

PAGES

MISSING

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TELEPHONE AND BUILDING NEWS

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OFFICIAL ORGAN

UNION OF CANADIAN MUNICIPALITIES.

Provincial Unions of

MANITOBA, BRITISH COLUMBIA, ALBERTA, SASKATCHEWAN,
NOVA SCOTIA AND NEW BRUNSWICK.

CANADIAN INDEPENDENT TELEPHONE ASSOCIATION.

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Although the Canadian Municipal Journal is the Official Organ of the Union of Canadian Municipalities, the Unions of Manitoba, British Columbia, Alberta, Saskatchewan, Nova Scotia, and New Brunswick Municipalities; of the Chief Constables' Association of Canada, and the Canadian Independent Telephone Association, these are not responsible for any other matter published in it than what in each article or item itself is stated to be authorized by either of these bodies.

Letters are invited on all subjects relative to municipal matters, and those of a critical nature will be welcomed and given a place so long as they are proper and free from personalities.

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CONTENTS

	PAGE
Ancient and Modern Water Supplies.	150
Prof. T. A. Starkey, McGill University.	
Interim Report of Special Committee, Uniform Municipal Accounting	145
Activity of the U. C. M.	
Convention, Union of Alberta Municipalities	155
Southern Countries Telephone Association	163
Civic Notes	121
Telephone News	113
Telephone Patents	117
Financial.	126
Editorials	99
Equipment and Engineering	131

An Apology

The February number of "*The Engineering Journal of Canada*" contained the following paragraph:—

APOLOGY TO MUNICIPAL JOURNAL.

We, publishers of the *Engineering Journal*, apologise for having taken from the pages of THE CANADIAN MUNICIPAL JOURNAL, which were protected by Copyright, without permission and without crediting such articles, the following articles:—

From The Canadian Municipal Journal of July, 1908*, an article entitled "Electric and Power by Gas Producers and Gas Engines", and another, "Westmount, Que., Garbage Destructor".

From the Canadian Municipal Journal of July, 1907, an article and the cuts illustrating it, "The Hydraulic Lift at Kirkfield, Ont."

It is perhaps as well to explain that the heading of the quotation applies to this paper, which is "The Canadian Municipal Journal", the real name being thus obscured by slovenliness or design.

It may be well to explain to our readers how this apology has been wrung from the offenders. In 1906 we published two articles which were contributed to this paper, and the whole issue was duly copyrighted at Ottawa. The *Engineering Journal*, however, appropriated these articles, and when an explanation was requested, refused any apology but published a very flippant article, stating that their position legally was secure, probably reasoning that the trouble and expense of having them punished was too much—while the moral side of the question did not bother them.

In 1907, we again published an article, contributed along with illustrations, to our pages, and again, though copyrighted, did the *Engineering Journal* steal both article and illustrations. Patience seemed no longer a virtue and through this Company's Solicitor, Mr. W. D. Lighthall, we placed the matter in the hands of Messrs. Urquhart, Urquhart & Page, of Toronto.

After long delay, the offender has published the apology we dictated, except that the final clause was omitted, which explained that we did not press the prosecution.

It is well to add that when we asked the Copyright Department as to what they did with those who stole the articles to which they had given protection, and who had the cheek to copyright them a second time, the reply was that no action could be taken unless the injured party first took a case in the courts.

It appears as if the Copyright Department should have some machinery for punishing when it can be shown that a person secures a copyright for an article already copyrighted by another.

However, it is sometimes easier—and cheaper—to accept an apology than to follow an offender into the courts.

*(This should be 1906, instead of 1908, Ed.)

Elevated Railways

That additional transportation facilities are rapidly becoming absolutely necessary for Montreal, is very evident to those who see the crowds of people waiting for the cars at the "rush" hours. The Montreal Street Railway, though a monopoly, deserves credit for the way in which it is attempting to handle the increasing number of passengers, which are of course most evident at certain corners and at certain times. Montrealers may be reasonably proud of their street car service, as compared with other cities with a similar population.

But unfortunately an attempt has been made by the Company to meet the difficulty of transportation by the adoption of a method which has proved to be absolutely unsatisfactory wherever it has been tried, both to the city at large, and the property owners. This is the elevated railway system.

It is comforting to the Englishman to know that New York, after running down the "old fashioned ideas" of England in having underground railways, instead of the American up-to-date plan of overhead ones, for so many years, has at last adopted the very ideas which were so long despised. And there is probably not a New Yorker left who still vaunts the horrible overhead railways. No sane city should adopt such a system to-day, when the horrible examples can still be seen as warnings of what not to do.

In the first place, an elevated railway means hideous streets, and this in the light of the "City Beautiful" should prevent its adoption. It means a tremendous decline in property, and as this touches the pockets, the argument is a strong one. The climate in Montreal, where the snowfall is over 12 feet in the winter, and where the early snow lasts until spring, would apparently be an insuperable objection.

Greater Montreal needs better transportation for its growing crowds which now number about half a million, but what it does need is not an elevated railway, but an underground one, running the whole length of the Island, and built with a view to future and very immediate developments.

The Montreal Street Railway Company is making a great mistake in adopting the Terminal Railway Charter, which was obtained when this subject was not so well understood, and when opposition to anything which infringed upon the rights of the city, and which threatened to spoil its streets in any way, was not so well organized.

Active Work of the U. C. M.

The last few weeks have been busy ones for the U. C. M., as attempts have been made to override the rights of municipalities both at Ottawa and Quebec. This proves that "eternal vigilance" is still "the price of liberty" and that it is only because every Bill as presented is scrutinized by the U. C. M. that the municipalities are not tyrannized by companies seeking monopolistic privileges.

At Ottawa, there were several Bills which had to be looked after, and of which due notice was sent to the municipalities whose rights would have been invaded, while the Hon. Secretary, Mr. Lighthall, K. C., attended personally.

The principal one was that of the Canadian & Liverpool Co., which under the guise of constructing a general Railway which would run across the whole Province of Quebec, was really a scheme for grabbing all the water powers in the Province. This was fought by all the cities and towns led by Montreal and Quebec

city, and they were assisted by the Provincial Rights supporters of the Province of Ontario. The Bill was altered after considerable discussion in the House.

Another was the Bill of the Montreal Terminal Co., which had an old charter for an electric railway, which is now owned by the Montreal Street Railway Company. What was now demanded was a totally new elevated railway line, across the city of Montreal from one end to the other. The charter was a very complicated one, founded on the remains of half a dozen previous bills, and one effect would have been to have granted not only an extension of time for the original elevated but added powers of building a very extensive second and entirely new line. The interests of the Montreal Members had been awakened by the U. C. M., and with the assistance of Messrs. Rivet, Ames, Doherty, Bristol and others, and a very strong delegation of Aldermen from Montreal, the obnoxious demands were withdrawn and a mere extension of time given. The previous powers were moreover guarded by very serious obligations of payment to the City and proprietors in case of use.

At Quebec, the Canadian Light, Heat and Power has been lobbying with a view of striking out the clause making obligatory the consent of the municipalities in which it has the right to operate. The water power which will be utilized is at the Beauharnois Canal, about thirty miles from Montreal. In 1905, this Company got a Charter and the municipalities at that time succeeded in imposing upon its operations municipal consent, but with a proviso allowing the Company the right of passage. Friends of its rival, the Montreal Light, Heat and Power monopoly, however, struck out the right of passage.

The Company now demands not merely the right of passage, but that municipal consent be entirely struck out. The delegates of the City of Montreal agreed to this in the hope of competition. The other municipalities are willing to grant right of passage by a single line of the necessary wires, but desire that municipal consent should be preserved for the local franchise. The Company refuse this, having a very strong lobby. The entire principle of municipal autonomy is at stake. The Hon. Secretary of the U. C. M. and representatives of Westmount, St. Louis, Rosemount, Maisonneuve, and other municipalities all attended before the Private Bills Committee of the Legislative Assembly. Hot arguments went on for two days, but the lobby was shameless and overrode all protests. Such strong protests have however come from outside that it is now felt that the clause subjecting the Company to municipal consent may be accepted.

Railway Crossings

The legislation introduced by Hon. Geo. P. Graham to facilitate the abolishment of level crossings is certainly a step towards securing the desired end, whether or not it may be thought advisable for the country to pay partly for the change. The Bill provides that the Federal Government may contribute not more than 20 per cent. towards the cost of changing any one crossing, the maximum amount to be contributed being \$5,000; and the total amount so given not to exceed \$200,000 for the next five years.

In other countries, the Railways have generally been asked for the whole amount, but it is probably advisable, under the circumstances existing in Canada, for the people who will, at large, benefit from the change, to contribute part of the cost.

Water Supply

While law and order may be considered as the first essentials of a civilized community, the supply of water is the prime necessity of any settled collection of human dwellings, a necessity that becomes more insistent as the number of consumers increases, dwellings are crowded together and fresh air is vitiated. Dr. Starkey's article in this issue is not only interesting as showing that the water works question is as old as the settlement of humanity, but also as proving the absolute necessity of filtration for all surface waters before they are used for drinking. The vast bodies of water in our wide-spread country tend to make us shirk filtration, as it is easy to sooth the public conscience by expressing a belief in the natural purification, when even indefinite dilution only lessens the dangers, but does not destroy them. As Dr. Starkey points out, cholera has been banished and typhoid nearly conquered by water filtration in cities which have tried it; and there is no reason why Canadian cities should not have the same experience. While mismanagement in most civic services leads only to pecuniary loss, which may be recovered, an impure water supply means the destruction of human life, which is of the greatest economic value.

Surely Canadians in this advanced age should be as alert in this matter as the ancient Romans. And it must be remembered that this question confronts every village, however small, as well as the large cities. The water supply is indeed the first question to the isolated farmer on the prairie as well as to the tenement-dweller in a crowded yard. We would urge our readers to think over the article and the deductions from it, for the writer is an expert of high standing with experience in Europe and India, as well as in Canada.

The Menace of Cities

In England a Royal Commission has been studying the condition of the poor. The evidence is so bulky that even when all the volumes are issued, they will never be read.

The Chairman, Lord George Hamilton, states that "the serious feature of the report", is the

"deliberate statement that the conditions of life in London and other big towns are such as to produce a degenerate race, morally and physically enfeebled."

While it did not require three years' work of a Royal Commission to prove this, the report of such a body may give powerful help to those who, realizing it years ago, have been fighting it with all their strength.

And while it is true that large cities tend to moral and physical dwarfs, yet large cities are an essential part of modern civilization. Therefore the wise man will not merely deplore what cannot be helped, but will strive to alter the existing conditions so as to uplift the dwellers in cities to be morally and physically sound.

This question may seem of small importance to us in Canada, but we already have a few fairly large cities, and shall have more. So it should be part of our programme to avoid the errors of the old-world cities, and so to arrange that when our Canadian cities have grown great, the citizens—of every class—can live decent and healthy lives.

A Loyal Citizen

Winnipeg ought to be grateful to Controller Cockburn, and other cities may well wish for such public-spirited citizens. When the question of securing the Point du Bois Falls for a power site came up, Mr. Cockburn managed, after some difficulty, in securing the property for himself. When the City was ready to take it, Mr. Cockburn turned it over without any cost to the city.

Montreal Winter Carnival

Montreal has had a Winter Carnival which has been made a success in spite of the refusal of the railroads to give special rates. Previous Carnivals not only benefitted Montreal during their existence but led to the annual visits in the winter of people who had learned what a pleasant and exhilarating time can be had in the season of ice and snow.

The cry was that a Winter Carnival, with its advertisements of ice castles, toboggan slides and snowshoeing would tend to check immigration. This might be true twenty years ago when Canada had no other form of advertizing, and outsiders believed that winter was the only season Canada had. But to-day, when Canadian fruit takes prizes everywhere; when Canadian wheat, butter and cheese are so widely known; when not only the Federal Government, but every Provincial one, has an army of agents—why any intending immigrant who knows nothing of Canada save its winter, had better stop at home. We do not want the poor and ignorant to-day.

Montreal has, in a Winter Carnival, an asset that is peculiar to herself, and will find that it pays to exploit it. The climate is "frosty, but kindly". The tremendous snow-fall lends a picturesqueness to the city and mountain and offers facilities for winter sports. The temperature, though low, is bearable because of the dry air, and strangers can hardly be convinced that the mercury is really where it is, because they cannot feel the cold. People do not stay indoors in the winter, but get out to the toboggan slides, or go snowshoeing or skiing over the lovely Mount Royal, where the pine trees are frosted and jewelled, and the City, white in its snow mantle, lies under the clear moon.

Montreal is an annual miracle. In July, one sees the river, crowded with ocean and inland craft, the workers sweltering in an almost tropical heat. In winter the St. Lawrence lies dead in a pure white shroud, and the only signs of life are the strings of *habitants'* sleighs bringing in hay and produce over the roads marked across the ice by little fir trees.

The Carnival Committee worked hard with too much of criticism and too little of support. Next year they will succeed better, especially if they include a Summer Carnival along with a Winter one.

If the railways remain obdurate, let the Committee hold a Convention; let them issue tickets of membership at say a couple of dollars; then the members can claim the usual single fare terms to attend the "Ice Palace Convention", and every one will be pleased. Besides saving the visitors in the matter of railway fares, it would be a source of revenue to the Committee.

Locally, the Committee might induce retailers who benefit by visitors to contribute, by printing a list of the supporters in the Official Programme, and asking visitors to purchase from these firms.

Municipal Housekeeping

The Woman's Municipal League of New York City, which is now 14 years old, having been founded in 1904 by Mrs. Charles Russell Lowell, has a very admirable motto to live up to—"We are Municipal Housekeepers". The purpose of the League is "to promote among women an intelligent interest in municipal affairs, and to aid in securing permanent good government for Greater New York without regard to party or sectional lines."

Such a purpose is one which deserves success, and the League can look back with pride upon what it has been able to accomplish, and with confidence to the battles which lie before it for the improvement of the great city.

A Breaker and Maker of Laws

One of the generally accepted ideas of the administration of law in the British Empire, has been that a judge was appointed to administer the laws as he found them, the privilege of law-making being jealously confined to the representatives of the people in Parliament assembled.

Recorder Dupuis, of Montreal, takes an entirely novel view of this matter and claims for himself the privilege of ordering existing laws which do not meet his approval to be set aside, and replaced by his own wishes on the subject. He declared this in a very sensational paper which he read from the Bench.

Recorder Dupuis states that he has ordered the Police to enforce rules which practically amount to the license system for the social evil, which is in distinct violation of the Federal laws of this country.

Recorder Dupuis is quite entitled to his opinion on this subject; but he is a servant of the people and draws his salary for performing duties as Recorder, to which he is sworn, and has certainly no right whatever to tamper with the laws.

If he feels too big to merely carry out laws, and wants to take a hand in making them, the only legal and constitutional course open to him, is to resign his position as judge and ask the people to elect him to Parliament.

The Recorder meanwhile should realize that any system of protection of illegal business, renders the protector liable to suspicion of taking hush money, and a judge cannot afford to place himself in the position of being suspected.

If Recorder Dupuis will consult the report in 1905 of the Hon. Judge Taschereau, Superior Court, Montreal, now Sir Henri Taschereau, Chief Justice of the Province of Quebec, he will see how very illegal his actions have been. His Lordship shows how utterly false is the position taken by Recorder Dupuis as to the benefit of toleration. He points out that the laws do not permit such ideas as Recorder Dupuis practises, His Lordship makes, however, one mistake; he says: "The discretion of our magistrates can be relied on". But then that was before Recorder Dupuis had been awarded his position.

Recorder Dupuis took the opportunity of making a brutal attack, from the bench, upon the Reverend A. French. The high esteem in which Mr. French is held in Montreal gave to this attack the effect of a boomerang, for it is evident that Recorder Dupuis is mad with Mr. French for forcing his hand, because all the reverend gentleman is accused of by Recorder Dupuis is that he wants the existing laws enforced. Truly a pitiful spectacle, to see a judge attack a defenceless man because he asks for laws to be enforced.

Fortunately, this incident has been so glaring that the attention of the Government has been called to it, and it is likely that the unique instance, in modern days, of a law enforcer becoming a law maker, will be fully investigated, and such an irresponsible and revolutionary idea stopped.

Unfortunately an appointment as judge is too often the reward for services rendered to members of the Government exercising the patronage, services sometimes of a not very honourable character. But no Government allows its nominees to usurp the prerogatives of the people's representatives in such a glaring manner as has been done in this case.

If every judge arrogates to himself the power of law-breaking and law-making, what would become of the administration of law? And if Recorder Dupuis is permitted to change some laws to suit himself, what is to hinder every other judge from doing likewise?

Reports Wanted

We shall be glad to have every Municipal Official who gets out a report on the work of his Department, send in a copy.

A good many have been received but many are still waiting.

We would particularly ask every Clerk or Treasurer to send in his last Financial Statement, and also a memorandum giving the Population, Total Assessed Property Valuation, Exempted Property, Debenture Debts, Sinking Fund and Tax Rate.

We shall be glad of replies from all, as we have a plan in view that will, we expect, aid every municipality in selling its bonds.

Please send the information asked, to the Financial Department of the Journal.

Natural Resources

"We agree that those natural resources which are necessities of life, should be regarded as public utilities; that their ownership entails specific duties to the public; and that, as far as possible, effective measures should be adopted to guard against monopoly."

In a very inspiring address before the Canadian Club of Montreal, the Hon. Sydney Fisher, quoted the above, which is taken from the declaration of principles adopted by the North American Conservation Conference, which was formed of representatives from the United States, Mexico, Newfoundland and Canada.

"Natural Resources", it was agreed by the Conference, mean "all materials available for the use of man as means of life and welfare," and included soil and waters, minerals and forests.

Such a principle as the one quoted will have a tremendous influence on the betterment of our country, if it is properly enforced. It means that any Government will see that the citizens as a whole are not taken advantage of by the few. It does not mean, necessarily, public ownership, or even operation, but it does stand for absolute public control.

That such a principle is sadly needed is proved by the blind way in which monopolistic ownership has robbed, and is still robbing the public.

If Canada is to enjoy to the full the enormous development that is possible, her natural resources must be rigidity and scrupulously safeguarded. The selfish policy of the Hudson Bay Company, which for so many years fettered our great North West that its natural resources might be seized and exploited by the "Company of Gentlemen Adventurers," has been too widely copied to the disadvantage and hurt of Canada.

Mr. Fisher wisely enforced the idea that true patriotism consists not merely in fighting for one's country, but also in so administering its resources we may hand it on, unimpaired, to future generations.

We Canadians are beginning to realize the enormous natural wealth of our Country, and its attendant possibilities. Let us also realize the "specific duties" which attend such ownership, and see that everyone now has the chance of enjoying them, while learning them unimpaired to those who follow.

Union of New Brunswick Municipalities

The Official Report of the Annual Convention of the Union of New Brunswick Municipalities will appear next month.

The Union of Canadian Municipalities

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Uniform Municipal Accounting

The following is a draft of the Report of the Special Committee of the Union of Canadian Municipalities on Uniform Municipal Accounting which the Committee propose to present to the Union as its Annual Convention next summer.

In view of the importance of the subject the Committee is desirous of first submitting it, in this draft form, to the criticism of interested bodies, and officials, and would therefore be glad to receive such criticism, in order to perfect their work before its presentation as a completed report.

Draft of Report

It is to-day widely recognized that a system of uniform municipal accounting throughout Canada, and as far as possible in harmony with the systems in the United States, would have results of vast importance. The citizen who tries to compare his local tax rate with that of some other place now finds himself confronted by insuperable divergencies of method in municipal bookkeeping and financing. In addition to the systems of bookkeeping being more or less peculiar to each unit, the basis of valuation often varies widely, the financial year probably ends on different dates, and there is no agreement nor recognized uniformity as regards grouping of items of revenue and expenditure to show costs of service. In short, if one wishes anything approaching a reliable comparison, one soon finds that it cannot be got.

It is if possible even more urgent in cases of municipal operation of water, lighting and other services that full and correct statistics be available; and to be of much benefit they should also be readily comparable with those of other places.

Urban municipalities are growing rapidly and as they grow these complexities have been found to make frauds and irregularities easier, and provincial governments and bodies occupied with public affairs are unable to collect useful statistics and in this way to supply the foundation for needed improvements of various kinds. The

experience of the Ontario Railway and Municipal Board in this connection may be given as follows:—"The importance of a uniform system of municipal accounting in the Province of Ontario has come home to this Board in the discharge of the duties assigned to them under the Ontario Railway and Municipal Board Act of 1906. Under that Act the Board is charged with the duty of superintending the system of bookkeeping and keeping accounts of assets, liabilities, revenue and expenditure of all public utilities that are operated by municipal corporations. The Board spent much time in preparing uniform forms of reports of the operation of gas plants, telephone plants, electric light and power plants and electric railways. These report forms were sent to the various municipalities operating public utilities, who were asked to supply the information required in such reports. The Board found that owing to defective records, and the elementary systems of account in operation, many municipalities confessed their inability to furnish much material information required by the Board, while some municipalities failed to answer any substantial part of the questions asked in the reports."

If this is true of Ontario what is the situation in Provinces less developed statistically and how can the situation be relieved? The answer has been succinctly given by Dr. L. G. Powers, Chief Statistician of the United States Census Bureau:—"To make City accounts an intelligent guide to the business of Municipalities, those accounts must be standardized so that the experience of a given city one year may be compared with that same city in all other years, and the experience of one city may be compared with that of all other cities. Those who had not investigated this subject used to say, in opposition to the foregoing statement, that the accounts of different cities could not be made comparable, since the business of such cities is conducted under widely different conditions and circumstances. To this I will say: It is true that there is a difference in the local municipal conditions and circumstances, to which our attention is called by these objectors, but there are like differences in the conditions and circumstances attending the operation of the various establishments using

uniform accounts in private enterprises. Thus, I recently visited the headquarters of a great private corporation operating a large number of electric light, street railway, and associated plants in different parts of the country. These plants were operated under as many diverse conditions and circumstances as attend the management of the cities here represented, but their accounts were all standardized and summaries of the transactions and conditions were sent to that central office every month."

The object of this Committee is to suggest a system of Uniform Municipal Accounting for general adoption throughout the Dominion. It should be clear and rational, adapted to the conditions of our country, easy to establish, and as far as circumstances permit in harmony with the system prevailing in the United States.

The labor and perplexities of the committee have been vastly reduced by the fact that in the United States a sound system has already been planted, chiefly through over a decade of effort by the National Municipal League and the Washington Census Bureau. A sketch of the movement there was given in a paper by Dr. Morley Wickett, editor of *Municipal Government in Canada*, at our 1908 Convention. "In England", he states, "uniformity is largely enjoyed through the Local Government Board which was established in 1871; the Board has powers of audit and gives detailed analyses of the financial returns for over 34,000 local authorities of various kinds in England and Wales.

