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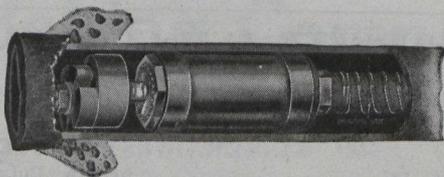
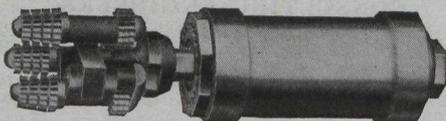
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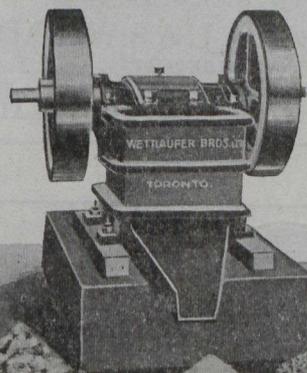
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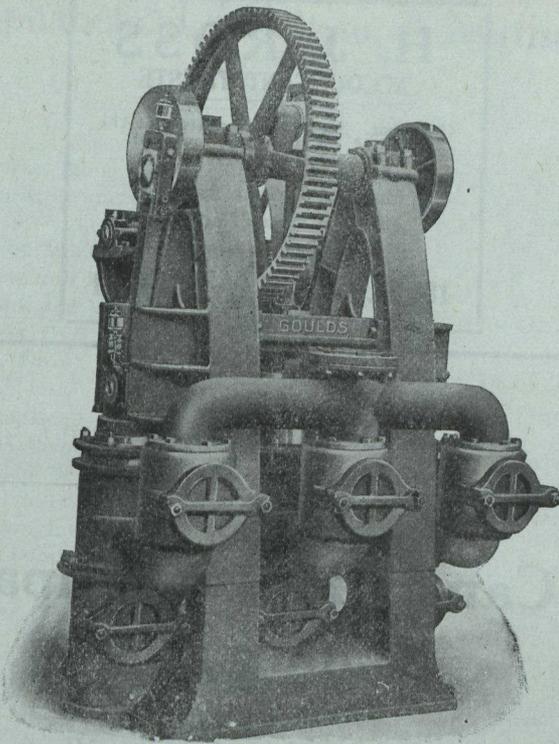
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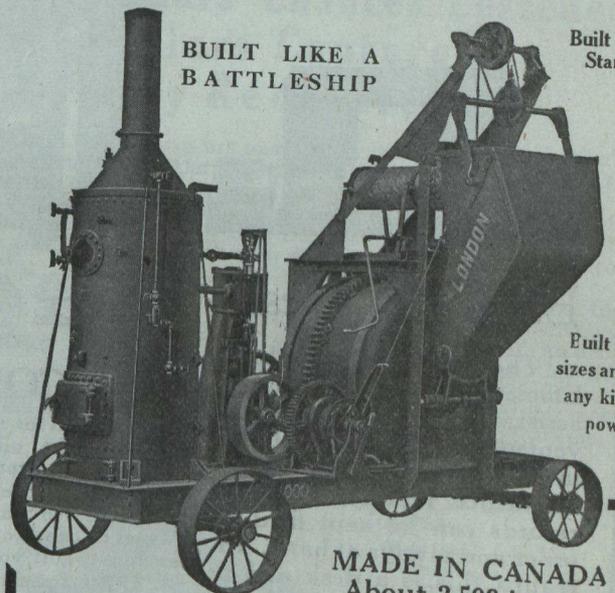
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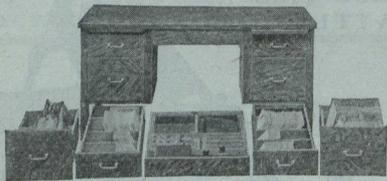
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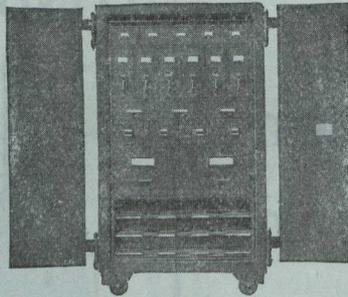
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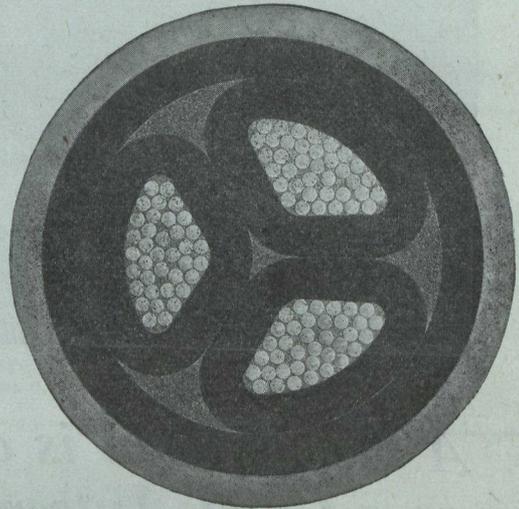
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VOL. XIII.

SEPTEMBER, 1917.

No. 9

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The Great National Highway

We have for some time past been urging the building of a national highway across Canada, and we are pleased to note that our efforts are encouraged by many of our contemporaries. The special reasons we give why such a trans-continental road should be built are: **First**, it would find employment for our returned soldiers at a time when our industries will be dislocated and consequently the communities not able to assimilate three or four hundred thousand men. **Second**, it would be another practical link between one municipality and another, and one province and another. **Third**, it would create a tourist traffic that cannot help but be a boom to those municipalities through which the road would pass. **Fourth**, it would tap many of our natural resources that now lie dormant, but waiting to be developed. **Fifth**, it would be the best incentive to those parts of the Dominion, where a road is only a name. The **Sixth**, though not the last reason; for we could give many more, is that such a highway would be the best monument that the people of Canada could build in memory of those splendid sons who have given up their lives in her cause on the fields of Flanders. Such a road would be a real peace monument. The mile stones would bear witness to many thousands who came after us that Canada had done her duty at this time of democracy's trial.

But such a national road would cost money. Our experts consider that it would take 3,500 miles of new road to link up the Pacific and the Atlantic Oceans, and would cost in round figures \$75,000,000. A huge sum, but none too large for such a purpose.

We have already suggested that the cost be divided into four parts, and borne by the Federal authorities; the Provincial authorities; those municipalities through which the road would pass; and by public subscriptions in the following proportions—one-half by Federal money, one-quarter by the Provinces and the municipalities, and one-quarter by public subscription. The whole of the work to be under a commission, made up principally of engineers, who should have the absolute control of the route and the manner in which the road should be built—materials, etc.—with one exception and that is that the whole of the work be done by returned soldiers under military discipline, but civilian pay.

This is a great task that we suggest to the people of Canada, and one that some might think inopportune at this time, when every dollar is required to finish the war, but we believe that we would be remiss in our duty, if we failed to remind our fellow citizens that there is the aftermath. One thing is certain, the larger part of our present industries, which are munitions, will stop. And what then? Tens of thousands of family breadwinners will be thrown out of employment, and surely it would be suicidal to increase this large army of out-of-works by another larger army of out-of-works, which would really be a fact if the returned soldiers are disbanded on their arrival in Canada. What then can we do with the returned soldiers to whom we as a nation are under special moral obligation? One of the answers to our mind is to put the men in the building of such a national road as we have urged, and thus use them in a great work at once healthy and profitable to themselves and the nation.

The London Convention

Co-operation between the Federal and Local Authorities to put into Practice War Measures Affecting the People.

The Convention of the Union of Canadian Municipalities held last month in London, Ont., under the presidency of the Mayor (Dr. Stevenson, marked a new epoch in the annals of municipal Canada. Hitherto the conventions, with the exception of the 1916 meeting, have been confined to the discussion of local problems, but the war has created new conditions, affecting the communal life of the country, that have by their very immensity become national in their scope and character. The 1916 convention, in the papers and addresses, which dealt with the larger responsibility of the municipalities brought about by the war, epitomized this new aspect, but it was left to the convention just closed, to put into concrete form the new national spirit of the people. Every one of the main resolutions passed have a direct bearing on the war, and Canada's part in bringing it to a successful consummation, and to better meet after war conditions; and each subject discussed opened out a new vista of opportunity for national service, not only on the part of the municipal councils, but the provincial and federal authorities as well.

The first resolution, adopted unanimously, called upon the Federal Government to seek the co-operation of the municipal councils in putting into practice all war measures directly affecting the people. In Great Britain such co-operation has been in practice since the war began, with wonderful results, and it is strange to those who have studied the question that the Federal authorities have not before now taken advantage of the official machinery of the municipalities which cover every square yard of the Dominion, to assist in co-ordinating and conserving the human and material resources of the country, which we have every confidence in believing would have been placed at their disposal had the municipal councils been properly approached. But better late than never. The councils have since the commencement of hostilities done much patriotic work, and we are but repeating ourselves in stating that they have always been, and are willing to do still more by taking on further national responsibilities, but the councils must first have satisfactory assurances that the Federal Government is really in earnest in its war measures — that the war commissions and boards, and the departments themselves mean business. Canada is at war, and well the municipal councils know it. They also know that the resources of the country must be utilized to their fullest extent if we are to beat the Germans, and that the resources cannot be properly utilized unless there is real co-ordination between the different units—the Federal, the Provincial and the Municipal authorities. The municipal unit at the recent convention has expressed itself as more than ready to do its part; and it is now up to the federal and provincial units to express themselves in like terms, which, if acted upon—and as far as the local councils are concerned, they will act—the many social and economic difficulties now before us will soon be overcome.

A Food Commission.

One of the main resolutions passed at the convention, was proposed by the secretary, Mr. W. D. Lighthall, who has taken a keen interest in the subject. The resolution refers to the appointment of a Food Commission to investigate and control the source of Canada's foodstuff supplies—in fact, to handle all commodities required by the people. The idea is that the suggested commission be along the same lines, and have somewhat similar powers to that of the Railway Commission, which has gained the confidence of the country, principally because it is outside party politics, and that the members are men of outstanding ability. It is not proposed that the Commission take the place of the Food Controller, whose office would seem to indicate that his duties are confined to the conservation and control of the retail prices of foodstuffs, but that it takes the place of the Minister of Labour in the putting into force of the Order-in-Council relating to the high cost of living; of course with additional powers.

Better Pay for Soldiers and Equalization of Pensions.

A resolution was passed urging that the present pay of the soldier be doubled. A similar resolution had been passed by the Toronto City Council, and there is every reason why the suggestions should be taken up seriously by the Federal Parliament, and none in favour of the present rate of pay, which is inadequate, even with separation allowance and Patriotic Fund, for the soldiers' families to meet the increased cost of living. A further argument put forward in favour of the increased pay for soldiers was to help those who would not accept anything from the Patriotic Fund, because of the charity taint attached to recipients—unintentional, of course, but a fact. A second resolution that was also passed in favour of our soldiers was introduced by the new President (Mayor Hardy of Lethbridge), urging that in the granting of pensions the rank of the soldier should not be considered, only the nature of the wounds and the disability of the pensioner. This is, as it should be, in a democratic country like Canada, and where so many of her best men volunteered to serve their country as privates; were proud to serve as such. It was these men who made it possible for Canada to so quickly answer the call in raising an army which is at once the admiration and envy of the whole world, including even the Germans. The sacrifice of the rank and file was, and is, quite equal to that of the officers, and there should be no difference in the pensions between the one and the other, otherwise it would be putting a premium on the patriotism of the lower rank in favour of their more fortunate friends who received commissions, many of them, though not all, through influence.

