the demand arising from this popular interest in health matters, by providing a class of certificated officers qualified to undertake the care of the sanitation of the cities. Examinations for Sanitary Inspectors were started by the Institute in Great Britain in 1877, and have been held regularly since then in practically every important town in the British Isles, and in British South Africa, in all the States of the Commonwealth of Australia, in the Dominion of New Zealand, and in Hong Kong; while in Canada several Examinations have already been held in Montreal and Winnipeg.

In addition to the special Examinations for Sanitary Inspectors, the Institute grants certificates in Sanitary Science as applied to Buildings and Public Works, and in School Hygiene for Teachers and others. Examinations are also arranged for Inspectors of Meat and other Foods, for Smoke Inspectors, and for Women Health Visitors and School Nurses. In India the Insti-

tute works in conjunction with the Government of the Bombay Presidency in holding Examinations for Sanitary Surveyors. These Examinations are specially helpful to Municipalities, as they afford a standard qualification for public health appointments, and in practically all cases in England, and in some cases in the Dominions, the possession of the certificate is made obligatory for persons desirous of obtaining positions as Sanitary Inspectors under Municipal authorities.

There are many other sides to the Institute's work, such as the holding of Training Courses for Sanitary Officers; and the arranging of large Congresses both in Great Britain, and in various cities in the British Dominions with the help of the Colonial Branches, at which all matters relating to sanitary administration and practice are brought under discussion; these meetings afford most valuable opportunities for the interchange of ideas between various officers of the Public Health service.

A Journal of proceedings is published monthly, and copies are sent to all Members throughout the World; the Journal contains, besides the proceedings at the congress and meetings, original articles on Public Health questions, reviews of books, and general notes of interest to all those engaged in sanitary administration. A special Colonial Supplement to the Journal is published from time to time, containing papers read at the Congresses held by Branches of the Institute in various parts of the Empire, and contributed articles of general interest to Members in the Colonies. This also is sent free of charge to those Members.

With a view to extending this useful public work in Canada, Mr. E. Dolley more recently visited several of the Provinces of the Dominion as a representative from the Institute, and arrangements were initiated for the establishment of Boards of Canadian Examiners in the Provinces of Quebec, Ontario, Manitoba, and British Columbia. In Montreal Professor T. A. Starkey, of McGill University, has been associated with the work for some time with his training and examining work, and it is hoped that with the co-operation of Laval University a working scheme of training for Sanitary Officers will be drawn up. At Toronto, Dr. J. C. Hastings, the Medical Health Officer, is actively interesting himself in the formation of the Board for Ontario, and other prominent Health workers have promised their support. For Manitoba, a Board of Examiners has already been appointed, which includes the names of Dr. A. J. Douglas, Medical Officer of Health for the City of Winnipeg, Dr. R. W. Simpson, Chairman of the Provincial Board of Health, Dr. W. Gordon Bell, Provincial Bacteriologist, Prof. Brydone Jack, Mr. Pender West, and Mr. P. B. Tustin of the City Hall, Winnipeg, as Hon. Secretary. There is also a Branch of the Institute in British Columbia for which Mr. Lawrence Robertson of the City Hall, Vancouver, is acting as Hon. Secretary.

It is obvious that the adoption of a standard qualification recognised throughout the Empire for those entrusted with the sanitary inspection of our cities, will be of great benefit not only to the Officers themselves, but to the sanitary service and to the public generally. The Medical Officer of Health will be strengthened by having on his Staff, officers who have proved their knowledge of the duties they are called upon to perform, and the public will know that they are getting efficient inspection and administration in return for their appropriation to the Sanitary Department.

## Metropolitan Area for Toronto

The difficulties of a rapidly growing city surrounded partly by farm lands and partly by suburban municipalities, is seen very plainly in the case of Toronto.

Many problems are involved, and it is to try and solve them that a scheme for creating a metropolitan area, including the surrounding district, has been evolved, largely through the careful study of Ald. S. Morley Wickett (formerly Professor at the University). As this subject is of interest to almost every large city in Canada, we give in full the Memorandum prepared by the Transportation Committee, of which Ald. Wickett is Chairman.

### Not a Policy of Annexation.

The creation of a metropolitan area is not a policy of annexation. It is a policy of co-operation. It is something bigger and more effective than linking up Toronto with a more or less indefinite stretch of farm lands; it unites and strengthens live municipalities to their mutual advantage, and makes intervening territory a greater asset for the community, especially for the workingman.

### Existing Municipalities Continue.

It does not imply the disappearance of existing municipal units. It means simply the coming together of a group of municipalities for the purpose of carrying out certain services which they can do jointly more effectively than they could singly.

It is but the natural and inevitable outcome of municipal conditions, particularly of the wide scope of modern communal activities and of the great possibilities of rapid local transit.

### A Practical Necessity.

A metropolitan area is therefore no idle fancy, but a practical necessity of Toronto and the thirty or forty municipalities round about. These municipalities have many common needs that can only be worked out co-operatively: inter-municipal electric lines, permanent roads, lighting, sewage, water, housing and pre-emption of permanent breathing places.

### A Metropolitan Radius.

The radius of a metropolitan area may be taken as limited by the maximum time that a workman can afford to take going to his work day-by-day. This latter may be set at one hour. The radius of a metropolitan area may therefore be fixed at approximately twenty miles, or the distance the workingman could cover in the given hour. For the Toronto district this would mean approximately a metropolitan boundary of Oakville, Brampton, Aurora or Richmond Hill, Markham and Port Union.

### Annexation A Local Issue.

Recently the City Council unanimously endorsed the sound financial principle that the general ratepayer should be liable for the full cost of trunk-line services, but that for locals, property or districts directly benefited should pay the bill. Such a policy would be very necessary in a metropolitan organization.

If legislation to make this policy effective is secured it will of course give Toronto a much freer hand as to annexations. But it may be well to point out that annexations are not and cannot be a solution of the problem before us. Annexations can only affect territory immediately contiguous and within a restricted radius. Annexation remains, therefore, a local issue. The work of a metropolitan body is something above and beyond, consonant with the needs of a much wider area, embracing a series of independent municipalities with much undeveloped property between.

In the case of annexations financial considerations count heavily, for at present an annexed area becomes immediately liable for the accrued obligations of the City without, for some time to come at least, enjoying corresponding advantages in the form of municipal services. This handicap might be removed in whole or in part by special agreement or by a more business-like arrangement as regards city taxes, basing these on costs of the several classes of service actually rendered a newly annexed area. But even then the special problem of metropolitan activity would still be left practically untouched.

### Toronto's Interest.

From the point of view of Toronto early action seems advisable on various grounds:

1. One must acknowledge the extreme difficulty in securing large industrial sites at reasonable figures.
2. The practical land monopoly by reason of unsatisfactory transport service.
3. The consequent extreme height of rents, hiving together of families, and springing up of congested districts.
4. The difficulty of laying plans for public works on a sufficiently generous scale when a broader area is not constantly kept in mind.

### Interest of Outside Municipalities.

On the other hand, from the point of view of surrounding municipalities, the defective transportation of all kinds to and from their natural civic centre, their slow economic development, and in most cases, the unnecessary lack of certain public services which go to make life more agreeable and satisfying, all unite to give scope for successful action by a metropolitan body.

The cordial co-operation of the municipalities within the area indicated can all the more readily be counted on by reason of the fact that any taxes levied would be determined by service actually rendered.

### Special Reasons For Early Action.

The present seems a particularly opportune time to lay plans for the following reasons:

1. The Provincial Board of Health is actively considering more satisfactory sewage disposal facilities. Such provision must take cognizance of the natural drainage of a fairly wide area.
2. Suburban districts are calling on Toronto more and more to grant them water facilities.
3. Suburban and rural demand for electric lighting and power is rapidly growing.
4. The Provincial Government's revised Hydro policy, replacing easements for its electric lines by rights-of-way, opens up a wide perspective for inter-municipal lines and for a growing demand for electric power along these routes.
5. The call for permanent, in place of macadam roads, is heard on all sides. The Provincial Government have recognized this in their recent creation of a Provincial Road Commission.
6. In providing for a five-mile limit around Toronto, the Provincial Government and municipalities appear to have agreed already tentatively as to the need for acting now.

In taking action in a broad way we should only be recognizing local conditions and applying a simple common-sense solution. The old idea of planning for a restricted municipal area has necessarily had to change with the extending application of electricity to transportation. If to give courage to the municipalities of our district precedents is necessary, one might point to Chicago, with its eleven Park Improvement Commissions, operating over a considerable area; to the Metropolitan Commission of Boston; to London, England,



with its twenty-nine districts each under a Mayor and Council; to European practice of uniting municipalities for specific purposes, and to the recent legislation of Berlin, Germany, which has created a Metropolitan Council composed of representatives of a large number of jointly interested municipalities.

But we need not rely too much on precedents before taking action. We have enough political genius in our Provincial Government, and among our Municipal Councils, to work out a system that can meet our own needs.

#### A Possible Organization.

A metropolitan policy would necessarily have to be decided by a body representing the various municipalities included. The Berlin system provides that each Municipal Council must have at least one representative, and no single municipality (Berlin for example) more than two-fifths of the total number. Representatives are appointed from the various municipalities and taxes levied would be allocated amongst the various municipalities according to the nature of the work for which the tax is levied, each municipality thus preserving its own identity. The constitution and powers of the Municipal Council would have to be defined by Provincial legislation, provision being made where advisable for appeals to the Ontario Railway and Municipal Board.

One might forecast a possible Executive or Commission appointed by the Metropolitan Council as follows:

(a) An Electric Commissioner. His duty would be to take charge of the development of inter-municipal electric lines, location of local industrial and residential centres, lighting, telephones, etc.

(b) A Road and Parks Commissioner. His duty would be to take care of road construction and make provision for parks, playgrounds, and other breathing places.

(c) A Health Commissioner. His duties would have to do with sewage, water and related services.

Action with regard to a metropolitan area need not necessarily wait on the outcome of the negotiations between the City and the Toronto Railway Company. At the same time it is obviously essential for Toronto to provide adequately for radial entrances into the heart of the City, otherwise civic and metropolitan development will be retarded, to the loss of all parties concerned, as long as such provision is not made.

Nova Scotia, New Brunswick, Saskatchewan, Alberta and Ontario have passed Town-Planning Acts which bear on the suburban problem. But Canada has yet to establish a metropolitan organization. The problem is of still further interest by reason of the fact that what is found workable for one district will likely serve for general application.

#### Some Possible Questions Answered.

This committee has been instructed by our City Council to lay the matter of a metropolitan area before the representatives of the various municipalities concerned. The first question we may expect from the representatives is—and one may anticipate the same query from many citizens of Toronto—why is Toronto pushing this scheme now? Torontonians doubtless think their taxes high enough already, and that any comprehensive metropolitan scheme must mean more of them. As for the outsider he will suspect that Toronto is endeavoring to “put over one on him”, and will ask where is the joker? It may be well to forestall such questions by recapitulating a few explanations, so that with a frank understanding of the situation faster progress may be made.

In the first place let us start with the assumption that a suggestion that will work to common advantage

need not arise from a selfish desire to “do” somebody. This is a case in point. The proposition of a metropolitan area is based on the desire for mutual advancement of Toronto and its entire surrounding district. The fact that it is being definitely formulated now by Toronto means little. The idea has been in the air for a long time, and has been suggested probably by as many rural councillors as by City aldermen. There is no joker on either side.