"In the United States the movement for uniformity may be dated roughly from the inauguration of the policy of public examiners, a species of State Auditor, with wide powers. This occurred in Minnesota in 1878, and in Massachusetts in 1879. In 1892 Wyoming followed, as did also the Dakotas, Ohio, and, later on, New York. In 1898, largely through the efforts of Dr. M. R. Maltbie, then editor of "Municipal Affairs", Congress passed a law authorizing the Commissioner of Labor to compile an abstract of statistics of cities with a population of over 30,000—the first attempt of its kind on this Continent. Meanwhile the National Municipal League, spurred on by such men as John R. Commons, E. R. Clow and Prof. L. S. Rowe, began its study of the problem in 1896, and appointed shortly after a special committee of ten to work out a municipal programme. In 1901 it named a special committee on "Uniform Municipal Accounting" with Dr. Edward M. Hartwell, Secretary of the Boston Statistics Department as Chairman. Public attention was in this way forcibly drawn to the subject, as also by the success achieved by the States in which accounting reform is carried out. Wyoming, for example, had cut down the cost of county government within a few years by nearly 25 per cent.; by its improved system of accounting, Chicago had decreased its annual expenditure by over \$70,000, increased its revenue directly by \$600,000 and indirectly by over \$300,000 additional.

"Writers on municipal problems, whose small number in this country is a matter of regret, began to call attention instantly to the unreliability and imperfection of municipal reports. Thus where per capita figures were published, the estimate of population was found often to vary with such authority. Similarly with regard to tax rates, etc. Chicago, for example, had a tax rate of 83.65 per \$1,000 as against Boston's 13.60. But the Chicago rate did not include a park tax of 9 to 11.50. In Chicago, it failed to explain that realty was assessed at only 10 to 11 per cent. of its selling value, while in Boston it was assessed at 90 per cent. Other examples might be multiplied, were the point not obvious; figures must be reliable, complete and comparable.

"A further stimulus to the movement for uniform accounting came from the example set by great commercial bodies. Systems of Uniform reports were worked out by the Interstate Commerce Commission, by numerous great corporations with their multitude of branches, by the New England Water Works Association, the Street Railway Accountants Association of America (1899), the National Electric Light Association (1901), the American Gas Light Association (1902) and by a long list of other bodies having to do with electricity, gas, water, street railways, public and civil engineering, etc."

In Canada the existing deficiencies have been deplored by several observers. As early as 1882, Mr. Archibald Blue raised the question in a practical manner in the Province of Ontario and succeeded in establishing the present system there of annual statistical reports by municipalities to the Government, which however does not enforce any special bookkeeping nor penalties. At the 1908 Convention of the Union of Canadian Municipalities in Montreal, the Secretary placed the subject on the program for discussion in the hope of establishing a movement for its practical introduction. It was reviewed by Dr. Wickett and by Mr. Henry James Ross, public and municipal accountant of Montreal, the discussion being brought to a head by a motion of the Secretary as follows:—"That the Union of Canadian Municipalities is strongly in favor of uniform municipal accounting for the various classes of municipalities of the Dominion, and recommends that the various Provincial Governments be petitioned to introduce a uniform system of accounting by similar legislation; and the Executive Committee is instructed to establish a sub-committee to prepare such a system of suggestions and to take such measures as they may find feasible for furthering the end in view."

In consequence a special committee was appointed by the Executive consisting of the President, J. J. Ward, Controller of Toronto; the Honorary Secretary, W. D. Lighthall, K. C.; Messrs. H. J. Ross, S. Morley Wickett, Ph. D., J. F. C. Menlove, (Pres. of the Union of Manitoba Municipalities), Ex-Mayor J. A. Ellis, (City Treasurer of Ottawa), and George S. Wilson, Assistant-Secretary. The committee have met and corresponded as fully as their distances and avocations would permit and have notified and consulted with various Provincial Governments and municipal officials, the Ontario Railway and Municipal Board, the Manitoba Municipal Commissioner, the Saskatchewan Municipal Commissioner, the Dominion Census Bureau, the National Municipal League, the League of American Municipalities, the United States Census Bureau and many other officials and bodies.

The intention is that this shall result in more complete and better classified information being obtained, the classification not to be by departments or officials as at present but by service performed with a view to showing the net cost of such service. The committee aims to have the various provincial governments agree to require each municipality to furnish the same returns to the provincial statistician and thus establish a uniform system of municipal bookkeeping and statistics throughout Canada.

The great majority of our municipalities already possess the material for the desired information; all that is required is a simple regrouping of accounts. Those whose bookkeeping system is at present of the non-descript class will be doing nothing more than their citizens and their civic responsibilities call for in improving their accounting. The committee has accord-

ingly decided to recommend nothing heroic but simply to draw up an outline of the information it considers each class of municipality should furnish to its citizens, to its creditors, and to the public at large, leaving to each province, or each municipality to take what action it finds necessary with regard to details. The recommendations are based upon those prepared by the National Municipal League of the United States, and modified by Mr. L. G. Powers, chief statistician at Washington, with the view to the publication of municipal statistics for the United States as a whole. The committee has made such additional modifications as were necessary to adapt the plan to conditions in Canada.

The adoption of the Committee's suggestions would involve but a very small preliminary expenditure.

The next question that naturally arises is whether the expected results make the changes worth while. In other words, will it pay our municipalities to give a little more attention to their bookkeeping and statistics? In the opinion of the committee a ready and decided answer may be given in the affirmative. At the present moment the unclassified information supplied (1) throws little, and in fact almost uniformly no light on the net cost of the various municipal services, (2) gives no adequate information on the results of municipal as against private ownership, (3) discourages zeal for economy among municipal officials, (4) prevents intelligent public interest in local affairs, (5) prejudices the most favorable sale of municipal debentures.

The circumstances of the Dominion have raised the following special questions:—

1. How should municipalities be classified for statistical purposes if, as is evident, more detailed returns should be required of those of greater size?
2. What information should be required of each class?
3. What should be expected of the Dominion Government in compiling these statistics through its statistical and census departments, the Dominion having the power of taking "the Census and Statistics" under section 91, sub-section 6 of the British North America Act?
4. What suggestions might be made to the various provincial governments, under whom by section 92, sub-section of the same act, "Municipal Institutions" are placed?
 - a. as to forms?
 - b. as to the extent to which each province should make the same obligatory?
 - c. as to supervision under provincial officials?
5. Should the fiscal and calendar year coincide?

These questions may be answered seriatim:—

- I. *How should municipalities be classified for statistical purposes, if, as is evident, more detailed returns should be required of those of greater size?*

Possibly not more than three divisions need be made at the outset.

1. rural municipalities, including townships, parishes, counties, unincorporated municipalities and villages.
2. cities and towns up to 10,000 population.
3. cities and towns over 10,000 population.

- II. *What information should be required of each class?*

A similar classification should be required of all, a more detailed classification being required of the larger municipalities.

The following is the classification of accounts that the committee would propose for general adoption:

I. General Classification of Services

	Receipts	Expenditures	Balance
General Government			
Council			
Elections			
Officials			
Buildings			
Protection of Life and Property			
Police			
Fire			
Pounds			
Health and Sanitation			
including Street Cleaning			
and Sewers			
Highways			
Roads			
Sidewalks			
Street Lighting			
Charities and Correction			
Poor			
Hospitals			
Jails			
Education			
Public Schools			
High Schools			
Libraries			
Museums and Art Galleries			
Recreation			
Parks and Gardens			
Celebrations			
Miscellaneous			
Judgements, etc.			
Sundries (particularize)			
Public Utilities			
Water			
Gas			
Electric Light			
Street Railways			
Telephones			
Other Commercial Services			
Toll Roads and Bridges			
Markets and Weigh Scales			
Exhibitions			
Sundry			
Annual Levies			
Property Tax			
Income "			
Poll "			
Local Improvements			
Assessments			
Total Taxes			
Liquor Licenses			
Trade Licenses			
Fines and Fees			
Miscellaneous Temporary Items			
For Sinking Funds			
Sales of Property			
Refunds in correction of			
erroneous payment			
Sundries (particularize)			
Total Ordinary			
Extraordinary Items			
General debentures			
Special "			
Overdrafts			
Sundries (particularize)			
Total Extraordinary			
GRAND TOTAL			

II. Cash Balances

	General Treasury	Sinking Fund	Total
Cash on hand at beginning of year			

Investment Fund Balances (Sinking Funds)

	Cash	Par value of securities	Par value of other Investments	Total
On Hand at beginning of year				
On Hand at close of year				
Increase				
Decrease				

III. Obligations Contracted during the year

	Issued		Interest	Paid		Total
	Par Value	Net Amount received		Par Value	Com-missions	
General Debentures						
Local Improvement Debentures						
Overdrafts						
Outstanding Judgments						
Miscellaneous obligations						

IV. Indebtedness

	Amount outstanding at beginning of year	Amount issued during year	Amount paid and cancelled during year	Amount outstanding at close of year
General Bonds				
Local Improvement Bonds				
Other Indebtedness				

V. Indebtedness at Close of year

Purpose of issue	Number of by-law	Character of obligation	Year of issue	Date of maturity	Rate of interest	Amount out-standing	Amount authorized but not issued

VI. Licenses and Fees

Character of License granted	Number in force at close of license year	Amount of Fee	
		For Municipality	For Province
1. Hotels			
2. Clubs			
3. Liquor stores			
4. Victualers			
5. Trade and Other			

VII. Statement of Assets and Liabilities

ASSETS	LIABILITIES
Available	Debt.
Cash in Treasury	Bonded
Saleable Lands and Buildings	Floating
Taxes levied but not due	Outstanding claims
Taxes in arrears (Collectable)	Other liabilities
Other debts due	(specify)
Other available assets (specify)	
Non-productive :—	
Municipal Buildings	
Furniture	
Police	
Land & Buildings	
Furniture	
Fire Department	
Land & Buildings	
Apparatus, etc.	
Schools	
Land & Buildings	
Furniture & Apparatus	
Libraries	
Land & Buildings	
Furniture & Apparatus	
Museums, etc.	
Land & Buildings	
Furniture & Apparatus	
Parks, Gardens and Boulevards	
Land & Buildings	
Furniture & Apparatus	
ail	
Land & Buildings	
Furniture & Apparatus	
Work-houses, etc.	
Land & Buildings	
Furniture & Apparatus	
Hospitals	
Land & Buildings	
Furniture & Apparatus	
Asylum Equipment	
Other property	
Public Improvements	
Bridges	
Road Pavements	
Sidewalks	
Sewers	
Sinking Funds	
Other non-available Assets (specify)	
Productive	
Docks, Wharves, etc.	
Markets & Public Scales	
Gas supply system	
Water " "	
Electric Light system	
Cemeteries, etc.	

VIII. General Statistics

1. Area of municipality.
2. Population.
3. General Assessment.
4. Local Improvement Assessment.
5. What proportion does general assessment bear to ordinary selling values?
6. Exemptions
(all properties with fixed assessments to be assessed at full value to show real amount of exemptions)
7. Street Mileage.
 - a. Mileage of Macadam roads.
 - b. " " permanent " "
 - c. " " " " sidewalks.
 - d. " " " " sewers.

III *What should be expected of the Dominion Government in compiling these statistics through its statistical and census departments?*

We recommend that the Dominion Government be memorialised to use its powers and trained officials to secure as far as practicable a national tabulation of municipal statistics along the lines set forth in this report.

IV. *What suggestions might be made to the various Provincial Governments?*

a. as to forms:—

That the classification here given in outline be adopted in each province.

b. as to extent which same should be made obligatory:—

Each Province should make the tabulation compulsory within a specified date; and specify such conditions as to make possible the publication of municipal statistics within six months after the close of the fiscal year.

c. as to supervision under provincial officials:—

Such supervision be established as will effectually carry out the system.

V. *Should the fiscal and calendar year coincide?*

For example the city of Quebec's fiscal year ends on 30th April, as does also Winnipeg's; Sherbrooke's ends on 15th December, etc. Any such fixing of date should be understood to include the year for taxation. Thus many municipalities close their accounts on the 31st October, but their assessments on the 1st July, and in some cases 1st January. Both the taxation year and the fiscal year, should end on the 31st December.

It is already the practice for the majority of Canadian municipalities to end their fiscal year on the 31st December, as is widely the case also in the United States. It is also recommended by the United States Census

Bureau, League of American Municipalities, National Municipal League, and other authorities. We recommend that provincial legislation should require that this practice be made uniform.

It may be remarked that the supposed advantages of closing municipal books before the end of the calendar year do not appear to be realised in actual practice.

The system proposed by us is merely a simplification of the varied methods already in use in Canada.

The resolution of the Union of Canadian Municipalities under which this committee has been working, has met with hearty endorsement on all sides.

For the successful working out of a uniform system as proposed, the cooperation of the great body of municipal officials throughout the Dominion is necessary, and the committee feels that the end in view merits, and will receive their interest and cordial support.

March 1st, 1909.

J. J. Ward,

City Controller, Toronto.
President, U. C. M.

W. D. Lighthall, K. C.,

Hon. Sec.-Treas., U. C. M.,
Montreal.

S. Morley Wickett, Ph. D.,

Editor of "Municipal Government in Canada", Toronto.

H. J. Ross,

Accountant.

Auditor, Town of Outremont, Que.

J. F. C. Menlove,

Sec.-Treas., Viriden, Man.

President, Union of Manitoba Municipalities.

ExMayor A. G. Ellis,

City Treasurer, Ottawa.

G. S. Wilson,

Asst.-Sec. U. C. M., Montreal.

At the call of the Union of Canadian Municipalities, an important gathering was held at the City Hall 1st March, at which all the mayors on the Island of Montreal and vicinity were present. It was decided to petition the Government that no electric or other companies be permitted to enter Montreal, or any other municipality on the island without first getting the consent of the municipalities interested. In other words, steps were taken which it was hoped would put a stop to the Legislature and the Parliament giving away important and valuable municipal franchises.

Mr. W. D. Lighthall, Hon. Secretary of the Union of Canadian Municipalities, presided at the meeting. It was explained by Mr. Lighthall that there were now a number of bills before the Parliament and before the Legislature, on behalf of powerful electric and railway companies, asking that they be given powers to operate in the streets of Montreal, and in other municipalities on the Island. He held that the custom of the governing bodies giving away municipal rights should be done

away with. No company should be permitted to take possession of streets unless municipalities were first consulted. This had not been the custom in the past; the result was that companies now practically controlled the streets of the City of Montreal; they also controlled the thoroughfares of many outside municipalities.

Mr. John Hyde, alderman of Westmount, contended that there should be established by the Government a public utilities commission, whose duty it would be to look into all demands from companies demanding rights to the streets or roads. It would also be wise if a commission were formed to see if certain rights which big companies now had in the streets could not be modified.

In regard to this, Mr. Lighthall said it might be difficult to get the Legislature and the Government to modify rights that had already been given; at the same time he was well disposed to any legislation that would result in bettering present conditions.

Mayor Lussier, of Bordeaux, pointed out that the only way for the Government to proceed was to notify

interested municipalities when private bills were presented by companies asking for privileges to the streets. At the present time municipalities had to read the papers in order to get information when bills were sent to the governing authorities. He did not think this was just. Everything should be done both by the Government and the Legislature to let Montreal and other places know when companies were trying to get control of streets.

Mr. Lighthall reported that the Union received copies of all Bills, and notified municipalities where affected.

Mr. Honoré Gervais, K.C., M.P., who was present, said that a strong deputation should be sent at once to Ottawa to look into the project of the Terminal Company to operate in the streets of Montreal. He said that this company had a bill which was pernicious in every way. It was asking vast powers in the streets. The bill was the worst that he had looked into for a long time past. He also stated that Sir Wilfrid Laurier had already been asked to postpone the consideration at this company's bill till such time as Montreal could send delegates to discuss the affair. He understood that Sir Wilfrid would grant the request.

Several other speeches were made in reference to the rights of Montreal and other municipalities controlling the streets and thoroughfares. It was pointed out that the streets belonged to the taxpayers. In other cities they rented the streets to big companies at very advantageous terms. The revenue from companies was in many cases so large that it went far towards maintaining civic administration. In Montreal, however, no such custom existed. When a big company desired to use the streets it either went to the Legislature or the Parliament. The City Council was not consulted. This whole proceeding was manifestly unjust.

RESOLUTIONS ADOPTED.

After some further discussion the following important motions were adopted:

On the motion of Mayor Lussier, of Bordeaux, seconded by Mr. F. S. Maclellan, K.C., Alderman of Westmount, it was resolved:

"That at this meeting, composed of representatives of all municipal councils in the vicinity of Montreal, it is hereby resolved that in all bills introduced into Parliament or the Legislature of the Province of Quebec, relating to the placing of poles and wires for electric light, heat and power purposes, and all public utilities, anywhere in the vicinity of Montreal, a section should be inserted and form part of such bill requiring the previous consent of the Municipal Council to such works, similar to the amendment introduced by Mr. Honoré Gervais, M.P., in the bill of the Canadian Liverpool,

and Western Railway Company, to wit, as follows:—

"Nothing in this Act, or in any other act, shall authorize the company to construct or operate, whether overground or underground, any telegraph or telephone lines, or any other lines, either directly or indirectly, for the purpose of distributing electricity or any other energy for lighting, heating or other purposes, or disposing of surplus power generated by the company's works, and not required by the actual undertaking of the company, upon, along, or across any private property, or highway, or public square or place, without first obtaining the consent expressed by by-law of the municipality having jurisdiction over such property or highway, or public places, and upon terms to be agreed upon with such municipality."

It was also resolved, on the motion of Mayor Davier, of Montreal West, seconded by Mayor Desaulniers, of St. Lambert, as follows:

"That any fresh works entered into under existing charters shall be made subject to the same clause as Mr. Gervais has had inserted in the Canadian, Liverpool, and Western Railway Bill, and that a public act to this effect be passed."

A third resolution, proposed by Ald. Hyde, of Westmount, and seconded by Mayor Deschamps, of Lachine, was to the following effect:—

"That in the event of the Government of the Province of Quebec not being able to accede to the request of the municipalities to adopt an amending act compelling all companies holding charters from the Legislature of Quebec to submit to the control of municipalities all further work they desire to do within the municipalities, the Government be requested to appoint a commission with powers of control over all works, rates, services, etc., on the lines of the Railway Commission of Canada, or similar lines."

Moved by Mayor Desaulniers, of St. Lambert, seconded by Mayor Dunlop, of Outremont:

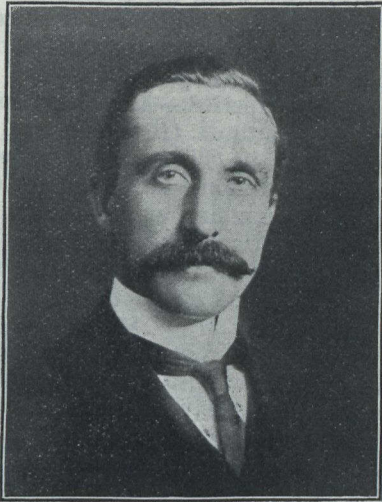
"That this meeting of the municipalities of the Island of Montreal and vicinity, unanimously tender to the cities of Montreal and Maisonneuve and the town of De-Lorimier, their offer to support them in any steps they may consider necessary to protect the rights of the said Cities and Town in the matter of the Montreal Terminal Railway Bill; and that if desired a delegation be arranged to proceed to Ottawa for such purpose."

Moved by Alderman Hyde, of Westmount, seconded by Mayor Desaulniers, of St. Lambert:

"That copies of the resolutions adopted at this meeting be sent to all of the Municipalities of the Province, with a request that these resolutions be adopted by the various Councils in support thereof."

Ancient and Modern Supplies

T. A. Starkey, M.D.; D.P.H.; (Lond.); M.R.C.S.; &c., Fell. Roy. San. Inst.,
 Professor of Hygiene, McGill University

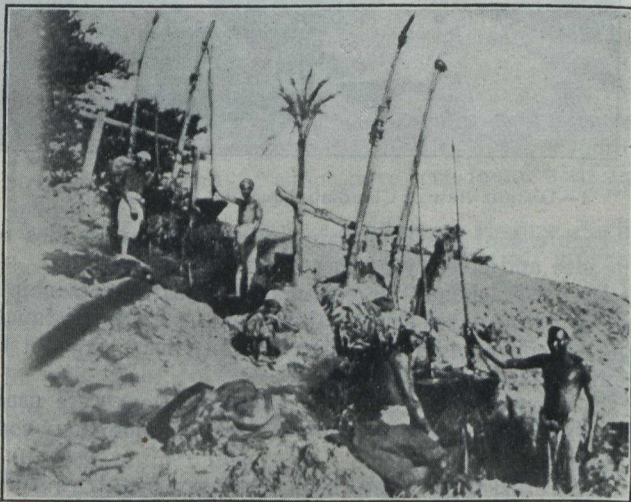


Primitive man undoubtedly used the natural waters nearest to hand—rivers and lakes—to supply his daily wants. We may therefore presume that any descriptions of water supplies found in the most ancient writings, refer to a second stage in the evolution of water-works, for in these references two kinds of waters are mentioned:—

1st. River water—generally for irrigation purposes, but sometimes for human consumption.

2nd. Wells and springs, both derived from vast underground reservoirs, containing water, generally very pure, having been subjected to a natural process of filtration through the soil.

Figures 1 and 2 show the ancient methods of handling water in Egypt and India which are practised in Eastern countries at the present day exactly as they were thousands of years ago.



1—Lifting Water from the Nile. (Photo by author)

Wells gradually became more and more the recognized source of water supplies, and we may only guess at the reasons why river waters were abandoned in favour of well waters. There must, however, have been very cogent reasons, or the people would never have gone to

the trouble and expense of excavating these wells, when rivers were so close to them. And nowadays, travellers in Eastern countries may see scores of wells constructed on the very edges of rivers. Also they may observe another interesting fact, natives never take drinking water directly from rivers, but always scoop out a little hole in the sand near the river, allowing the water to percolate through the soil, and so be more or less filtered before using it.

Surely all this indicates how the ancients learned by bitter experience that surface waters, in populated areas, could not be consumed, in their raw state, with impunity.



2—Indian Well, showing two methods of drawing water. (Photo by author)

The Sacred rivers of India and elsewhere form notable exceptions to this however.

These rivers are all badly polluted and still the waters are consumed by hundreds of thousands as a religious duty, as seen in Figure 3, where the pilgrims are carrying away jars of the water from the river in which they have bathed.