Municipal Bureau of Information.

The educational session was largely taken up with a resolution urging the municipal councils to inaugurate in their respective communities a Mu-

municipal Commercial Museum and Bureau of Information. The subject was introduced by Mr. J. J. Harpell, of the Industrial and Educational Press, who has had a large experience in educational matters, and has seen for himself the specific value of centralized bureaus of information in the building up of a community. The resolution, which was passed, was also an assurance to Mr. Harpell that the Union was in full sympathy with, and would support the Canadian Bureau of Information, which he had founded in Montreal, to carry out the principles laid down in his address. Having received the support of the Convention, Mr. Harpell will now be encouraged to take up the matter directly with each municipality, and we certainly wish him all success, for to our mind the movement is one of great educational value, and we do not know of anything better suited to instill in the minds of the citizens a pride in their local industries.

The Hydro Electric.

The Convention taking place in the home of Hydro-electricity, the delegates had the opportunity of studying at first hand the strides made in this wonderful movement under the genius of Sir Adam Beck. When the Union of Canadian Municipalities met in convention in London in 1904, under the presidency of Sir Adam, then Mayor of London, the hydro-electric scheme was then in the formative stage, with many difficulties to overcome. At this, the second visit of the Union, Sir Adam was able to show with pride something of what he and his colleagues have achieved in making Ontario the cheapest place for electricity—power, light and radials—in the world. No wonder every Londoner, from the Mayor down, is enthusiastic over the success of the Hydro-electric movement, for London has benefited. At a banquet given to the delegates in the cafeteria owned by the London City Council in Port Stanley, after passing over the new radial railway, a distance of 24 miles, and also owned by the London Council, Sir Adam delivered an address full of that fighting spirit, so characteristic of the man, in which he took up his favorite topic of Hydro-electricity. He also discussed the same subject on the following day at the afternoon session, and in both addresses he made a strong appeal for the nationalization of those railways, condemned in the majority report of the Drayton Commission. But to the visiting delegates from other provinces, the chief interests of Sir Adam Beck's address was in his wonderful story of how they got cheap electricity in Ontario. A number of the delegates were eager to know if the same success could be achieved in other provinces. "Of course," answered Sir Adam. But one thing he did not tell the delegates. Where are they going to get the Adam Becks from to make possible a repetition of the Ontario Hydro-Electric in other provinces? Big schemes for the benefit of the people require big brained men and big hearted men to work them out, but big brained men are busy building up fortunes for themselves and the big hearted men are not always big brained.

Franchises.

As part of the Union's usefulness is in protecting the municipalities from the onslaughts in their local rights, particularly from the insidious and nefarious legislation that public utility corporations

try to squeeze through the Federal and Provincial Parliaments from time to time in spite of the standard clauses that the Union fought for and got inserted in the Railway Act, a number of the resolutions dealt with this phase of the Union's work. One resolution introduced by Mayor Church of Toronto, and adopted, had special reference to the Niagara Power Company's charter; another resolution adopted related to the Bell Telephone Co. refusing to pay for the privilege of erecting its poles and running its wires through the streets of certain municipalities. While on the question of municipal protection by the Union, the delegates were surprised that quite a number of the municipalities had stopped paying in their subscriptions, and a resolution was passed urging those councils who had not paid to do so as early as possible; so that the usefulness of the Union—whose work as a protective body affected directly every municipality in Canada—would not be deterred from lack of income.

A RE-GATHERING IN AN OLD COMMUNITY.

The little town of Longueuil (opposite Montreal) recently had a re-gathering of its people. The municipality is one of the oldest in the Dominion, and in the course of its two centuries' existence it has sent out many of its citizens into the larger world, some to win fame, but all to retain that love of old associations, inherent in all of us, and especially when those associations have back of them generations and generations of folk tales that old communities take such a pride in passing on to their children. Such a municipality is that of Longueuil, though even this, the second oldest community in Canada, is rapidly changing its ideas of progress and becoming commercialized to the extent of having located in its midst one of the largest engineering works in this country. It is well to have these re-gatherings while the physical features of the old home towns are intact, for progress to-day demands improvements which are not always in keeping with the spirit of the place. Too often the term municipal improvements means the rooting up of the picturesque because it is old, to have in its place the hard bricks and stones of modernism. Old towns like Longueuil have their individual characteristics, which newer municipalities do not seem to aspire to, probably because they are too busy looking after their material growth.

THE LATE EX-CONTROLLER SPENCE.

By the death of ex-Controller F. S. Spence, the secretary of the Ontario Municipal Association, civic Canada has lost an invaluable friend. For many years Mr. Spence made a point of attending the conventions of the Union of Canadian Municipalities, when his kindly presence and valuable advice were so welcome to every delegate present. Probably no man has done so much as the late Mr. Spence to raise the standard of the municipal life of Canada, and certainly no man had a keener insight of the practical affairs of city government, to which at every opportunity he applied those civic principles of which he has been so long an apostle. Both the Dominion and the Provincial Associations could ill spare Mr. Spence.

THE LATE MAJOR BAKER.

The deep sympathy of every municipal man in Canada goes out to Mr. S. Baker, the City Clerk of London, Ont., who, on the morning of the U. C. M. Convention, towards which he had done much to ensure success, received news that his son, Major Horace Baker, had been killed in action. The receiving of such sad news was very personal to the delegates present, for each one had some one at the front, and the vote of condolence that was immediately passed truly represented the feelings of men and women who knew something of the cost of war.

BETTER RACIAL RELATIONS IN CANADA.

One of the resolutions passed at the London Convention is particularly opportune at this time of racial ill-feeling, brought about largely by the impassioned utterances of irresponsibles, who know not, or at least will not recognize the importance of cementing the relations of the two dominant races of Canada. The resolution, which reads as follows, tells its own story, and should be taken seriously by all Canadians, whether they be French or English speaking, who have the cause of the Dominion at heart:

"Whereas the friendly relations hitherto existing between the various provinces of this Dominion are now being jeopardized by certain immoderate statements and writings;

"It is resolved that this convention of the Union of Canadian Municipalities, expressing the constant desire of the thinking people of Canada to mutually extend to each other their friendly hand, earnestly urges the citizens of Canada to refrain from utterances either oral or written, which might tend to divide into factions the people of this country, thereby preventing them from working out the destiny of the Dominion."

CANADIAN MUNICIPAL MANUAL AND PUBLIC UTILITIES LAW.

Edited by SIR WILLIAM RALPH MEREDITH (Chief Justice of Ontario.)

What would be termed in legal phraseology a manual of municipal and public utilities law, but what in reality is an invaluable guide to the municipal councillor or officer, has just been published by the Canada Law Book Company of Toronto. The compilers are J. R. Meredith, K.C., and W. B. Wilkinson, K.C., and the whole of the work is under the editorship of Sir William Ralph Meredith, Chief Justice of Ontario.

Though compilers and editors are Ontario men, the work itself is not by any means confined to the municipal law of the central province. The laws of every province are treated separately, and then co-ordinated with the general theme, which is the Canadian municipal law as interpreted by Canadian and English decisions. To our mind the special value of the work is in the editor's reviews of the court decisions, which are critical to the extent of taking exception to some of the decisions. This is very helpful to the legislative committees of local councils in seeking amendments to existing statutes, and the fact of the reviews being written in plain English—as indeed the whole of the work is with the exception of the text of the acts treated—makes it all the easier for the average man to follow. The work comprises such subjects as: **Municipal Administration; Proceedings in Council; Validity of By-laws; Expropriation; Acquisition of Land and Compensation; Annexation; Municipal Elections; Corrupt Practice; Qualifications of Officers; Capacity to Contract and Liability under Contracts; Debentures; Finance; Bonus By-laws and Subsidies; Local Improvements; Assessments and Taxation; Licenses; High-**

THE DUTIES OF MUNICIPAL COUNCILS.

One of the local papers, in an editorial, criticized the London convention for taking up questions that apparently are outside the functions of local authorities, the editor evidently having in mind the discussions and resolutions referring to our soldiers. We would remind our contemporary that the soldiers, and their families' welfare is very much the business of the municipal council, being just as much a community as a national question, and as citizens the men have every right to seek the help of the city or town fathers, so that when in convention the municipal councils were more than justified in urging their claims to the Federal authorities. Too many people, like our contemporary, are under the impression that the duties of a municipal council begin in the levying and collecting of local taxes and end in their spending. Nothing is further from the mark. The material administration of the municipality is but part of the council's duties. There is the social and moral responsibility of the council as the elected leaders of the people which is just as important in the successful administration of a community as the legal responsibility. That moral responsibility takes in the social welfare and education as well as the health of the citizens, and anything bearing in that welfare, however indirectly must be taken up by that authority in closest contact with the people—that is the municipal council. To take the case of the soldiers, every man who joins the army leaves his family to the care of the community—as a unit of the nation and it is the duty of the council as head of the community, to see that the soldiers' families and the men themselves when they return, have all that is coming to them, and a little more if possible, so that they can live as respectable citizens should do, and without becoming charges on the community.

ways and Bridges; Drains and Sewers; Sanitation; Nuisances; Regulation of Business and Buildings; Liability for Torts, etc., etc.

The special Acts treated include: **Public Utilities Act; Local Improvement Act; Municipal Arbitrations Act; Municipal Franchises Act; Patriotic Grants Act; Planning and Development Act; Bureau of Municipal Affairs Act; Arbitrations Act; Municipal Electric Contracts Act.**

A valuable lead to the reader is given in the index, which is not only complete, but so arranged that whatever phase of the municipal act one wants to look up the index is there to guide him. This part of the work alone, which takes up 106 pages of the 1,040 pages in the book, must have taken up much time and patience to perfect. According to the preface, this great work has been six years in preparation—of course the labour given has been necessarily intermittent. One sad phase of the work, and one that brings it in close touch with this great war is that one of the authors, Mr. J. R. Meredith, K.C., who was early in the work compelled to withdraw from co-operation by his military duties, was killed, thus leaving his share to his father, Sir William Meredith, to finish. This eminent jurist took up the double burden with added enthusiasm, possibly because of his son's legacy, and as his co-author says in the preface, every line of the big work was passed under his critical eye.

Altogether the Canadian Municipal Manual is a masterly work, each of the many subjects that come under municipal administration being treated exhaustively but tersely, and the many cases coming under municipal law analyzed in that clear-cut English that one would expect from such an eminent editor. The price of the work, which is in one large volume, is \$20, and it should be on the shelves of every municipal library in Canada.—F. W.

"THE NEW ERA IN CANADA".