Why should Toronto inaugurate the plan? Simply because Toronto grows as the country and towns round about it grow; and life in the City is made cheaper and healthier and better by the most intimate possible connection between City proper and surrounding country and towns. No fresh argument need be advanced to convince people of that.

The towns and rural municipalities may be expected to lend it hearty support because they have everything to gain by being brought into ready communication with their civic centre, which they can bring about more readily and cheaply by mutual agreement and concerted action. In fact, without Toronto's co-operation it would not be possible. The agitation for a Markham-Toronto Electric Line may serve as an illustration; as also the incipient movement for a Brampton-Toronto Line.

As to costs: in respect of trolley lines and electric energy by working with the Provincial Hydro-Electric; in respect of roads by working with the Provincial Government; by wise use of the local improvement principle, and by mutual support and careful financing, costs should be kept at a minimum and be more than offset by the advantages accruing.

#### The Metropolitan Programme.

Let the programme be definite—inter-municipal electric lines; local electric power and lighting; permanent roads; a broader study of sewage and water problems.

#### Workman's Home at Akron

Scarcity of houses for working men at Akron, Ohio, induced F. A. Seiberling, a prominent manufacturer of that city, to devise a plan whereby this obstacle of the securing of good men in the shops might be overcome. To that end he purchased about 300 acres of farm land not far from the eastern edge of the city. An expert landscape architect was employed to plant trees, lay out streets, establish drainage and divide the land into lots. The next step was to call for plans of types of houses in quantities of 100 houses. The first 100 houses are now being erected. They include almost every type, size and price of house that may be required and desired by workmen of larger and smaller families and income. Full information about the allotment, houses, prices and terms of payment has been assembled in a booklet, which will shortly be off the press. The cost of the house is added to the cost of the lot, and to these are added the cost of pavement—required on the principal streets—cost of sewer, water and gas, all other work being done with the greatest economy. Land, houses, and improvements are to be supplied at the lowest figure and at actual cost to the workingmen. He pays or all this on the basis of rent. His payments do not begin until he moves into his house, when, of course, he ceases paying rent on his former habitation. The prices are so graded that he will be able to pay out in from 10 to 15 years without any special effort on his part. There are details in the contracts covering protection and preservation of their equity by widows in the event of the husband dying. An insurance arrangement is also being worked out. The population of Akron is now estimated at 90,000. It was 69,000 in 1910, and 42,000 in 1900.—American Contractor.

## What the Provincial Unions of Municipalities have accomplished

W. D. Lighthall, K. C., Hon. Secretary, U.C.M.

Read at the Convention of the Union of New Brunswick Municipalities, Moncton, October 15th, 1913.

In any consideration of this subject it should be remembered that the Provincial Unions of Municipalities do not stand alone, but are parts of a widespread army,—covering in citizenship more than half of the population of the Dominion—in the operations which their existence is one of the chief factors, even if they did no work within their immediate spheres; and in which, through the Parent Union, they are constantly having an influence, not only on the whole of Canada, but also on each other's progress. Let me therefore commence by outlining the history of that connection.

The Union of Canadian Municipalities was established in 1901 as a necessary protective movement. It is difficult to understand at the present day how helpless every municipality then was. The charter-sharks who infest Parliament and the Legislatures,—unscrupulous purloiners of public rights and property by means of crooked statutes—and their henchmen who dishonor the legal profession for gain—regarded all municipalities, even the strongest, as easy prey, and treated the struggles and protests of the people with hilarious contempt. They were well organized, while the municipalities were like scattered sheep on a hillside, and were devoured one by one at pleasure. As civic franchises became more and more valuable, large fortunes attended the business of pirating charters, and these were, among other devices, based upon the fraudulent obtaining of monopolistic powers to charge the public high rates for necessary electric, and street railway, and other services. My language may seem strong but I always feel that out-and-out language is a deterrent of abuses.

In 1901 the Montreal Light, Heat and Power Company obtained a most unjust charter, against the protests of the public of Montreal and Westmount. This was the immediate incident which brought about the founding of the Union. A local Union of several municipalities in the neighborhood of Montreal was first thought of, and dismissed as insufficient. A Provincial Union was out of the question in the Province of Quebec, for local reasons. There was an Ontario Municipal Association, but it did not even attempt to make a stand on such matters, and did so little of anything that it was practically unknown for any purpose. It was totally unknown outside of Ontario.

The City of Toronto was suffering from encroachments of the Bell Telephone Company, which entered all the streets at its own sweet pleasure. Hence Mayor Oliver Howland, when appealed to by me (as then Mayor of Westmount), readily joined in the enterprise, agreeing that a strong Dominion Organization was necessary. Stiff fights with the monopolies and charter-sharks at once followed, and soon it was found by them that no municipality, however weak, could now be attacked with impunity. Many legal enactments were gradually secured, maintaining municipal control of streets and franchises and the present system of watching legislation and protecting municipal rights was evolved, with the sympathy of all honorable legislators and the press.

The Union had, however, many other matters to study besides protection, and of course the needs of large municipalities differed from those of the smaller, while those of some parts of Canada differed from those of other parts. Moreover distance and expense prevented the smaller municipalities from sending delegates to the Conventions of the Union. Hence arose a natural partial cleavage between the rural and the urban communities, and between those of the different provinces. After trying to meet the wants of both the rural and urban classes in joint meetings, it became more and more obvious that some kind of separation was inevitable. And yet it would have been regrettable had the separation been complete, for all possible strength and co-operation were necessary. To meet the situation, the project of Provincial Unions, as branches of the Parent Union, was devised.

The first to be established was the Union of Manitoba Municipalities, founded by Mayor J. W. Fleming of Brandon, in 1905. This energetic and enthusiastic man—a natural leader and now prominent in the political life of his province,—had given much thought to the problem. The Union he founded was successful from the first and has continued a model of its kind. At, or soon after its first Convention, held in Winnipeg, it had a membership covering half the municipalities of the province, and full of the desire for progress and proper organization. It was at once recognized as a power by the Manitoba Government. It was also recognized as the proper adviser of the Government in municipal legislation, which had previously been of a hap-hazard nature at which every crank took a whack. Many useful suggestions, the products of debate by practical municipal men, therefore now reached the statute-book. Another most useful result was the formation of the Municipal Department in the Provincial Government itself, by which municipalities were aided in organization, and their needs carefully studied. Such a Department will sooner or later exist in every province. It is a necessity, and its formation is pressed constantly upon the attention of the powers concerned by the Union of Canadian Municipalities.

A third great achievement of the Manitoba Union was the obtaining, largely through the efforts of the Honorable Colin Campbell, Attorney-general of the province,—the first government system of telephones in Canada. This also was the outcome of a proposal which arose in the Parent Union, during the bitter struggles of those years with the Bell Telephone Company. It was seen that that Company would naturally use its virtual monopoly in centres of population, where there was money in the business, and that the smaller places and the farming population would get practically no telephones. It seemed to us that to banish the dreary isolation of the farm would be to confer on the country population of the Dominion an inestimable boon. Mr. Campbell therefore journeyed all the way to Montreal to confer with me, as Secretary of the Union, on the institution he was about to bring into being, and which at our instance the Union of Manitoba had vigorously pressed. The Provincial telephone system at once realized the expectations of its originators, and today the isolation of the farmer, the farmer's family, and the small community, is banished throughout the Western half of our country.

The Manitoba Union was quickly imitated in Alberta and Saskatchewan, for in those enterprising Provinces everything is in process of formation, and the best methods and models are eagerly welcomed. The founder of the Alberta Union was the then Mayor,

Mr. J. Emerson, of Calgary. That Union also became popular at once and was listened to in municipal legislation. The Provincial Government, in consequence of its pressure, introduced not only a municipal Department, but a Minister of Municipal Affairs, whose office has been of great help in those affairs. No brighter man than the present Deputy Minister, John Perrie, of that department, attends our Conventions. Furthermore, on demands by the same Union, a government telephone system was established in Alberta similar to that of Manitoba, and which is even more of a blessing to the people there, owing to the greater isolation of many of the settlers and ranches.

The Union of Saskatchewan Municipalities was founded by Mayor Peter McAra, jr., of Regina, in 1906. In November, 1908, a Municipal Department was established in the province in sequence to that of Manitoba, and under a Deputy Minister. There is now a Minister of Municipal Affairs. The Deputy Minister, Mr. J. N. Bayne, is a model of what such an official should be. The authorities of the many new communities in his province are glad of his constant helpful advice and assistance, and of the excellent systems he has introduced for their guidance,—systems not overdone, but studiously adapted to their needs and wishes. Correct by-laws, good book-keeping, proper finance, are among the results. Some idea of the advances in his province may be had from the following passages in his last annual report:

"The system of records prepared and prescribed by this Department" he says, "for each class of municipality, has brought about a uniformity in accounting that has meant much for raising higher the condition of each Secretary-Treasurer's office. It has enabled each municipal clerk to become more efficient in his particular line, to compare more readily his work with others holding a similar position, and to render with more ease and satisfaction a proper financial statement to his council, the rate-payers, and all concerned.

"Inspectors engaged by the Department visit regularly the offices of all municipal secretary-treasurers.

"Interest in Saskatchewan's municipal work seems never to subside. Two municipal associations (or "parliaments"), do much to keep the flame ever bright and to assist in working for the advancement of municipal life and enterprise. These are "The Union of Saskatchewan Municipalities",—the members of which are drawn from the cities, towns and villages, or urban institutions,—and "The Saskatchewan Association of Rural Municipalities". The latter is by far the larger organization. The annual convention of the former was held in the city of Prince Albert, where business-like sessions were conducted with vim and energy. Addresses on "Practical Sanitation", "Public Health", "Development of future cities of Saskatchewan", and other subjects, were rendered by specialists. Many resolutions in connection with proposed changes in the City, Town and Village Acts were passed. Several of these found form in the amendments to the above acts at the ensuing session of the legislature. The Saskatchewan Association of Rural Municipalities' Convention at Regina proved larger than any previous year. Here too those in charge had provided a programme bristling with interesting subjects.

"On the whole, the municipal organizations of Saskatchewan are growing on safe, sensible lines."

I have quoted thus at length from this report because it gives a good picture of what is going on in each of the Western provinces. Among last year's resolutions of

the Union of Saskatchewan, adopted by the Government in whole or part, were those on village street lines, on village erection of buildings, on method of assessment for high pressure fire protection, on notice of claim for damages, on bonusing, on hospitals, on vagrants, on collection of tax arrears, and on a provincial home for incurables.

The Union of British Columbia Municipalities was founded in 1905 by Mr. C. S. Stevens, Mayor of Kamloops. In that Province there was then practically no municipal system.—the cities of Vancouver, Victoria and New Westminster having special charters. The Government did not at first look favorably on the establishment of that Union, but almost immediately commenced to appreciate its work, and now consults it as its best adviser on such subjects. One of the great results is that a complete municipal system for the Province is under way, a special Commission having studied the whole matter and brought in one of the best reports on municipal institutions ever written, on which the new system is to be based. The chairman of the commission is Ex-Mayor Keary, of New Westminster, who for years was the active President of the Union of British Columbia Municipalities, and the whole report has had the co-operation of the Union.