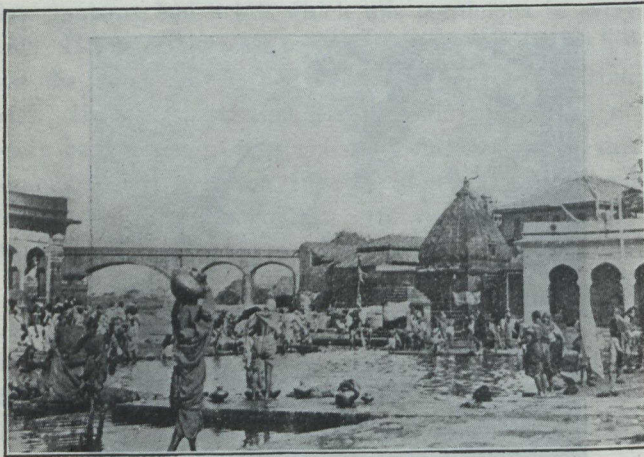
Speculations are rife concerning this curious custom. The most popularly accepted is that water being one of the elements, all of which were revered by the ancients, received its due amount of worship, and that this practice is the remains of that cult.

Personally I have a view of my own. At the beginning of things the rivers were utilized for water supplies; the leaders of the people, usually priests, quickly discovered the risks of pollution to which surface waters were liable, and in order to maintain their purity, incorporated laws to this end in their religious ceremonies, for this was the only way of enforcing their observance. Hence the religious attributes—these waters are not accredited with miraculous properties in any way.

The history of canal construction—mostly for irrigation purposes—goes very far back indeed. Still as they were used occasionally to furnish drinking water, we may be permitted to glance at them.

The Chinese are believed to have been familiar with such works for ages; nevertheless, the earliest authentic records with which I am acquainted are of "Joseph's Canal" in Egypt, which was commonly supposed to have been constructed by Joseph, until a few years ago, when the canal was cleaned out and repaired under the direction of an officer in the Royal Engineers. During the work, he came across a foundation stone, bearing certain inscriptions, which, when deciphered, related that the canal had been repaired by Joseph, and that tradition, in his day, accorded the construction to a date 2,000 years before Joseph's time, making it in all about 3,600 B. C.

The next evidences are two Babylonian cylinders in the British Museum. One, a legal document, ordering a landowner to clean out his canal—date 2,300 B. C. The other, a record of the cutting of a great canal at Larsa, 2,300 B. C. (Khammurabi's reign 2,300 B. C.).



(Photo by author)

3 Religious rites of bathing, in the holy river Krishna, India.

Now as underground water seems to have had the preference over river water, let us see what accounts for this predilection.

Briefly it is one of natural purification by filtration.

All this knowledge on the part of the ancients was purely empirical, gained by long experience, still quite true and sound. Such writers as Herodotus, Hippocrates, and Pliny, mention the disastrous results following the consumption of polluted surface waters, as having been accepted facts, long before their time. And we have proof of the superiority of deep underground water over river water, in the remains of very extensive works, constructed to deliver pure water, sometimes brought long distances, from a safe source.

One of the most noteworthy in Palestine is Solomon's Pools at Etham, built 900 B. C., shown in Figure 6; while Hezekiah's Conduit and Pool, built 700 B. C., and the Fountain of Elisha at Jericho, are also notable.

After these ancient civilizations, and coming down to a period nearer the Christian Era, we find the Greeks to the fore in this work. In the 5th. and 6th. centuries, B. C., the Greek engineers made great strides in the installation of public water works. In all instances they brought into the cities good spring water from a distance—sometimes nearly a hundred miles away—and we find these people showing great engineering skill, the conduits in many places piercing hills by means of tunnels, and crossing large valleys on arches of masonry. Remains of large aqueducts are still to be seen which were built for supplying Athens, Ephesus, Samos, Laodocia, etc.

Closely following the Greeks, we have the Romans,

and it is of their works that we have the greatest evidence, chiefly in the form of aqueducts which exist to-day, some in actual use, others in a state of ruin.

The methods of the Roman engineers were modelled very closely on the lines of their predecessors, the Greeks, as one would naturally expect. But curiously enough at the very time when the Greeks were erecting their numerous conduits, the Romans were content to get along with river water from the Tiber, and well water from wells inside the city of Rome.

They were gaining experience at a great cost in human life; and as Frontinus (that wise and eminent Roman engineer) tells us "That for a period of 400 years did the citizens of Rome have to wait for a good water, deriving their drinking supplies from the river Tiber and from wells situated within the city itself."

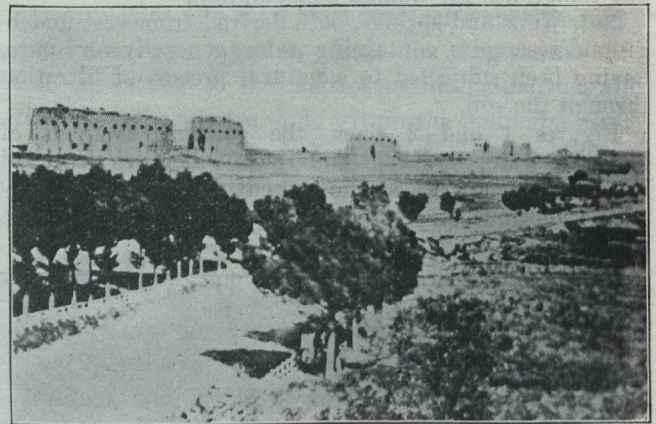
It was not until the year 312 B. C. that the Romans awoke to the absolute necessity of instituting a good and wholesome water supply.

As was characteristic of that race, when they undertook a task, they did it well, and, judging by what is left to us to-day, we may safely assert that Rome was the best supplied city in the whole world; and that even at the present day, there are very few places equipped with as good a system, certainly none on this continent.

The Roman aqueducts were:—

Aqua Appia, 312 B. C.; Anio Vetus, 272 B. C.; Marcia, 144 B. C.; Aqua Tepula, 125 B. C.; Aqua Julia, 33 B. C.; Aqua Virgo, 19 B. C.; Aqua Claudia, 38 A. D.; Anio Novus, 52 A. D.; Trojana, 109 A. D.; and Aqua Alexandrina, 226 A. D.

All these supplied spring water, except the Anio Vetus and Novus, which were fed from rivers, and the Aqua Alexandrina, whose source was a lake.



4—Distant view of Claudian Aqueduct, Rome, Italy.

Figure 4 of the Claudian Aqueduct gives an idea of the size and solidity of these wonderful structures.

In these schemes we see again the earliest principle of supplying pure spring water, brought from a distance, and so conveying it, that it would be least exposed to contamination.

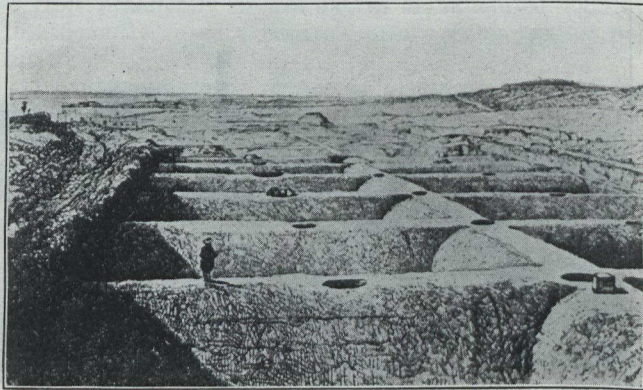
In those cases where river or lake waters were used, they were designed only for purposes other than consumption.

Wherever they went, into whatever countries their conquests took them, the Romans carried their tenets of procuring good water supplies. Remains of such aqueducts exist in Spain, France, England and Carthage, and I think mankind at the present day ought to be grateful to the Romans for the example they then set.

Considering that the Romans did not have the benefit of using iron pipes, but bored out blocks of stone, the cost of these undertakings must have been enor-

mous; and we cannot but admire their determination to give to the public, regardless of cost, that prime necessity of life and health, abundant and pure drinking water.

Many people have speculated upon the question whether or no the Romans had any knowledge of water purification, and some evidence seems to point to the affirmative. They certainly knew of the benefits of settling tanks or reservoirs, wherein water had time to settle and the supernatant clear portions conducted into towns. This is seen in the great cisterns at Carthage, shown in Figure 5, where the spring water deposited sand and lime which remain to this day.



5—Ancient Cisterns of Carthage.

Another example is the system of settling basins at the head of the aqueduct called Anio Novus, wherein river water, sometimes very muddy, was allowed to settle. This river water was first used for irrigation, but ultimately some of it was employed to eke out the daily supply of spring water.

But whether they knew of the benefits of filtration is somewhat doubtful, though many people are inclined to think that they did. In the museum at Naples is an ancient leaden vessel described as a "Cooling Cistern", shown in Figure 7.

But it is a question whether this really was for the purpose of cooling the water. It hardly could be, because it is made of lead, which would certainly not have any cooling effect. All the people of that age were familiar with the cooling effects produced by placing water in porous earthenware pots. This custom has been in practice amongst Eastern races for countless generations, and one can hardly believe that the Romans were not aware of it.

Another fact which lends more support to the view of these leaden cisterns being used for filtration purposes, is that places exist on the inside for discs of porous earthenware, several of which have been found with such cisterns.

Following the downfall of the Roman Empire, during the Middle Ages, comes a period blank of all progress. However, the destruction of waterworks cannot be attributed entirely to the Barbarians, for several times it is distinctly mentioned in the accounts of the struggles for supremacy between the Romans and the Barbarians that the latter did not wantonly demolish the aqueducts, but only cut off the water supplies until the subjugation of their foes.

Whatever the reasons were, the fact remains that after the fall of the Roman Empire, no attempts were made for many centuries to provide better water supplies in any country in Europe, with the single exception of Spain. And not only was there no progress made in this direction, but what is worse, a form of apathy, regarding the welfare of the waterworks already in ex-

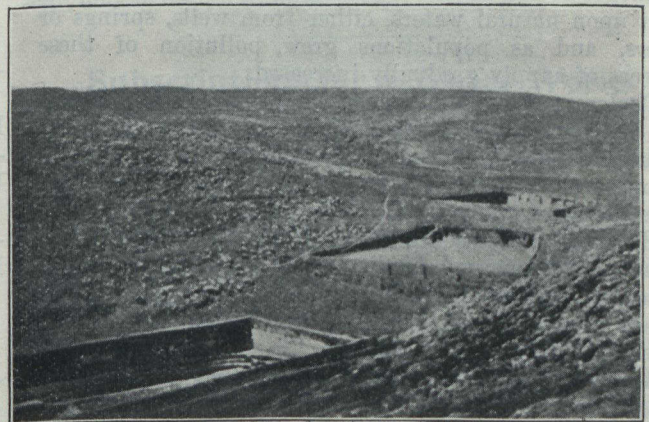
istence, seems to have possessed the people of Europe, and had it not been for the care and vigilance of the Popes of Rome, it is very doubtful whether any vestige of the magnificent works of the Romans would have survived to the present day, but would have gone the way of many others—to absolute ruin.

This colossal neglect on the part of European nations is truly remarkable, and will offer abundant food for thought as to its origin.

The exception in Spain, to which I alluded, is also remarkable, because in this instance the construction of waterworks or aqueducts which took place about the 12th. century A. D., must not be placed to the credit of Europeans, but to the invading Moors. These foreigners to Europe, always considered as being inferior as regards their civilization, showed themselves very much superior in their foresight, and it is to the Moor Jucef Abu Jacob that we owe the splendid aqueduct at Ontivar, which is in use at the present day.

The stagnation of the Middle Ages continued until the 13th. century. We find no records of any improvements until the year 1220, when it is seen that steps were taken both in London and in Paris to better the water supplies of these cities; these were only meagre attempts, effecting nothing in the way of purification, but involving a more copious supply of natural water.

We have seen that in Spain several aqueducts had been erected, and hence the Spaniards were familiar with such things. It is not surprising therefore to find that one of their chief and earliest acts after the conquest of Mexico was the building of aqueducts, one of which exists to-day, and is known as the Zempoala Aqueduct. This was constructed in 1539 by the Spaniards under the direction of a Franciscan monk, named Templeque. Copies of his specifications are extant, and a quaint reading document it is. The aqueduct supplied the city of Otumba, which was a place of great importance at the time of the conquest, and situated on the far side of the lake from Mexico City, on the way to Vera Cruz. The city of Mexico was supplied by means of aqueducts built by the Mexican kings, and mention of this is made by Cortes several times in his despatches, so that they must have been in existence prior to the advent of the Spaniards.



6—King Solomon's Pools at Etham.

In Peru likewise, according to Prescott, it seems there existed aqueducts, apparently of great age, at the time of the conquest. One in particular, said to be over 400 miles long, was for the conveyance of spring water.

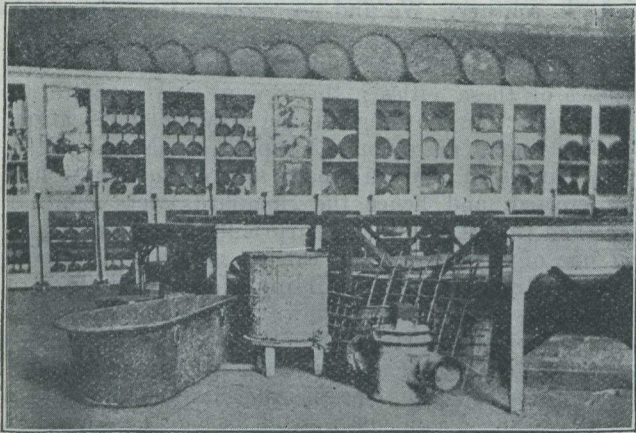
How long the Ancient Mexicans (i. e., Aztecs & Toltecs) and Peruvians (Incas) had been acquainted with aqueducts it is impossible to say, but herein lies material for speculation by those who are interested in the

possible connection between these peoples and Europeans at a very early period. How does it come about that they should have customs, and certainly ideas as to water supplies, very similar to those races bordering upon the Mediterranean Sea, e. g., Greeks, Romans and Carthaginians? There is no other evidence of aqueducts being employed by any of the aboriginal tribes of the continent of America, North or South, with the exception of the early Mexicans and the kindred races in Peru.

To get back to Europe—

It is not until the year 1629, when we find recorded the establishment of the New River Water Company, in London, which was organized to supply a good, pure, spring water, obtained from the sources of the New River to the north of London. This Company still exists.

This was the commencement of a movement for providing the people of London with better water, which has continued steadily until the present day.



7—Water Cooler in the Museum, Naples, Italy.

For more than a century and a half, Paris was the only other European capital which was at all supplied with a respectable drinking water. Things continued to move slowly, the people ever gaining knowledge by bitter experience.

Bacteriology was not known in those days, and hence no means of filtration were thought of. All were dependent upon natural waters, either from wells, springs or rivers, and as populations grew, pollution of these sources of supply gradually increased.

Cholera and typhoid appear to have been the dreadful instructors which awakened the people to a sense of their grave dangers; much the same as typhoid fever is amongst us, and many other communities on this Continent, only we do not heed such warnings.

However, after each great epidemic the authorities in London kept moving farther afield in search of better water, until that city was supplied by six or seven different companies all obtaining the water from places outside London.

Again pollution followed them, and they were at their wits' ends until it was discovered that by careful filtration of the water through sand, the germs of disease could be eliminated and a safe drinking water obtained.

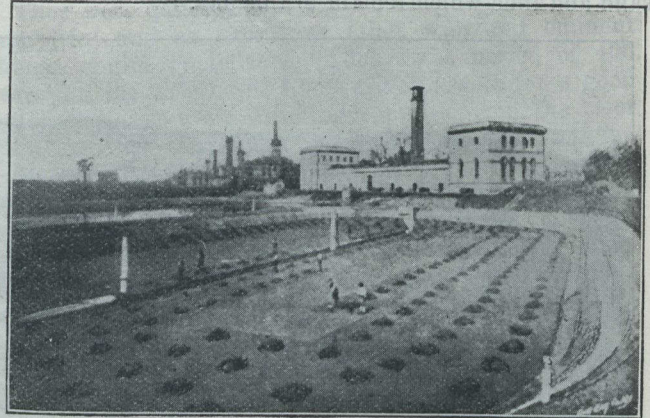
This marks a red letter day in the history of water purification.

In the year 1829 the first sand filter was constructed in London by the Chelsea Water Company, and all the other companies followed suit with such beneficial results as you all know.

So for nearly half a century London has been free from cholera, and remarkably free from typhoid.

During the last 30 or 40 years, in the British Isles and on the Continent of Europe, where river or lake water is consumed—both of which are very liable to contamination—most towns of any size have been equipped with this safeguard to the public health.

These sand filters are quite simple affairs, though very efficient, and may be open or covered. These filters are not doing their duty unless they filter off 98 to 100 per cent. of germs. Figure 8 shows one of the sand beds at Vauxhall, part of the system for the water supply of London.



8—Sand Filter Bed, London, England.

The following table shows the difference to be found in the death rate from typhoid fever per 100,000 of the population between 1890 and 1900 in various cities all over the world, and it will be noticed that the rate varies with the purity of the water supply:—

Pure Mountain Springs	4.0
—(Munich and Vienna).	
Properly Filtered Water	8.3
—(Berlin, Hamburg, London, Edinburgh).	
Ground Waters: Large Springs, Wells, Driven Wells, Collecting Pipes, etc.	14.7
—(Frankfort, Copenhagen, Brussels, Dayton, Paris, etc.).	
Normal Rivers, or Rivers in which the Pollution may be considered to have vanished through the agency of Time, Dilution, Sedimentation, etc.	28.5
—(Montreal, Quebec, Trenton, St. Louis, Minneapolis, etc.).	
Large Lakes, more or less subject to Pollution..	30.3
—(Hamilton, Toronto, Buffalo, Detroit, etc.).	
Upland Streams and Lakes with small waters, more or less inhabited	42.0
—(Denver, Syracuse, Providence, etc.).	
Public and Private Wells in Populous District, and Rivers which are known to be polluted with Sewage or other Infectious matter where abstracted for use	60.8
—(Phila., Gr. Rapids, Albany, Troy, etc.).	

During the last 15 years or so, on this continent a filter has been devised which is nearly as efficient as the sand filter, though occupying much less space. These filters free the water from germs to the extent of 80 to 100 per cent. This great variation depends upon the working of them. Several kinds of these mechanical filters are now obtainable.

I trust this article will impress the great importance which has been attached to water supplies by nearly all races of mankind, from time immemorial. I say *nearly all* advisedly, for there are communities to-day which

seem to close their understanding to all this knowledge which has been slowly but surely gained by untold generations.

The inhabitants of Montreal, Toronto and many other towns on this continent, are supplied by a surface water, either from rivers or lakes.

Wherever such surface waters, in their raw or unfiltered state are furnished, there you will find waterborne diseases always present among the people, and frequently occurring as explosive outbreaks or epidemics—such as we have experienced in the immediate past in nearly every town and city of this great Dominion, from ocean to ocean, and irrespective of site and climate.

It is practically impossible, in an inhabited country, to efficiently guard a natural surface water against pollution.

I could quote very numerous instances, but the most noticeable case is that of New York City. Croton Lake and its watershed were purchased, and great pains taken to prevent the waters being polluted. All has been of no avail however, for now, after the first enormous expenditure, the city has perforce to incur a larger debt for the installation of filters.

In England, surface waters of any description, although they may be most carefully guarded, are never used for consumption, until they are well filtered.

Now why the people of large and wealthy cities should persist in using a raw, unfiltered surface water, and expect a kind Providence to hold a watching brief on their behalf, is always a mystery to me. But they ought to be devoutly thankful that the epidemics of typhoid are usually mild in character.

The ancients—according to Vitruvius—used the only means at their command of testing a water the same expedient as recommended by "Punch" for ascertaining the difference between a mushroom and a toadstool, "Eat it.—If you die, it's a toadstool; if you don't, it's a mushroom". The ancients tried a water by consuming it; if they did not suffer from waterborne diseases, it was a good water; if they did, it was bad.

Nowadays by the help of Bacteriology, Chemistry and Sanitary Science, we can judge a water accurately, without experimenting upon human beings. And we also know that by filtration we can ward off all waterborne disease germs.

Here again, people generally appear to be particularly wanting; they have applied for a long time the crude test of the ancients, with a loss of life that is almost appalling. And they have the results of Sanitary Science which also point out, in no uncertain fashion, the enormity of the danger of consuming raw unfiltered water.

Still they are not convinced. The People's representatives persist in supplying to the cities an unfiltered surface water.

Again, in construction works—how important it is in all municipal undertakings, especially of a sanitary character, that the work should be sound and enduring—not palliative measures, lasting only a few years.

Compare the aqueducts, etc., erected by us nowadays with those solid, imposing structures of the Romans—will any vestige of ours remain two thousand years hence?

Having the benefit of all the previous experience of other races, and also modern knowledge, how do we compare with those ancient Greeks, Romans, Jews, Aztecs, Toltecs and Incas?

Not very favourably, I am afraid.

Folly in this respect is a terrible thing, and the folly of the people of Canada is colossal.

The managers of our public affairs apparently think a great and beautiful river or lake is a purifier of all pollution; being so vast, the dilution of this pollution may be great and therefore not so badly felt. These managers pin their faith upon Nature, and trust she will pull them out of all difficulties. Any visitation—the result of their neglect—they attribute to the shortcomings of Nature. This is a most precarious state of things, and I would quote, to each and every one of these authorities, these lines of Milton:

"Accuse not Nature; she hath done her part.

"Do thou but thine."

Sewage Purification vs. Water Purification

In a paper read before the American Society of Municipal Improvements, Mr. George C. Whipple points out that the public is sometimes distracted from the necessity of filtering its water supply by plausible arguments in favor of sewage purification. He states a case which is surely not hypothetical—a lake-side city discharging its sewage into the lake from which its water supply is taken, with the result of a high death rate from typhoid fever. The city officials and sanitary experts advise filtration of the water supply, but many,—some of whom are influenced by political considerations, cry out for sewage purification.

Even on rivers, where the cities have adopted sewage purification, the necessity of filtration of the water supply is pointed out, Mr. Whipple putting the position very tersely by saying that "ordinary sewage purification plants do not turn out drinking water." It therefore follows that "to adequately safeguard the purity of public water supplies taken from rivers and lakes in populous regions, there is only one course to pursue, and that is to filter the water."

Of course the writer is quite correct in saying that "there are some cases where both sewage purification works, and filter plants are necessary."

Mr. Whipple quotes a German sanitarian who, after examining the sanitary work in Massachusetts said: "It is all very fine, but very funny. You purify your sewage, but drink your water raw."

Subscriptions for a Water Works

The following extract from the *Indian Municipal Journal*, shows how very differently things are arranged in different places.