As indicating the new thought that is fast coming to the fore in Canada as a consequence of this war, a little volume recently published by Dent and Sons, and edited by Dr. J. O. Miller, is well worth reading by the citizens of this country. The title of the work, "The New Era in Canada," is no misnomer, for the contents, which comprise a series of essays by some of Canada's best writers, cover such subjects as Democracy and Social Progress by Stephen Leacock; Our National Heritage by Dean Adams; Immigration and Settlement by Sir John Willison; Public Opinion and Political Life by Peter McArthur; East and West, by Sir Edmund Walker; Our Future in the Empire, by John W. Daffoe and A. J. Glazebrook. Other authors are Prof. Wrong, Mrs. H. P. Plumtree, Marjory MacMurchy, Archbishop McNeil, G. Frank Beer, Sir Clifford Sifton and Dr. Symonds.

One of the essays under the title of "The Better Government of Our Cities," is by the Editor. This article makes interesting reading, but, like many articles on the same subject by outsiders, it is condemnatory of our municipal government, almost patronizingly so, and like other writers, too, Dr. Miller urges that Canada should adopt the British system of municipal government. With that one is heartily in accord, but not for the same reason. The writer (Dr. Miller), assumes that in the English municipality the administrative departments are separate from the legislative department, thus bearing out his maxim that "the basic principle that lies at the root of municipal reform is the divorce of administration from legislation." As a matter of fact, in England the municipal council is both the legislative and administrative body—the legislative work being done by the council as a whole, and the administrative work through committees; and each committee is responsible for its actions direct to the council. But the municipal officers—heads of departments—through whom the committees work, are also responsible to the Local Government Board for their work. It is this double check which accounts for the efficiency of municipal government in England, and this efficiency on the part of the officers gives that necessary confidence to the committees whose reports to the councils are very seldom questioned, leaving plenty of time to discuss new policies for the general welfare of the community. To put it another way, the average English council has so much confidence in its permanent officials, because their efficiency and integrity are always being checked up by another body, that it practically delegates to the officials the real administration of the community; but only delegates, for the real responsibility is always with the Council. In Canada, on the other hand, there is no such check—as there should be—and the consequence is that Councils,—particularly the smaller—have got into the rut of giving up the larger part of the meetings to details of administration. One uses the word rut advisedly here, for while at one time the standard of efficiency in Canadian municipal officials was not so high as it might be—because of the difficulty in getting good men—the standard is much higher to-day, and so much more of the detail should be left to them.

The writer of the article asserts that municipal government in Canada has fallen in disrepute, and gives as reasons "the apathy of the greater half of enfranchised citizens" and that "the men best fitted for civic affairs decline to take part in them." There is no doubt about the apathy of Canadian citizens in civic government, but we would be interested to know how the writer came to the conclusion that those not now in office were better fitted than those now in. There is only one test, and that is experience. Education in itself, particularly under our present system, which teaches everything but citizenship, does not particularly fit a man for municipal work, either in Canada or England, where the average councillor or alderman is a tradesman. But what reason has the writer in saying that municipal government in Canada has fallen in disrepute? My experience of the local government of this country, in spite of the apathy of the average citizen, is that it is on a considerably higher plane than it has ever been in its history. It is true there are exceptions, but these very exceptions are illustrative of what civic government was in Canada fifteen or twenty years ago.

With one conclusion of the writer I entirely agree with; his condemnation of the lack of continuity in the municipal council. Twelve months—as in Ontario—is too short a term for an alderman. It should be at least three years, with one-third of the council retiring each year.—F. W.

PUBLIC HEALTH CONVENTION.

The Canadian Public Health Association will hold its Sixth Annual Congress in Ottawa, on September 27th and 28th, 1917, under the presidency of Dr. J. D. Page, of Quebec.

On Monday and Tuesday, the 24th and 25th of September the Annual Meeting of the Canadian Conference of Charities and Correction will be held in the same place, and the Canadian Association for the Prevention of Tuberculosis will hold its seventeenth Annual Meeting there on Wednesday, September 26th, 1917.

The programme includes:

THURSDAY, SEPTEMBER 27th, 1917.

Morning Session.

Symposiums on Venereal Diseases.

Speakers: Captain Gordon Bates, C.A.M.C., Captain D. T. Fraser, M.C., C.A.M.C., Lt.-Col. F. S. Patch, C.A.M.C., A.D.M.S., M.D. 4, Montreal; Dr. Hector Palardy, D.P.H., District Sanitary Inspector, Hull, Que.; Major J. W. S. McCullough, D.A.D.M.S., Sanitation, M.D. 2, Toronto; Dr. J. A. Macdonald, The Globe, Toronto; Captain H. W. Hill, D.A.D.M.S. Sanitation, M.D.I., President Ontario Health Officers Association, London, Ont.; Major M. Lauterman, Montreal, P.Q.; Dr. C. K. Clark, Toronto.

Afternoon Session.

"Certain Aspects of Public Health in Canada," by J. D. Page, Esq., M.D., Quebec.

Symposium on National Health Insurance.

"The Contribution of Health Insurance to Improvement of the Public Health," by Miles M. Dawson, Esq., New York City.

"Health Insurance, the Practice of Medicine, and Public Health," by I. M. Rubinow, Esq., Ph.D., New York City.

"The National Importance of Health Insurance," by C. J. Hastings, Esq., M.D., Medical Officer of Health, Toronto.

Discussion:

(1) Hon. Senator Robertson, Ottawa, for Organized Labor.

(2) Dr. John P. Morton, Hamilton, President Ontario Medical Association, for the Medical Profession.

(3) J. E. Atkinson, Esq., Toronto.

"The Value of Statistics in Public Health Work," by M. M. Seymour, Esq., M.D., D.P.H. Commissioner of Health, Regina.

FRIDAY, SEPTEMBER 28th, 1917.

Morning Session.

"Infant and Child Welfare Work," by Alan Brown, Esq., M.B., Toronto, Medical Director Division of Child Hygiene, Dept. of Health, Toronto.

"The Conduct of An Infant Welfare Survey," by Miss Mary Power, Child Welfare Bureau, Provincial Board of Health, Ontario, Toronto.

"Conservation of Child Life," by Mrs. J. A. Henderson, Montreal.

Discussion—Opened by Mrs. Adam Short, Ottawa.

"Housing," by Mrs. A. M. Huestis, Executive Director, Toronto Housing Company, Toronto.

"Notes on the Housing Problem in England, Lessons for Canada" (with lantern slides), by F. A. Dallyn, Esq., C.E., Prov. Sanitary Engineer.

"Reducing Quarantine Periods," by Captain H. W. Hill, C.A.M.C., London, Ontario.

"Pasteurization of Milk Supply," by J. A. Beaudouin, Esq., M.D., Medical Officer of Health, Lachine, Que.

Afternoon Session.**General Section.**

"The Influence of Mental Defectives on the Public Health," by Dr. Helen MacMurchy, Inspector of Feeble Minded, Toronto, Ontario.

"Some Medico-Sociological Problems Arising out of the War," by Captain W. H. Hattie, C.A.M.C., Provincial Health Officer, Halifax, N.S.

"The Provision of Custodial Care of Recalcitrant Open Tuberculosis Cases," by Captain H. W. Hill, C.A.M.C., London, Ontario.

"The Means of Fighting Tuberculosis in the District of Quebec," by Dr. O. Leclere, Quebec.

FRIDAY AFTERNOON, SEPTEMBER 28th, 1917.

Laboratory Section.

"Technique of the Bordet-Wassermann Reaction for Public Health Laboratories" (an attempt to standardize) by Dr. H. D. Detweiler, Lecturer in Bacteriology, University of Toronto, in charge of Bordet-Wassermann Diagnosis, Laboratories of the Provincial Board of Health, Toronto.

Report of the Committee on Standard Methods of Water Analysis, by Mr. Joseph Race, Bacteriologist and Chemist, City Laboratory, Ottawa.

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Resolutions of Convention

The Resolutions proposed and adopted by the Convention of the Union of Canadian Municipalities held in London, Ont., Aug. 28-29-30, are as follows:

CO-OPERATION BETWEEN THE FEDERAL AND MUNICIPAL AUTHORITIES TO PUT INTO PRACTICE ALL WAR MEASURES.

That since no general system yet exists in the Dominion linking the authorities of the Federal Government with the Municipal Councils to help to put war measures into practice, the Union of Canadian Municipalities in Convention assembled respectfully recommends to the Federal Government that steps be taken for better co-ordination of these authorities with a view to winning the war, and to preparation for after the war.

To Meet After War Conditions.

The Union of Canadian Municipalities strongly urges all the Municipal Councils of Canada to appoint joint committees of Aldermen and Citizens to prepare for the new economic conditions that will arise after the war.

Food Commission for Canada.

The Union of Canadian Municipalities, assembled in Convention this day, in London, Ontario, respectfully recommend to the Federal Government the appointment of a Cost of Living Tribunal, or Commission, somewhat similar in principle to the Dominion Railway Commission, to control and regulate virtual monopolies of the necessities of life, with the authority and independence of a judicial tribunal.

That such Tribunal or Commission include in its jurisdiction all questions relating to prices of goods complained of by municipalities as monopolistic.

Conservation of Food.

Whereas the Conservation of food is a vital necessity for winning the war; and

Whereas the Dominion Government has issued certain Regulations for the Conservation of food; and

Whereas there appears at present to be no means of enforcing the said regulations throughout the country: Therefore be it resolved:—

"That in the opinion of this Convention it is expedient that the municipalities throughout the country should cooperate to the utmost in the present effort for the conservation of food, and that each municipality is urged to use the means at its disposal for the enforcement of the

Regulations issued from time to time for this important purpose."

Conscription of Wealth.

Whereas it is regarded as right and proper that each and every citizen of Canada should do equal service by selective draft, and,

Whereas if flesh and blood is conscripted, it must be self-evident that wealth, which is not nearly so vital to the nation's life, should also be conscripted.

Therefore be it resolved that this Convention of the Union of Canadian Municipalities urge upon the Federal Government the advisability of conscripting wealth along the lines followed in Great Britain at the present time.

A Message to Our Soldiers.

That the Union of Canadian Municipalities, assembled in public meeting, and representing all the municipalities of the Dominion, sends the following message to the soldiers of Canada at the front:—

Our hearts are with you, and with each one of you: we follow with the deepest sympathy your struggles, your contests and your sacrifices for us, and we rejoice in your successes: we shall not fail to send you the needed reinforcements and support: we pray that God may bless and sustain you through to a successful consummation of your sacrifices, and that you may soon return to places of life-long honor in our midst as victors in the Great Crusade: and our hope and desire is to help you to secure that position in civil life to which your services entitle you.

Furloughs for Our Soldiers.

That this annual meeting of the Union of Canadian Municipalities earnestly appeal to the Department of Militia on behalf of the gallant remnant of the First Contingent, that splendid body of men who left the shores of Canada nearly three years ago, and for more than thirty months have so magnificently upheld the honor and fame of Canada on the Western front, that, so soon as new forces can be sent from Canada to take their places, be given a furlough of not less than three months, with an opportunity to re-visit this country if they desire.

Equalization of Pensions.