In the Province of Quebec, the head office of the Parent Union has served the purposes of a Provincial Union to some extent, but this year it has arranged for a Provincial Union, the first meeting of which was held at Montreal in March, 1913, being then successfully organized. It will hold its regular annual convention in October next. Such a body has plenty of work to do, as serious encroachments are constantly made in the Quebec Legislature on the rights on municipalities, and many reforms are badly wanted: but the spirit of the people is good—as it is everywhere—and there is a widespread desire for progress.

In Ontario, the Ontario Municipal Association has, since the formation of the Union of Canadian Municipalities, performed some of the purposes of a Provincial Union, but several of its officers have hindered full co-operation. A strong movement within its ranks from membership in the Union of Canadian Municipalities is now taking place.

The Union of Nova Scotia Municipalities was founded in 1906 by that invaluable gentleman, Mr. F. W. W. Doane, City Engineer of Halifax, than whom no man is held in higher esteem by municipal circles from one end of Canada to the other. That Union is considered one of the best conducted and most solid of all. With men like Doane, Roberts and McIlreith, they are bound to do brilliant work.

It is usually thought that in an old conservative Province they perhaps have special difficulties to contend with in introducing new methods and new things, for where things are already pretty well done there is some tendency to refuse to seek improvements. I need go no further than their magnificent Convention Report for 1912 to prove that they are putting that so called "old conservative" Province in the forefront of Canadian progress; for I notice that they have brought about the passage of a Town Planning Act, a Tenant Act, a Street Tree Act, a Public Utility Commission Act, and even an Act to advertise industrial opportunities and seek tourist trade; and are preparing an impatiently awaited set of standard town by-laws. If I had been asked without knowing, what province had produced this sheaf of legislation, I would have answered "Saskatchewan",—for all idea of an "effete East" is

blown to the winds. The key of so much progress lies evidently in the fact that, like the other provincial Unions, they have wisely cultivated friendly relations with the Legislature, as appears by its printing their proceedings, and accepting their suggestions.

The Union of New Brunswick Municipalities was founded on the 12th of Rebruary, 1907, at St. John, by a progressive group headed by the then Mayor, Edward Sears, of St. John. The others were names well-known in municipal life, J. S. Magee, City Clerk of Moncton, the late Mayor Teed, of St. Stephen, Dr. McNally, Mayor of Fredericton, and last but not least, Mr. J. W. McCready, City Clerk of Fredericton, one of the most valued members of the Parent Union, and who last year was its honored President. For four years he has been the guiding hand of the New Brunswick Union, and has spent much of his valuable time and effort not only in keeping its affairs in order but in personally protecting the municipalities from dangerous legislation. This Union has, like its sisters, wisely sought and won the sympathy of the Legislature and of the Government, and has from the first been a recognized factor in all legislation in any way affecting municipal affairs. It has prevented encroachments on streets and civic franchises; has pushed persistently for good highways, interprovincial trunk roads, improvements in the public health laws, a complete public health department and various other reforms. It has obtained improved municipal statutes, and a Town Planning Act, and I understand will ask the Government for a Provincial Municipal Department. It has also disseminated life, progress and information into the administration of the municipalities of the Province, and has caused them to adopt and speak of with pride, such special achievements as the up-to-date improvements of the City of Moncton, and the Commission Government of St. John,—both of which are regarded with interest far beyond the limits of New Brunswick.

I hear that some of your best workers are feeling discouraged. Let me say that this must be because you are merely tired with so much good work. If you count up your achievements fully, and value them properly, you will feel proud and refreshed instead of discouraged, and new successes are sure to come to you.

In its first year, this Union obtained an amendment (valuable for the future) to the New Brunswick Telephone Company Act, and memorialized the Legislature to go further and take over the telephone service. Perhaps, in view of the success of provincial government telephone systems in the three Western Provinces this progressive policy may yet be carried out.

This Union also lent help to Moncton's Street Railway project; procured the Public Utilities' Commission; gave form and strength to protection of all streets throughout the Province from corporate encroachments; advised the Government,—at its request—on the Highway Act, the Public Health Act, and larger powers for municipalities, discussed fully the land tax, exemptions and every up-to-date live municipal question. I might refer as a model, to Mr. Reilly's thoughtful papers on "Provincial Industrial Development" and "Forms, Issue and Cancellation of Municipal Bonds"; to the late Dr. A. W. McRea's on "Government Ownership of Telephones", and to several others of outstanding strength in the records of the Union.

Here I may say that the parent Union keeps complete reports of the provincial conventions, and will be glad

to furnish lists of subjects and other information, to other provincial Unions desiring them.

In examining the foregoing records,—cursorily sketched—of the work that is being done by the eight provincial Unions, it is seen that all are working along the same lines because they fill a special sphere, that of the Province; and the importance of that sphere can be appreciated in recalling the simple fact that ordinary municipal legislation is provincial. They ought therefore all to keep track of each other's work. In their hands, if they choose to vigorously press it, lies the power of practically dictating the whole state of the municipal law proyer. As a matter of fact they are largely constructing these law systems. If they earnestly study the means of municipal improvement and advance, they must be listened to as the natural authorities. As a matter of fact they are vigorously leading all actual municipal improvement and advance. If they unitedly oppose encroachments on public rights and franchises, they will be the most formidable foes of such encroachments. As a matter of fact they are so fighting unitedly, and succeeding too. One of the special lines of their advance is the obtaining of properly organized expert Departments of Municipalities in each Province. Another is a government telephone system in each Province. You have not yet taken up these two subjects, but your activities have produced from the Legislature of Nova Scotia a system of public control and facilities for small telephone exchanges, which is almost a government ownership system. Another natural line of advance, which ought perhaps to come first, Finance, Statistics, Public Health, are all in their rightful line. But perhaps the most important item in the rightful programme of action for the provincial Unions, is loyal support to the whole Union of Canadian Municipalities, of which they are parts, in their efforts to constantly protect them all against their larger foes, and to introduce general improvements, and keep going the broad current of united life and expert information. It is the link between them all, and the representation of them all. We are one family.

Now think of the maaning of any of these subjects. Each one I venture to say is worth many lives of public service. Is it nothing that good laws exist, that fire and disease and moral disorder be kept down in our communities, that sewerage systems be perfected, taxation be fair, isolation of the farm be abolished? Is it nothing that purloiners of our rights be not permitted to laugh at us and at justice, nor to set up bad examples in the triumph of fraud in our land? Does it mean nothing that in the stress of protest against federal legislation, we can point to practically all the live municipalities of Canada as supporters of our demands?

These are some of the issues which depend on the faithful work of the provincial Union. And I say that they mean much. Let us all take heart then and go forward. We are fighting and laboring in a glorious cause,—and, thank God, in a very successful cause.

The whole work of the Union of Canadian Municipalities is your work,—the work of each one of the indefatigable servants of the people who conduct these invaluable provincial Unions. You stand for honesty and right, and liberty, for complete public order, for better health, for decent and beautiful communities, for the welfare of the young as well as the adult. You are building institutions for the future which shall make the lives of those to come most desirable. You may be proud of your share in this making of a nation, and you will find a real reward in public service for itself.

# Equipment and Engineering

## Interesting Notes on the latest Municipal and Telephone Appliances.

### OIL ENGINES

Cheap fuel has been the goal of every power user, ever since power of any kind superseded handicraft workmanship, and the Canadian Fairbanks-Morse Company claim that they have solved part of this problem by supplying engines which use the comparatively cheap oil instead of the increasingly expensive gasoline.

To bring this before those who require engine-power, they have just issued a handbook on Oil Engines, on which is the striking statement.

"The power-user who feeds his engine with gasoline to-day is literally *burning dollars*.—Fairbanks-Morse oil engines, using cheap fuel, will solve this problem for you."

The gasoline engine—succeeding the steam engine—was an enormous advance in power, but because it was so successful, the small supply of gasoline advanced in price. And as only 6 per cent. of gasoline can be obtained from crude petroleum, the scarcity is noticeable. On the other hand, crude petroleum contains 72 per cent. of refined oil that contains as much heating property as the gasoline, and which is, naturally, much less expensive.

Students and inventors have long been trying to invent an engine which could be run by gas, instead of gasoline, and the Canadian Fairbanks-Morse Company claim that their engineers have solved the problem "By designing engines that will use any oil in the grades that make up the whole 72 per cent. of the combustible distillates from crude oil." They go further and claim that their oil engines will develop the same power from cheap oil that other engines do from costly gasoline.

This illustration points out the various details which are referred to below. To describe these briefly:—

**Lever handle fuel pump.**—The oil is pumped into the fuel reservoir (for starting) by means of a small pump placed on the side of the engine base. This pump is fitted with our patented pump link and handle, and is a marked improvement over the old style fuel pump.

**Fuel feed.**—The liquid fuel feeding device, in connection with the governor, provides automatically for a uniform quality of charge mixture throughout the full range of loads. It has no float valve and no liquid above the level of the outlet nozzle which terminates in the air passage leading to the engine suction valve. There is therefore no possibility of liquid fuel flowing after engine shuts down, even if the throttle on reservoir were not closed. There is no auxiliary air inlet as found on most carburetors. No spring is used and only one simple butterfly valve, this being controlled by the governor. The liquid fuel is drawn from the nozzle by the suction of the engine piston and the location of the outlet nozzle in connection with this butterfly valve is such as to keep the mixture right, when the load changes. The arrangement of a nozzle from constant level reservoir terminating in the air suction passage is covered by patent, and other details are the subject of a pending application. Liquid fuels are pumped up to the fuel reservoir where a constant level is maintained, the overflow pipe carrying the surplus back to the supply tank below the level of the engine. The needle valve adjustment determines positively the amount of fuel to be sprayed into the cylinder for each charge.

**Advantages of automatic fuel feed**—These engines are easy to start, because the first charge admitted to the cylinder is exactly the right mixture, and the same amount is admitted as at every other charge.

They will start in cold weather—because we do not have to rely upon air passing over the oil or other fuels in a "mixture chamber" to pick up the requisite amount of vapor.

This automatic fuel feed is designed to use the heavier, cheaper grades of oil and distillates. Any grade of kerosene or gasoline can also be used.

The action is such as to admit more or less fuel at each charge according to the load, the mixture proportion remaining the same, and the engine taking regular impulses.

It gives the best economy—because the mixture can be regulated to give maximum power with minimum fuel, and this same mixture is then maintained indefinitely.

**Water reservoir.**—A water reservoir (patented), with tube for feeding water, in a manner similar to the fuel feed referred to, is another important improvement which is applied to engines of 10 H.P. and larger sizes operating on oil.

This is for the purpose of introducing a fine spray of water with the mixture. It acts to moderate the force of the explosions and to prevent premature ignitions, at the same time increasing somewhat, both power and economy.

**Throttling governor.**—This governor is regularly fitted to Type "N" oil engines. It is of the centrifugal type, and is connected with the governor valve direct. This governor is very sensitive and gives close regulation.

The action is such as to admit more or less fuel at each charge, according to the load, the mixture proportion remaining the same, and the engine taking regular impulses.

**Relief cam.**—Every engine 10 H.P. and larger is fitted with a compression relief cam. When this is thrown into action the engine can more easily be turned over by hand.