The Bengal Government has recently accorded administrative approval to a detailed scheme for the installation of water-works at Puri. The scheme is estimated to cost Rs. 3,00,000 in round figures; and towards this the Local Government has made a grant of Rs. 1, 00,000 from Provincial revenues. It is understood that the Municipality will take a loan of Rs. 50,000 and that another Rs. 25,000 will be contributed from the Lodging House Fund. There will still be a large balance to provide, and it is hoped that Indian gentlemen will come forward with subscriptions in aid of the project, more especially in consideration of the reverent regard which every Hindu has for the place as the site of the great Jagannath pilgrimage. Numerous outbreaks of disease at this place due to a foul water-supply will be recalled to memory; and many a pious Hindu will, we expect, be only too glad to be allowed to assist in establishing a pure water-supply.

Union of Alberta Municipalities

OFFICERS OF 1909-1910

President:

W. A. GRIESBACH, Esq.,
Ex-Mayor, Edmonton.

First Vice-President:

R. R. JAMIESON, Esq.,
Mayor, Calgary.

Second Vice-President:

H. H. GAETZ, Esq.,
Ex-Mayor, Red Deer.

Secretary-Treasurer:

Mr. JOHN T. HALL,
Publicity Commissioner, Medicine Hat.

EXECUTIVE COMMITTEE:

Mayor MILNE,
Medicine Hat.
Ex-Mayor MICHENER,
Red Deer.

Mayor GRIER,
Macleod.
Town Solicitor LAURIE,
Cardston.

Mayor BRIMACOMBE,
Vermilion.
City Solicitor JAMIESON,
Strathcona.

Fourth Annual Convention

Edmonton, 27th and 28th January, 1909

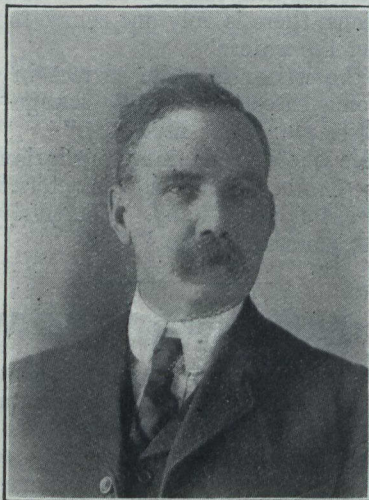
The Fourth Annual Convention of Alberta Municipalities was held in the City of Edmonton, Alta., 27th and 28th January, the President, Ex-Mayor Cousins, Medicine Hat, presiding.

Mayor Lee welcomed the Convention to Edmonton, expressing the pleasure of the City in having such an important gathering. He found that the report of the previous Convention was very full of valuable information, and hoped that the present meetings would prove as interesting and successful.

The position of Secretary being vacant owing to the death of Hon. John S. Hall, Mr. John T. Hall was requested to act as Secretary of the Convention.

The President appointed Ex-Mayor Michener, Red Deer, Mayor Milne, Medicine Hat and Mayor Grier, Macleod, as the Committee on Credentials.

The President then gave the



President W. COUSINS, Ex-Mayor Medicine Hat.

President's Address.

Since we last met we have to deplore the loss of our esteemed Honorary Secretary, the Honorable John S. Hall, whose services in the interest of Alberta Municipalities can not be over estimated. To him I believe we are indebted for the formation of the Union and his faithful attention to the duties of Secretary has, in a great measure, tended to keep up an interest in the Association. His place will not be easily filled, indeed it is a place that few could fill. Of him can be said, that greatest of all eulogies, "He loved his fellow men." No man in the West, at least no one who has come of recent years, was more widely known than the Honorable John S. Hall. All progressive movements found him in the van. His ability and energy, with his previous expe-

rience in the Eastern Province of Quebec, made success almost certain in any project he undertook. We all feel the vacant place in our midst and I am sure will not soon forget the bright, brainy comrade, whose words carried so much weight at these meetings of ours. I think each and all of us can feel his loss a personal one.

That a Convention such as this is of great benefit to the Municipalities of Alberta, is recognized by the Alberta and Dominion Governments, and the resolutions and recommendations passed by us have had considerable to do with the Legislation passed by them. I know from conversations I have had with members of the Alberta Legislature that the proceedings of this Convention will receive great consideration and if anything is done or recommended to be done by us it is likely to be embodied in the Statute Book of Alberta.

Some Municipalities, especially the smaller and younger, may say "It is of no benefit to us. We have no money to throw away on junketing trips for our representatives." They do not recognize the serious business taken in hand and do not take the trouble to read the Municipal Journals, to see what has been done.

Two years ago at the Convention held in Red Deer, I called attention to the fact that the Government should have legislation regarding the registration of new Sub-Divisions in regard to their relation to existing Municipalities. As a result the Alberta Government passed legislation governing this matter and now I have a Town site on my hands that I can not get registered.

The Bell Telephone Company had a Dominion Charter, under which they could use the streets and lanes of any Municipality and erect poles as they saw fit, without as much as saying by your leave. Thanks to the work of the Union of Canadian Municipalities, this has been changed and the people now say what they will do with their own.

It is not the larger and stronger Municipalities that get the most benefit from the Unions. It is the smaller and newer ones, and they should contribute their share towards the support of our organization. As it is now, the work is done and funds supplied by the larger places and the little fellows get the benefit. In Saskatchewan and Manitoba this is being recognized by the smaller Communities and they are getting more anxious for the holding of Municipal Conventions. I think more of the Municipal Officials should attend these Conventions in order that there should always be members in attendance, who have been at previous sittings and know the work. Mayors, Aldermen, and Councillors are elected for only two years and sometimes for only one year and they drop out of municipal life. They lose interest in

the Union and if elected to offices in the Union at this Convention may not be members of any Municipal Council next year, when we meet again. So it is desirable that we have members who are, by reason of their occupation, interested in the matters we have to discuss and who will keep the good work going and the Union properly organized.

Your Executive Committee were not able last year to get together a Quorum. Several attempts were made but the largest attendance we could get at any meeting was three and the Secretary. Mayor Cameron of Calgary, Mayor Gaetz of Red Deer and myself met in Calgary with the Secretary. We held a short meeting and prepared a programme for this Convention.

We should be very careful at these meetings to thoroughly discuss every question brought up and not allow any resolutions to be passed until they have been most carefully considered from all points of view and a proper conclusion arrived at, after getting the views of those experienced in Municipal work. When the resolutions are passed, they should be presented to, and impressed on, those who are expected to carry them out; otherwise we will be wasting time.

There are a number of questions that we should consider here besides those on the programme. For instance I don't believe there is any doubt in the minds of all present but that the Government should pass such legislation as would prevent the giving of bonuses by Municipalities to railways or industrial enterprises. It will be conceded by all that industrial enterprises should be placed where the conditions are most favorable to the development of each particular industry. It is worse than folly for a Municipality to tempt the location of an enterprise by a bonus, if the other conditions are not favorable and in the long run it is detrimental to the Province as a whole.

The Union of Canadian Municipalities will hold its Convention this year in Medicine Hat, and as this is of as much importance to Alberta, Saskatchewan and Manitoba as it is to the Hat, you will be expected to assist in their entertainment. Edmonton, Calgary, Lethbridge, and Regina have already intimated that they will help and we hope to be able to show the wise men of the East, what we have in this great West.

Vice-President's Address.

The President also read the following address, prepared by the Vice-President, Ex-Mayor Griesbach, Edmonton:—

I am pleased to observe our increasing membership, and the increased interest which has been shown by the Municipalities of the Province in our work.

I note the demand of the smaller municipalities that the scope of our deliberations should be so increased as to deal with affairs which are of especial interest to the smaller Communities. This I believe has been noted by the executive committee and will be evidenced by the papers to be read and the discussion which will take place at this meeting.

The financial stringency which became acute in the early part of the year 1907, and which rendered very difficult and indeed almost out of the question, municipal improvements of any kind, has greatly abated, and with the calling in of large sums of money the pendulum has swung the other way, and the bond market was never in better condition for the borrowing of money upon municipal debentures.

While the lessons of stringency are still fresh in our minds it would be well for us to take these lessons to

heart for our guidance in the future. I am very much of opinion that in the future municipalities should not undertake any improvements unless they have first arranged for the disposal of their bonds, if that is possible.

I am led to believe that the Legislature of the Province will shortly bring down a Municipal Act and it will be the duty of this Union to see that such legislation is based upon the soundest principles, at the same time being of sufficient elasticity to enable the municipalities to cope with the difficult and various conditions incident to the growth and development of towns and cities in our young and progressive Province.

I should like the members of this Union to bear very much in mind that our status here is not in any manner determined by the population and wealth of the towns and cities we represent, and that it must ever be the aim of this Union to encourage the fullest and freest discussion at all our meetings. I trust that our deliberations may be of benefit to the towns and cities represented here and that each delegate will return to his home feeling that much good has been accomplished and determined that our Union shall occupy an important position in the life and development of our Province.

Committee on Resolutions.

According to the Constitution, the Resolutions Committee is composed of such members of last year's Executive as are continuing delegates together with such delegates as may be added by the Convention, for that convention only. The members of last year's Executive present were: Mayor MacEachern of Wetaskiwin, Mayor Grier of Macleod, and Ex-Mayor Gaetz of Red Deer. Four additional members were added: Mayor Jamieson of Calgary, Ald. Hatch of Lethbridge, Town Solicitor Laurie of Cardston, and Town Solicitor Wallace of Taber. These seven formed the Resolutions Committee for this convention.

The report of the Executive Committee was given in the President's address.

The Secretary read the

Report of the Secretary-Treasurer.

Cr.—Receipts.

To balance on hand, 1907	\$111.05
To Collection fees for 1908	242.10
	<hr/>
	\$353.15

Dr.—Disbursements.

By Med. Hat "News" Publishing Proceedings of Convention	\$67.75
W. Cousins, Expenses Delegate Union of Canada Municipalities	75.00
John S. Hall, Expenses to Convention at Medicine Hat	20.00
Office Expenses, Stenographer, etc.	63.52
	<hr/>
Balance on hand	116.88
	<hr/>
	\$353.15

Moved by Mayor Brimacombe and seconded by City Clerk Gillis, Calgary:

"That this report be adopted." Carried.

Smaller Municipalities.

A discussion took place on making the Conventions of the Union of greater interest to the smaller municipalities represented. It was argued that small towns are growing so rapidly all the time into larger towns that their problems are practically the same. A resolution recommending more attention to smaller towns was carried.

Councillor Charles May stated that the visiting delegates would be put up at the Edmonton and Elks clubs and welcomed there throughout their visit.

Afternoon Session.

President Cousins read the following report of the U. C. M. Convention held in Montreal July 1908:—

Report of Delegate to Convention of Union of Canadian Municipalities, Montreal.

As a delegate from the Alberta Union, I attended the Convention held in Montreal, July 15th to 17th, 1908, by the Union of Canadian Municipalities.

We met in the City Hall in their Council Chamber, beginning at 10 A. M., July 15th. An address of welcome was delivered by His Worship, Mayor Payette, and responded to by Ex-Mayor Dyke, of Fort William, Ont. President L. A. Lapointe delivered a very instructive and comprehensive address; after which we were shown what the City Fire Department could do in the way of fighting fires.

The Convention started with a paper by Mayor Chestnut, Fredericton, N. B., on "Bill Board Advertising." On this matter there was considerable discussion, particularly by those members from the larger centres.

The question of financial arrangements between the Canadian Union and the Provincial Unions was discussed at length and was finally referred to a Committee to be thoroughly gone into and reported at next Convention.

Recognition by Fire Insurance Companies of improvements made in fire fighting appliances, brought forward by Mr. J. F. C. Menlove, Virden, Man., was discussed and referred to a Committee to take the matter up with the Insurance Companies.

Very interesting papers were read by Mr. H. J. Ross, of Outremont, Que., and by Prof. S. Morley Wickett, Toronto, on "Uniform Municipal Accounting."

A resolution was passed that the Dominion Government should consider the claims of a municipal man when making the appointment of their new members to the Railway Commission.

A resolution was adopted to have Railway Companies protect and maintain crossings on roads and streets at their cost which had been constructed before the railways; and many other resolutions in the interests of municipalities.

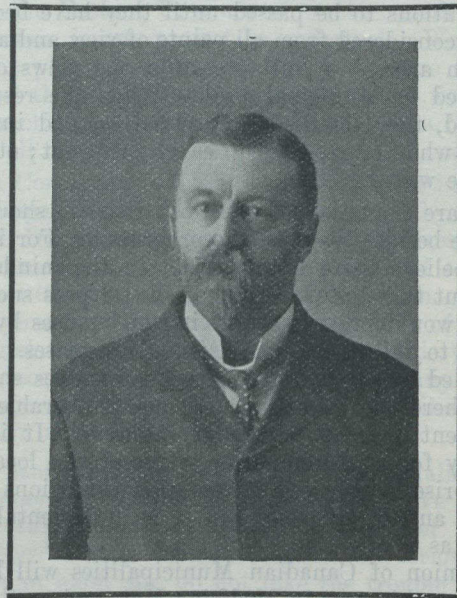
The entertainment at the Convention was of the best. We had dinner at the Westmount Club House and on the mountain top, and on invitation of the Montreal Harbor Commissioners, we were taken out on the beautiful Steamer "Montreal", and had an opportunity of seeing something of the importance of Montreal to the rest of Canada as a shipping port, and were given an elegant time.

I beg leave to report that at the Convention held in Port Arthur and Fort William in 1906, it was decided to hold the Convention for 1908 in Medicine Hat, but subsequently the Executive, at the request of the Eastern members of the Association, fixed on the City of Montreal as the place of meeting for 1908, with the understanding that the convention hold its session in Medicine Hat during the year 1909. You will be called upon to arrange regarding the date for the meeting, fixing the date at this session."

After a vote of thanks to the President for his interesting report the following resolution was presented by the Resolutions Committee:—

Moved by Mayor Jamieson, Calgary, and seconded by Ex-Mayor Gaetz, Red Deer:

"That this Convention, with profound regret, express their deep sense of loss to the Union of Alberta Municipalities in the recent death of its Honorary Secretary-Treasurer, the Honorable John S. Hall. Not only is this loss felt in a united sense but each member who had the privilege of knowing Mr. Hall feels a personal loss in his departure from our midst. His faithful and able work in furthering the objects of this Union from its inception has historically united his name with this movement and stamped his activities in the way of advancement in Municipal betterment and government that will endure in our province;



"Be it further resolved that this Convention express its profound sympathy with the bereaved family and trust that this expression of our deep regard will to some slight extent soothe the wound thus created;

"Be it also further resolved that a memorial page be inserted in the printed proceedings of this Union and that this resolution be spread upon the minutes of this Convention, and a copy of same be transmitted to Mrs. Hall and family."

Fire Appliances for small Municipalities

James Smart, Fire Chief, Calgary.

The question of what is the first thing necessary when a small town is endeavoring to arrange some system of fire protection, has been discussed at many Firemen's conventions, and debated upon with much warmth. Nearly every kind of fire apparatus yet devised has been advocated as the one thing needful for the creation of a fire department. It may seem rather bold to advance an entirely new idea as to this matter, but just as we now believe the strength or weakness of navies to be in "the men behind the gun", experience is teaching us that the proper working of fire machinery depends for the most part upon the men handling it. Of course there is little use expecting any body of men to control flames without some kind of tools, but the point is that a band of willing workers, ably directed, can accomplish very

much more with partially efficient apparatus, than may be expected of an untrained and undisciplined force with the latest and best machines, but no suitable leader. We also know that the surest way to get the right kind of men interested, and to make certain of thorough organization and constant readiness for action, is to place a capable man at the head.

Consequently the first and most important thing to do in forming a department is to select the best man for Chief. And it may be said without fear of contradiction that no official in any town, large or small, has more serious responsibility upon his shoulders than the Chief of the Fire Department; therefore, there is not likely to be any man in the place too good to fill the position, if he will accept it.

In deciding upon the first apparatus to be selected for a young town, much argument may be saved by remembering that every able bodied person in the town understands the use of buckets and ladders. Even the women and children can help pass the buckets, and it often happens that a building may be saved from total destruction if a man can get on the roof with a little water or an axe. Moreover, in the smallest village, human life may be so endangered that only a ladder will enable it to be saved. No matter what the size of the department, if it tries to get along without proper ladders its work will be hampered and the firemen will stand helpless and appalled while people suffocate or burn, or leap from windows to a terrible death. However, simply having the appliances in a town is not by any means enough; the only way to keep them together, in good condition, and on hand when wanted, is to arrange them on a good, substantial ladder truck, which should be the first apparatus bought.

There is sound wisdom and also economy in having this machine built with springs and large enough to carry a 35 or 40 feet extension ladder, in addition to the "straight" and "roof" kinds. No splicing device is ever as satisfactory as a proper extension. Even with this the whole truck need not be more than thirty feet over all, nor need the total weight exceed 1,500 pounds. In addition to the ordinary equipment of axes, pipe hooks, lanterns, hook chains and rope, etc., etc., it should carry as many buckets as can be conveniently arranged. A few small chemical extinguishers can also be added, which, if kept in good order and used with judgment, will do excellent work. As soon as the truck is ordered a building should be provided for it; and also a sharp toned, bronze composition bell, of about 500 pounds or more. If the bell can be hung high enough to afford 52 feet of enclosed space between its deck and the ground, it is all the better for the sound, and the space will furnish that most valuable convenience—a tower for drying the hose hereafter. In planning for the engine house much will be gained if the council can be brought to realize that if a fire department is to be maintained and encouraged it must have a creditable room for the apparatus and another for the men to meet in and have social gatherings, etc., etc.

Until a town can afford a real fire alarm telegraph, no other system of electric alarm is to be advised. The small call boxes or push buttons distributed about are apparently of great value, but have always been subject to so many failures and accidents in practice as not to be thought of at all, unless there is some good local electrician, who can be depended upon to watch the system carefully and constantly. An untrustworthy fire alarm device is worse than none at all. If telephones

are available the wording of the franchise should include one in each engine house as built, for if accommodation were provided for one or two firemen to sleep in the fire station the problem of how to call the fire department during the most dangerous hours of the twenty-four would be greatly simplified.

While ladders will always be a necessity, and the buckets will be useful at least as long as the truck is pulled by hand, the growth of the town is likely to necessitate additional protection. If the necessary water is within reach, or can be gathered in cisterns, nothing better has yet been devised than a good steam fire engine, not too large and heavy. No other machine so keeps up the interest and enthusiasm of the volunteers, none is so generally serviceable, and even the average small town waterworks system is not by any means so reliable. It can usually be bought on easy terms, is not expensive to maintain, and is the best preventer of conflagrations yet invented. Contrary to the usual belief, an expert engineer is not required; but it does need a man with a fair knowledge of steam machinery, a level head and an interest in his work. An expert mechanic is usually thought of in view of repairs. The point is to keep it in constant readiness, and by means of a heater it should have steam up always. There are very many towns that accomplish this with little expense and without paying even one man full time.

There is not space here for many remarks on waterworks systems. Such as are found in many of our smaller towns being of more general public utility, and, theoretically, more effective in fighting fires, they are undeniably in greater favor than engines. Unfortunately, the great additional cost usually prevents the system being made as reliable as it should be, considering the dependence that is placed in it.

The chemical engine is placed last on the list, because one hates to call it the necessity in the small town it is in the larger. Unlike the water machines, it cannot drown out a fire, and there is no gentleman's job of standing in the street with the nozzle. But when operated by active men, who will get in where it is hot, and put the water into whatever is burning, the "chemical" will do wonders, and often saves great damage by water. In fact, the success of this machine depends altogether on how it is handled, and it is a very difficult matter for volunteers to keep up sufficient enthusiasm to make the effort required with this excellent engine. Sometimes it is not rightfully explained to them at the start, and often they are discouraged by unavailing work at their first fire. Certain it is that in the interior towns, where water is scarce and chemical engines the main dependence, every effort should be used to arouse and maintain interest in their fire departments, and give the firemen confidence.

It should be understood that there is always a show for success with a chemical until a fire has progressed so far as to be well broken out of the building, and even after that much good work can be done in protecting surrounding property. The machines should be in the hands of men who will fight to the last, especially if there is no water apparatus. With these conditions understood, such an engine might well be bought with the first truck, if it can be afforded. Or, if the expense be too great, a tank and fittings could well be built on the truck, for the latter is the best piece of apparatus to make into a "combination" as it goes direct to the fire and stays there.

In conclusion, the writer would again emphasize the importance to a small town of first making it a rule to encourage and assist the Chief and firemen, and then procure and maintain the apparatus that is best adapted to the town's requirements.

Moved by Town Solicitor Laurie, Cardston, and seconded by Ex-Mayor Griesbach, Edmonton, that a vote of thanks be tendered Mr. Smart for his valuable paper. Carried.

Discussion.

In reply to Councillor Kent, Lacombe, Mr. Smart thought call-bells an excellent plan where there is no bell, and the public is not alarmed, and each fireman sleeping at home is quickly summoned. A small generator can be used and the cost is very little.

Councillor Dickson, Macleod, considered the system more expensive than a bell. Macleod had a very efficient fire brigade with nothing but the Church of England bell to call them.

Ald. Watson, Calgary, believed in the efficacy of the old method of the populace running and shouting "Fire! Fire!" as they ran. Also he thought the attendance at the fire of the ladies of a municipality with the coffee-pot and sandwiches of former days ought to be re-instituted.

Dr. Field, Vegreville, said that the paper hadn't mentioned gasoline fire-engines, and the new towns are besieged with agents selling them.

Chief Smart said he wouldn't have gasoline engines at any price. The little towns buy them because they're cheap, but the gasoline machine is unreliable, it is too light, and will smash in one trip if you go to a fire the way you ought to go.

Councillor Kent, Lacombe, didn't agree with Chief Smart. In Lacombe, for three years a gasoline engine had given absolute satisfaction, they had no water system and could get a stream in three and a half minutes. But Chief Smart elicited the fact that in winter the water was kept heated.

The Resolutions Committee then presented Resolution 2 :

Moved by Sec.-Treas. Robinson, Lethbridge, and seconded by City Clerk Gillis, Calgary:

2. "That the Provincial Legislature be recommended to so amend the School Law as to provide that notice of the intention of School Boards in Cities and Towns to issue Debentures should be as fully advertised as is required in the case of the issue of Municipal Debentures."

Afer discussion by Mayor Milne, Medicine Hat; Town Solicitor Laurie, Cardston; Ex-Mayor Gaetz, Red Deer, the resolution was referred to the Committees.

Mr. C. M. Arnold, City Engineer of Lethbridge, read a paper on "Sewage Disposal and Purification". This was given in the last issue of this Journal.