Whereas the Canadian Army is composed largely of citizens taken from the ordinary walks of life. Therefore be it resolved that this Convention of the Union of Canadian Municipalities go on record as declaring for equal pensions for all soldiers of whatever rank, excepting in the case of professional soldiers.

To Increase the Pay of Soldiers.

That it is the unanimous opinion of the Union of Canadian Municipalities, in Convention assembled, that in view of the increased cost of living, it is necessary and advisable that the pay and separation allowance of all Canadian soldiers be increased to an amount double that at present paid.

That it is advisable that the Dominion Government take steps to grant, as far as possible, to all soldiers who have enlisted in the Canadian Contingents, and have served two years or over, a furlough of three months.

That a copy of this resolution be forwarded to the Government of the Dominion of Canada, with an urgent request that steps be taken without delay to carry its recommendations into effect.

Better Understanding Between the Two Dominant Races of Canada.

Whereas the friendly relations hitherto existing between the various provinces of this Dominion are now being jeopardized by certain immoderate statements and writings:—

It is resolved that: This Convention of Union of Canadian Municipalities expressing the constant desire of the thinking people of Canada to mutually extend to each other their friendly hand, earnestly urges the citizens of Canada to refrain from utterances either oral or written which might tend to divide into factions the people of this country thereby preventing them from working out the destiny of the Dominion.

Loans to Settlers.

Whereas it is expedient that effective regulations be established whereby settlers be financed under proper restrictions, so that they may become quickly and properly established as farmers, a goal which many of those without capital are now discouraged from attempting, and which a large number having made the attempt are unable to reach;

And, whereas such financing has been successfully put into practice in Australia, New Zealand and other countries, and even in a number of Jewish, Mennonite, and other special colonies in Canada itself.

Be it resolved that the Executive Committee of this Union be instructed to memorialize the Dominion Government with a request that steps be taken to formulate regulations to carry into effect the recommendations of this resolution.

Uniform Municipal Accounting.

That the Union of Canadian Municipalities notes with satisfaction the continued study of the question of introducing Uniform Municipal Accounting and Statistics by Mr. R. H. Coats, the Dominion Statistician along lines as recommended in the Union's Reports on Uniform Municipal Accounting and Statistics, and offers once more all the support in its power towards this greatly needed reform.

Municipalities to Control Their Local Franchises

Whereas it is desirable that the constitutional right of municipalities to control their own local franchises, should be protected against the abuse of Dominion Charters, by such corporations as the Bell Telephone Company, and others, and:

Whereas the Bell Telephone Company claims the power under its Dominion Charter to occupy real estate in any municipality for the erection of poles for local service, and denies the right of the Local Councils to collect a fair commercial value in exchange for the use of such rights and privileges.

Therefore, the Executive of the Union of Canadian Municipalities is instructed to take such steps as many be necessary to effectively oppose the said pretensions, and in order to effectuate the purpose aforesaid, this Union of Canadian Municipalities respectfully request the Dominion Government to have such legislation enacted as will define the absolute right of the Municipal Councils to control their streets, and compel the Bell Telephone Company of Canada to pay to every Municipality whose streets they use such sums as may be agreed upon between them, or in the absence of such agreement such sum as the Board of Railway Commissioners shall fix and determine.

Canadian Bureau of Information.

That this Convention of the Union of Canadian Municipalities approve of the movement to establish a Can-

adian Bureau of Information, and endorses the resolution passed by the meeting at the University Club of Montreal on March 5th, 1917, and that the President of the Union of Canadian Municipalities be a member.

Lignite as a Fuel.

That in view of the high cost of fuel in the different provinces, the Dominion Government provide the sum necessary for demonstrating the commercial possibility of the briquetting of Lignite, as recommended by the Advisory Council for Scientific Research, and that the commercial preparation of Peat be also encouraged.

Nationalization of the Railways.

That, whereas the Honorable, the Finance Minister, on Wednesday, August 1st, presented to the House a proposal providing for the taking over of the Canadian Northern Railway as a public undertaking and paying for the common stock of the Company on a basis to be arrived at by arbitration.

And whereas the Honorable the Finance Minister on the same date presented to the House a proposal to loan the Grand Trunk Pacific Railway the sum of seven and one-half millions of dollars.

And whereas several public bodies representing the Municipalities of the Province of Ontario have passed resolution disapproving the granting of any further public aid to private railway corporations as being in direct opposition to the recommendations of the Royal Commission as well as being contrary to the will and best interests of the people of Canada,

And whereas in our opinion the taking over of the Canadian Northern Railway without including the Grand Trunk and the Grand Trunk Pacific would absolutely defeat the objects of Nationalization by continuing two disjointed inadequate systems which would make economy of operation and efficiency of administration absolutely impossible and would in nowise provide for any improvement to the lamentable condition of traffic congestion from which we have suffered in the past.

Be it therefore resolved:

That this meeting of Municipal representatives from all parts of Canada does strongly urge the Dominion Government to at once take such action as will provide for the Nationalization of the Grand Trunk and the Grand Trunk Pacific Railways now along the lines suggested in the Drayton-Acworth report—to be administered by a permanent Board of Trustees absolutely divorced from political control, for the benefit of all the people of Canada thus providing for continuity of effort, economy of operation, efficiency of administration and the elimination of needless expenditure in the unnecessary duplication of lines at a time when all the resources of the nation should be devoted to winning the war.

Bonuses to Industries.

Whereas the Union of Canadian Municipalities assembled in Convention, are of the opinion that in the interests of Canadian Municipalities in general, the giving or the lending of money, or guaranteeing of bonds to concerns offering, in return for such gifts or loans, to locate industries, is wrong in principle and should be legislated against,

And whereas many municipalities have in the past bid, and are at present bidding, against each other to secure industries, instead of standing together against a force that has not always the interests of the various municipalities at heart,

Be it resolved, therefore, that this Union petition the Provincial Governments of the Provinces of Canada to enact such legislation as shall make it unlawful for any municipal corporation to grant any concessions other than the usual exemption on fixed assessment, water rates, etc.

Control of Water Powers.

That this Convention of the Union of Canadian Municipalities desires to urge upon the Governments of the Provinces of Canada to take such steps as will reserve a sufficient supply of water power to meet the needs of the municipalities, and prevent any person or private corporation from diverting any such water powers without first providing for the needs of the Municipalities.

The full Report of the Proceedings will be published in the October number of the Canadian Municipal Journal.

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Street Improvements

W. A. McLEAN.

Mr. W. A. McLean, C.E., the Deputy Minister of Highways for Ontario, recently had published a very comprehensive report on the street improvements that have taken place in Ontario. The value of the work is not only in its compilation—though in that it shows the vast strides made in Ontario urban municipalities in road construction during the last few years—but also in the suggestions for further improvement. These suggestions, which are based on the author's experience and knowledge, are equally applicable to any other part of Canada, and as Mr. McLean is always ready to help in the cause of "good roads," we would suggest to the urban councils that they see that their engineers secure a copy of the report, which cannot help but prove useful. Below is Mr. McLean's introduction to the report:—

Villages, towns and cities grow up at the place where roads meet; at the cross-roads, or where highway meets railway, and where railway meets railway or water route; at the focal point of transportation and traffic. The road intersection is the nucleus from which village and city are developed. Roads and streets constitute the primary framework of town growth, and too much importance can scarcely be attached to the road and street in all civic planning and organization.

The supervision of street improvement and maintenance is a function common to all village, town and city councils. Municipal works and services are many and varied, including water supply, sewers and sewage disposal, health protection and sanitation, parks, fire protection, street cleaning and sprinkling, garbage collection, street railway management, public baths and play-grounds, municipal franchises, bridges, surveys and town planning, assessment and planning municipal finance.

The complexity of municipal services is nearly as great for a town as for a city. The city requires large works, but there is proportionately a great amount to spend upon them. Towns require waterworks, sewers, sewage disposal plants and well designed streets, but they have to be obtained for a less expenditure—and the greater economy very often demands proportionately greater skill. The planning of a town in all these respects should, as far as practicable, be undertaken as one work, not as a series of disconnected sections. Just as a house is now planned with water service, wastepipes, sewer connections, and electric wiring, considered in connection with foundations, walls and partitions, so the more nearly a town's services can be dovetailed into the one system, will there be less future expense when these are installed. The tearing up of pavements to lay sewers, water and gas mains is one of the common results of unsystematic methods.

While many municipalities may not be concerned with waterworks, water purification, sewage disposal, electric lighting, power and gas supply, there is no village so small, but is concerned in some degree with its public street or streets.

The improvement of streets in a village, town or city should not be taken up as a series of independent patches, but should conform to a broad, general plan of improvement, in which each unit will have its place, and which will ultimately produce a complete scheme of development for the entire municipality. It is not suggested that street paving in any municipality should be taken up and completed throughout as a continuous work in one or two years. Street improvement in a town or city can rarely be carried out as one work; but is a matter of growth, extending over a period of years; a single street, or even one block at a time. But whatever the rate of construction, it should be in conformity with a broad plan of improvement to be followed as far as possible by succeeding councils.

Street Expenditure.

The aggregate amount spent on streets is very large. The drain is yearly and continuous. Ratepayers as a rule do not realize how important is this phase of municipal management from a financial standpoint. In spite of considerable expenditures, numerous municipalities have little to show for the outlay. Fearing criticism, many councils hesitate to obtain the advice of an engineer experienced in this branch of municipal service. Money is spent year after year in half-way measures, in "old ruts" with little or no permanent return. That municipality is fortunate which has to-day secured thoroughly improved streets without having first made a large expenditure, or accu-

mulated a considerable debt with little or nothing of permanent value to show for it. The large debts with which cities and towns in Ontario are sometimes burdened, are due not so much to the assets actually provided, as to the ill-advised and half-way measures so often followed up and "scrapped" to give place to the work which should have been done in the beginning.

Street improvement is the object of considerable expenditure in many towns and villages. In some cases substantial work has been obtained for the outlay. In others, comparative failure has resulted. Some have made an ambitious attempt to construct well-designed streets, with curbs, and metal or pavement from curb to curb. Others have adopted a less expensive design seeking only a type of road that will prevent impassable conditions of mud in autumn and spring. Others seem to feel that when roadways have been built, no further expenditure for repairs is needed, while some approach the matter from the opposite view-point and hope to obtain satisfactory streets by merely dumping stone or gravel in spots where the mud becomes deepest—a more or less habitual scheme of patching.

Estimates of cost are subject to a number of qualifications. One street may, in appearance, when completed, be exactly similar to another, and yet the cost of the work in one case has been twice that of the other. Differences in amount of grading and earth-work may be a reason. A deep ravine, the haulage of earth to widen the roadways, or the moving of earth to straighten the street, may account for a considerable sum. The excavation of clay and boulders is more costly than the removal of sand. Length of haul for stone or other materials composing the road will make a marked difference. Wet weather disorganizes the work and adds to the cost, while the rate of wages varies from season to season.