**Quick start.**—The engines can be started quickly by using a small quantity of gasoline. Not over one minute and usually only a few seconds are required to start in this manner and apply full load. The self starter pump and detonator are used to obtain the first impulse. The next ones come from gasoline sucked in by the engine from a small gasoline tank attached to engine base. After running a few minutes in this way the engine is heated sufficiently to permit changing to the heavier fuel oil on which it will then run regularly.

**Self-starter.**—Our self-starter (patented), is fitted to all Type "N" Oil Engines 10 H.P. to 60 H.P. and is clearly shown in the cut. To start by means of this device, the detonator (or match igniter) is charged with the head of a parlor match and inserted in the fixture attached to the cylinder. A small amount of gasoline is poured into the cup at the base of the hand pump. By working the pump, the charge is forced into the engine cylinder and fired by the detonator at the proper moment. The explosion of this charge has sufficient force to start the engine. This method has proven both safe and convenient. A great advantage possessed by our engines is the facility with which they can be started. When stopped, all fuel expense also stops, and they can be started when wanted.

**High tension ignition.**—Wherever High Tension Ignition is specified on the following pages as being optional or standard equipment, we use the Bosch Oscillating Type of High Tension Magneto. This magneto is mounted on a bracket on the engine and operated by a trip lever from an eccentric on the cam shaft. The trip lever is provided with a simple device for retarding the spark while starting the engine. The magneto delivers high tension current direct to the spark plug located in the cylinder head. It is water-proof and dust-proof, and by far the most simple and reliable high tension ignition equipment on the market for stationary engine purposes.

It will readily be seen that as the operation of the magneto derives its motive power from the spring with which it is equipped, it is in no way dependent upon the speed at which the engine is running, and therefore it produces just as powerful a spark when the engine is being pulled round at starting as is produced when the engine is running at full speed. This entirely eliminates the necessity for batteries, coils, or any auxiliary form of ignition. It means that the ignition is incorporated with the engine and is permanently part of it, whilst the simple nature of the outfit practically eliminates any chance of ignition trouble.

They are adapted for any service where a substantial stationary engine is needed. Equipped with Bosch High Tension Ignition System if desired.

## CANADIAN MUNICIPAL SECURITIES

The recommendation of the provincial premiers that the bonds of municipalities incorporated by the provinces should be listed in England with the other Canadian securities in which, by the English law, those in charge of trust funds are allowed to invest, will, of course, be forwarded by the Dominion Government to the proper authorities. Formerly the law courts in England regulated such things; but in 1893, their rules were embodied in the Trustee Act, which added considerably to the number of stocks available for the trustee investor, certain Canadian Government ones being included. In 1900, the list was greatly enlarged by bringing in colonial securities, Canadian, Australian, Indian and what not, of the nominal value of 300 millions sterling—a step that has been blamed for the recent fall in the price of consols, the colonial bonds, yielding a better return, being preferred to them. There is no denying that Canadian municipal securities do not stand as well in London as they used to do, because of heavy borrowings and the follies incident to the real estate boom. In the first nine months of the current year, these borrowings amounted to \$46,000,000, as compared with \$21,500,000 for the same period of 1912 and \$18,000,000 in 1911. As a result of this and of the general tightness of money, the investing public is more or less disposed to fight shy of future issues unless they bear a pretty high rate. Fortunately our municipalities have hitherto had a clean record in England. Even in the days before Confederation when the 5 per cent. bonds of the old Province of Canada were down to 70, the municipalities fared tolerably well; for although some of them defaulted to the Government through over-borrowing under the Municipal Loan Fund Act, not a single one repudiated what it owed to the British investor. Those western brethren who are calling on their provincial governments to lend them money at 4 per cent. should study the history of that unfortunate scheme. The money was applied by the municipalities to building or bonusing railways, canals, harbors, roads and public buildings. They paid 8 per cent. for it to the Government, while the Government debentures on which it was raised in England carried six. The security given was ample and people looked for an aera of material progress. Before long, however, default

became general. In some places the man chosen for the Legislature was pledged to prevent the Government from seizing the property of the municipality or confiscating the taxes. In the end the project left Upper Canada alone with overdue debts and accrued interest amounting to \$12,000,000, which was ultimately scaled down to ten or twelve cents on the dollar. Much of the money was wasted and a fair portion of it stolen. The British investor was not concerned with the municipalities, but with the Government; and the Government paid him in full. What tells against the municipalities at present is that their borrowings are in reality subject to no control, while in many cases it is next to impossible for the investor or anyone else to obtain trustworthy information about their finances. Theoretically, the provincial legislatures are in control and there are paper restrictions on the amount of debt and taxation that may be incurred; but in a boom time the municipality does pretty much as it pleases. In England, municipal loans can be issued either by authority of Parliament, which is not given till everything has been made clear; or when they have been sanctioned by the Local Government Board, which calls for detailed information, and, when satisfied that the money is needed and that the lender does not stand to lose, fixes the minimum price of the loan. "If," said the London Economist the other day, "these safeguards are necessary in an old and settled country where the ratepayers are strongly opposed to extravagance, they are doubly desirable in a new country full of pushful communities, eager to develop as quickly as possible without much regard to the expense, so long as the money is not raised by taxation." It lies with the municipalities themselves, therefore, to improve their status as borrowers. Needless to say, many of them are well conducted and owe little; but the English investor is apt to confound the good with the bad. In like manner he is disposed to judge the credit of a provincial government by the operations of its leading municipalities, just as in former times he looked askance at the Government of the United States because some of the individual states had repudiated. This may be illogical and unfair on his part, but, since he is the lender, we must needs respect his misconceptions and govern ourselves accordingly. Montreal "Gazette."

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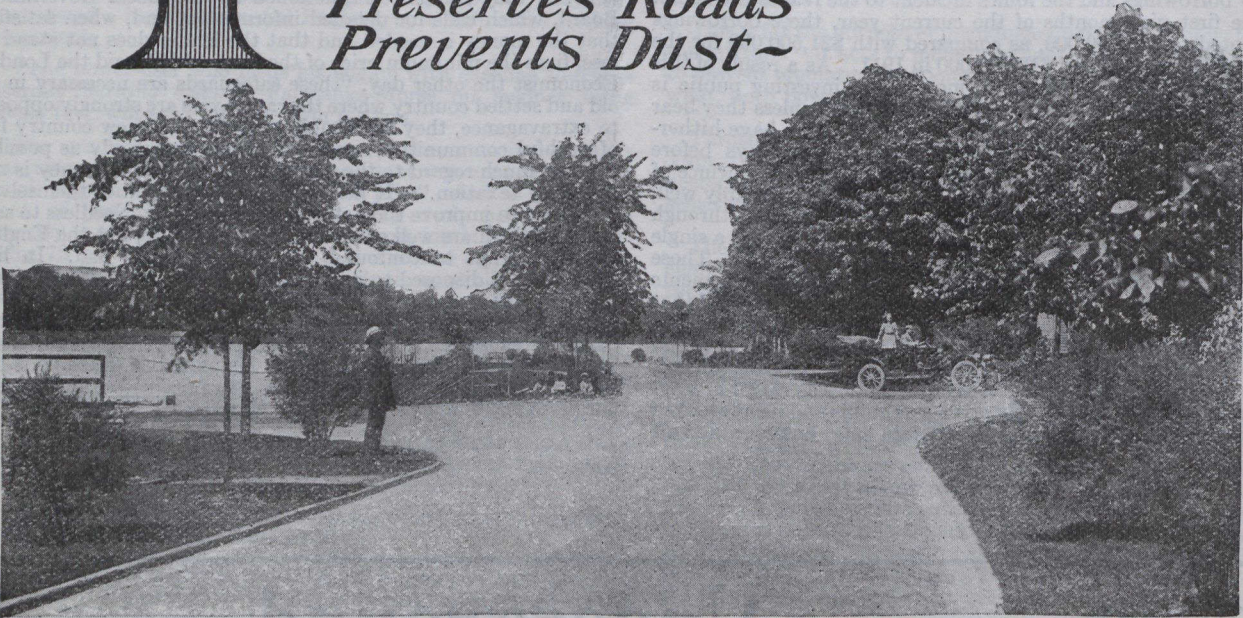
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## Dust is Expensive

When an automobile speeds down an ordinary macadam road it leaves in its wake a cloud of dust which is carried by the winds over the neighboring fields, houses and lawns.

This is just as surely a waste of good material as if the automobilist dug material out of the highway and carted it away. Dust represents waste—costly waste—and the taxpayers feel the result. A road that is properly built for modern traffic will not be dusty.

Plain macadam gives way under the wear and tear of heavy rubber-tired au-

tomobile wheels and the surface binder of the road is torn away in the form of dust, until in time the coarse stone itself is exposed and a costly renewal of the road is necessary.

Modern roads should be built to resist modern traffic. To build any other kind is wasteful. A better binder than the ordinary mineral binder is needed and is offered in Tarvia, a coal tar compound especially prepared for use on roads.

Tarvia is dense, viscid, waterproof. It fills the interstices between the stone and forms a tough, plastic matrix. This makes a waterproof and automobile-proof surface. The maintenance cost is usually so low as to more than balance the cost of Tarvia treatment. Booklets on request.

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# 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.

## The Housing Problem

The Secretary of the National Housing Association writes to us in connection with the Third National Conference on Housing to be held at Cincinnati, December, 3, 4, and 5, 1913.

This year, for the first time, the Conference goes to the Middle West. Cincinnati has begun vigorously to attack its housing problem. It will show the delegates that in the west, as in the east, neglect will beget the slum. And Cincinnati will show them what hard, constructive work is necessary to wipe out the results of neglect.

The programme provided is based upon suggestions received from members of the National Housing Association in all parts of the country, consequently it reflects the thoughts in the minds of our housing workers. The speakers and the leaders of discussion are men and women who have achieved practical results.

Delegates will take an active part in all the discussions, for much of the value of the meetings is due to the keen questioning, the illuminating bits of experience, which serve to bring out important points.

The first Round Table Luncheon is always of interest, for there the delegates from all parts of the country report on the progress of the year. The Open Discussion Meeting has been repeated because of its success last year. Its terse, informal give and take serve to crystallize what before had been vague and unusable. What is the Housing Problem? Who can answer definitely and clearly? How can we keep our city a City of Homes? We all wish to do it, some of us have unformulated ideas as to methods. But we must put those ideas into definite shape, otherwise they are useless.

May we trust that Montreal will send delegates? The League will be glad to empower any of its members, at a visit to Cincinnati on December 3, 4, and 5, to act for it.

When shall we have a Canadian National Conference on Housing?

## Canadian Welfare League

We have pleasure in publishing the purpose and programme of the new "Canadian Welfare League" mentioned in our recent number.

### Purpose

1. To promote a general interest in all forms of social welfare.
2. To make a practical study of Canada's emergent social problems caused by our large and heterogeneous immigration; by the rapid growth of our cities and the stagnation of some of our rural districts; by the beginnings of industrialism; and generally our entrance into a fuller national life.
3. In each community to federate, or otherwise organize for co-operative work, existing social institutions so that each may give to the community more efficient service.
4. To enlist our citizens in personal service for the common welfare.
5. To provide trained leadership for social work.

### Programme

1. *The establishment of a control Bureau.* This Bureau will be a clearing house for all kinds of work; will issue Bulletins, distribute literature and arrange for lectures. It will as far as possible work in close co-operation with Canadian Clubs, Commercial and Industrial Organizations; with Labor Organizations, with Government Institutions and with the various Religious and Social Organizations.