Moved by Mayor Frost, Claresholm, and seconded by Coun. Roberts, High River:—

3. "That the Provincial Legislature be recommended that, in the proposed new Municipal Act, the definition of 'Local Improvement' be so extended as to include the construction of Fire-walls to be paid for by Special Assessment, and that Councils be authorized to provide in the by-law levying such special assessment to apportion the cost on the properties benefitted in proportion to the benefit received."

(To be concluded.)

Good for New Westminster, B. C.

In sending in its subscription to the U. C. M., the City of New Westminster altered the amount charged, because the population was considerably larger than it was last year. It is very satisfactory to note the progress of the "Royal City", and its willingness to increase its subscription accordingly.

Telephone News

The Saskatoon, Alta., Telephone Co. has a very satisfactory report on the year's workings, the net profit equalling 12½ per cent. on the paid-up capital. It was decided to pay a dividend of 8 per cent., and carry the balance to reserve fund. During the last 10 months, the rental from the subscribers has more than doubled.

CALGARY, ALTA. The City has just awarded the contract for wire for the street railway to the amount of \$17,669. The lowest tenderers were the Northwest Electric Co. of Calgary.

The German Emperor has great faith in the telephone, and a special line was carried for 40 miles to the forest where he was shooting deer, so that he could be kept in communication with Berlin.

It has been proved practicable to receive a message by wireless telegraphy on a train running 62 miles an hour. This was recently accomplished on a L. S. and M. Ry. train running between Chicago and Buffalo.

The rates of telephones in Manitoba have been reduced by the Government, as follows: business, from \$50 to \$39; residences, from \$30 to \$25; desk phones, from \$12 to \$6.

It is now stated that the G. T. Ry. will introduce telephones for use along its main lines.

A report from Ipurich, Mass, states that some ingenious young person has invented a telephone "Kiss" which is eminently satisfactory in the case of personal absence. A patent on this development of telephony would be invaluable.

The Union of New Brunswick Municipalities has passed a resolution favoring Provincial Government ownership, and will petition the Government to carry this view into effect.

The Ameer of Afghanistan will soon be able to "call up" the Viceroy of India, as a line is being built from Jellalabad to Herat. This is one of the most unlikely places in the world to find such a sign of civilization.

Government Regulation of Rates

The question of Government interference in the rates ordinarily charged by the Bell Telephone Co. in Canada, was brought forward in the House of Commons, by Mr. Lennox, member for , who moved a resolution, based upon the experience of the provincial owned telephone systems, and the evidence produced before the special Committee of the House four years ago. In it he stated that Canada was paying a higher rate than other countries, and that the Government ought to remedy this, and insist on a rate equally as low as obtains elsewhere, allowing for the difference in circumstances. Mr. Lennox urged that the Government should carry out its principle of "private ownership with Government control" which they claimed as their own, into the field of telephony.

Mr. A. K. McLean, member for Lunenburg, N. S., championed the Bell Company and proceeded to show how very up-to-date it was, and how every statement which contradicted this, was entirely wrong. He moved an amendment, endorsing the policy of placing telephone rates under the control of the Railway Commission.

Mr. Lennox's resolution was lost.



TELEPHONE NEWS



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

Important Announcement

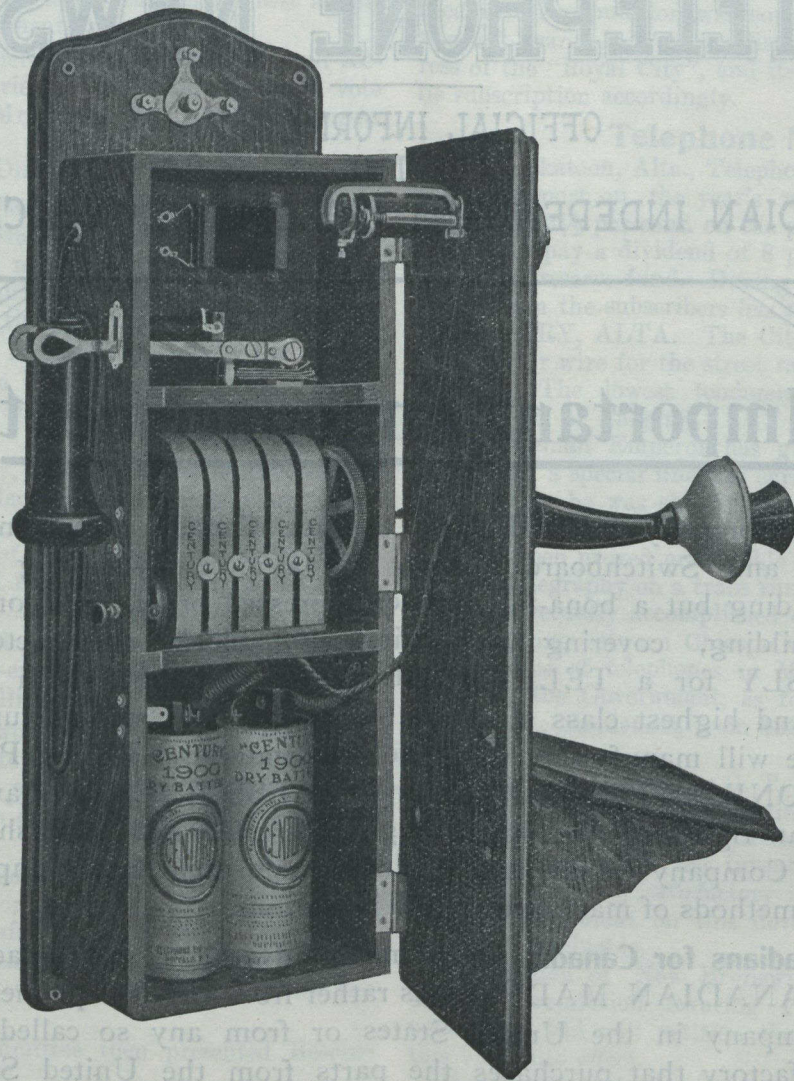
This company is THE first to give Canada a real Independent Telephone and Switchboard factory, not a mere assembling shop in a rented building but a bona-fide, modern, pressed brick, mill construction, factory building, covering an entire city block, constructed by us EXPRESSLY for a TELEPHONE factory, equipped with the latest improved and highest class machines, tools, dies and manufacturing appliances. We will manufacture from the raw material EVERY PART of a TELEPHONE, SWITCHBOARD and ACCESSORIES. We have acquired all Canadian rights for the duplicating of the celebrated Swedish-American Telephone Company's apparatus, including all their latest improvements both as to methods of manufacture and inventions.

Canadians for Canada. The many advantages of Canadians purchasing CANADIAN MADE goods rather from any Telephone Manufacturing Company in the United States or from any so called Canadian telephone factory that purchases the parts from the United States, and merely assembles them in Canada, is obvious. Therefore, on the basis of MANUFACTURING COMPLETE IN CANADA the highest possible class of telephone apparatus in the world we respectfully solicit the patronage of the entire Independent telephone using public of the Dominion of Canada. Advise us at once of your actual and probable requirements so that we may quote you prices and give you detailed description of our product. We extend a cordial invitation to all Independent Telephone men to make a personal visit to our factory and see us manufacture the best and latest improved telephone apparatus on earth. Seeing is believing. Therefore, the latch string of this company is always out, and we will look out for the physical as well as the commercial comfort of all who favor us with their presence.

Send us your inquiry now.

Dominion Telephone Mfg. Co., Ltd.

WATERFORD, Ont., Canada.



Our rural telephone
 which meets the most rigid demands.

Common Battery and Magneto Telephones,
 Switchboards and Accessories.

Century Telephone Construction Co.

BUFFALO, N. Y.

BRIDGEBURG, Ont.

Canadian Independent Telephone Association

OFFICERS 1908-9.

President, Dr. J. F. Demers, Levis, Que.
 Vice-Pres., W. Doan, M. D., Harrietsville, Ont.
 Sec.-Treas., F. Page Wilson, Confederation Life Bldg., Toronto, Ont.

EXECUTIVE COMMITTEE

Dr. A. Ochs, Hespeler, Ont.; Dr E. Hart, Brantford, Ont.; Levi Moyer, Beamsville, Ont.; F. Dagger, Regina, Sask.;
 C. Skinner, Sherbrooke, Que.; A. Hoover, Green River, Ont.; T. R. Maybury, M. L. A., Ingersoll, Ont.;
 G. W. Jones, Clark, Ont.; A. D. Bruce, Gormley, Ont.

AUDITORS

C. B. Adams, Harrietsville, Ont.; Dr. Dales, Stouffville, Ont.

Southern Counties Telephone Association

A meeting of the Independent Telephone Companies held in St. Thomas, Ont., has been responsible for the formation of the Southern Counties Telephone Association, as briefly noted in the last issue.

On the nomination of Dr. Brown, Aylmer, Mr. Walter C. Lewis, Orwell, was elected Chairman, and at once opened the proceedings by pointing out the splendid work that had been accomplished by the rural telephone companies and associations, and the beneficial effect on the country districts by alleviating the isolation and loneliness of farm life.

Dr. George Shannon, Sparta, was asked to introduce the subject which was the cause of the meeting. He explained that there was an Independent Telephone Association, and it was necessary to come to some general plan about the interchange of messages, especially between the rural companies. The formation of the rural companies was not at all regular, either in time or locality, and it was only when the systems grew to touch each other that the need of common action became apparent. He urged very strongly the danger of making connection with the Bell Company, for every such connection strengthened the monopoly, and injured the Independent position. The methods by which the Bell tried to secure connection were very smooth and it was only when the contract had been signed that it boasted of trespassing on the Independent field. If the rural companies entered the cities by paying toll to the Bell, it meant that they paid the whole cost. He urged every rural company to become a member of the Independent Telephone Association, and advocated the formation of a local central board.

Dr. Crane, Wallacetown, gave an address, showing what had been the result of competition in West Elgin. He said that the people had asked the Bell Company to put in systems, but the prices asked were prohibitive, though a few had agreed to them. His Company, the Wallacetown and Lake Shore, had a contract with the Bell for long distance but they were not badly tied up, as they could terminate it by thirty days' notice. He claimed that St. Thomas should have a central energy system, and if the Independents were given the franchise by the city, there would be not only a central energy system, but underground wires, instead of the unsightly poles in the streets. He was certain that if the Independents would only hold together, they would secure long distance lines of their own. He recommended the formation of a local association, and that it should hold an annual Convention.

Warden Summers, Aylmer, expressed his firm belief that united action would secure full success for them.

Mr. J. C. Lowther, Iona Station, was very emphatic in his declaration of the necessity of being thoroughly Independent, and refusing any connection with the Bell monopoly whatever advantages it might apparently of-

fer. He offered some illustrations of what had occurred in West Elgin. The Bell Company asked the farmers for a bonus of \$400 to extend the line from Lawrence Station to Shedden, which is 3½ miles. As they could do nothing else, this was agreed to, and the necessary money was almost secured, when the Bell Company insisted that the farmers should draw the poles themselves. This attempt to get more that they had asked for so disgusted the people that they gave it up. Then when the plan of an independent line was started, the Bell threw every obstacle in the way, and when that failed, tried to get hold of the line, but failed. The Independent Companies should keep entirely apart from the Bell.

Mr. J. F. Goodman, of the Century Telephone Company, Buffalo, gave a very interesting and instructive address, and said that within a very short time there would be continuous independent systems all the way from Buffalo to Detroit.

Mr. H. T. Goodwin, ex- M. P., Bayham, gave some instances of trouble and annoyance from the Bell Company, and pointed out that a thorough affiliation of independent lines would secure a long distance system, and make them indispensable to every municipality.

Mr. W. R. Pollard, Iona, gave an inspiring speech on the principles of the independent movement, and advocated the adoption of some plan by which the independent companies could join together in building long distance connection.

Mr. W. E. Wardell, Fingal, said he felt proud to be a farmer considering the earnest way in which they had all entered into the proposed business, and was sure it would be successful.

Dr. J. Steel, Fingal, said that his line was obliged to have some connection with the city, but his company was strongly in favor of that being secured over an independent line.

Dr. Brown, Aylmer, described the success of the rural telephones in his district and town, and believed that St. Thomas, like Aylmer, would welcome the entrance of the rural telephone systems. There were a couple of thousand users of rural telephones wanting to get connection with the City, and the people of St. Thomas were wise enough to see the value of this.

The meeting then decided to appoint a Committee to draft a form of organization, which could be presented at the afternoon session, and discussed there. The following were agreed upon as the Committee:—Dr. Doan, (Chairman), Mr. S. C. Squires, Dr. Brown, Dr. Crane and Messrs. J. C. Lowther and A. P. McDougall.

Afternoon Session.

After addresses by Messrs. C. F. Heidt, Frome; J. H. McIntyre, Dutton; Thomas Lunn, Port Talbot; and A. P. McDougall, Melbourne, the Committee presented the following report:—

“Having in view the ultimate government ownership

of trunk lines and the municipal ownership of local lines, we recommend the following:

The organization of a Southern Counties Telephone Association, whose officers shall be president, two vice-presidents and a secretary-treasurer;

It shall have an Executive Committee composed of the presidents, managers or other representatives of each independent telephone company within the territory who may forward its name and pay the fee to the secretary;

The fee shall be \$1.00 per year.

We recommend the establishment of trunk lines between the different companies.

We recommend that as independent telephone companies, Bell connection for some companies and not for all is detrimental to the whole idea of independent telephone construction, and that we strongly recommend that independent telephone companies do not make Bell connection, and

That a united stand on the part of independent companies is the only manner in which we can hope to enter the larger towns and cities.

We recommend the appointment of a committee who would be representative of the strongest rural lines to meet the St. Thomas city council:

"(1) To ask the council not to grant the Bell Telephone Co. an exclusive franchise;

"(2) To ask the council to appoint a committee of business men to meet with the committee appointed by this independent convention to consider the whole telephone situation.

We recommend the appointment of the following as members of the above-mentioned committee to meet the committee appointed by the City Council: Dr. L. A. Brown, Aylmer; Mr. C. F. Heidt, Frome; Mr. J. O. Lumley, Iona; Dr. Shannon, Sparta; Mr. Thos. Benner, Bayham; Mr. A. P. McDougall, Melbourne; and Dr. Doan, Harrietsville."

After being read, clause by clause, the report was adopted unanimously, and the following were elected as officers:—

President, Dr. Doan, Harrietsville.

Vice-president, Dr. McEwen, Melbourne.

Second vice-president, Mr. Owen Westover, Malahide.

Secretary-treasurer, Dr. J. Crane, Wallacetown.

Short addresses were given by Messrs. Galbraith and Squires, and Dr. Doan, the last named, showing how very profitable the Independent system had been to Ingersoll, and claiming that it would be equally so for St. Thomas.

It was stated that some companies who might have been present, had not received any notification. Dr. Shannon explained that there had been no organization to call the meeting, and the Chairman said the idea had originated with the St. Thomas "Evening Journal", and called upon Mr. Sanagan of that paper.

Mr. Sanagan advocated Government Ownership of telephones, and promised the support of his paper to the Independent Companies.

Mr. R. J. Dunsmore, of the St. Thomas "Times" pointed out the value of the rural telephone systems to the city.

Messrs. Westover, George Braddon, and M. M. Black, gave brief speeches, in which they showed how successful the lines they represented had been.

Mayor Geddes accompanied by the aldermen, then entered the room, and welcomed the representatives of the various companies to the city, saying that they had

mutual interests, and the city was glad to have them here. As to what arrangements the City could make about an entrance for their lines, that would be fully and carefully considered when their proposition was laid before the Council.

Mr. Lewis appealed very strongly that St. Thomas should be left open for the entrance of the rural lines, and pointed out the advantages which would accrue to the City.

Dr. Doan, on behalf of the deputation appointed to meet the Council, explained that they were hardly in a position to make a very definite agreement, but would like to meet the Council in Committee and discuss the whole matter.

Mr. Squires pointed out the wonderful spread of the independent movement and the advantages that competition would give to St. Thomas, and proved how the City would benefit by having connection with the rural lines.

Reeve McDiarmid gave the experience of Aylmer, and what benefit had come through the advent of the rural lines, which would be similar in St. Thomas.

Mr. Black pointed out that the Industrial Committee of the city was on the look-out for business, and there were some 600 or 700 people who could be put into direct touch with the merchants of St. Thomas.

Mayor Geddes reminded the meeting that the Bell Company could now be compelled, by an Order-in-Council, to grant connections to any company.

Dr. Crane spoke of the great success of the independent movement in Simcoe, and said that the system there was a quarter of a century in advance of St. Thomas, due entirely to there being competition.

The Mayor assured them that the Council would be very pleased to meet the Deputation and discuss the matter fully, and promised the most impartial consideration to any thing laid before them.

After a vote of thanks to the City had been carried, the meeting adjourned.

Alberta Government Telephones

When the Province of Alberta was formed and the administration presided over by Hon. W. Rutherford took office, it soon became convinced that better telephone facilities should be afforded the province. A large proportion of these coming into this part of the west were already accustomed to the use of the instrument and if they found it impossible to secure the service that they desired, at a reasonable outlay, it was bound to be a cause of dissatisfaction. At the beginning of 1906 all the facilities in Alberta were the local exchanges in the larger cities and towns and the Bell line extending from Edmonton to Calgary. The charges were high and the service poor. Those in the rural districts were not thought of at all. In the older provinces the Bell company had given constant trouble and was undoubtedly a very cruel as well as unpopular monopoly.

After going into the question very carefully the Government came to the conclusion that the telephone was an enterprise which from its very nature was well adapted for state control. It examined the record of the Bell corporation and it saw how little disposed it was to extend its lines in keeping with the growth of the province. At the very first session of the Legislature it accordingly secured a grant for the purpose of commencing a government system, believing that it was a good policy to do this before concluding any arrangement for the purchase of the existing lines. The Bell people would thus be brought to realize how thoroughly the Province

was in earnest and the hands of the administration would be strengthened in the future negotiations with them.

By the end of 1907 the Government had built no less than 544 miles of line and acquired 53 miles besides. As time went on and the construction policy proceeded with unabated vigor, the prospects for a favorable settlement with the Bell Company became all the while brighter. Less than a year ago a bargain was finally made, by which the entire Bell system within the Province was purchased at an average cost of \$143 per phone. Shortly before that, the Company had sold out to the Manitoba Government and had secured \$218 per phone.

In the meanwhile the work of reaching out into new parts of the Province proceeded rapidly and by the beginning of 1909 the government was operating close to 1,500 miles of telephone lines and making it pay so well that it was able as a New Year's present to announce a reduction in the rates which amounts on an average to about 25 per cent. The demand for extensions is coming from all sections. Especial encouragement is being given to rural lines. A low rate has been quoted for these of but \$15 per year, the stipulation being that there must be one phone for every mile. In some instances, so much is the privilege prized, farmers have paid for three phones in order to secure connection with their market town, which would enable them to market their products, so much more advantageously as well as prove a general source of convenience.

All this has taken place, let it be remembered in less than three years. What may we not expect in three years more?—Herald, Lethbridge, Alta.

What Independents Have Done For West Elgin

The Bell Co. has taken some 10 or 15 years to secure 6 subscribers in West Lorne, while the Independents have 20 phones. The Bell subscribers pays \$20 for a limited service (no night and 2 hours on Sunday), and has free connection with 5 other phones. The Independent subscriber pays \$16 for a 24 hour service with 500 to 600 connections. While the fight was going on in Dutton, the Bell gave a continuous service; now it is being cut down.

In Wallacetown, the Bell secured a bonus of \$50 to pay for erecting 3 poles to carry the wires across the road. Since the Independents came in, the Bell has removed its instrument — but it has not repaid the bonus.

In Iona, the Independents came in before the Bell had secured the usual \$50 bonus, so it installed a phone, without receiving a bonus, and gives the best service and the lowest fees at this place. St. Thomas, Ont. Evening Journal.

Notes

The Elgin, Ont., County Council, at a special meeting, passed a resolution asking the City of St. Thomas, to provide such regulations in any contract for telephone service they might make as would allow the rural lines to enter the city.

The Bell Telephone Co. has promised to try and complete a line from North Bay to the Soo, a distance of 200 miles, within the next two years.

DAUPHIN, MAN., town telephone system has now 214 phones in the exchange.

RIVERVIEW, MAN. The municipality intends to build a telephone system and charge \$21 a year for phones.

Government Reduces Phone Rates

All telephones in Manitoba, after April 1st, will have benefit of the reduced rate that was brought down in the local legislature just lately, the definite announcement of which has been received with much satisfaction in Winnipeg and throughout the province. The following official schedule of rates will be in force.

Winnipeg:—

2 party line business, unlimited service	\$39.00
1 party line business, and two cents per outcall	25.00
Joint users' business, now \$25, reduced to	15.00
Single line, residence, unlimited service, now	
\$30, reduced to	25.00
2 party line, residence, unlimited service, now	
\$24, reduced to	18.00
1 party line, residence, and two cents per outcall	15.00
Joint users, residence, now \$15, reduced to	5.00
Extension rates in residences, wall or desk, now	
\$12, reduced to	6.00

Brandon and Portage:—

2 party line business, unlimited service	\$27.00
1 party line business, and two cents per outcall	17.50
1 party line residence, unlimited service, now	
\$25, reduced to	20.00
2 party line, residence, unlimited service, now	
\$21, reduced to	15.00
1 party line residence, and two cents per outcall	12.50
Residence extension sets, desk or wall, now \$12,	
reduced to	5.00

Small Towns:—

Single line business, unlimited service, now \$24,	
reduced to	\$20.00
Single line, residence, unlimited service, now	
\$18, reduced to	15.00

Farmers' Lines:—

Reduce present \$24 rate to	\$20.00
Reduce present \$30 rate to	25.00

Independent Progress

The Canadian Independent Telephone Co., which took over the franchise in East Toronto before this municipality was united with the City, has installed a switchboard at East Toronto and has already connected up some local services and the indications are that a good sized exchange will be built up in this section of the city of Toronto. The main object, however, in getting the switchboard installed at once, was to furnish a connection for the line of the Scarborough Telephone Co., which has about 225 telephones operating in the township of Scarborough. The Scarborough Co. has developed very rapidly and its progress has been along good business lines. A trunk line has been built from the East Toronto switchboard to Malvern, where is the central office of the Scarborough Co. From Malvern, connection is made over the Independent lines of the Markham & Pickering Telephone Co. to Markham, then on through the lines of the Bethesda & Stouffville, the Uxbridge & Scott and the Mount Albert companies to within about thirty miles of Lindsay, where the Canadian Machine Telephone Co. is installing an Independent automatic plant. This will show that there is a chain of Independent lines reaching pretty well from Toronto to Lindsay, and Lindsay is only twenty-three miles from the Canadian Machine Co.'s Independent exchange at Peterboro. 1,500 Independent telephones can be reached from the Canadian Independent Co.'s switchboard at East Toronto, covering the distance indicated above. This will give some idea of the development in the Independent telephones that has taken place in this particular territory.