But the most important factor, one which is most commonly ignored, is the efficiency of supervision. The duty of the engineer is to design the work, give lines and levels, prepare plans and specifications and provide inspection to see that the construction is in accordance with them. Good service in this respect is essential, but is not always a material factor in the cost. The point at which money is most often lost when the work is carried on by day labour, is in neglect to provide a thoroughly competent construction manager, a man experienced in, and conversant with, the organization of labour to produce the desired results expeditiously and with the "least motion." Under an inferior superintendent men may fritter away their time, teams may work at half their capacity, machinery be out of order and idle—all tending at times to unnecessarily increase the cost of the work. The management of the work is rarely the duty of the engineer. If a municipal council has not the necessary construction manager at their disposal, the work should be let by tender, throwing the onus of good management upon the contractor, who will work under the supervision of the engineer and an inspector appointed by the engineer.

The Street Plan.

The manner in which streets are laid out is a determining factor in many details of a city's welfare. Natural advantages of a situation, by poor street location, may be lost or even converted into obstacles; while on the other hand, apparent obstacles to development, if wisely considered, may be converted into advantages by a suitably arranged street system.

The favourable situation of a business thoroughfare, the accessibility to the residential section, the opportunity for factory and industrial sites, the convenience of railway and shipping facilities, easy drainage, are intimately bound up with the arrangement of streets, which may tend to the congestion of traffic, or may tend to traffic diffusion. A large economy (or waste) of time and money may, for all future, be dependent upon the initial plan of streets.

Motor traffic is making an unprecedented demand upon the carrying capacity of city streets. The number of motor cars in the Province is growing rapidly. In 1904 there were registered 535 cars; in 1914, 31,724 cars; in 1915, 42,346 cars; in 1916, 54,375 cars. In 1917, it seems probable that the number may exceed 65,000, and 100,000 cars is a possibility in the not far distant future. This traffic will, proportionately, converge on city streets; and to meet its needs, main diagonal thoroughfares will be found a most effective solution. The majority of urban municipalities in Ontario have been subdivided on a rectangular system.

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The Canadian Highway

The Island Automobile Association of B. C. recently sent a draft of a National Highways Bill to Ottawa, to take the place of the suggested Highway Improvement Act, which we publish below.

An Act to Provide for the Construction of the Canadian Highway.

Whereas, the Highways of Canada constitute an important part of the facilities which are necessary for an efficient national scheme of transportation and inter-communication; and, whereas, the Provinces, counties, districts, municipalities and cities of Canada have at their own cost constructed many roads throughout Canada, without any assistance whatever from the Dominion Treasury (excepting in rare and comparatively insignificant instances, notwithstanding that the road users of Canada have contributed largely to the Dominion revenue through the taxation of Customs tariffs and in other direct and indirect ways; and, whereas, one of the inducements that assisted in causing the Colony of British Columbia to enter Confederation was "the immediate construction of a wagon road" from Eastern Canada to the Pacific, to be followed, "with all possible despatch with a railway from Esquimalt"; and, whereas, the wagon road has never been constructed, but to the contrary, a large portion of the Colony of British Columbia's most important wagon road was destroyed during the construction of the railway, and much of the wagon road's right-of-way occupied by the railway, and no other wagon road whatever provided to take the place of the road destroyed, isolating the road system of the interior of British Columbia from the road system of the Pacific Coast; and, whereas, with the increasing progress and development of Canada it is desirable and expedient that the highways systems of the various Provinces shall be linked together by means of a road extending from Glace Bay, near Sydney, Nova Scotia, to Cape Scott, upon Vancouver Island, the said road to be known throughout the length as the "Canadian Highway"; and, whereas the linking together of such road would do much to strengthen the spirit of Canadian unity; and, whereas, the utilitarian value of the Canadian Highway would be very great in assisting the settlement of districts now remote and isolated; and, whereas, the linking together of the Canadian Highway would assist in providing employment for returned soldiers and others at the conclusion of the war; and, finally, whereas the Canadian Highway would form a monument to the fiftieth year of Confederation, and a memorial to the nation's fallen soldiers; therefore, His Majesty, by and with the advice and consent of the Senate and the House of Commons of Canada, enacts as follows:—

- (1) This Act may be cited as the Canadian Highway Act.
- (2) In this Act the word "Minister" means Minister of Railways and Canals.
- (3) In this Act the "Canadian Highway" means a roadway extending from Glace Bay, near Sydney, in Nova Scotia, as directly as possible to Quebec City, thence to Ottawa, Winnipeg, Vancouver City, Nanaimo, and Cape Scott, upon Vancouver Island; the route from point to point to be approximately as direct as possible and taking into due consideration engineering necessities and the desirability of passing through districts now isolated and comparatively undeveloped.
- (4) Ten million dollars shall be appropriated for the purposes of this Act; hereinafter referred to as the "Fund."
- (5) This fund shall be divided amongst the several Provinces on conditions hereinafter set out and in proportion to the estimated mileage in each Province of the Canadian Highway, excepting that the total be reduced by an amount sufficient to provide Prince Edward Island with a sum equal to one-half the amount received by Nova Scotia.
 - (a) The apportionment and division of the Fund in accordance with the conditions immediately hereinbefore set out, and based upon the estimated total mileage in each Province, shall be made by the Minister within fifteen days of the final passing of the Act by the Senate, and the Minister shall immediately notify each Provincial Government of the several amounts of such apportionment and division. In the event of any Province being dissatisfied with its apportionment, then an immediate protest to be lodged with the Minister, by the Government of the Province affected. Thereupon the entire matter shall be referred to the Board of Railway Commissioners, who shall

examine the matter, to such extent as the Board may consider necessary, and make a reappointment and re-division to the best of their ability, or confirm the figures of the Minister. The decision of the Board of Railway Commissioners to be final and to be made within thirty days of the lodging of the protest by any Province, with the Minister.

(b) The funds turned over to Prince Edward Island to be used by the Provincial Government for the construction of any main trunk highway or highways, that the Provincial Government may see fit.

(c) With the remainder of the Provinces, the respective share of each Province to be forthwith remitted to and turned over to the Government of each Province, on the expressed condition and understanding that it is to be used solely in connection with the linking together and improving the Canadian Highway, and the Government to furnish the Minister with an assurance to this effect.

(d) The Government of each Province to also furnish the Minister with an assurance that no portion of the grant will be used for the purchase of right-of-ways, or for the payment of damages of any description; nor that, in any one instance, will any greater sum than five thousand dollars be expended from the said Province's share of this fund towards the construction of any one bridge; and that no portion of the grant shall be used to defray any portion of the ordinary office, or permanent staff, administrative expenses, of the Highway Department of the said Province.

(6) Immediately upon the passing of the Act by the Senate, the Minister to extend to the Government of each Province an invitation for one or more of the officials of each of such Provinces to attend a conference, at Ottawa, for the purpose of an exchange of ideas amongst the said officials, as to the construction methods, widths of right-of-ways, maximum grades and other details, in the endeavor to mutually arrive at, as nearly as possible, uniformity in the construction methods to be followed, but, however, fully realizing the right of the Road Department of each Province to finally determine the construction methods and specifications to be followed within their own Provincial boundaries.

HOW A CITY LIBRARY CAN CO-OPERATE WITH THE SCHOOLS.—(Continued).

are sent out to the various school, branch, and deposit libraries. After being sent out, reports are received from principals and teachers as to the suitability for the purpose. Principals and teachers are also asked to send into the library any suggestions as to what they want. This method of securing new books combines co-operatively the labors of both the library and the school people, and draws upon the best information and experience of each.

The library also secures information as to the children's reading in its "Annual Conference on Children's Reading." Both teachers and parents are represented upon the programme, the discussion touching upon the reading tastes of children, reading needs, suitable books, amounts of different types of reading covered by different classes of children, relative values of different types of reading, and the like. To make the discussions concrete and practical, the Conference limits itself each year to a specific portion of the reading field. For example, the Conference this year discussed "Love Stories for Children," and last year, "War Stories for Children." This type of conference brings together all of the people interested in promoting and improving children's reading, and prevents any group from working in isolation from the others.

After school days are over the most important continuing educational influence — for we are learning that education must be a life-long affair—is the reading habit in those who have been so fortunate as to acquire it. Education through library reading, therefore, when full and effective in ways evident in frequent cases in this city, is a type of education that does not therefore lapse when school days are over.

We have but one recommendation to make: Let the work grow and expand and continue along the lines already provided for by the Board of Education, the Board of Library Commissioners, and the professional people within both organizations.

British Municipalities on War Service

By JOHN CABBURN, Associate Editor "Municipal Journal" of England

By special request, Mr. John Cabburn, a well-known English municipal writer, who is associate editor of the "Municipal Journal" of England, and the municipal correspondent of the Exchange Telegraph Company, one of the leading news agencies of the Old Country, sends the subjoined article concerning the assistance that is being rendered in manifold ways to the British Government during the war by the local governing authorities:—

A partial list of these Municipal activities comprises:

- Campaign for War Loan.
- Arrangements for Purchase of Savings Certificates by Citizens.
- Cultivation of Garden Lots.
- Establishment of Piggeries and Chicken Farms.
- Prevention of Waste.
- Instruction in Scientific Farming.
- Prevention of Disease.
- Military Tribunals.
- Food Control.
- Supplying Road Battalions for France.
- Instruction in Munition Working.
- Municipal Food Kitchens.
- Warnings of Air Raids.
- After War Preparation.
- Housing.
- Development of New Industries for After War Conditions.

Every municipality of Great Britain, great and small, is on war service. Things purely municipal are going on as usual, but only as far as is imperative for the necessities of the community. Works not deemed necessary for the winning of the war have been abandoned, so that the energies of local authorities can be free to concentrate on those things which directly or indirectly will aid the Government in the prosecution of the war. In a sentence, it is the war and nothing but the war. Schemes for improving the amenities of cities, towns and suburbs have been suspended, and there is "nothing doing" in the ordinary municipal sphere. The situation is now realized. The crisis has been reached, and municipal work must go to the wall till the war is over. The Government puts an embargo on schemes which are not regarded as of national importance, and even if local authorities were prepared to embark upon municipal undertakings, finance would forbid, for money costs $5\frac{1}{2}$ or 6 per cent., a prohibitive rate. Moreover, loans are not sanctioned without the consent of the Treasury.

The National Relief Fund.

Times have changed in the course of the war with kaleidoscopic rapidity, and nothing is more surprising than the position now compared with that of the early days of the war. Then, everybody anticipated that there would be great distress, and authorities rushed out relief schemes to aid the unemployed. A National Relief Fund was organized, and local authorities appointed committees to administer the funds to persons in distress. But, in the course of a month or two, instead of dire poverty, there was record prosperity. The rush to the ranks depleted the civilian working population to such an extent that there was no reason for anyone to be out of work. Even aged paupers from the workhouses were able to bid farewell to the poor law, and find lucrative employment. Consequently, the National Relief Fund was closed down, and ever since the Town Hall committees have had no poor persons to relieve. Hence, too, the local authorities were able to give up their schemes for finding work for unemployed. An indication of the prosperity of the masses since the war is shown by the fact that whereas the London County Council, which used to supply meals daily to from forty to fifty thousand necessitous school children—the total number of

children in the London schools is 750,000—now only has to feed about ten thousand.

British War Loan.