2. *The stimulation, organization and direction of community effort* in various cities, towns and rural districts. This would probably ultimately mean several specialists, e. g. for work among the immigrants, Public Health, Organized Charity, Country Life.

3. *The Securing of one or more training schools for social workers.*

The Secretary is Mr. J. S. Woodsworth, 68 Maryland St., Winnipeg.

## Edmonton Welfare Association

Several weeks ago, on the invitation of Mr. A. T. Cushing, Mr. J. S. Woodsworth visited Edmonton and suggested to a group of business men the formation of an organization that would centralize or correlate the philanthropic and social welfare work of the city. As the Canadian Welfare League was shortly to be more fully organized in Winnipeg, a deputation was sent to the Winnipeg meeting with a view to having Edmonton represented in the larger movement.

On the return of the deputation to Edmonton a report was made and the local situation fully discussed. Finally a local organization was formed to be known as the "Edmonton Welfare Association." The officers are: Chairman, A. T. Cushing; Secretary pro-tem., Geo. M. Hall, Industrial Commissioner.

The Association purposes to provide in some more adequate way than at present for employment and relief; to secure the co-operation of the various philanthropic organizations; to establish an endorsement Committee and, generally, carry out an educational programme along public welfare lines.

The city of Paris, following the example of the authorities in many other towns and countries, is making an effort to provide tenements or lodgings for the poorer class of work people, and a sum of \$40,000,000 has been set aside for this purpose.



## For Good Government

The associations interested in civic reform in Montreal called together by the "Citizens' Association" have held several meetings and a programme drawn up by the delegates of the joint bodies submitted to the discussion of the individual associations. The recommendations of the sub-committees of the joint bodies included two members of the League, the Hon. Dr. Guerin (Chairman) and Dr. Adami, president of the C. I. L.

For the convenience of our members we submit the amended resolutions adopted:—

1. That the City of Montreal be divided into five electoral districts, each district to be represented by three aldermen.

2. That the three aldermen for each district be elected by the whole body of electors of that district.

3. That as regard the mode of subdivision of the City, this committee recommends the adoption of the plan prepared and submitted by the Citizens' Association (with the number of electors in the different wards modified according to the latest electoral lists at the City Hall), this being in its opinion most equitable to all interests concerned for the present.

That subdivision is the following, each ward being given, with the number of voters in it:—

North District.	
St. Denis.....	12,208
Ahuntsic.....	1,029
Bordeaux.....	992
Mount Royal.....	792
Cote des Neiges.....	208
Laurier.....	10,498
	<u>25,717</u>

South District.	
West.....	1,659
St Ann.....	5,183
St. Gabriel.....	4,464
Ste. Cunegonde.....	2,553
St. Henry.....	6,975
St. Paul.....	910
Emard.....	1,773
	<u>23,517</u>

West District.	
St. Lawrence.....	5,481
St. George.....	2,452
St. Andrew.....	3,634
St. Joseph.....	4,441
Notre Dame de Grace.....	2,994
	<u>20,002</u>

East District.	
Delorimier.....	3,705
St. Mary.....	5,565
Hochelaga.....	5,889
Rosemount.....	432
Longue Pointe.....	1,841
Papineau.....	8,730
	<u>26,162</u>

Centre District.	
St. Louis.....	6,477
East.....	786
St. James.....	3,375
Lafontaine.....	5,794
St. Jean Baptiste.....	5,405
Duvernay.....	3,512
Centre.....	1,242
	<u>26,592</u>

4. That, as at present, the term of office of Mayor and Aldermen be two years.

5. That the number of Controllers be increased to five.

6. That the term of the Controllers be four years, with the exception of those elected in 1914 when the two Controllers who have received the lowest number shall be elected for two years only, but shall, however, be eligible for reelection. At the election of 1918 the other three Controllers shall retire. These also will be eligible for re-election.

7. That taking into consideration the responsibility of the work undertaken by the Controllers and the time devoted to the service of the City, the salary of the Controllers be ten thousand dollars per annum: and the aldermen fifteen hundred dollars.

8. That the salary of the Mayor be twelve thousand dollars per annum.

9. That the Mayor be ex-officio a member of Board of Control. In the event of a tie the Mayor shall have the casting vote.

10. That the Controllers elect their Chairman to serve under such conditions, and for such period as they deem most suitable for the transaction of their work.

11. Three members at least of the Board of Controllers shall constitute a quorum and the affirmative vote of at least three members shall be necessary to adopt any resolution or ordinance. The secretary shall keep a complete record of all transactions of the Controllers.

## MUNICIPAL REFORM

Municipal reform has suffered from the lack of team play among its friends. Reformers, as a recent writer has well said, are primarily protestants, and it is the nature of protestants to be insubordinate. It is temperamental inability to tolerate the existing situation that makes a man a reformer, and it is the same trait that makes him, as a rule, intolerant of all ideas except his own. Reformers can always agree upon basic principles, for these are commonly framed in such platitudinous form that even the most ardent political pirate would not refuse open assent to them. But, as occasion arises for elaborating these principles into working rules of administration, it forthwith becomes apparent that each reformer has his own interpretation of them and that all who disagree with him are lacking either in intelligence or integrity or in both. Across the history of nearly every municipal reform movement of the last twenty years may be found written the tedious chronicle of bickerings, due to personal jealousy, class bigotry and the failure of reformers to realize that vindictiveness has no place in the program of a political agitation which seeks to be successful.

From the experiences of the past, reform organizations can draw abundant counsel for future action. To secure achievements of permanent value they must seek far more than mere change in the personnel of city government. They must simplify the political framework when necessary and make it afford those opportunities for constructive effort which are the only enduring attractions of public service. They must adjust the administrative machinery of the city to the work which it is called upon to do a mission which in any large city is a reform task of Herculean proportions and of corresponding value when performed. If laborers in the cause of civic improvement desire to see in concrete form the results of their exertions they must also adjust their methods to the conditions of political warfare in a democracy, which means specifically that they must recognize the utter weakness of a house divided against itself, the impotence of purist professions that do not square with the facts, and the unerring certainty with which extravagant pledges return to work upon those who promise, in the way of public improvement, more than they can fulfill.—Wm. Bennett Munro, of Harvard University, in Citizens' Bulletin.



# TELEPHONE NEWS



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

## AUTOMATIC TELEPHONE SYSTEMS

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

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

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

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

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

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

**Canadian Independent Telephone Co.,**  
LIMITED

18-20 Duncan St., TORONTO, Ont.

**TELEPHONY.**—This invention has for its general object the provision of improved means whereby a party line which has been taken for use is guarded against the intrusion of the other stations upon the same line. It has particular service in connection with those exchanges where means are provided for automatically effecting the extension of telephone lines but is limited to this class of exchanges as features thereof are of service in connection with other exchanges.

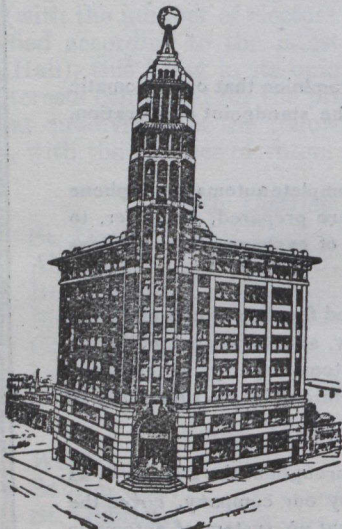
Morton L. Johnson, Chicago, Ill., Assignor to Corwin Telephone Mfg. Co., Chicago, Ill. 1,075,257.

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 " " " " British Columbia, 1908  
 " " " " Canada, 1909



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### Telephone's Early Days

In the letters of Madame de Hegermann-Lindencrone appearing in Harper's Magazine for November, an interesting glimpse is given of the early days of the telephone and other inventions now in current use. Writing from Cambridge in 1877 she says:—

"Johan has just come home from Boston bringing incredible stories about having talked in a machine called telephone. It is nothing but a wire, one end in Boston and the other end in Cambridge. He said he could hear quite plainly what the person in Cambridge said. Mr. Graham Bell, our neighbor, has invented this. How wonderful it must be! He has put up wires about Boston, but not farther than Cambridge—yet. He was ambitious enough to suggest Providence. 'What!' cried the members of the committee. 'You think you can talk along a wire in the air over that distance?' 'Let me just try it,' said Bell. 'I will bear half the expense of putting up the wire if you will bear the other half.'

"He was ultra-convinced of his success when, on talking to his brother in Cambridge from Boston in order to invite him to dinner, adding, 'Bring your mother-in-law,' he heard distinctly, but feebly, the old lady's voice: 'Good gracious! Again! What a bore!'

"There is also another invention called phonograph, where the human voice is reproduced, and can go on forever being reproduced. I sang in one through a horn, and they transposed this on a platina roll and wound it off. They put it on another disk, and I heard my voice—for the first time in my life. If that is my voice, I don't want to hear it again! I could not believe that it could be so awful! A high, squeaky, nasal sound; I was ashamed of it. And the faster the man turned the crank the higher and squeakier the voice became. The intonation, the pronunciation—I could recognize as my own, but the voice! Dear me!"

## 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.

**SIGNALING SYSTEM.**—This invention relates to signaling systems such as are adapted to railroad and train despatching. Its objects are: to provide improved means whereby train despatching messages and messages independent thereof may be transmitted by different operators without interference, over a single line wire, and whereby the train despatcher will be able at any time to take possession of the line; to provide means whereby signaling impulses may be impressed upon the line without interfering with the voice currents, and to provide means in a signaling system of the above character whereby in each station a plurality of signals of different characteristics may be operated through the employment of a single selective calling apparatus.

Edwin R. Gill, Yonkers, N. Y., Assignor, by Mesne assignments, to Hall Switch and Signal Co. 1,070,371.

**HARMONIC SELECTIVE TELEPHONE SYSTEM.**—The main feature of this invention resides in the use of harmonic selective currents in combination, and in the use of selective devices at the substations responsive to such combination of selective current to control the signal bell circuits. With this arrangement it is possible to select from a far greater number of

parties with a given number of frequencies over a single circuit than is possible in harmonic systems now in use in which the number of frequencies required is the same as the number of stations to be selected. This not only reduces the number of generators but also the number of keys.

Arthur F. Poole, Wheeling, W. V. 1,070,726.  
cally only to lines in which leakage may occur. According to this invention the disadvantage is overcome by the battery being normally separated from the line and, as occasion requires, connected to the same through a relay which cuts in simultaneously a time switch adapted to disconnect the battery from the line after a certain period. The relay, when being traversed by a current suitably puts itself into a holding circuit containing the time switch.

Gotthilf Ansgarius Betulander, Saltsjonacka, Sweden. 1,070,104.

**DEVICE FOR LOCKING DESK TELEPHONES.**—This invention consists mainly of two semicircular castings of metal hinged at the center. The hinge is provided with two coils of spring wire, one between the first and second section, the other between the second and third section and so disposed around the pivot of the hinge and the surfaces of the two semicircular halves that the clasp, when unlocked, will be automatically thrown open as the springs regain their normal state.