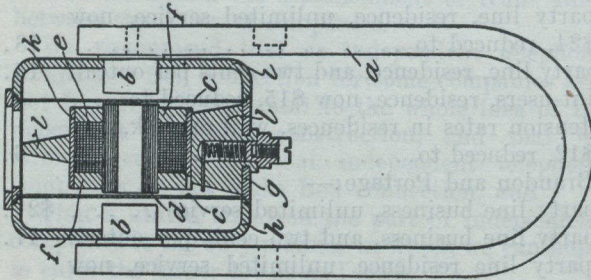
ABSTRACT OF TELEPHONE PATENTS

Granted in the United States during last month, prepared for *The Canadian Municipal Journal* by Edward E. Clement, Telephone Patent Expert, Washington, D.C.

Automatic Signal Alarm. — Brown. — Vibrating bell with disc circuit breaker actuated by a buzzer. Unassigned. — 912,359.

Telephone Attachment. — Lyda et al. — A hinged cover for mouthpiece with advertising matter on it. Unassigned. — 912,701.

Telephone System. — Dean. — Two-wire multiple common battery exchange system with line relay in series and shunted during connection. Assigned to Kellogg Switchboard & Supply Co. — 912,822.



Telephone Receiver, No. 912,878

This is an improved telephone receiver, giving much more pronounced results, i. e., vibrations of greater amplitude or sound of greater volume, than the ordinary receiver. As shown in the accompanying cut, it has a large open horse shoe magnet (a) with pole pieces (b) between which the diaphragms (c) are placed, having between them a bar electromagnet of which (e) is the winding and (f) are the spool heads of insulating material. The casing is made in three parts, a central ring (g) and two pieces (h) and (i), which hold the diaphragms between them.

Telephone Receiver. — Nicholson. — A powerful receiver with long horseshoe magnet having inturned poles with two diaphragms, a cord, and a winding between them. Assigned to The New Phonopore Telephone Co., London, England. — 912,878.

Telephone Repeating Apparatus and Circuits. — Skidmore. — Cord Circuit for the Shreeve repeater of the Bell Company. See patent No. 835,037. This uses resistance coils on some coils to balance up. Assigned to American Telephone & Telegraph Co. — 912,908.

Ringing Key. — Weman. — Rotatable selective key with vertical sets of springs around it actuated by pushing down after rotating. Indicating arrow on button. Unassigned. — 913,080.

Telephone Exchange System. — Babcock. — Common battery system with subscriber's transmitter connected from ground to a middle point on the receiver windings so as to take current over the line wires in parallel. Unassigned. — 913,451.

Multiplex Telephony. — Latour. — Mercury vapor rectifiers producing intermittent direct current to carry back superposed telephone waves. Assigned to General Electric Co. — 913,521.

Telephone Call Mechanism. — Zabst. — Step by step selective mechanism mounted under one gong of the ringer. Unassigned. — 913,607.

Call Distributing Telephone Exchange Details. — Browne. — Incoming calls automatically switched on to idle cord circuits, in a common battery system. Assigned to American Telephone & Telegraph Co. — 913,613.

Germicide Lining for Mouthpiece for Voice Transmitting Instruments. — Williams. — Paper bag liners with clamping ring for telephone mouthpieces. Unassigned. — 913,792.

Testing System for Telephone Lines. — Winston. — Magneto circuit with central office battery for test connected through tertiary to one side of operator's telephone. Assigned to Kellogg Switchboard & Supply Co. — 913,795.

Telephone Transmitter. — Adams-Randall. — High resistance transmitter with granular material in a long channel in the back plate, taking current from its ends. Unassigned. — 913,931.

Telephone Transmitter. — Clausen. — Improvement on American Electric sealed button transmitter, having insulated electrodes and auxiliary diaphragms. Assigned to American Electric Telephone Co. — 913,944.

Telephone Mouthpiece. — Gibson. — Perforated metal base or cup carrying screw threads, and serving to attach a glass mouthpiece. Assigned to The Gibson Mfg. Co., Danbury, Conn. — 913,947.

Cord Connector and Rack. — Hill. — Switchboard cord

terminal rack having groups of clips collectively on their support. Assigned to Kellogg Switchboard & Supply Co. — 914,045.

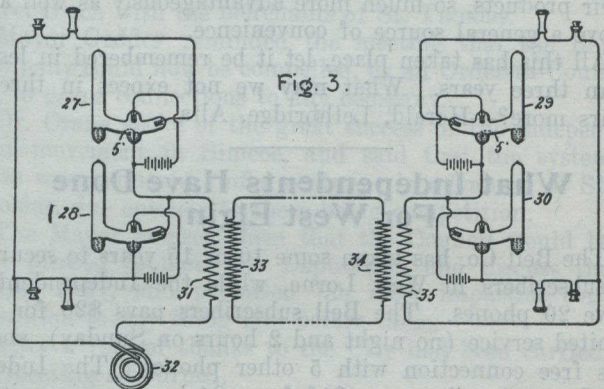
Antiseptic Lining for Mouthpiece. — Scroggs. — Perforated conical liner for a mouthpiece with interposed absorbent material impregnated with antiseptic. Unassigned. — 914,194.

Telephone Disinfecter. — Dohney. — Mouthpiece plug with flexible arms attached through an eye on a transmitter by means of a cord. Unassigned. — 914,395.

Lock-out for Party Line Telephones. — Wagner et al. — Lock-out relay with armature mechanically controlled by hook. Any station coming in on a busy line will have its relay held up. Assigned to The Gravity Lockout Co. of Toledo, O. — 914,468.

Telephone System. — Wood. — Cam switchboard with loops having clearing out drops and battery connections, and keys for connecting the receiver of one set and the transmitter of another in one branch, the source and drop in another branch, and the other transmitter and receiver with sets in still another branch, the branches containing receivers and transmitters being multiplied across the branch containing the battery and drop. Assigned to Charles Cory and John M. Cory. — 914,690.

Registering Mechanism for Telephones. — Greene et al. — Mechanically connected meter for an automatic telephone actuated when a dial is used, the telephone being normally locked. Unassigned. — 914,715.



Mercury Rectifier, No 913,521

This invention employs a mercury vapor rectifier, and alternating current for telephonic transmission, and especially multiplex work. The patentee says in regard to his object:

In carrying out my invention I impress on the line wire an alternating current and I provide suitable means for superimposing on the positive half waves of this current a series of fluctuations such as are given out by an ordinary telephone transmitter when that instrument is subjected to sound vibrations produced by the human voice. Similarly I superimpose on the negative half wave fluctuations produced in a second transmitter. As all of one message is carried by the positive half waves of the alternating current and all of the other message is carried by the negative half waves, certain special means are necessary at the sending station for impressing on each of these half waves the proper fluctuations and for subsequently delivering these two kinds of half waves to the line conductor as an alternating current. Similarly there must be provided at the receiving station means for sorting out the positive half waves from the negative half waves, and thus delivering to the receiving instruments their respective messages. To effect this selective action on the alternating current I may make use of the peculiar property of a mercury vapor rectifier whereby half waves of one polarity are freely transmitted while half waves of the other polarity are entirely suppressed.

Referring to the diagram herewith, the rectifier (1) comprises an evacuated tube (2) of glass, with carbon electrodes (3 and 4) and a mercury electrode (5). A condensing chamber (7) is provided, and a storage battery (6) maintains the arc after it is formed. Then if an alternating pressure is impressed on electrodes 3 and 5, current will flow for the half waves during which time electrode (5) is cathode, but will not flow during the other half period. In this manner each of the rectifiers shown operates as a valve to permit the passage of current of one polarity but not of the other, and the circuit can readily be traced with this in mind.

DEPARTMENT OF THE PRAIRIE PROVINCES

News Specially sent in from the Western Office of the JOURNAL.
C. VERMILYEA, Western Representative. 181 Bannatyne Ave., Winnipeg, Man.

Good Roads

Once more the season is approaching when the road question should receive attention. In well regulated municipalities all road machinery and equipment was gathered in and properly housed last fall, and is now under lock and key where the proper parties can get it when it is needed. There may be a few that are not in this desirable position. If such is the case, a great deal of time will be saved, when the road-making season commences, if the equipment is got together now and examined to see that it is all there and that any necessary repairs can be made before the spring rush sets in, for the blacksmiths. There is no doubt that "a stitch in time saves nine" applies to road machinery. And while on this road question it is well to emphasize the importance of the finished product in road making. Many an otherwise good grade has been spoiled by leaving it to the tender mercies of traffic without first harrowing and rolling it, thus filling up the hollows and giving a compact surface. Proper drainage is also a very important item in road construction and one that is too often overlooked.

It is very evident that each municipality should commence with its leading roads and do a first class job, not undertaking to cover too much territory. A dab here and there in different parts of the municipality does not make much of a showing and a great deal of time is wasted in carting machinery around. The best and most economical plan is to take one road and make it as near perfect as possible, and next year do the same with the road that ranks second in importance. Once the road has been completed, it should not be forgotten that the little ruts and defects are remedied as fast as they appear and before long there will be a system of roads to be proud of and one that will require very light expenditures to keep in good condition.

In the municipality of Pembina there is a councillor who has been, and is yet demonstrating the practical benefits of thoroughness and concentration in road construction and maintenance. He is Mr. Adam Kinn, known to his friends as Teddy, and as a practical councillor on the road question, he is a winner. Mr. Kinn has put up a fight for the construction of good roads and the thorough completion of the job right from one end to the other. He has secured much government aid in the matter of money grants for his road work and has built at least one road that is a credit to any municipality.

There are doubtless others who have been at work along similar lines and the *Journal* will be glad to hear from any such with an explanation of their methods and the results attained.

The road question is a live issue and the councillor who is the means of providing his municipality with good roads is leaving "footprints on the sands of time" that will never be effaced.

Fire Protection Pays

It is estimated by insurance experts in Winnipeg, that the savings in premiums for fire insurance due to the installation of the high pressure system will be \$125,000 per annum, which is equal to about 6 per cent. on an investment of \$2,000,000.

This Month do not Forget

Noxious weeds inspectors should be appointed and it is well to bear in mind the need of appointing men who will do their duty thoroughly.

The completion of assessment rolls should now be accomplished in order that clerks may keep their work up to date. In Manitoba, the Council may extend the date for return of roll to June 1st., but the Saskatchewan and Alberta Acts require that rolls shall be returned on or before May 1st.

At the first meeting after presentation of Assessment Roll, the Council should appoint postmasters, fence-viewers and poundkeepers.

In Alberta and Saskatchewan, Secretary-treasurers are required to destroy all ballot papers at the end of three months after the elections, unless otherwise ordered by the Supreme Court or a Judge thereof.

Most municipalities hold Courts of Revision in May.

Clerks should note all amendments to the Municipal Act made at the last sessions of the local Legislatures.

It will soon be time to commence the preparation of the voters' lists.

Municipal Councils would do well to so time the date of receiving tenders for Debentures that they may advertise the name in the *Journal*, as through it they can reach a large number of the bond buyers and members of the financial circles of both America and Europe.

The editor of this department requests all clerks to report full details of bond sales each month to the head office, Montreal.

Permanent Bridges

The Report of the Department of Public Works of Manitoba, contains some very interesting and encouraging information. Mr. Daucer, Deputy Minister and Chief Engineer, says:

"It is gratifying to note that the officers of some of the municipalities are beginning to recognize the desirability of erecting permanent structures, instead of the temporary timber bridges and culverts which have been almost universally built in the past." "A new departure in the employment of concrete flooring, instead of timber, on a bridge, is in the municipality of Roblin."

No less than 1,346½ miles of drains have now been constructed and have benefitted 1,327,994 acres.

Legislation has been asked by a representative delegation to divide the Municipality of Rosssburn into two municipalities.

The Western office of the *Journal* has been moved to 181 Bannatyne Ave., where municipal men will be welcome.

Public Gas Pays

Public ownership of gas pays in Warrington, Eng. The Council last year made a profit of \$78,000 by charging 60 cents, and out of this they reduced the rates or taxes by \$27,000. This year they have reduced the price to 55 cents.

Tests of Gas Producer

(Published by permission of the Director of the United States Geological Survey.)

A forthcoming bulletin of the United States Geological Survey, will contain an exhaustive report of the tests conducted at the Fuel-Testing Plant in St. Louis, Mo., and Norfolk, Va., on the gas producer. An interesting feature of the report will be the behavior of a certain bone coal from West Virginia in the producer. This fuel was considered of little or no value for steam boiler work, yet showed considerable usefulness in the gas producer, developing at the engine a brake horsepower per hour for 1.65 lbs. of coal.

This coal was delivered on the producer platform in lump form up to 8 or 10 inches in size. The coal crusher not being available at the time, necessitated breaking the large lumps with a hammer. The character of the fuel was rather peculiar; some of the lumps consisted almost entirely of what appeared to be a high-grade bituminous coal, others seemed to be nothing more or less than rock, heavy, hard, and when hit in the dark with a hammer numerous sparks could be readily seen. And again there were many lumps of this rock-like substance to which adhered much good coal. In the producer all of these lumps when not too large would burn entirely through. The fuel had no tendency to clinker or coke and worked exceedingly well, needing scarcely any poking. It contained a very high percentage of ash, about 45 per cent, thus causing the ash bed to increase in thickness very rapidly, and throughout the tests this fact was not properly appreciated; consequently much of the time during the test the ash bed was too high for best results. The fact that the coal had to be broken by hand and that it was unusually hard and rock-like had a tendency to allow lumps of coal much too large to be charged into the producer. These large lumps, very high in ash, did not burn entirely through; as soon as the burning was well started, a layer of ash formed around the lump interfering with the combustion of the remaining portion and before it had time to burn it had passed out with the ashes unconsumed. Because of the general appearance of the coal, but little was expected of it, and the test was started with only partial load. After several hours run, however, the results warranted full load on the engine. After 39 hours of full load the accumulation of ash in the producer caused a little trouble; the gas went down in heat value and it was necessary to reduce the load to about 9 per cent. of full load. After much grinding down of the ash bed and special care in breaking up the lumpy coal, the gas began to increase in heat value, and at the end of the test the producer was again in shape to maintain full load at the engine. The calculations for the tests are based on the 50 hours taken from the time full load was carried by the engine, and for this period the gas averaged 144 B. T. U. per cu. ft., with an average load of 97 per cent. of full load.

The following is the result of the test on the West Virginia bone coal:

Proximate Analysis of the Coal.

Moisture	0.47
Volatile Matter	8.83
Fixed Carbon	46.96
Ash	43.74
	100.00
Sulphur	0.27

Composition of gas by volume.

Carbon Dioxide (CO ₂)	9.7
Carbon monoxide (CO)	19.5
Hydrogen (H ₂)	16.6
Methane (CH ₄)	1.6
Nitrogen (N ₂)	52.6
	100.00

Duration of test	50 hours
Coal consumed in producer, as fired, lbs. per hour	378
B. T. U. of coal as fired	8566
Standard gas per lb. of coal consumed in producer cu. ft.	44.1
Efficiency of conversion and cleaning gas	74.1
(1) B. H. P. developed at engine	228.8
Coal per B. H. P. hr. developed at engine, lbs.	1.65

(1) Based on an assumed efficiency of 85% for generator and belt.

NEW BOOKS

History and Economics

The fourth number of volume IV. of the series of "History and Economics" in the University of Toronto Studies contains a great deal of valuable information to the student of municipal questions in Canada. The mere repetition of the list shows the value of the book. It is as follows:

"Evolution of Law and Government in the Yukon Territory", by J. N. Elliott Brown, M. B., First Territorial Secretary of the Yukon.

"Local Government in British Columbia."

"Present Conditions," and

"Bibliography."

The above three are all from the able pen of Dr. S. Morley Wickett, B. A., Ph. D., formerly Lecturer in Political Economy at the University of Toronto.

"Local Government in the Maritime Provinces," by Walter C. Murray, Ph. D., Professor of Philosophy, Dalhousie University, Halifax, N. S.

"Local Government in Newfoundland," by D. W. Prowse, LL. D.

"Some notes on the Charters of Montreal and Related Statutes," by Hon. R. Stanley Weir, D. C. L., Recorder of Montreal.

"The Civic Administration of Montreal", by Hon. Paul G. Martineau, Judge of the Superior Court of the Province of Quebec.

"City Government in Ottawa", by Ex-Mayor Fred. Cook.

(This paper was published in full in the *Journal* of last March).

The list shows the subjects treated of, and the names guarantee that each subject is handled by one who is conversant with it.

The three previous numbers of the same volume have covered other parts of Canada, so that the whole volume forms a pretty good account of municipal affairs in Canada.

The number of post offices in the United Kingdom is over 22,850. There are about 371,021 road and pillar letter-boxes, and 188,001 persons (148,769 males and 33,262 females) employed by the post office.

For the convenience of Canadian trade an extension to the Liverpool, Eng. docks for the Canadian trade to cost over a million dollars is being considered by the board.



CIVIC NOTES



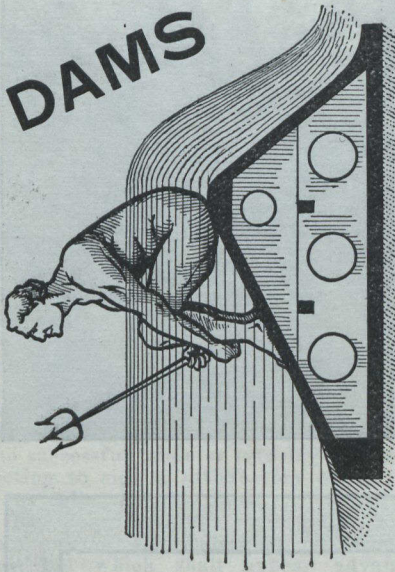
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Lea's Modern Method Stairs
are

FIRE PROOF

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JOSEPH LEA, Manager. Phone Main 4562

DUNREA, MAN. The ratepayers are planning to erect a cottage hospital.

HUMBOLDT, SASK. A large block is to be built here shortly, part of which will be used as a post office.

CAMROSE, ALTA. The ratepayers have decide to secure a better water service and will install a system.

RED DEER, ALTA. The steel gang has started work on the new bridge.

STETIER, ALTA. The Lacombe, Alta., branch of the C. P. R., will extend from this place to the crossing of the Beaver Dam Creek; the station which will be located there is to be called Castor.

SEMONS, SASK. The Bank of British North America has opened a branch here.

COULTER, MAN. A farmer, while sinking a well near here, struck a large coal seam, 70 feet below the surface.

PRINCE ALBERT, SASK. The request, by a proposed company, asking the Board of Trade to rescind a motion filed at Ottawa, asking that no monopoly of fishing be granted for the lakes north of the city, has been turned down. The company desired to get the monopoly of the fishing in thirteen lakes and offered to build a cold storage plant at Prince Albert, to cost \$60,000.

ENDERBY, B. C. There is a proposal to bring in a by-law to raise money for the erection of a city hall.

REGINA, SASK. The new system of bookkeeping which may be adopted in the civic offices, will result in the reduction of the clerical staff of the city hall, 25 per cent.

ST. BONIFACE, MAN. The new Post Office has been opened.

WYNYARD, MAN. The C. P. R. passenger service is to be improved, a tri-weekly service being promised.

DAUPHIN, MAN. The Town Council is taking steps to establish a committee to procure a site and make necessary arrangements for books and furnishings.

RED DEER, ALTA. The Industrial Committee of the Board of Trade reports that there are several new industries about to locate here, the most important being a custom flour mill, to be erected with French capital.

LOCKWOOD, SASK. The town is in need of a grain mill, as the farmers have to haul their produce to Nokomis.

SELKIRK, MAN. The match factory is nearly completed, and the company is buying up large quantities of poplar wood for summer operations.

LIPTON, MAN. There are prospects that the C. P. R. may make this a divisional point, as there is now an abundant supply of water.

WEYBURN, SASK. The Bank of Montreal has opened a branch here in the Waverley Hotel. This is the fourth bank doing business here.

SOURIS, MAN. The Hospital Board has purchased a new site in the north-east part of the town and will erect a new building as soon as the weather will permit.

MACLEOD, ALTA. Work has been commenced on the soap factory, where all grades of soap will be manufactured.

GRAND COULEE, SASK. The Union Bank of Canada has opened a branch.

BRANDON, MAN. The new Canadian Northern depot will be the finest in the province, outside of Winnipeg, and will cost about \$50,000.

ST. JAMES, MAN. The ferry is to be discontinued this year.

COCHRANE, ALTA. The Imperial Bank of Canada has opened a branch here.

YORKTON, SASK. A storage and distributing warehouse will be erected by a local company with a capital of \$50,000.