There was, however, soon plenty of other work for the authorities. The value of local government in connection with war service was demonstrated in striking manner when the last war loan was issued. They all organized campaigns to rouse the inhabitants to the need of subscribing, themselves setting a good example by investing. Having had to abandon so much municipal work many of them had accumulated funds in hand which were promptly put in the war loan. The London County Council invested seven million pounds. The City Corporation put in two millions, whilst even many of the humble parish councils deemed it a national duty to have a few hundreds in the loan. The great achievement, however, was by means of War Savings Committees, by which the people were able to get war stock by weekly payments. The authorities computed the likely total and borrowed from the bankers, subsequently selling it in little bits to the people, who paid by instalments. Undeniably, this part of municipal work in the war was a huge success and fitting tribute was paid to the municipalities by the Government, which, ever since, has not failed to ask the local authorities to render assistance in various war winning ways.

Garden Lots.

Notable aid was given when the submarine menace was revealed. Powers were given to local authorities to provide allotments so that every bit of vacant land might be cultivated. Now there are thousands of acres under cultivation as a result of municipal activity. The authorities arranged to provide seed potatoes, manures and other things needed, and most of them even gave lessons to enable those who had never held a spade before to till the soil. Now they are providing spraying machines so that the cultivators may keep down blight and disease. And, to save crops from destruction, they are campaigning against rats and sparrows, even paying cash for sparrows' heads and rats' tails. In some parts inhabitants can even borrow the services of a municipal rat catcher. There was some bungling at the beginning, but, curiously enough, this was mostly by the Government departments, and not the municipalities. For example, the Government, which is responsible for Richmond Park, seized it for cultivation, robbing agriculturists in the vicinity of machines and men for the purpose. But the spectacular effect was good, though common sense would have left the agricultural implements and men where they were. In London there are allotments in the parks, and a specially useful feature is the model allotments, cultivated by trained gardeners to give ideas to amateurs as to the right way to make the most of the land. The powers given to local authorities were plenary. They can seize what land they require, whether the landlords are willing to let it or not, and can even take possession of suitable back gardens if there are possibilities in the way of increasing the production of food. Any expenses in connection with land cultivation, by the way, is borne by the national exchequer.

Municipal Piggeries and Chicken Farms.

Some authorities have established municipal piggeries, and at Deptford, in London, the Council has made pig styes in a few railway arches, and hopes for a profit of \$10 per pig. In many districts dustmen collect waste suitable for pig feeding, and this is usually given free to people who keep pigs. The stringent by-laws which prevented cottagers from keeping pigs near dwellings have been relaxed and in due course villagers will be able to let "the gentlemen pay the rint," like the Irish peasants do.

People were enjoined also to keep chickens, and the municipal authorities forthwith started model chicken houses and runs in the parks. But when the Government found that chickens wanted corn, it advised them to refrain from keeping chickens, and so municipalities have ceased their enterprise in this direction.

Prevention of Waste.

In the way of waste prevention, great things have been achieved municipally. Paper collected from households was once burned. Now it is pressed and baled and sold for anything from \$15 to \$25 a ton. Old tins are salvaged and yield a good revenue. Even sewage sludge is made into manure in some districts. To save the cost of collecting refuse, people are asked to burn as much as possible, so that there shall be less for the dustmen to collect and in this way much money has been saved, and authorities have been able to carry on with their depleted cleansing and sanitary staffs.

Scientific Farming.

County Councils have done great service by establishing war agricultural committees under the direction of the Board of Agriculture for the special purpose of advising farmers to get the most from their farms. Experts have given hints as to the best crops, whilst careless farmers have been prevailed upon to be scientific in their methods and thereby increase the yield of their land.

Prevention of Disease.

When war broke out, authorities feared that there would be epidemics of disease, but this fear has proved unwarranted. True there has been a serious outbreak of measles, but otherwise the health of the country has been maintained all throughout the war, in spite of the fact that so many doctors and nurses have been transferred from civil to military work. Indeed, wonderful progress has been made during the war to stamp out disease. Now, the value of child life is recognized, and infant welfare centres have been created everywhere, and authorities compelled to employ lady health visitors. There are now about a thousand, and this number will be doubled the moment it is possible to secure the services of a sufficient number of qualified persons. As so many women are now working, it has been found advisable to inaugurate municipal creches where babies can be left during the day or night. The war has made people look facts honestly in the face, and so for the first time the danger from venereal diseases is recognized, and the local authorities are all ordered to have treatment centres so that all those who suffer from the hidden plague can get free and secret treatment. The authorities pay one half of the cost, the other moiety being borne by the Government.

Municipal Military Tribunals.

In the volunteer days, authorities did the work of recruiting. In London there were Mayors' Battalions, but conscription put an end to that municipal activity. However, the local authorities still had plenty of work, for they were appointed to form the Military Tribunals to hear and deal with claims for exemption. And they are still dealing with claims. The Tribunals mostly sit in the evenings, and the Town Hall officials do the administrative work, the actual cost of which is repaid by the War Office.

The difficulties of municipalities have been great owing to depletion of staffs by enlistment, whilst the Government has found it advisable, when in need of good men, to borrow officials from the local authorities. Women, of course, have been employed in various capacities, even as scavengers, and road menders. In all spheres of municipal activities there are now women—librarians, town criers, minute clerks, and so forth. On all the municipal tramways it has been necessary to have women conductors, and now they are being introduced into gas and electricity works.

Maintenance of Roads.

Roads have deteriorated since the war, and will deteriorate still more. Wood cannot now be obtained, and in this connection a rather strange discovery was made in Poplar, one of the London boroughs, a little while ago. In the early days of the war there was a scarcity of granite, and one of the roads leading to the docks had perforce to be paved with wood instead. Although the traffic is so heavy, the Borough Surveyor has discovered that the wearing capacity of wood is greater than that of granite, despite the universal belief here that granite is the best surface for roads with exceptionally heavy traffic.

Many municipal innovations have proved imperative. Owing to the dearth of plumbers, and, at the same time, to the need of preventing waste of water, it has been found advisable to get municipal workmen to fix new washers to householders' taps, and free of charge, too.

Municipal Food Control.

Food rationing is another feature of municipal work, though at the moment it is confined to campaigning in favour of persuading people to eat less. Some local authorities, however, have already been asked to arrange for distribution of foodstuffs, and now a scheme is being introduced for them to organize the sale of coal, so that the poor may be sure of getting their requirements. For some time a few municipalities have been undertaking the sale of coal to the poor. The Government looks to the local authorities to administer the many food orders. They have to see that maximum prices are not exceeded, and that bread, flour, etc., are sold in strict accordance with the orders of the Food Controller. In this connection they have, for the first time, been able to insist upon tea being sold by net weight, and that a quarter loaf shall weigh precisely four pounds. To think a European war should have been necessary to ensure a reform of this character!

Municipalities Supply Road Battalions for France.

In actual war work the municipalities have provided Road Battalions recruited from their officials and workmen, and which made the roads in Flanders so that the advancing armies can move more conveniently and get the big guns quickly forward. Many surveyors and engineers are in these Road Battalions, and every man was formerly working on the roads in England. The result is that the Battalions needed no training, but were able to "take the field" fully equipped and prepared for doing their bit in the war. Various authorities of course, had steam rollers, carts, engines and such like road materials commandeered, but as the Government paid good prices the materials were handed over with promptitude.

Centralisation of Lighting Systems.

Rising prices have affected municipal authorities. Every tramway has increased its fares, and London, which made such a fuss of its halfpenny tickets, has at last been compelled to abolish them and have a penny for a minimum fare, though children are still permitted to travel at half price. Gas prices have increased by about one shilling a thousand cubic feet, and electricity is also costing much more. The gas undertakings have been of direct assistance in the war by producing residuals necessary for munitions, and in this connection the Government has now arranged that the gas standard shall be illuminating instead of calorific. Some of the electricity concerns are linking up with a view to economy and schemes are in view for combining the undertakings in different areas. Roughly, London has twenty municipal and twenty private company electric light concerns, when it is known that there would be economy in one bulk supply scheme. This was suggested long before the war and ignored. The war has proved the wisdom of centralization.

Local Authorities Teach Munition Making.

A fine record has been made by authorities in training persons for munition work. Schools have been opened where, in from three to six weeks, people with no previous experience, have been made qualified to undertake munition work of various kinds. It is indeed to this municipal activity that the Government has been able so vastly to increase the output of munitions. In minor ways a great work has been accomplished. Authorities have made arrangements for the storage of the furniture of men who are called to the Colours, and do not wish to keep their houses.

Municipal Food Kitchens.

Lately, municipal food kitchens have been opened, so that people can get food at reasonable prices. Here, voluntary assistance is mostly secured, and the meals are sold to people to take away to their own homes. There is, therefore, no competition with the ordinary restaurants.

Warnings of Air Raids.

The very latest municipal duty is to give warnings of impending air raids. In London, the Government sees to this, but elsewhere the local authorities do all that is necessary, and in different ways. Some prefer to announce the coming of the Germans by means of shrill syrens, whilst others display red flags.

In some parts authorities have had to deal with questions of war damage, but on the representations of seven hundred municipal authorities, the Government has just promised to accept responsibility for war damage, and the

authorities are being consulted with a view to a scheme being prepared.

No Municipal Elections Since the War.

There have been no municipal elections since the war started. The "old gangs," as they are always termed, remain in office, but there is an understanding that no party matters shall be dealt with. Should vacancies occur, they are filled by co-option, and here, too, the party truce is observed, a Progressive being chosen to replace, a Progressive, and a Municipal Reformer to replace a Municipal Reformer. If this is undesirable, they can elect one who is independent. The women, taking advantage of this arrangement, thought that it offered them an excellent opportunity for securing representation, but alas,, their nominations have been mostly rejected, the argument being that as they did not, when there were elections, secure the confidence of the electors, it was not right that the elected representatives should co-opt them now. Yet since the war the duties of the municipalities have been essentially domestic as it were, and concerned with affairs upon which the feminine voice should be of great value.

Changes in Municipal Government.

The war has had the effect of changing the system of local government in one respect. More of the work is now being done by committees than was hitherto the case. This was necessary because, owing to the stoppage in the early days of the war of much municipal work, fewer meetings were decided upon, and naturally the business came to be left to the various committees. The London County Council, which once met weekly, now meets fortnightly, and much business which used to be done in public is left to committees, which report what they have done. Many provincial municipalities have adopted a similar policy, and it is probable that it will continue after the war, for it is recognised that before the authorities were dealing in open council with many little matters more suitable for the committee room. The war has had a useful effect in eliminating party influence in local government. There should, of course, be nothing political in local administration, but yet most bodies are elected on party elections, and it has happened that if, say, there is a proposal for a new drain, one party will vote for it and the other against.

Public Libraries Maintained.

Public libraries have been maintained, but they once were threatened. Now the tendency is to make greater use of them, especially in the direction of increasing their use to the trading and commercial community. Already some authorities have added commercial sections to their libraries. Owing to labour difficulties many branch libraries have been closed. Many libraries have ceased purchasing fiction, and some have closed the fiction departments.

A NEW PHASE ON CONVICT ROAD WORK.