Clark D. Rhinehart, Jr., and Lubomir P. Saponoff, New York, N. Y., said Saponoff assignor to Thomas McGonigal, of Brock-

**TELEPHONE APPARATUS FOR TRAINS.**—The object of this invention is to provide a supplemental connection between that portion of the telephone circuit located in the train and the main line, which connection will at all times be connected to that portion of the telephone circuit in the train and which at the same time can be readily wound or unwound into a coil when connecting the free end of the supplemental connection to the main line connections.

Percy Robinson, Sudbery, Ont. 1,069,811.

**MICROPHONE.**—This invention has for its object to secure increased efficiency by providing that the carbon granules shall be confined circumferentially between conducting plates or diaphragms by a wall that, in contradistinction to the walls heretofore employed, is of a highly resilient character, being for this purpose made hollow and easily deformed laterally so that every diaphragm fluctuation produces a very material alteration in the area circumscribed by the inner surface of the wall, with the result that the granules are subject to disturbing motions at right angles to one another as each sound wave occurs,

**MICROTELEPHONE.**—The primary use of this invention is to assist the defective hearing of persons more or less afflicted with deafness. The device has the capacity for controllably selecting and amplifying certain sound vibrations, while minimizing others.

William B. Oliver, Collingswood, N. J., Assignor to Oliver Electric Co., Philadelphia, Penn. 1,074,286

**TELEPHONE REPEATER SYSTEM.**—This invention relates to telephone relay or repeating system, and more particularly to a system in which the repeating apparatus, including its local repeating circuit, is associated with the two ends of a link circuit in such manner that when the link circuit is connected with the main circuits it constitutes a connection between the two main circuits uniting them into a single compound circuit for through communication.

Herbert E. Shreeve, Milburn, N. J., Assignor to Western Electric Co., New York, 1,074,298.

**ENUMERATION OF TELEPHONE CALL.**—The invention consists in providing means whereby, on a call being made by a subscriber, the subscriber's enumerator and an enumerator in the subscriber's circuit at the exchange are simultaneously operated either by the exchange attendant or by the completion of the speaking circuit by the called subscriber, the current which operates said enumerators operating at the same time to cut this enumerator out of circuit.

Samuel Dickinson Williams, Newport, Wales. 1,074,677.

**TELEPHONE SYSTEM.**—This invention relates particularly to automatic or semi-automatic telephone systems in which the automatic switches are controlled over two sides of a metallic line circuit in series. In such systems it is usual to employ one or more slow acting relays in the automatic switches in order to prevent the release of the switches during the transmission of the impulses for operating them. The invention relates particularly to a combined quick and slow acting line relay for use in such selector and connector switches. This relay takes the place of the ordinary line relay, and also of the usual slow acting release relay, thus greatly simplifying the construction of these switches.

John G. Blessing, Chicago, Ill., Assignor to Automatic Electric Co., Chicago, Ill. 1,075,007.



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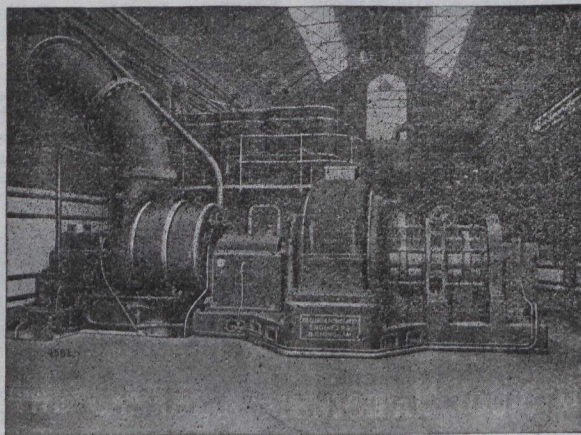
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TO

**CANADIAN MUNICIPAL JOURNAL**

**CIVIC NOTES****WESTERN PROVINCES**

**ALBERNI, B. C.** The Bank of Montreal has opened a branch here.

**BASSANO, ALTA.** The new six millions dollar dam was opened recently; it is for the purpose of irrigation.

**CALGARY, ALTA.** Important franchise reforms have been instituted by the Council; the basis of the electoral franchise in municipal elections is to be the ability to read any portion of the second grade Public School reader; the "one person one vote" principle has been adopted, women having the same voting rights as men.—A file factory is the latest industry to be established here.—The C. N. R. is spending \$500,000 on the new station, offices, freight sheds, etc.—The plans for the new Y. M. C. A building show an adequate and imposing structure.

**ELKO, B. C.** The contract for the piping of the water of Silver Spring Lake for the water-works system here, has been awarded to a Vancouver firm; water will be supplied by a gravity system; it is expected that many important industries will avail themselves of the immense water power resources now available.

**LETHBRIDGE, ALTA.** The Richardson Scale Company, one of the largest manufacturers of automatic weighing machinery in the world, will immediately locate a factory here.

**MEDICINE HAT, ALTA.** The by-laws granting certain concessions to the Medicine Hat Brick Company and to the Western Canada Threshing Machine Company, were passed —A by-law for a thoroughly up-to-date market building will be prepared and submitted to the ratepayers this autumn.

**NEW WESTMINSTER, B. C.** Work on the additions to the post-office is well under way.

**POINT GREY, B. C.** Tenders have been called for the construction and operation of an incinerator.

**REGINA, SASK.** The remodelled Y. M. C. A., with the addition of a new and modern gymnasium, to replace the building destroyed by the 1912 cyclone, has been formally opened

**SHAUNAVON, SASK.** The Canadian Bank of Commerce has opened a branch here.

**SOUTH VANCOUVER, B. C.** The question of desirability of a municipal gas plant is under discussion.—A resolution in favour of the establishment of a municipal electric light plant has been passed by the Council.—A large rubber factory will be established at the foot of Main Street very shortly.

**VANCOUVER, B. C.** Rapid progress is being made on the C. N. R. terminal improvements.

**WINNIPEG, MAN.** The hospital by-law was defeated.—The question of giving police constables a holiday one day each week, is being taken up.—Work will be commenced at once on the Shoal Lake waterworks proposition for Greater Winnipeg.

**PERSONALS**

Ex-Ald. George W. Armstrong, of London Ont., died recently.

Ex-Mayor Thomas Stevenson, of Oranville, Ont., died recently.

Lieut.-Col. J. Vance Gravely, ex-Mayor of Cobourg, Ont., died recently in Toronto.

Chief-of-Police William Davis, of Lethbridge, Alta., has resigned.

Inspector Skelton has been appointed Chief-of-Police of Lethbridge, Alta.

Ald. L. A. Lapointe, M. P., Montreal, has been re-elected second Vice-President of the League of American Municipalities.

Mr. C. J. Brown, City Clerk, Winnipeg, Man., has been re-elected Hon. Secretary for Canada of the League of American Municipalities.

Tue death of ex Mayor George Ingle, Lindsay, Ont., occurred recently; he had been also Reeve and Deputy-Reeve.

Sergt. D. Kerr, Regina, Sask., has been appointed Chief-of-Police of Liberty, Sask.

**SPECIAL NOTICE TO CONTRACTORS**

Re **GREATER WINNIPEG WATER SUPPLY.**

(Estimated cost \$13,500,000.00)

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

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

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

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

M. PETERSON,

Acting Secretary of the Administration Board,

Greater Winnipeg Water District  
City Hall,  
Winnipeg, Man., Canada.

October 6th, 1913.

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

# CIVIC NOTES



## EASTERN PROVINCES

**ADOLPHUSTOWN, ONT.** A site has been acquired here, and it is now suggested that a monument to sir John A. Macdonald be erected at the coming centennial of his birth in 1915; Sir John spent his childhood here.

**CHESTER, N. S.** The Bank of Nova Scotia has opened a branch here.

**COLLINGWOOD, ONT.** The new manual training domestic science and industrial school has been formally opened.

**ELORA, ONT.** A by-law will be submitted shortly to provide for a plant for the transmission and distribution of Hydro-Electric power.

**FERGUS, ONT.** A by-law to provide for a plant for the transmission and distribution of Hydro-Electric power, will be submitted shortly.

**FORT WILLIAM, ONT.** Four trolley garbage cars which collect refuse from three central depots for the incinerator plant, an auto fire truck, and an automobile for the Police Department, were amongst the civic expenditures.

**GALT, ONT.** The population is 11,932, an increase of 806 for the year.

**GODERICH, ONT.** The Board of Trade has passed a resolution endorsing the by-law granting certain concessions to the Goderich Organ Company.

**GRIMSBY, ONT.** Government assistance is being asked, to build a pier on the beach; if the pier is built a fast boat running twice daily is promised during the fruit season to Toronto.

**GUELPH, ONT.** The new Y. M. C. A. building has been formally opened.—The population is 16,139, an increase of 989 over last year.

**HALIFAX, N. S.** The Civic Improvement League held a meeting in favour of ornamental street lighting; the Board of Control and City Council passed resolutions expressing a sympathetic attitude.

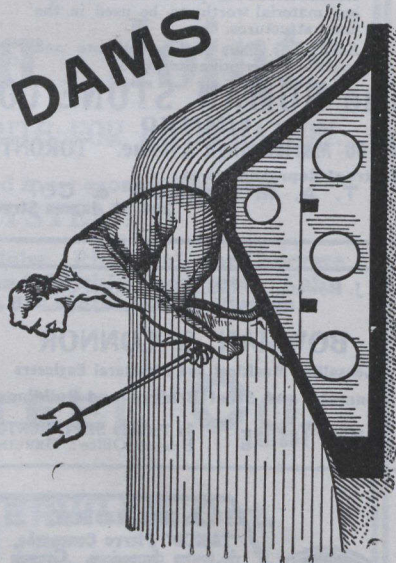
**HAMILTON, ONT.** A million and a half dollar coke plant will locate on a thirty-three acre site on the Bay Shore.—The population is 100,808, an increase of 890 over last year.

**LONDON, ONT.** The City Council at a special session passed a by-law approving of the equipment and operation of the London and Port Stanley Railway as an electric road.

**MONTREAL** The new \$3 000,000 filtration plant is not large enough and will have to be increased within the next twelve months to meet the requirements of the city.—The city has eighteen special aldermanic committees.—The C. R. N. has awarded the contract for the complete electrification of the new tunnel under Mount Royal, this includes seven locomotives.—The Judge of the Juvenile Court has decided that the municipalities adjoining the city can put the Juvenile Court Act into force by proclamation and thus take advantage of the system as in use in the city by using the detention house and turning the offenders over to the court already established.—By May 1st, 1914, all overhead wires on St. Catherine and Bleury streets will be underground; it is suggested that a by-law be adopted by which all building under construction and those to be constructed, shall be so wired as to permit of underground connections being made eventually.—Contracts for a huge new building for the Sun Life Insurance Company have been let; it is to be built on Dominion Square.—Plans are being prepared for the purchase of two new pumps, like the two new 12,000,000 gallons pumps, which are being installed this autumn; during the past summer, the daily consumption reached 53,000,000 gallons.

**PORT ARTHUR, ONT.** An industry, consisting of a patented process for brazing cast iron, and which is extensively used in the principal centres of the United Kingdom, is establishing a manufactory here.—The census gives a population of 11,220.—The Board of Trade opposed the proposed site for the new market.—The Waggon Works are extending their plant by adding a foundry and a machine shop section.—The great sanitary sewage system, which will cost a fortune, will, when complete, be the most efficient system in any city in the Dominion.