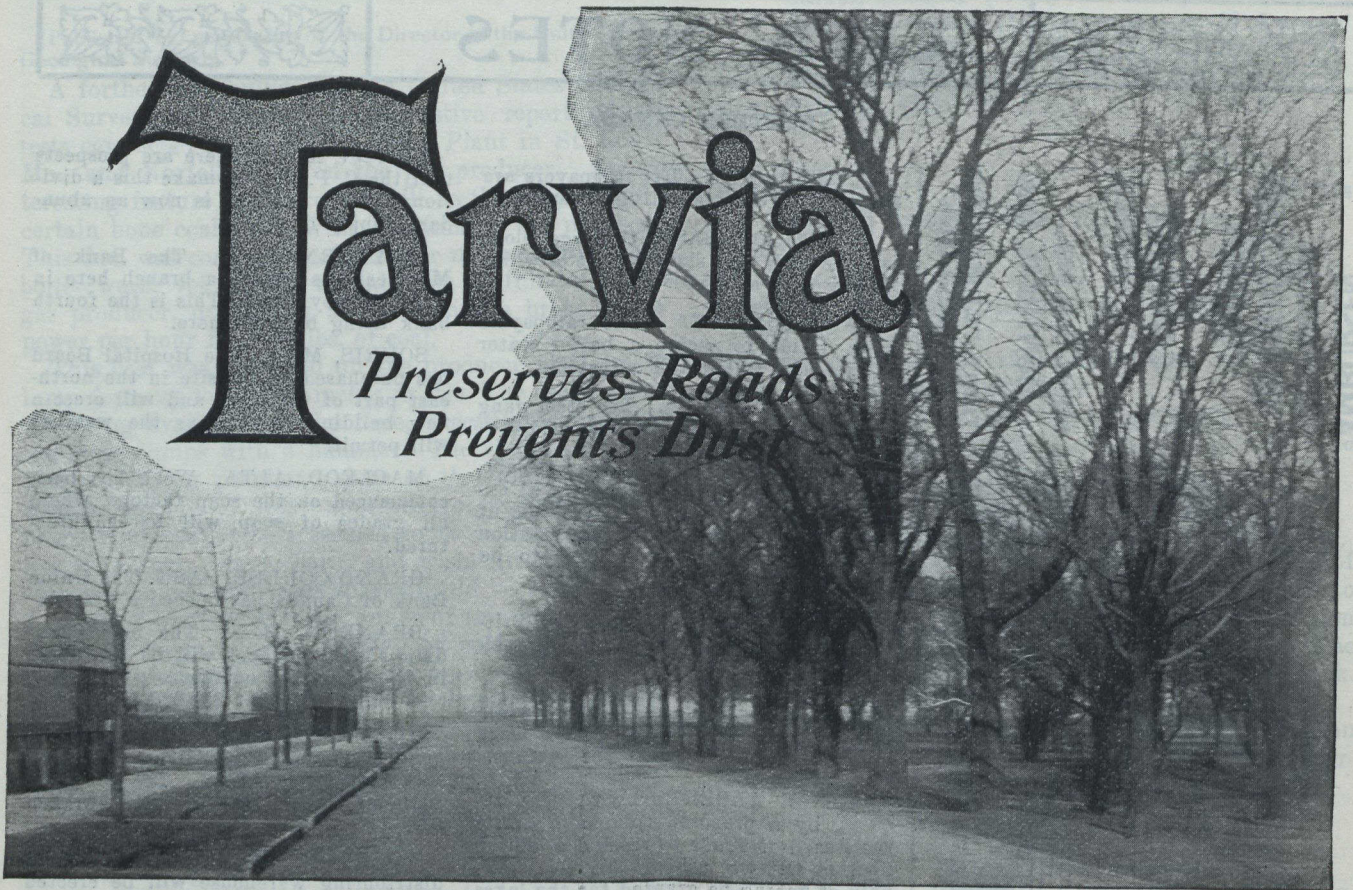
LANIGAN, SASK.

(Specially written)

The Railroad Town, and the coming "Railroad Hub" of Northern Saskatchewan has just completed the sale of \$14,000 of debentures to Messrs. Nay and James, Regina. The Town Council will now erect a two-storey Town Hall about 75 feet long by 50 feet wide, which is expected to cost upwards of \$5,000. The Town will spend this year \$6,500 on sidewalks and grading the roads. Modern firefighting apparatus will be purchased. About 30 acres of land is to be purchased at once, to be set aside as a Park, and work will be commenced as soon as the weather permits. A good water supply will be secured by drilling a well very shortly. The Provincial Government has promised to build a creamery as soon as possible, meantime it is carrying the supply of cream to the Government creamery at Tantallon, to help the farmers who were unable to get a building up last season. The C. P. Ry. Co., will build a new round house of brick to replace the present frame structure.

VANCOUVER, B. C. The tonnage cleared from this port last year was over 3,000,000, which is said to be more than the combined tonnage of all the Puget Sound ports.

NELSON, B. C. The City Council has decided to buy out the rights of the electric tramway with the object of starting the service again. The company's holdings in the city, including tracks, trolleys, etc., valued at \$75,000, were bought for \$10,000. The car barn and rolling stock were burned last May.



Tarvia

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Prevents Dust*

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FRENCH VIEWS ON THE TARVIA PROCESS

The Tarvia process of treating roadways with a special preparation of coal tar for preserving roads and preventing dust had its origin in French experiments. During the past five years Tarvia has attained great popularity in this country, and millions of yards are now tarviated every year.

It is interesting to find that French experience corroborates the judgment of American road engineers. The Avenue du Bois de Boulogne in Paris, for instance, formerly cost for maintenance frs. 2.10 per square meter per year. During the past two years during which the tar process has been employed the cost has been reduced to frs. 1.76 per square meter, which includes two treatments each year. The total saving is about 10,000 Fr. per annum for this one thoroughfare.

In response to an offer by the Government to pay one-half the expense of the treatment wherever local residents were willing to bear the other half, macadam roads all over France have been treated—the surface covered by one French firm being 3,500,000 square meters in 1907.

Throughout France the tar treatment has been for some time the standard method of suppressing dust and preserving the road. In the city of Paris alone 360,000 meters were treated during 1907. Oils, soapy waters and all similar compounds have long since been discarded.

Booklets explaining the Tarvia treatment, will be sent on request to any address.

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St. John, N.B., HALIFAX, N.S.



CIVIC NOTES



City of Winnipeg

Point du Bois Hydro-Electric Development.

TENDERS

FOR TESTING TRANSFORMERS

Sealed tenders, on prescribed form, addressed to the Chairman of the Board of Control, Winnipeg, Canada, will be received at the office of the undersigned up to 11 a.m. on Thursday, April 15, 1909, for the manufacture and delivery at Winnipeg of two testing transformers, viz.: One 30 K. W. at 80,000 volts, and one 200 K. W. at 200,000 volts, also for control equipment therefor.

Copies of the instructions to bidders, specifications and forms of tender may be obtained at the Power Engineer's office, Carnegie Library building, Winnipeg, Manitoba.

These specifications may also be seen at the office of Smith, Kerry & Chace, Confederation Life Building, Toronto, Ontario.

Each tender, must be accompanied by a certified cheque payable to the order of the city treasurer for the sum called for in the "Instructions to Bidders," which cheque will become forfeit to the corporation in the event of the successful tenderer refusing or neglecting to sign a satisfactory contract when called upon to do so.

The Board reserves the right to reject any or all tenders or to accept any bid which shall appear advantageous to the city of Winnipeg.

M. PETERSON,
Secretary.

Office of the Board of Control,
Winnipeg, Man., February 24, 1909.

SITE WANTED

Wanted by a Company just completing its organization, as a site for a factory, about 300,000 feet of land.

Good railway facilities are a requisite; water transportation would be an advantage.

About 1,500 to 2,000 horse power will be needed

Natural gas would be considered as fuel.

The factory will employ 150 to 200 men, mostly high-priced. Address, with full particulars as to price of land, rate of taxation, cost of power, etc.

FACTORY SITE

c/o The Canadian Municipal Journal

WESTERN CANADA.

UNITY, SASK. The Merchants' Bank of Canada has opened a branch here.

FORT LA CORNE, SASK. It is reported that an important find of quicksilver has been made on the river below here.

WINNIPEG, MAN. The Council has exercised newly acquired powers and appointed a Board of Valuation and Revision, of three members, who will act with the Assessment Commissioner. Each member gets \$2,000 a year.

DOMINION CITY, MAN. The G. N. Ry. is being asked to bring its proposed line right through the city, the proposed route being over a mile away.

REGINA, SASK. It is reported that the Robert Simpson Co., of Toronto, have purchased a property and will erect a department store here.

HIGH RIVER, ALTA. This place, according to the C. P. Ry. officials shipped more wheat last season than any other place in the North West.

LETHBRIDGE, ALTA. The Council has selected a site about 7 miles north of the city as a site for a traffic bridge over the Belley River.

VANCOUVER, B. C. The Council sent Mayor Douglas to Ottawa to ask the Government for improvements in False Creek.

WINNIPEG. The old city water-works on Armstrong's Point, will be turned over to the Park's Board to be used as a park.

VANCOUVER, B. C. The new dredge built by a German firm for the Federal Government is being tested before its acceptance.

PRINCE ALBERT, SASK. Good progress is being made on the Collegiate Institute, which will cost \$100,000 apart from the 5 acres of land in which it stands, and will be equipped in the most perfect manner.

NEW WESTMINSTER, B. C. It is likely that a large plant for building locomotives and traction engines will be built at Westminster Junction.

ENDERBY, B. C. The tax rate is fixed at 12 mills. By-laws for a loan of \$4,000; and for \$1,500 for fire protection have been passed.

PORTAGE LA PRAIRIE, MAN. The Council has increased the grant for publicity from \$1,200 to \$1,500.

CALGARY, ALTA. The C. P. Ry. has given several lots of land to be used as the sites for fire stations.

GRAND FORKS, B. C. A site for a new Post Office has been purchased in the centre of the town, the price being \$3,000.

PERSONAL.

Mr. J. C. Watt has been appointed Assessor of Brantford, Ont., at a salary of \$800.

The death of Mr. Nicholas Wilson, in London, Ont., removes the man who was the inspiration of "Old Boys' Days." He had been a teacher in London for many years, and was greatly respected and loved by the many men who had been taught by him. An Old Boys' Day was suggested in his honor, and that was the beginning of the custom in Canada.

Positions Wanted

As Engineer or Telephone Superintendent

By a duly qualified Civil Engineer, with twenty years experience with the National Telephone Co., of England, and the Post Office Department.

Apply Engineer

c/o The Canadian Municipal Journal.

Town Engineer

Civil Engineer, with University training and general mechanical experience, desires engagement as Town Engineer or assistant; has specialized in Municipal Undertakings—Sewerage, Waterworks, Road-making and Modern Civic Improvements.

F. C.

c/o The Canadian Municipal Journal

His Worship, Mayor C. S. Douglas, Vancouver, B. C., was married to Mrs. Elizabeth Manley, of Toronto, widow of the late Major F. E. Manley.

Mayor N. Foster Thorne, Woodstock, N. B., died from typhoid fever.

Sub-Chief Jackson, has retired after 53 years' continuous service in the Montreal Fire Brigade.

Mr. McCarthy, C. E., has resigned the position of Chief Engineer of the T. and N. O. Ry., to join the engineering firm of Smith, Kerry & Chace.

Ald. W. E. Mount, Montreal, died very suddenly.

Mr. Edward Chaussé, Alderman of Montreal, in 1877 and in 1901, is dead, aged 64. He was the father of Mr. Alcide Chaussé, Building Inspector of Montreal.

Town Solicitor E. L. Dickinson, Goderich, Ont., died very suddenly.

Mr. John S. Dowling, Secretary of the Board of Trade, Brantford, Ont., has been appointed to the newly created position of Industrial Commissioner.

Chief Constable Archie Sands, Goderich, Ont., is dead.

Mr. Jacques Grenier, who was Mayor of Montreal, for two terms, 1889-1890, died 5th March. He had also served as President of the Montreal Board of Trade.

Mr. John W. Hutchison, has been elected Mayor of Aylmer, Ont., as successor to Mayor Stevens, who died two months ago.

Mr. Joseph Rielle, D.L.S., who refused re-election to the Councillor of Verdun, Que., after 34 years' continuous service in it, has been presented with an address and gold links and pin. Mr. Henry Hadley, who served along with Mr. Rielle, in the Council for the whole period is still a member.

County Clerk Wiswell, Halifax, N.S., is retiring after 30 years' services.

EDWARD E. CLEMENT

Attorney and Councillor at Law
Solicitor of Patents
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McGill Building, Washington, D. C.



CIVIC NOTES



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CAMPBELLTON, N. B. The new International railway which crosses the border here is to be completed by August. The line is to benefit the Bay de Chaleurs district.

HALIFAX, N. S. The Legislature will be asked to pass a curfew law permitting the city to fix 9 o'clock as the hour for children to leave the streets.

KINGSTON, ONT. The City Council, by a unanimous vote, decided to repeal the compulsory vaccination by-law, and thus offset the Board of Health's decision to enforce it by summoning unvaccinated persons to the Police Court.

SHERBROOKE, QUE. The C. P. Ry. will make this a divisional point, and will build repair shops. The Company is not asking for a bonus, but only for the same rate of taxation as other industries are charged.

GOWGANDA, ONT. The Imperial Bank of Canada has opened a branch here.

AYERS' CLIFF. This municipality has just been incorporated as a village.

LONDON, ONT. It is likely that a new system of street signs will be adopted.

QUEBEC. The Canadian Electrical Association will hold its annual Convention here, 16th, 17th and 18th June next.

ST. CATHARINES, ONT. The City Council, which was unseated on a technicality by the hotel keepers, has been re-elected by acclamation. The action of the hotelkeepers was to prevent the reduction of licenses from 19 to 12. It is now understood that the License Commissioners will only issue 12.

ST. EUGENE, ONT. The Merchants' Bank of Canada has opened a branch here.

DELHI, ONT. A well of natural gas has been struck, which yields 200,000 feet a day.

MONTREAL. The Harbour Commissioners are acceding to the wishes of the shipping interests, who have been agitating for some seasons past for two fire boats. They will be launched in Glasgow shortly, and although only a little over one hundred feet long, will cross the Atlantic under their own steam.

BERLIN, ONT., is seeking incorporation as a city. It has a population of 14,500.

ST. THOMAS, ONT. The Police Commissioners have made a generous increase in the pay of all the men, beginning March 1st.

TORONTO. The C. P. R., is asking the city for a share in the proposal to haul garbage from the northern section of the city to Ashbridge's Bay by railway.

DARTMOUTH, N. S. There is a proposition before the Town Council, under which a Montreal branch of a cordage firm may be removed to this place. The company ask in the event of its coming that the assessment shall remain the same on real estate, plant, stock, etc., for about fifteen years.

BELLEVILLE, ONT. It is proposed that the city be divided into 7 wards, and that each ward shall have three representatives.

KINGSTON, N. B. The Consolidated School, built 5 years ago, through the generosity of Sir William MacDonald, was burned down.

PICTOU, N. S. The County has been authorized to secure an electric light system.

MONTREAL. The Consumers' Cordage Co. will not remove its factory as was rumoured, but will make additions to some branches.

SHERBROOKE, QUE. Mr. Farwell, President, denies that the Head Office of the Eastern Townships Bank, is to be removed from here to Montreal.

HALIFAX, N. S. The Board of Trade has passed a resolution endorsing the granting of bonuses to industries to induce them to locate in the city.

HALIFAX, N. S. The County Council will inflict fines on any automobiles running over the roads in the County, except on Tuesday and Thursday.

PORT ARTHUR, ONT. The City has offered to provide a free site for the proposed Provincial Prison.

NIAGARA FALLS, ONT. The Park Commission will push forward the work on the Niagara-Fort Erie Boulevard this season. The farmers are in favor of an electric service along the route.

MONTREAL. The City will seek power to purchase the Redpath property, so as to enlarge Mount Royal Park, and give another entrance to it.

BELLEVILLE, ONT. The Belleville Rolling Mills have recommenced work.

SHERBROOKE, QUE. The Board of Trade has asked the City Council for a grant to aid in advertising the City.

MONTREAL. A fatal accident occurred at the C. P. Ry. Windsor Street Station, a train from which the engineer and fireman had jumped, crashing into the building. It is stated that since the Station was opened, half a million trains have entered it, and this is the first accident.

CIVIC NOTES

EASTERN.—(Continued).

MONTREAL. The old Emmanuel Church property at the corner of St. Catherine and Stanley Streets, which was sold about 3 years ago for \$10 a square foot, has been sold at \$17.

QUEBEC. The City Council has passed a by-law prohibiting the sale of liquor in grocery stores after 7 p. m. on Saturday.

BROCKVILLE, ONT. The Council has decided to abolish the Police Commission and to place the Police force under the Council.

OTTAWA. The City Council has decided to increase the salary of the three Controllers from \$400 to \$1,000 a year. The Controllers did not vote, otherwise the vote was unanimous.

QUEBEC. The City Council is protesting against the removal of the Head offices of the Q. & L. St. J. Ry., (which was recently purchased by the C. N. Ry.) from Quebec to Toronto. The Council claims that a clause in the charter compels the Company to maintain its head office in Quebec.

QUEBEC. The Board of Trade has celebrated its centenary by a banquet. In speaking there, Mr. J. G. Scott, recalled the fact that the first steamship that crossed the Atlantic, was built at Quebec.

OWEN SOUND, ONT. A movement is on foot to secure incorporation as a City.

HALIFAX, N. S. A conference on the liquor question has been held here, at which liquor men and teetotallers met and discussed the whole situation.

LACHINE, QUE. The creation of Lachine into a city makes three cities of the Island of Montreal, Westmount have received incorporation a year ago.

QUEBEC. The new bridge is to be on the site of the old one, but none of the ironwork of the ill-fated one will be used.

WHITBY, ONT. It is likely that the Federal Government will purchase the Harbor from the two owners. The price, for harbor, land and elevators, is said to be \$15,000.

MONTREAL. Mr. Grigg, who has been appointed to the new position of His Majesty's Trade Commissioner, has opened up offices in this city, and was officially welcomed by the Council of the Board of Trade.

OTTAWA. It is proposed, in view of the creation of a Board of Control, that the Committees of the Council be abolished. This must be ratified by a vote of the electors.

OWEN SOUND. Assistance of the Provincial Government has been asked for the construction of a railway from this town to Meaford. The deputation stated that the cost, including bridges, was estimated at \$850,000, and an annual net surplus of \$2,000 was figured. They asked the Government to guarantee the interest on the bonds.

CHATHAM, ONT. The City is asking for the revival of a by-law of 1904, allowing it to lend \$50,000 to the C. W. and L. E. Ry.

FORT WILLIAM, ONT. Work has commenced on the G. T. P. Ry. elevator, which will have a capacity of 3,500,000 bushels.

SMITHS' FALLS, ONT. The C. P. Ry. has just completed a large ice storage here.

OUTREMONT, QUE. The Town Council has decided to fight any idea of Montreal annexing this place.

BRANTFORD, ONT. The City Council has passed a by-law making a contract with the Western Counties Power Co. (a subsidiary of the Cataract Power Co.) for 5 years, at \$48.00 for street lighting and 7.65 cents per kilowatt for commercial and domestic light. The prices in the old contract were \$55 and 9 cents respectively. This time the Company faced competition from the Hydro-Electric Commission.

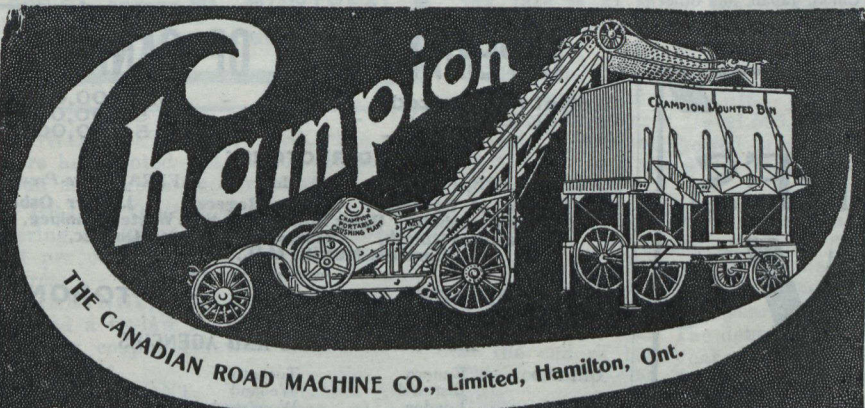
MONTREAL. La Banque Nationale will erect a eight-storey building on St. James Street.

FORT ERIE, ONT. The by-law for a municipal waterworks was defeated by 62 to 48.

BRANTFORD, ONT. The Council has appointed an Industrial Commissioner.

KINGSTON, ONT. The Frontenac County Council has ordered that the prisoners in the County jail be employed in making tiles to be used in road improvements.

KENORA, ONT. The Imperial Bank has purchased a corner lot, and will put up a building this year.



The cost of crushing depends on the durability and efficiency of the machine. We would like to submit proofs to convince you that the **Champion Crusher** will do more work and last longer than any other machine made. Catalogue is free.

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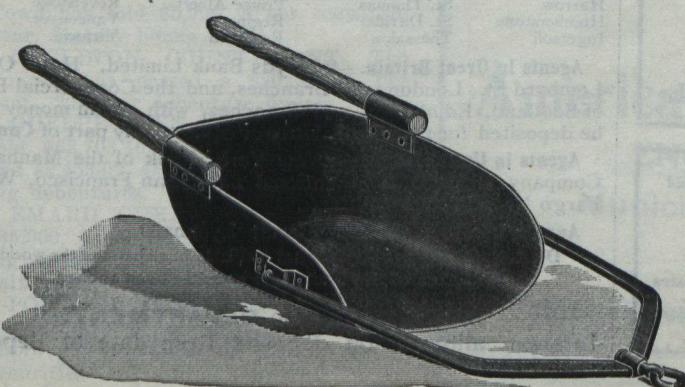
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E. F. HEBDEN, General Manager.

T. E. MERRITT, Supt of Branches and Chief Inspector.

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Ontario		Quebec	
Acton	London	Montreal — (Head Office)	St. James St.
Alvinston	Lucan	"	1255 St. Catherine St. East.
Athens	Lyndhurst	"	320 St. Catherine St. West.
Belleville	Markdale	"	1330 St. Lawrence Reul.
Berlin	Meaford	"	Town of St. Louis.
Bothwell	Mildmay	Beauharnois	Sherbrooke
Brampton	Mitchell	Lachine	St. Agathe
Chatham	Napanee	Quebec	St. Jerome
Chatsworth	Oakville	" St. Sauveur	St. Johns
Chesley	Orillia	Rigaud	St. Jovite
Creemore	Ottawa	Shawville	
Delta	Owen Sound	Manitoba	Alberta
Eganville	Parkdale	Brandon	Calgary
Elgin	Perth	Carberry	Camrose
Elora	Prescott	Gladstone	Carstairs
Finch	Preston	Griswold	Daysland
Fort William	Renfrew	Macgregor	Edmonton
Galt	Stratford	Morris	Lacombe
Gananoque	St. Eugene	Napink	Leduc
Georgetown	St. George	Neebawa	Lethbridge
Glencoe	St. Thomas	Oak Lake	Medicine Hat
Gore Bay	Tara	Portage la Prairie	Okotoks
Granton	Thamesville	Russell	Olds
Hamilton	Tilbury	Souris	Red Deer
Hanover	Toronto	Winnipeg	Sedgewick
Hespeler	" Parliament St.	Saskatchewan	Stettler
Ingersoll	Walkerton	Arcola	Tofield
Kinardine	Watford	Carnduff	Vegreville
Kingston	West Lorne	Gainsborough	Wainwright
Lancaster	Westport	Maple Creek	
Lansdowne	Wheatley	Melville	Brit. Columbia
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(Established 1817)

INCORPORATED BY ACT OF PARLIAMENT.

CAPITAL (all paid up) \$14,400,000
 REST 12,000,000
 UNDIVIDED PROFITS 217,628.56

HEAD OFFICE—MONTREAL

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 H. V. MEREDITH, Asst.-Gen. Manager and Manager at Montreal.

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 W. E. STAVERT, Super. of Branches, Maritime Provinces.
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 E. P. WINSLOW, Inspector, Ontario Branches.
 D. R. CLARKE, Inspector, Maritime Provinces and Newfoundland Branches.