The advantage of having a trained organization for using convicts on road construction is well shown by a recent instance where a road was greatly needed for military purposes. This particular road is a link in the system designated for improvement by the state highway department, but money for the work had not been appropriated. It is very necessary for the service of one of the camps now under construction and funds for its improvement were available from the appropriation for that camp. The work is greatly aided, however, during the prevailing scarcity of labor in that neighborhood by the fact that a large number of convicts can be assigned to the job under foremen accustomed to manage such labor. The help to the nation in an emergency which this training in convict road building affords ought to be taken to heart by the authorities of those states which have not made a good trial of such highway construction. It is entirely successful, not only in the South but also in California, Washington and Colorado. If other states will follow the lessons of the experience gained there they may expect equally good results, and their road building programme need not be seriously checked. Incidentally this use of the convicts, making them an asset instead of a liability of the state, is strictly in line with the urgent call for the utmost economy in the administration of public affairs at the present time.—Exchange.

Local Authorities Administer War Pensions Act.

Recently the work of administering the new War Pensions Act has been thrown on the municipalities, and as the members know local conditions, they can be relied upon to fulfil the new obligation with credit.

Preparation for After-the-War.

Though no one now ventures to indicate when the war will be over, there is a tendency to make preparations for the future. The great "after-the-war" problem will be housing. No houses have been built during the war, and it is computed that there is a shortage of half a million houses. The local authorities will have to aid in the provision of housing accommodation, and they are now being required to let the Local Government Board know local needs in this respect, and also to get plans ready for developments the moment the time is ripe. It is recognized that with the cost of money and the high prices of material and labour, local authorities cannot provide housing schemes to pay. The Government agrees with this view, and is promising to render aid, though at the moment the nature of this aid has not been revealed. Nevertheless, the first great work of the municipalities after the war will be to provide places somewhere, somehow, for the people to live in. The other day a deputation from municipalities saw the President of the Local Government Board, and the hint was thrown out that the huts now used for the soldiers might be utilised for housing. One member of the deputation declared that wooden huts were not good enough, whereupon Lord Rhonnda, the President of the Board at that moment, quietly observed that Canada had plenty of wooden houses.

Developing New Industries.

Already many municipalities have appointed what are called Town Development Committees, with the idea of bringing new industries to the localities after the war, and it is obvious that when the war does come to an end that there will be great enterprise, municipally, in order to get a share of the industrial prosperity that seems to be expected.

Sufficient, then, has been written to indicate the multitudinous and miscellaneous war activities of British municipalities; and it may be added that it is apparent that when the war is over there will be still more duties for them to undertake. There will be much reconstruction, and indeed, the Government has already appointed a departmental committee to go into the general subject of local administration. Not long ago the London County Council advocated the abolition of the Boards of Guardians which look after the paupers. The future will be with the municipalities.

INSPECTION OF ASPHALT PAVING.

The Milton Hersey Company, of Montreal, Winnipeg and New York, are rendering a specialized service in connection with asphalt and tar road and street paving work, to the Quebec Government, the City of Quebec, the City of Montreal, the City of Woodstock, Ontario, and others. They are to have charge, as specialists, of the asphalt paving work on the Quebec-Montreal Highway. This work is expected to start in the very near future; the asphalt paving plant for making the surface mixture being already in process of erection.

The service that the Milton Hersey Company renders, which is charged for, in most cases, on a square yard rate basis, included consultations, reports on proposed materials and mixtures of materials, reports on materials as delivered, investigations when necessary, and routine inspection and testing, including the services of trained inspectors stationed at the work.

Mr. Paul E. Mercier, C.E., Chief Engineer of the City of Montreal, first availed himself of this expert service a little over a year ago; and to-day he very highly recommends such a service to all cities doing asphalt work. The Milton Hersey Company has a staff of several specialists especially engaged to take care of the different branches of this work, some of whom are men of extensive practical experience, and others, men of high technical training. Mr. Charles A. Mullen is the Director of the Paving Department, and Mr. Walter C. Adams, B.C., Sc., is Chemical Engineer.

NEW ROADS IN FRANCE.

Hundreds of miles of the smooth, white macadam roads of Northern France will remain for many years after the war as a real memorial to the devastated towns the Germans left after their retreat in the spring.

All over Northern France the roads are being widened and resurfaced with stone and rubble taken from the wrecked houses of Peronne, Albert, Arras and countless other ruined towns and villages.

As fast as the British soldiers clear away the debris of the towns it is piled into lorries and distributed in heaps along the main roads. There German prisoners toil the day long pounding it into level patches, which the great steam rollers, many of them bearing familiar American names, grind quickly into smooth macadam for the business of transport.

The brick and stone of these old buildings make as good road material as could be obtained anywhere, and the work of the German dynamiters has been so thorough that much of it is crushed fine enough to need no further preparation.

The roads of Northern France always were excellent, but they never were better than to-day. The only complaint travellers had against them in the old days was that the paved strip in the centre was too narrow. That complaint cannot be made after the British highway plans have been completed, for all the main highways will be macadamized to a width permitting three broad gauge lorries to run abreast, and even the byways will have a paved surface wide enough to allow traffic to pass easily at any point.

Excessive dustiness is the only fault to-day, for war economics will not permit the use of precious oil on roadways.

There is little need anywhere in this district for straightening roads or altering routes, because the roads of Northern France mostly run straight as an arrow's flight. Most of the great highways were laid out in Napoleon's time by military surveyors, and their strategic value and importance always has been kept primarily in mind by the French Government.—Exchange.

WAR IN THE HOME.

Among the many curious letters received, the latest is an enquiry what to do about a family where war is raging to the detriment of the children. The father, it appears, is a German, and the mother a French woman, and they can't get along amicably when war news is discussed. Every time there is a victory on either side the trouble breaks out afresh. Ordered that no newspapers or magazines be allowed in the house until the war is over, and that discussion on this heated topic be absolutely banned.

STREET IMPROVEMENT.

(Continued from page 384.)

Main diagonal thoroughfares shorten distance, save time, and prevent traffic congestion.

The aggregate economy, and the diffusion of traffic produced by diagonal thoroughfares render them an important key to the traffic situation of the future. The more important cross or connecting streets may then be laid out as a series of rings; the entire system resembling a spider-web rather than the common "gridiron" plan of streets.

There are few cities of importance which to-day, if it were possible, would not make radical changes in the layout of their streets. Many cities, after labouring under a handicap for years, have been compelled to carry out expensive schemes of street-widening, and of opening new thoroughfares, to overcome the defects created by neglected growth. The lesson is obvious. Forethought and intelligent planning applied to the street system during the period of growth are fundamental to favourable urban development.

Every town and city desires to grow. Growth is the natural and healthful tendency of a prosperous community. The country road of to-day is the city thoroughfare of tomorrow. The present sparsely occupied suburban area may quickly become the residential annex, or the industrial district under development of the not far distant future. A city has an immediate interest in the territory over which growth may be anticipated, and in the location of main thoroughfares through that territory. The value of radial roads, the "spider-web" system, applies both to rural and urban conditions. Excellent examples of the former are to be found in war maps of France and Flanders; where main highways radiate naturally from all industrial centres.

WATER FILTRATION IN CANADA AND THE UNITED STATES.

In sending the following table to our contemporary, the Municipal Journal of the United States, Messrs. Burns and McDonnell, consulting engineers of Kansas City, stated that in 1900 less than two million people in the United States and Canada were using filtered water; in 1910 approximately ten million were so supplied, while at present about twenty million are using filtered water. The number of cities using such water in 1900 was fifty, and at present there are 781.

Water Filtration Plants in the United States and Five Provinces of Canada in 1916.

| States. | Municipal owned. | Private owned. | U. S. owned. | Total Plants. | Population covered. | Total filter capacity. |
|----------------|------------------|----------------|--------------|---------------|---------------------|------------------------|
| Alabama | 6 | 5 | .. | 11 | 250,000 | 27,035,000 |
| Arizona | .. | 1 | .. | 1 | 3,000 | 300,000 |
| Aransas | 3 | 6 | .. | 9 | 103,000 | 14,100,000 |
| California | 5 | 12 | 1 | 18 | 1,168,000 | 96,463,000 |
| Colorado | .. | 6 | 3 | 9 | 271,000 | 62,475,000 |
| Connecticut | 3 | 3 | .. | 6 | 175,000 | 31,000,000 |
| Delaware | 1 | .. | .. | 1 | 92,000 | 24,000,000 |
| Florida | .. | 1 | .. | 1 | 3,000 | |
| Georgia | 26 | 2 | .. | 28 | 345,000 | 64,350,000 |
| Iowa | 11 | 10 | .. | 21 | 276,000 | 53,700,000 |
| Indiana | 5 | 14 | .. | 19 | 553,000 | 92,950,000 |
| Illinois | 15 | 21 | 2 | 38 | 481,000 | 112,050,000 |
| Kansas | 29 | 4 | 1 | 34 | 218,000 | 42,726,000 |
| Kentucky | 1 | 11 | .. | 18 | 379,000 | 108,750,000 |
| Louisiana | 3 | 1 | .. | 4 | 406,000 | 52,500,000 |
| Maine | 2 | 8 | .. | 10 | 86,000 | 22,550,000 |
| Maryland | 5 | 5 | .. | 10 | 631,000 | 141,850,000 |
| Massachusetts | 10 | 2 | .. | 12 | 368,000 | 44,800,000 |
| Michigan | 4 | 5 | .. | 9 | 235,000 | 54,410,000 |
| Minnesota | 8 | 3 | .. | 11 | 380,000 | 62,928,000 |
| Missouri | 16 | 15 | .. | 31 | 1,021,000 | 203,432,400 |
| Mississippi | 4 | 1 | .. | 5 | 83,000 | 14,300,000 |
| Montana | 6 | .. | .. | 6 | 35,000 | 22,800,000 |
| Nebraska | 1 | 1 | .. | 2 | 6,000 | 600,000 |
| New Jersey | 13 | 19 | .. | 32 | 339,000 | 165,194,000 |
| New York | 41 | 20 | 2 | 63 | 2,859,000 | 198,194,000 |
| New Hampshire | 2 | 4 | .. | 6 | 51,000 | 6,614,000 |
| New Mexico | 2 | 1 | .. | 3 | 6,000 | 1,500,000 |
| No. Carolina | 32 | 7 | 1 | 40 | 315,000 | 47,455,000 |
| North Daota. | 6 | .. | .. | 6 | 42,000 | 8,836,000 |
| Ohio | 40 | 10 | .. | 50 | 2,025,000 | 510,055,000 |
| Oklahoma | 26 | .. | .. | 28 | 266,000 | 45,720,000 |
| Oregon | 5 | 5 | .. | 10 | 33,000 | 13,618,000 |
| So. Carolina | 9 | 6 | .. | 15 | 172,000 | 27,400,000 |
| Pennsylvania | 19 | 80 | .. | 99 | 3,436,000 | 860,361,000 |
| Rhode Island | 1 | 9 | .. | 10 | 316,000 | 33,000,000 |
| South Dakota | 1 | 2 | .. | 3 | 24,000 | 1,850,000 |
| Tennessee | 5 | 3 | .. | 8 | 125,000 | 23,500,000 |
| Texas | 16 | 3 | .. | 19 | 379,000 | 42,130,000 |
| Vermont | 1 | 2 | .. | 3 | 30,000 | 4,570,000 |
| Virginia | 7 | 6 | 1 | 14 | 205,000 | 29,150,000 |
| Washington | 2 | .. | .. | 2 | 8,000 | 1,500,000 |
| W. Virginia | 7 | 6 | .. | 13 | 122,000 | 25,000,000 |
| Wyoming | 3 | 1 | .. | 4 | 12,000 | 6,115,000 |
| Wisconsin | 6 | 5 | .. | 11 | 176,000 | 38,950,000 |
| Alberta, Can. | 3 | .. | .. | 3 | 62,000 | 12,000,000 |
| Manitoba, Can. | 1 | 2 | .. | 3 | 16,000 | 4,350,000 |
| New Brunswic | 4 | .. | .. | 4 | 7,000 | 2,000,000 |
| Sasatchewan | 4 | .. | .. | 4 | 40,000 | 10,400,000 |
| Quebec | 10 | 7 | .. | 17 | 539,000 | 166,250,000 |
| Totals | 443 | 330 | 8 | 781 | 19,545,000 | 3,659,771,000 |