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WALKERVILLE, ONT. The by-law  
for the purchase of an incinerator plant  
has been passed.

PORT CREDIT, ONT., has been in-  
corporated as a village, with a population  
of 1,256.

SANDWICH, ONT. That the new  
county building is to be erected here, at a  
cost of \$50,000, was the decision reached  
by the Essex County Council.

SARNIA, ONT. The new market has  
been opened.—Work on the plant of the  
Perfection Stove Company has started;  
this concern will employ some 250 men,  
and is an adjunct of the Standard Oil Com-  
pany.—The new oil pipe line between the  
Imperial Oil Works and the Lima Oil fields  
in Ohio, has been completed; the line is 154  
miles long.

SAULT STE. MARIE, ONT. By fail-  
ing to comply with the agreement to com-  
mence operations before the middle of  
October, the Sault Ste. Marie Dry Dock  
and Shipbuilding Company has lost its 20-  
year franchise and the bonus.

SMITH'S FALLS, ONT. The total  
population is 6,551; the suburb of Anti-  
ronto is not included in these figures.

ST. CATHARINES, ONT. The popu-  
lation is 16,026, an increase of 1,285 during  
the year.

ST. JOHN, N. B. During the coming  
winter, there will be a direct mail service  
between Great Britain and the Dominion  
via this city, for the first time in its history.

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Cochrane	Port Arthur	Portage la Prairie	Lethbridge
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Fergus	Port Robinson	<b>Saskatchewan</b>	Wetaskiwin
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# FINANCIAL NOTES

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ALSASK, SASK. The by-law to raise \$6,000 for the improvement of fire protection apparatus, was passed.

ASSINIBOIA, MAN. The by-law to raise \$125,000 for the building of a modern school house, was passed.

BURNABY B. C. The by-law to raise \$250,000 for street improvements, was defeated.

CALGARY, ALTA. Three money by-laws were passed recently; they were:—to raise \$350,000 for stock yards; \$250,000 for the construction of a building for infant industries; and \$30,000 for a tuberculosis hospital.

DUCK LAKE, SASK. The by-law to raise sufficient funds to complete the building of the Town Hall, was passed.

ESTEVAN, SASK. By-laws aggregating \$45,200, to be expended on lighting and sewers extension, and extensions to the power service, were passed recently.

GODERICH, ONT. The by-law granting a fixed assessment of \$20,000 to the Goderich Organ Company for ten years, was carried; the company is contemplating some important extensions to its plant.

GUELPH, ONT. There is an increase of \$827,745 in the assessment, which now totals \$10,722,553.—According to the report of a consulting engineer, \$9,000 will have to be expended in repairs on roads which have been laid within the last few years, and not one of which has worn half of the guaranteed time.

KELOWNA, B. C. With the single tax system in force, the tax rate this year will be 17.6 mills; it is estimated that a rate of 15 mills would have been struck if improvements had been taxed.—It is believed locally that the single tax system is responsible for the increase in building permits.

MIDLAND, ONT. The by-law to grant a loan of \$60,000 to establish a malleable iron works, was carried by a sweeping majority.

NEEPAWA, MAN. The by-law to raise \$18,000 for the purpose of transforming the municipal electric light plant into an electric light and power plant, was defeated.

NORTH BATTLEFORD, SASK. The by-law to raise an additional \$55,000 to finish and furnish the new Collegiate School, was passed.

PRINCE ALBERT, SASK. The by-law authorizing the raising of money for a public library, was passed.

SMITH'S FALLS, ONT. The total assessment is \$3,756,307.

ST. CATHARINES, ONT. The total assessment is \$10,911,640, an increase of \$619,000 over last year.

ST. MARY'S, ONT. The by-law to raise \$50,000 to guarantee the bonds of the Castor Milling Company to the extent of \$50,000, was defeated.

TORONTO, ONT. The city council passed a by-law authorizing a further issue of bonds on account of the Hydro-Elctric Commission to the amount of \$700,000.—A grant of \$2,500 was made to the Toronto Symphony Orchestra.—The salaries of members of the Court of Revision are to be increased, from the first of the year, from \$1,200 to \$1,400 annually.—The City Council decided by a heavy vote in favour of an administrative survey of the city's methods and expenditures by specialists; this was requested by a body of citizens, who will pay the expenses.

WINNIPEG, MAN. The by-law in favour of raising \$13,000,000 for a new water supply, for Greater Winnipeg, was passed.—The \$75,000 by-law for the General Hospital was defeated.

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ST. MARY'S, ONT. A 600 barrel-per-day flour mill is wanting to commence operations here.

TORONTO, ONT. The Toronto Symphony Orchestra has received a grant from the City Council.—The by-law to regulate the installation of sanitary conveniences under the Public Health Act as local improvements, was passed by the Council.—The first move towards the appointment of a civic railway commission has been made.—The recommendation for the annexation of the Todmorden district was referred back by the City Council to the Board of Control.—The Dominion Railway Commissioners have ordered work on the viaduct on the Esplanade to be started, and plans for the new Union Station to be completed by the end of October.—The series of tests for a location of the duplicate waterworks system, has been completed.—The City Surveyor has completed a gigantic scheme for eighty-six miles of diagonal streets in the suburbs for Greater Toronto.—There is a proposal to widen Yonge Street by taking 20 feet of the West side, leaving the East side undisturbed.—There is a scheme to create a Parks Commission similar to that of Montreal.

VARENNES, QUE. A two-hundred-brick per day unit of the Mount Royal Brick Company is nearing completion

VERCHERES, QUE. A statue to Madeleine de Vercheres has been unveiled.

WEST TORONTO, ONT. There is an agitation for a better street car service, which is to be continued until this annoyance is coped with by the authorities.—Much objection is being made to the nauseating odors in the neighborhood of the sewer construction work.—There will be ninety miles of sewers laid here, in Cedarvale and in Moore Park.

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**Engineers—And**

LT. COL. HENRY NORLAND RUTTAN, C.E.,  
City Engineer, Winnipeg, Man.

The City Engineer of Winnipeg, Man., Col. Ruttan, occupies a very high position in the profession, not merely because of his long service in the city of Winnipeg, but because of his painstaking study of municipal engineering questions, and his wide acquaintance with them.

Col. Ruttan was born in Cobourg, Ont., in 1848, and was educated at the Cobourg and Cornwall Grammar Schools. His first experience in the work of his profession was in 1867 on the Engineering staff of the Grand Trunk Railway under the late Mr. E. P. Hannaford. From 1869 to 1877, he was on the staff of the Intercolonial and Canadian Pacific Railways under the dean of the profession, Sir Sandford Fleming, C.M. M.G.

In 1877, he saw the other side of railway engineering in the service of Mr. Joseph Whitehead, who, as contractor, built the C. P. Ry. from Winnipeg to Kenora.

In 1880, he took up private practice in Winnipeg as an Engineer and Contractor, and between that date, and 1885, built the first bridge over the Red River, a pile bridge at Winnipeg, and a swing road bridge at Emerson. He also built the first Osborne St. bridge over the Assiniboine River. But while thus engaged in private practice and business, Col. Ruttan made a special study of municipal Engineering problems in the principal cities of the United States, particularly with regard to pavements, sewers and water works.

It was due to this study of municipal questions that made the City Council of Winnipeg appoint him City Engineer in 1885, and his services have proved so valuable that the Council today is unwilling to allow him to retire from a position in which he has done such good work. For, in addition to the ordinary duties of the City Engineer of a rapidly growing city, Col. Ruttan organized a Construction Department, which is now being carried on under the Board of Control.

One branch of this Department was a Municipal Asphalt Plant, in 1899, which was the first in America. Since its inception, all asphalt pavements have been laid by the City, while, in addition to the pavements,

# what they are doing

nearly all the other City works are constructed by the City itself, by day labour.

Col. Ruttan was one of the first promoters of Hydro-Electric Power for the use of the City. He made the first surveys and the preliminary plans on which the famous Point du Bois plant has been constructed; and in collaboration with the late Cecil B. Smith, C.E., and Mr. William Kennedy, junr., C. E., he prepared the estimates which were submitted to the ratepayers with the By-law providing for the construction of the work. And it is interesting to note how very accurate these estimates proved when the work was done. On the completion of the work, he with Mr. William Kennedy, junr., C. E., and Dr. L. A. Herdt, E. E., were appointed a Board of Consulting Engineers, and held office until the works were completed and put into operation at the end of 1911.

Col. Ruttan is a member of the following societies: Canadian Society of Civil Engineers, of which he has served as President.

- Institution of Civil Engineers.
- American Society of Civil Engineers.
- American Water Works Association.
- American Society of Municipal Improvements.
- American Public Health Association.

Col. Ruttan, although so actively engaged in professional work, has found time to do public service as a citizen, and has had extended service in the Canadian Militia. He first entered the service in the Cobourg Rifle Company during the "Trent" affair. He holds the Fenian Raid's Medals; the North West Medal; and the Long Service Decoration. He organized the Winnipeg Grenadiers in 1910, and is at present in command of the 20th Infantry Brigade. He has thus proved that a man actively engaged in his own profession, can yet find time to act the part of a public-spirited citizen.

## A Good Illustration

The city corporation of Montreal has given an excellent illustration of how to secure for the public advantage the unearned increase in the value of land acquired for a public work. In this case more land than was actually needed was purchased, and the portion not required brought at auction a sum sufficient to pay for the whole right of way and bring in a profit besides of fifty thousand dollars.

It will be remembered that not long ago the Ontario Legislature, at the instance of advanced thinkers on economic questions, conferred on civic corporations the right to purchase and alongside of a public work and resell it at a profit. The civic authorities of Toronto show an incomprehensible reluctance to take advantage of the enactment of this provision, which might easily be applied to the widening of Yonge street north of the Canadian Pacific Railway. It is quite possible by this method to procure the right of way on this great thoroughfare without any expense to the city and perhaps make a profit besides. There are many such improvements yet to be made, and this is a good time and Yonge street is a good place to make a new departure.— Toronto "Globe."

To solve the problem of disposing of the dead a famous German architect proposes to erect in the chief cities immense pyramids, each of which would hold the ashes of 1,000,000 cremated bodies.

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# Engineers—And

## Points on Road Building

Many people regard the question of road surfaces very superficially and select for their macadamized road material the rocks that offer the greatest resistance to attrition. This, however, is a wrong view. The main source of the mud and dust arises from the inter-attrition of the stones composing the macadam and which converts them into a rounded form. All improved pavements have for their object the reduction of this interstitial wear and the confining of the wear to the upper surfaces.

Taking these improved pavements in order, granite blocks have the great disadvantage of earsplitting noise and are detrimental to vehicles.

Wood blocks are elastic, but their extension is limited by consideration of cost. The early asphalt pavements were very expensive, as they were constructed of ground up natural asphalt rock. Surface tarring was introduced about eight years ago and has been widely adopted. While tar is an excellent binding material for the particles of the surface of a macadam road, it is only elastic to a limited extent and its variation in consistency due to temperature changes makes its use a difficult matter.

Fortunately, discovery has kept pace with the demand. The residual product of the asphaltic oils in the central portion of the American continent is available in immense quantities. In distillation, after the gasoline and oils have passed over from the still, the process can be stopped at the point at which the residual substance is practically pure bitumen. This substance is most distinctly elastic and does not lose this property if mixed with an equal mass of finely ground lime, etc.