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 BIRCHY COVE, BAY OF ISLANDS, - BANK OF MONTREAL

IN GREAT BRITAIN:

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 CHICAGO, BANK OF MONTREAL, J. M. GREATA, Manager.
 SPOKANE, WASH., BANK OF MONTREAL.

IN MEXICO:

MEXICO, D. F., T. S. C. SAUNDERS, Manager.

IMPERIAL BANK OF CANADA

Capital Authorized - - - - - \$10,000,000.00
 Capital, (paid-up) - - - - - 5,000,000.00
 Rest - - - - - 5,000,000.00

DIRECTORS:

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 Wm. Ramsay of Bowland Elias Rogers, J. Kerr Osborne.
 Charles Cockshutt, Peleg Howland, Wm. Whyte, Winnipeg.
 Cawthra Mulock, Hon. Richard Turner, Quebec.
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HEAD OFFICE, - - - TORONTO.

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Caledon East	Niagara Falls	Quebec	Red Deer
Cobalt	Niagara on the Lake		Strathcona
Cochrane	North B	Manitoba	Wetaskiwin
Elk Lake	Ottawa	Brandon	
Essex	Palgrave	Portage la Prairie	British Columbia
Fergus	Port Arthur	Winnipeg	Arrowhead
Fonthill	Port Colborne	Saskatchewan	Cranbrook
Fort William	Port Robinson		Golden
Galt	Ridgeway		Nelson
Gowganda	Sault Ste. Marie	Balgonic	Revelstoke
Hamilton	South Woodslee	Broadview	Vancouver
Harrow	St. Catharines	North Battleford	Victoria.
Humberstone	St. Thomas	Prince Albert	
Ingersoll	St. Davids	Regina	
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 P.Q. ENG. ONT.

ASQUITH, SASK., has sold \$12,600, 6 per cent., 20-year, fire protection bonds.

RED DEER, ALTA. The Council has sold 6 per cent. debentures of nearly \$20,000 to a Toronto firm, at \$113.54. The debentures are for local sewer improvements and extensions.

SAULT STE. MARIE, ONT. The dry-dock by-law was carried by a large majority only twelve being against it. This is the first bonus given by the Town to any company and commercial activity is expected immediately. The company is to build a dry-dock amounting to \$500,000 in value, and will employ 500 to 2,000 men during the year.

GRAVENHURST, ONT. The by-law to raise \$15,000 for the purpose of completing the expenditure undertaken in the construction of the Hydro-Electric power plant at South Falls, was carried by a majority of 73.

TORONTO. City Treasurer Coady estimates the city revenue for 1909, exclusive of taxes, at \$1,757,141. Of this \$581,500 is from the street railway and \$589,600 from waterworks. The rate of taxation is 18½ mills.

BRANDON, MAN. The City has sold \$14,000 debentures to the Dominion Securities Corporation.

CALGARY, ALTA. The total assessment this year is \$19,824,978 and the tax rate is 21 mills, the expenditure being estimated at \$234,459.

REGINA, SASK. The assets are \$3,233,984, and liabilities \$1,877,469, leaving a surplus of \$1,346,015. The outstanding debentures are \$1,565,020. The electric light plant showed gross profits of \$10,489; and the water works gross profits of \$10,824.

BRANTFORD, ONT. It has been possible to lower the tax rate from 21½ to 21 mills because of the increase in the assessable property. The City will spend \$319,000 this year.

LONDON, ONT. The debenture debt at the end of last year was \$677,535. This took \$155,000 of the taxes, or 6.59 mills.

ENDERBY, B. C. The assessed value of Enderby Municipality is \$640,000; that of the townsite is \$50,000. It is proposed to borrow money for a City Hall.

STRATHCONA, ALTA. The town will spend \$2,000 in publicity work this year.

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SWIFT CURRENT, SASK. The electors have voted \$12,000 for fire protection and public improvements.

BRANTFORD, ONT. The City is offering \$11,248 4 per cent. and \$54,229 4½ per cent. local improvement debentures.

HARTNEY, MAN. The electors have passed a by-law for \$5,000 5 per cent. 20-year coupon sidewalk improvement debentures.

BARRIE, ONT. The electors have passed a by-law for \$12,000, 4½ per cent., 20-year, electric light debenture.

ST. CLEMENTS, ONT. A by-law has been passed to raised \$4,750, 4½ per cent., 15-year drainage debentures.

WALKERVILLE, ONT. The Council has awarded \$6,866.80, 5 per cent., 10-year local improvement bonds to the Dominion Securities Corporation, of Toronto.

DRUMMONDVILLE, QUE. The Town has sold \$5,000, 5 per cent., 25-year, factory bonus bonds.

CARLETON COUNTY, ONT. The Council has passed a \$20,000, 5 per cent., 20-year debenture by-law.

GUELPH, ONT. The Council has sold \$62,703.46, 4½ per cent., 20-year, and \$2,453.02, 4½ per cent., 10-year paving debentures.

EMARD, QUE. The Town has sold \$35,000, 5 per cent., sewage and funding bonds, due 1937, interest payable half yearly.

PORT HOPE, ONT. The Council has sold \$39,010, 5 per cent., 20-year, local improvement bonds to the Dominion Securities Corporation, Toronto.

ENDERBY, B. C. There is a movement to bring in a by-law to raise \$2,500 for sidewalks, street grading and other improvements.

FERNIE, B. C. The Council is retrenching and estimates that it will spend less than \$60,000 this year.

CRANBROOK, B. C. The school debenture by-law was passed with only four votes against it. This will provide a \$50,000 school building.

GOVAN, SASK. The Council has passed a by-law for the issue of \$4,000 15-years debentures.

VANCOUVER, B. C. The aggregate indebtedness of this city, is \$10,524,504, including bonds for general work and for local improvements. The debt limit of the city at the present time, is \$11,637,071, the amount having increased about \$2,500,000. Even this is a conservative figure, as assessments are not very high.

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Paid Up Capital \$4,000,000. Reserve Fund \$4,500,000.

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 Brantford
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 Coldwater
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BRANCHES

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 Creemore
 Dorchester
 Elmvale
 Galt
 Gananoque
 Hastings
 Havelock
 Keene
 London
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 London North
 Millbrook
 Newmarket

Oakville
 Oil Springs
 Omeme
 Parry Sound
 Peterboro
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 Port Hope
 Preston
 St. Catharines
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 Shelburne
 Stayner
 Sudbury
 Thornbury

Wallaceburg
 Waterloo
 Welland
 Wyoming
Sask.
 Langenburg
 Wolsley
 Yorkton
Quebec
 Montreal
 (3 offices)
British Columbia
 Vancouver

SAVINGS DEPARTMENT AT ALL BRANCHES

Bankers: London, England—The London City and Midland Bank Limited.
 Germany—Dresdner Bank and Branches. France—Credit Lyonnais. United States of America—New York, N.Y., National Bank of Commerce. Chicago, Ill., First National Bank. St. Louis, Mo., National Bank of Commerce. Pittsburg, Pa., Keystone National Bank. Cleveland, Ohio, First National Bank and Central National Bank. Buffalo, N.Y., Manufacturers and Traders National Bank. Boston, Mass., National Bank of Commerce.

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Municipal Treasurers

and all holding positions of trust under Municipal Governments, are invited to deposit funds, entrusted to their care, with this Bank.

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Ayton	Grand Valley	Otterville	Tavistock
Beeton	Guelph	Owen Sound	Thamesford
Blind River	Hamilton	Port Hope	Tilsonburg
Bridgeburg	Hamilton East	Paisley	Toronto
Brownsville	Harriston	Prescott	Avenue Road
Bruce Mines	Hepworth	Ripley	King and
Burlington	Ingersoll	Ridgeway	Spadine
Cargill	Kincardine	Rockwood	Queen and
Clifford	Kenora	Rodney	Broadway
Collingwood	Lakefield	Rodney	Yonge and
Drayton	Leamington	St. Catharines	Bloor Sts.
Dryden	Lion's Head	St. Mary's	Tottenham
Durham	Lynden	Sault Ste. Marie	Tweed
Dutton	Massey	Sarnia	Windsor
Elmira	Mount Forest	Schomberg	Winona
Elora	Newcastle	Springfield	Woodstock
East Toronto	North Bay	Stony Creek	Watertown
Embro	Norwich	Stratford	Webbwood
Fergus		Strathroy	

ALBERTA
 Calgary
 Edmonton
 Stettler

MANITOBA
 Winnipeg

SASKATCHEWAN
 Regina
 Saskatoon

LANIGAN, SASK. The Council has sold \$14,000 debentures to Messrs. Nay and James, Regina, Sask.

The London, Eng., "Chronicle" states that last year \$150,000,000 of new British capital was invested in Canada.

WINNIPEG, MAN. The £500,000 (\$2,500,000) loan issued in London, Eng., by the Bank of Montreal, has been oversubscribed.

The City Council of Montreal has decided to wipe off the books the sum of \$133,000, of which \$103,000 is for costs in the widening of Notre Dame street. Further, it has wiped off a sum of \$531,039 for water taxes, extending from 1897 to 1904. It is stated that \$55,000 is lost every year from the water rates levied.

HALIFAX, N. S. The City will loan \$40,000 to the Anderson Mfg. Co., the security being a first mortgage on the company's property.

CALGARY, ALTA. The total assessment this year is \$19,824,978, and the tax rate is fixed at 21 mills.

SPRINGHILL, N. S. The Town has sold \$20,000, 4 per cent., 40-years, waterworks debentures; and \$10,000, 4

per cent., 30-years and \$7,000, 4½ per cent., 20-years, for a Town Hall.

ST. HYACINTHE, QUE. The City has sold \$166,364, 4 per cent., debentures to the Dominion Securities Corporation.

KILDONAN, MAN. The rural municipality has sold \$6,000 debentures, 5 per cent., 20-years.

NEW BRANCH BANKS.

BANK OF MONTREAL,
 Weyburn, Sask.
 MERCHANTS BANK,
 Unity, Sask.
 St. Eugene, Ont.
 IMPERIAL BANK,
 Cochrane, Alta.
 Gowganda, Ont.
 BRIT. N. AMERICA,
 Semons, Sask.
 UNION BANK,
 Grand Coulee, Sask.
 FARMERS' BANK,
 Haileybury, Ont.

BRANCHES CLOSED.

IMPERIAL BANK,
 Banks St., Ottawa.
 FARMERS' BANK,
 Southampton, Ont.

MONTREAL. The gross funded debt of the City is \$35,719,063, or \$100 per capita of the population. New York, \$177.74 per head; Boston, \$170.90 and Cincinnati, \$124.06, are the only three that exceed Montreal of the large cities on this Continent, while the lowest are Chicago, \$10.97 and San Francisco, \$9.66. Montreal's debt is largely due to the expropriations necessary to widen the streets. The taxable property is valued at \$234,821,903, and the exempted property stands at \$64,335,518.

LEGAL.

Deakin vs. City of Montreal and the Montreal Street Railway Co. Plaintiff claimed damages caused to his automobile on account of the car rails being above the road level, causing a collision in which damage was done, claimed to be \$2,000. Judge Dunlop, Superior Court, Montreal, held that there was no negligence on the part of the Company, but that the bad state of the roads, above which the rails stood 4 to 5 inches, was responsible. Judgment against the City for \$702. The case against Company was dismissed.

Bosbridge vs. City of Kingston, Ont. Plaintiff sued the city for the death of his son who took hold of the guy rope of an electric light pole. The case was settled out of court, the City paying \$750 damages.

Gloucester Township, Ont., has refused the right to appeal a by-law granting concessions to the Hamilton Powder Co. Judge Britton, Toronto, held that plaintiff's allegations that the defendant Company had not lived up to the agreement, were not proved.

Manitoba School Bonds

The following bonds for School purposes will be offered for sale:—

School District.	No.	Amt.	Secy. Treas.	Address.
Huston	770	\$ 500	William R. Turnbull	Reston
Halton	1383	1000	Thos. F. Stubbs	Mountain Gap
Kemnay	444	1000	James Topham	Kemnay
North Lake	1431	500	F. B. Lacey	Oakbrae

Equipment and Engineering

Original Descriptions of Municipal and Telephone Machinery and Appliances. Engineers' Notes.

— All New and Interesting —

Sewerage at Vernon, B. C.

The Town of Vernon, B. C., has retained Messrs. Galt & Smith, C. E., Toronto, to design and construct a complete sewer and sewage disposal system. The sewer system will extend over all the settled portions of the Town, and will be constructed of various sizes of vitrified piping. The plant for the treating and disposal of the sewage will consist of a septic tank, the effluent of which will be treated upon two sets of filter beds. Sludge beds, with apparatus for operating the same will also be provided. It is expected that a high purification will be secured.

The British Insulated and Helsby Cables, Lt., reports that they have received an order from the Montreal Light, Heat and Power, to install over 7 miles of three-conductor paper insulated extra high tension cable, the order calling for complete installation and guarantee. They have also received further orders from the British Columbia Telephone Company, for a large quantity of paper Insulated Air Space Telephone Cables, which follows the very large order reported last fall, for delivery this year.

Mr. Walter S. Bissell, who has been for a number of years travelling salesman for the F. Bissell Company, of Toledo, Ohio, has been promoted to the position of Treasurer of the Company. As he has had the opportunity, while on the road, of securing a thorough knowledge of the electrical trade, and an intimate and extended acquaintance with its needs, his new position will enable him to be of great service to the company and its customers.

The Saraguay Electric & Water Co., of which Mr. Charles Brandies, C. E., Montreal, is Consulting Engineer, is asking for tenders for about 17 miles of transmission lines, from the Power House to Pointe aux Trembles, Que.

The Raymond Concrete Pile Company are about starting the installation of concrete piles for the Old Man River Viaduct near MacLeod, Alta. This Company have also completed the piling for the new Legislative Building at Regina. This building required in the neighborhood of three thousand of their piles.



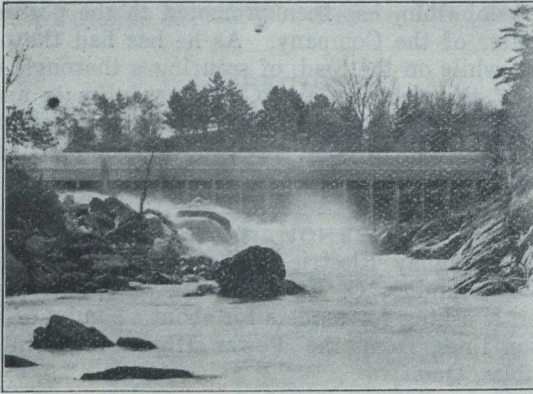
Kindling Street Washing Machine

The above cut explains the somewhat peculiar heading of this paragraph. The apparatus shown is not a street sprinkler, or even a flusher, but really a "washing machine". It combines the work of the sprinkling wagon and power scraper, and the hand scraper also. But its advantages are not confined to a combination of processes, but do the work in a far better way; there is no dust raised, and no slimy pavement. The sprinkled water is immediately scrubbed away, along with

the dust, by the revolving squeegee, and the street is left perfectly clean, and all is done by one horse and one man. A single machine will clean from 30,000 to 40,000 square yards of pavement in a day, so that its operation is very economical. It has been in use in Germany for some years, and is being rapidly adopted by the live cities in the States. Further particulars can be obtained from the Canadian Sales Agents, Messrs. Mussens, Limited, Montreal.

The Ambursen Dam

The Ambursen Hydraulic Construction Company of Canada, Limited, with offices at 519 Coristine Building, Montreal, inform us that the War Department of the United States Government, at Washington, have given their official approval of an Ambursen Dam 60 feet high in the rollway, 80 feet high in the bulkheads and of a total length of about 1,000 feet. This dam is to be installed on the Savannah River and is to support a



Ambursen Dam, Sheldon Falls, Vt. (Built, 1905)

flood of 300,000 second feet such as occurred last summer, (as great as the total flow over Niagara Falls) which will mean a depth on the rollway of about 16 feet. The United States Government has also approved of the Ambursen Dam for the United States Reclamation Service, and built one situated on the Shoshone River about eight miles below Cody, Wyo. The foundations are on gravel and shale and the dam proper is 400 feet long by about 50 feet high, supported by a floor 2 feet thick.

London Concrete Machinery

The London Concrete Machinery Co., London, Ont., has just issued a very handsome and extensive catalogue of the very varied lines of goods which they manufacture, which occupies 130 pages. It is profusely illustrated, and the cuts are so fully explained that it requires no special skill to understand them fully. There is a very large range of concrete machinery for every purpose that can be suggested, with practical descriptions of the way in which each is to be used. As cement is being so widely employed in all kinds of work, houses, factories, sidewalks, silos, drain pipes, etc., it is well to have such a very complete list of the fittings that will be needed in the different lines.

Attractive Debentures

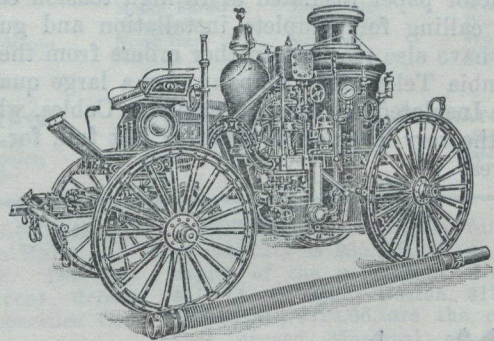
It may appear strange at first sight that the value of a security depends even partially on the way it is printed. And yet it is perfectly just, for printed or even poorly lithographed debentures can be easily copied by forgers. Then, very properly, a cheap appearance indicates a carelessness on the part of the municipality that impresses financial men unpleasantly. The American Bank Note Co. makes a specialty of high class work, and yet it can offer prices that are reasonable. They supply steel engraved or lithographed, or a combination, while the new Multi-Color process costs little more and is very artistic and attractive. The "Imprint", published by the Company contains among other beautiful specimens of their work, a reproduction of some of the debentures made by them.

Municipal Supplies

The variety of mechanical lines required by municipalities to-day is very great, and few firms are in a position to cover them even generally. Mussels, Limited, of Montreal, have been advertizing a large number in these pages, and have now got out a special catalogue and price list of the principal lines which they carry. In the foreword, attention is called to its being offered in a handy form for reference, but that special catalogues of each of the various kinds shown in this concise one, are also issued. The catalogue, which is fully illustrated, and has explanations of the cuts, contains Road Machines, Drag and Wheel Scrapers, Dump Wagons, Wheelbarrows, Ploughs, Sweepers, Rock Crushers, Rollers, Concrete Machinery, Engines, Trench Machines, Pumps, Drills, Hoists and all kinds of tools. Any municipal official who is interested, can obtain a copy by applying at the head office, Montreal, or at the branch offices, in Toronto, Winnipeg, Vancouver and Cobalt.

New Fire Engine

The City of Three Rivers, Que., has just purchased a "Waterous Fire Engine" from Messrs. T. A. Morrison & Co., Montreal. It is one of the "quick steamers" of similar type to those used by the City of Montreal, and has a capacity of 800 gallons. The City will have a



public test of the engine's capacities, and it would be a good idea of the neighboring municipalities to have representatives of their Fire Brigades present, so as to familiarize themselves with the work that a good fire engine can perform if well handled.

Representative in Canada

The information has been supplied to the Journal that arrangements have just been made whereby Mr. Alph Hoover is to represent The Century Telephone Construction Co., of Bridgeburg, Ont., in the development field and the sale of their product throughout the Province of Ontario.

Mr. Hoover, as all who have been identified with the telephone movement, of course, know, is one of the pioneer independent telephone operators of the Dominion and was for a time president of The Canadian Independent Telephone Association. Owing to his popularity with the operating public and his wide experience in all branches of the industry he is peculiarly fitted for this line of work.

The Century Co. show in this stroke a highly developed business acumen, and is to be congratulated.

New Factory at Waterford Ont.

Mr. Rhode, General Manager of the Dominion Telephone Mfg. Co. Ltd., reports that good progress is being made with the new factory being erected by the Company, at Waterford, Ont., and that he expects to be in full operation not later than the middle of April.

THE TRADERS' BANK

The 24th. annual report of the Traders' Bank of Canada is as follows:—

The net profits for the twelve months, after making provision for bad and doubtful debts, and reserving accrued interest, amounted to.	\$500,217.60
Premium on New Stock	100.00
Balance at credit of Profit and Loss last year	25,364.39

\$525,681.99

Appropriated as follows, viz.:

Dividend No. 48, quarterly, at the rate of 7 p.c. per annum	\$ 76,168.29
Dividend No. 49, quarterly, at the rate of 7 p.c. per annum	76,174.11
Dividend No. 50, quarterly, at the rate of 7 p.c. per annum	76,178.44
Dividend No. 51, quarterly, at the rate of 7 p.c. per annum	76,178.66
Written off Bank Premises and Furniture	20,000.00
Transferred to Officers' Guarantee Fund	5,000.00
Transferred to Officers' Pension Fund	5,000.00
Balance at credit of Profit and Loss new account	190,982.49

\$525,681.99

General Statement, 31st December, 1908.

LIABILITIES.

Capital Stock paid up	\$ 4,353,592.00
Rest Account	2,000,000.00
Dividend No. 51, payable 2nd January	76,178.66
Former Dividends unpaid	406.27
Interest accrued on Deposit Receipts	8,786.80
Balance of Profits carried forward	190,982.49
	<u>\$ 6,629,946.22</u>
Notes of the Bank in circulation	\$ 2,600,905.00
Deposits bearing interest, including interest accrued to date	\$21,285,685.00
Deposits not bearing interest	4,099,432.02
	<u>\$25,385,117.02</u>
Balance due to other Banks in Canada	14,021.88
Deposits from Banks in U. S.	229,600.21
	<u>\$28,229,644.11</u>

\$34,859,590.33

ASSETS.

Gold and Silver Coin current	\$ 400,327.00
Dominion Government Demand Notes	2,632,234.00
Notes of, and Cheques on, other Banks	771,818.85
Balance due from other Banks	685,202.46
Balance due from Foreign Agents	1,219,465.06
Dominion and Provincial Government Securities	614,084.03
Railway and other Bonds, Debentures and Stocks	955,937.84
Call and Short Loans on Stocks, Bonds, and other Securities	1,871,773.93
	<u>\$ 9,150,843.17</u>
Bills discounted current	\$23,512,673.63
Notes discounted overdue (estimated loss provided for)	23,532.83
Loans to other Banks secured	23,532.66
Deposit with Dominion Government for security of general Bank Note Circulation	148,270.49
Real Estate, the property of the Bank (other than the Bank premises)	5,928.66
Bank Premises (including safes, etc.)	1,991,808.89
Mortgages on Real Estate sold by Bank	3,000.00

\$25,708,747.16

\$34,859,590.33

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