This bituminous "binder" can be mixed with the angular sand found on sea shores, river estuaries, sand pits, etc., or with crushed flint, gravel or shingle. Thus mixed, if built upon a foundation sufficiently strong to carry the traffic, it forms a road surface that is durable, resilient, non-slippery and waterproof, and it can be produced at reasonable cost.

So long as heavy traffic was confined to the principal streets of large towns, the heavy cost of asphalt or wood-block pavement was cheerfully borne, but now in this automobile era the traffic has to spread itself over the roads that radiate from the cities, and the consideration of maintaining these roads in a satisfactory condition at a reasonable cost has become the problem of the moment. It is also of peculiar importance in Canada at the present time as the Federal Government has definitely adopted the policy of improving the main arteries of communication throughout the various provinces.—"Conservation."

## Ex-Surveyor to be Mayor

Mr. Charles Jones, borough surveyor and engineer at Ealing, has resigned after fifty years' service, and the council has decided to offer him the mayoralty in November.

A law has come into force in Italy making industrial instruction for children of 12 to 14 years of age, who are engaged in factories, compulsory.

Municipal employees in Paris to the number of more than 50,000 will receive an increase in their pensions.

## what they are doing

### New Tenement Model

The model tenements consisting of two five-storey buildings of odd design and connected by a two-storey link which have just been completed in West 44th street, between Ninth and Tenth Avenues, New York City, embrace many unusual features. The buildings, which were designed by Architect Grosvenor Atterbury, have a combined front of 50 feet, and include two units—a front and a rear building, each 29 feet deep with extra large courts—in fact, 50 per cent. larger than are required by law—between them. Both units are of brick with steel beams reinforced by concrete floor construction and have a tile roof. The buildings have marble halls and double marble staircases leading from a common wide entrance. All the inside wood trim is semi-hardwood in natural finish with hardwood floors except in the halls and bathrooms. The apartments are lighted by electricity, have gas range and steam heat as well as other modern conveniences heretofore utterly unknown in that district.

In the cellar is a special incinerating plant for garbage and the heat produced in this process of garbage incineration is directed as an economic by-product to heating water for the tenants. The second floor of the connecting link between the front and rear buildings serves the purpose of a common assembly or reading room for the tenants with large skylights and windows and built-in seats and book-cases. On the ground floor are two perambulator rooms for the baby carriages of the tenants and on the roof, in addition to the space for drying laundry work, is a children's playground properly protected.

Everyone in the neighborhood who was asked in regard to the matter when the buildings were about finished, had heard that no one would be admitted as a tenant unless there was at least one child in the family and that no family would be taken whose weekly income exceeded \$25; also that a careful system of investigation of the personal history and character of all applicants was enforced which made the process of application for apartments in the new building "a regular civil service to get it."—Exchange.

### Sherbrooke's New Engineer

Mr. Hilder Daw, A.M.C.S.C.E., M.L.E.S., King's Hall, Montreal, has been engaged by the City of Sherbrooke, Que., to revise the existing plans and design an adequate drainage and sewage purification system to meet the requirements of that rapidly growing city. When these improvements shall have been effected Sherbrooke, Mr. Daw says, will rival the health resorts of Derbyshire, England.

Mr. Daw had many years of experience with drainage and purification systems in Yorkshire and Lancashire, and his seven years' additional experience in the United States and Canada will enable him to adapt the best systems in operation to the climatic and sanitary requirements of this country.

Mr. Daw is well known in Montreal as a strong exponent of the theory that zymotic diseases can be eradicated by means of the scientific ventilation and flushing of drainage systems and by the purification of effluents. He also advocates the installation of snow melting reservoirs in the heart of cities thereby reducing the cost of snow removal and obtaining the proper winter flushing of sewers.

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# Engineers — And

## Cinder Concrete

With every succeeding year the utilization of reinforced concrete for building purposes of every sort is becoming more and more general. Both from experience with actual constructions and through the use of tests, engineers are able to foretell how the various forms of the material will act under different conditions. Moreover, in the field of fireproof construction of buildings, concrete stands preeminent, with regard to durability, economy, and fire-resisting qualities. Many interesting facts have been brought to light with regard to the manner in which concrete withstands fire, and the investigations along these lines have been thorough and far-reaching.

The use of cinder-concrete in fire-proof floor construction has been growing in popularity from day to day. Objections to the use of this material have been advanced, in view of the fact that in some cases where it has been used, piping for the sprinkler systems or for other purposes have been corroded to such an extent as to be rendered useless. For this corrosion the cinder-concrete has been blamed. However, it has been demonstrated that, if the cinders are not new, are free from sulphides, and that if the mixture consists of one part of cement to ten parts of cinders, with enough sand to make a dense mixture, there is little or no danger of the corrosion of water piping.

A recent fire, water and load test, carried on upon cinder, terra-cotta and gypsum floor arches, showed that the first mentioned material was the best of the three. A fire was kept burning continuously below the floor for a period of four hours, and during that time the floor was subject to an average of 1700 F. At the end of the four hours a fire stream was turned on the roof while it was still red hot. The floor load during the test was 150 pounds per sq. ft.

The cinder concrete suffered very little damage, and the test served to furnish an additional proof that this material is an excellent fire-resisting medium.—W. L.C. in "Conservation."

### STREET CLEANING IN SCOTLAND.

The city of Glasgow, which now has a population of over 1,000,000, writes United States Consul McCunn, is undoubtedly all things considered, one of the best cleansed cities in this or any other country. It has an excellent up-to-date sewerage system and an abundant supply of pure water, and its municipal government is of high order, reflecting great credit on the efficiency and ability of the officials in charge of the various departments.

All domestic refuse and garbage from hotels, restaurants, etc., in the city is collected during the night concurrently with the street sweeping done by the sweeping machines. Bins are sunk in the pavement at regular intervals, in which are deposited the sweepings of the day staff. These bins are emptied nightly and the contents, together with the sweepings left at the street side by the sweeping machines, are carted away.

Private streets and back courts, after being swept when required, are cleansed by the use of 1½-inch I. R. hose attached to the street fire plugs. The court washings in the city average nearly 1,000 per day. The owners of these properties are assessed 2 cents per \$4.86 of the annual rental to meet the expense of this work.

After a heavy snowstorm, in order to avoid disorganization of traffic and great inconvenience to the public, the snow must be removed without delay, and consequently, great activity at such times prevails in the cleansing department. Salt is used to melt the snow on the tram tracks, and is followed shortly afterwards by the sweeping machine, which spreads the brine, created by the action of the salt on the snow, over the entire width of the street thereby rendering it possible to clear the street quickly. The snow and slush is then rapidly carted and tipped into the Rivers

# what they are doing

Clyde and Kelvin, or the most convenient of the various tips around the outskirts of the city.

In general, the cities and towns throughout Scotland have well-regulated cleansing departments, similar to that of Glasgow, except that the smaller towns and cities have no furnaces for destructive purposes. Some burn their garbage at county furnaces, and others are obliged to cart it into the country.

The sweeping machines drawn by horses are the kinds that have been in general use here for many years, but at present experiments are being made with machine brushes or rotary brooms propelled by motor power. These are used in certain residential districts to obviate the noise caused by horses.

The corporation last year experimented in flushing streets with a horse-drawn water tank with an air chamber of English make. This method was satisfactory when the tank was full of water, but as the water lowered, the force decreased rapidly, with unsatisfactory results. It was also found that the tank emptied in about seven minutes, and that more injury resulted to the pavements than under hose flushing, and tank flushing was abandoned.

A committee from the corporation visited cities throughout Great Britain and the continent where motor-driven sweeper suction machines were in use, but found them unsatisfactory, in that, while they would pick up an object not to exceed the weight of half an ordinary brick, they would leave light articles, such as string and pieces of paper, lying flat.

## HOW TORONTO SHOWS THE WAY

While we in Montreal have been deploring housing conditions here and the hard lot of the man of small means in the grip of the landlord, up in Toronto they have been doing things to make his lot the better. The first report of the Toronto Housing Company, just issued, shows what an organization, based on sound business principles can do when it sets out to.

The company has for its object the erection of blocks of cottages in parts of the city accessible to factories, yet each with a certain individuality of its own, to be rented at a figure which will make them within the reach of working men. A block of land was leased not far from the best retail district in the city, but toward the east end, and on it accommodation for thirty-eight families has been built. That the company knows how to get value for its money is shown by the fact that these thirty-eight homes cost only \$55,000, or that in these days of excessive building cost a family can be provided with a home containing every modern convenience for a capital expenditure of \$1,500.

The result of the company's activities so far has been that for \$12 per month a married couple without children may have a living room, kitchen, pantry (gas stove included), bedroom and bathroom, with free heat supplied by a central heating plant and unlimited hot water. For \$17 per month they may, if they have children, have a considerably bigger place with the same conveniences. These blocks of cottage-flats will be established all over the city and in the suburbs just as quickly as the necessary funds can be gathered.

This, then, is something done at last by a Canadian city to meet a pressing and increasing need. In all probability, the scheme will pay its way, for there will be no lack of tenants. For the latter the "Spruce Court" experiment will prove a precious boon. Montreal has the Toronto scheme before its eyes. It would be quite possible for a similar organization here to go to Toronto, examine Spruce Court, and found the first of a series of similar buildings here. Certainly there is no place in this country which needs them worse.—Montreal "Herald."

## A WONDER OF ARCHITECTURE

The new Woolworth building in New York, of fifty-five stories, the tallest structure in the world save the Eiffel Tower in Paris, a combination of Italian and French Renaissance architecture with steeple, in creamy white stone and terra cotta, is a unique building and one of the most beautiful in the world. It cost \$13,500,000 and is 792 feet high. The structure contains over 17,000,000 bricks, 24,000 tons of steel girders, 28 elevators and 13,200,000 cubic feet of space. It is the largest building ever erected by an individual and is free from debt. It is 200 feet higher than the Great Pyramid. It has four self-contained, fire-proof and smoke-proof stairways. There are stairs enough to climb a mountain 4,000 feet high. The building contains 27 acres of rental space, and elevators and corridors take up 12 acres more. Its elevator shafts total two miles, and around trip in each equal four miles. No wood has been used. There are 3,000 exterior windows, whose glass, with that of the interior windows, would cover about three acres. Its tenants will number about 10,000.—National Glass Budget.



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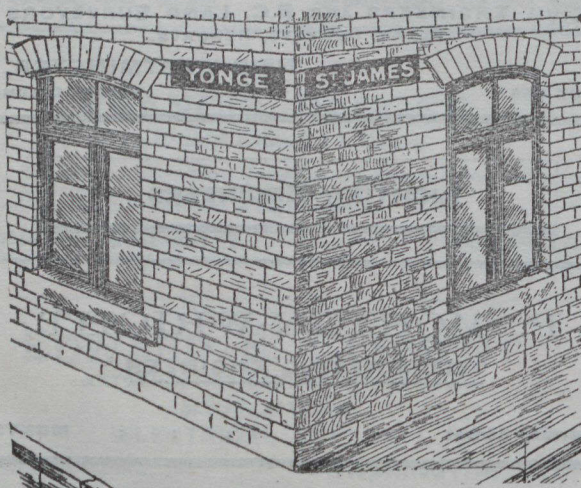
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