It will be noted that the four provinces of Ontario, British Columbia, Nova Scotia and Prince Edward Island are not included in the above table, so that the figures, while instructive as showing the limited extent to which filtered water is used in the United States and Canada in the five provinces named, are not conclusive because of four Canadian provinces being left out. It will also be noted that for the population covered the filter capacity in Canada will compare favourably with that of cities in the United States, but still the population covered even in the five provinces is very meagre.

Civic Affairs in Manitoba

By H. E. MORTON.

The question attracting most attention just now in Winnipeg is the position in which the street railway finds itself by reason of the jitney competition. The city is in a quandary. Having in the first place courted and encouraged the jitneys, it now finds itself unwillingly countenancing a combine of doubtful quality and value, which threaten to destroy what has until now been an asset in utility and a course of considerable revenue.

The question is being asked: "Is the Winnipeg Electric Street Railway Company receiving just treatment from the city?" This question is especially pertinent at this time, when the City Council is considering the advisability of adopting a by-law providing for the bonding of the jitney men. The Winnipeg street railway has a franchise with the city of Winnipeg to operate the railway under certain conditions, and it has yet to be proved that the system is one whit behind that of any other city on the North American continent, or indeed that of any other city in the world.

The company in its franchise agreed to build and maintain that portion of the rail lying between the rails and eighteen inches on both sides of the rails; to pay the city a license fee of \$20 a car per year for every car it operates; to pay the city five per cent. on its gross earnings, and to pay the city taxes on the assessed value of the road in addition to which, while—which is the most important in this argument—the company is liable for all accidents where it can be shown the cause was the fault of the company or its employees.

In the first connection the company has assumed a charge of \$1,620,512 for the portion of the streets of Winnipeg which it has built. This, of course, means a saving in taxes to the property owners of this amount, as if the railway did not pay for this portion of the road the citizens would have to do so. The company also pays to the city annually, taxes, \$90,000; licenses, \$6,500; five per cent. on earnings, \$107,000; making a total of \$203,500. Besides this the company also carries a large number of civic employees free of charge.

As to the jitneys, these are allowed to run over what route they please, at what time and in what number they please, and in many ways act in which way they please, and considering the efficient service the Dinnipeg Street Railway is giving, and have given in the past, it is difficult to understand why the City Council allows such a one-sided competition to exist. If competition is at all necessary, which is very much doubted, then it would only seem fair to impose an equitable tax on both the jitneys and the company, also allow the company to operate in competition to the jitneys, charging like them, five cent fares without transfers.

Losing, as it is every day, it seems almost only a matter of time before the railway becomes disorganized. The value of its stock has decreased from about \$180 in 1915 to \$36 a share at the present time, and already it is mooted that the company will have to considerably reduce its service and discontinue its night service. In the face of such possibilities it seems that the city has no alternative left but to in some way adjust matters so that the present efficient service may be maintained.

A Panacea for Electrolysis.

Acting upon the instructions of the Winnipeg City Council, W. P. Brereton, city engineer, and F. A. Cambridge, city electrician, recently made a tour of the United States investigating the various systems of electric traction in cities south of the line. The result of their inspection just made known, was that they found in Cincinnati the entire street railway system within the municipal boundaries was worked on the double trolley system as compared to the single trolley in use in Winnipeg.

In a report, made to the City Council by H. Hunt, K.C., its legal adviser, there was enclosed the result of the findings of the engineer and electrician, in which the fundamental difference in the two systems was explained. Condensed, it was pointed out that whereas the single trolley system as used in Winnipeg and Montreal depended largely upon the rails of the tracks as the medium whereby the electric current is returned to the power house or substations (after having passed through the car motors) the double trolley system provides for the return current to flow back to its source by means of a second or return trolley wire.

The question now for the decision of the City Council is whether the company shall be directed to change from a single trolley system in order to eliminate electrolysis. Electrological action is claimed to take place in the water mains of Winnipeg, and in the sheathing of the lead-covered electric cables, and the city solicitor in advising the Council, draws attention to a possibility that some day during the period of some big conflagration, extra pressure may be exerted on the mains which may burst, perhaps throwing the whole waterworks system out of commission, or an attack may be made upon some of the main cables of the city light and power plant, and a portion of the electric system put out of commission. Should the city decide to call for the change, which will entail great cost to the company, then, under its franchise, three years' notice will have to be given.

To Investigate Gas Rates.

Troubles never come singly, and the street railway, in addition to the two already mentioned, now have to face an investigation into its charge for gas. P. A. Macdonald, Public Utilities Commissioner, has appointed Alfred E. Forstall, the well known New York engineer, who will investigate conditions with a view to advising the commission as to a fair standard for gas in the city. What the outcome will be it is as yet too early to predict, but the company, previous to certain concessions being recently made by the commissioner, claimed that it was losing on the average \$20,000 a month owing to the increase of coal.

No discount is to be allowed Winnipeg taxpayers this year for the prompt payment of their dues, as has been the custom for several years past; instead of this they will be expected to pay within three months, failing which they will be called upon to pay interest on the sum due.

A by-law to come into force with the taxes for which notices will be sent out on October 1, will provide that all such taxes as shall be paid prior to January 1, 1918, shall be paid at par, while upon all taxes for the year 1917, remaining due and unpaid after December 31, 1917, there shall be added a penalty. This will be added at the beginning of each month instead of the end, as might be expected, the additional sum amounting to three-quarters of one per cent. of such taxes as may be due. The measure is meeting with some opposition from big tax payers and realty agents, who intend voicing their objections at the next meeting of the City Council.

ONTARIO MUNICIPAL ASSOCIATION.

At the Annual Meeting of the Ontario Municipal Association in Toronto, August 29th to 31st, the principal features were the appeal of Col. W. Hamilton Merritt for subscriptions for airplanes from the municipalities, strengthened by a visit to the Airdrome at Leaside, where special flights were made for the visitors' benefit; and the decision, after discussion and two amendments, that the election of officers should be made by the whole Association, and not by a Nominating Committee, as has been the rule latterly.

Several papers were read, some of which provoked discussion that was curtailed because of the little time allowed for the meetings by outside attractions. Among them one by Rev. B. H. Spence, on "The Ontario Temperance Act, with Special reference to Municipal Responsibility and Revenue," opened up what was to many a new vista, that of municipal support to Hotels, as a necessary part of civic equipment. Mr. S. L. Squire brought out the tremendous value of roads and streets, by working out the area and value of land and improvement occupied by the highways and streets in the Province. Mr. Baker, City Clerk of London, took up a very important question, "The Co-ordination of Municipal Departments," necessary in Ontario where the real municipal government is added to by Commissions of all kinds.

Mayor Church gave his usual warm-hearted welcome, and the City of Toronto extended the hospitality of the splendid Exhibition, which the delegates appreciated.

Mr. S. H. Kent, City Clerk of Hamilton, and one of the oldest members of the Association, was elected President, and a very sincere resolution of regret was passed on the death of Mr. F. S. Spence, the Secretary, the appointment of the successor being left in the hands of the Executive.

The Type of Road

By RODMAN WILEY, State Commissioner of Public Roads of Kentucky.

When we speak of a road, the average man usually pictures in his mind a macadam road, perhaps because that was one of the earliest types of hard-surfaced roads. In early times, because of the almost impassable condition of the tributary roads, which necessarily limited the haul, very light loads usually passed over the main thoroughfares. But in recent years, when practically all roads have been more or less improved, it has been possible to load wagons to their capacities, and very little consideration has ever been given to the fact that the tires were entirely too narrow for bile, macadam roads served to accommodate the horse-drawn traffic, particularly before the advent of the automobile, macadam roads served to accommodate the horse-drawn traffic.

In recent years the kinds and volumes of traffic have changed, and yet the roads have not been designed to meet such changes in traffic conditions, and it is not an extravagant statement to say that hundreds of millions of dollars have been foolishly expended in building the wrong type of road.

It is just as unbusinesslike to build the same type of road in all localities as it is for a farmer to build the same type of fence to care for chickens, mules and hogs, or for a lawyer to use the same line of argument in the defense of every case, or for a dentist to use the same type of instrument for all dental work, or a surgeon to have only one instrument with which to perform all operations.

Railroad companies early appreciated the fact that the type of surfacing employed was a most serious problem if the road were to be economically run, and to-day, where the traffic demands, we see single, double, triple and quadruple lines of track; in some instances 90 lb. rails, in others 80, 70, etc., depending only on the loads to be carried and the maintenance costs involved.

The board of directors of a railroad company, however, intrusts such problems to its chief engineer. He alone recommends the number of lines of track, the weight of rail to be used, etc. Yet when it comes to highways the members of some board of commissioners or other governing body in the hands of which has been placed the handling of the county road funds, will decide among themselves what type of road should be built, in most instances being governed in their decision by the type that can be built for the least expenditure, their idea being to scatter the road fund throughout the county to serve what they are pleased to call their "constituents." Rarely, if ever, do they stop to think that in most instances the road costing the least amount of money is the most expensive type to build, considering first cost, interest and maintenance.

Main thoroughfares built of macadam might have to be resurfaced every two or three years, which would mean the road would cost from \$1,000 to \$2,000 per mile per year, and it should be apparent to any right thinking man that there is not a county in existence that could afford to expend that amount of money per mile each year to maintain its road system.

The type of road should be governed by the traffic which may reasonably be expected to pass over the road during its life. Climatic conditions and the availability of materials will also govern the type to some extent, the idea being that a type of road should be built which will represent an economical investment. A possible way of eliminating the traffic is to take a census of what is passing over the road at present, giving due consideration to the fact that in a short time practically every farmer living along the line will buy an automobile and that a certain per cent. of the people living in all villages through which the road passes will sooner or later own cars, to make some provision for through tourist travel, and then to design the road accordingly. All of the above requires the services of an experienced highway engineer, and it is not supposed that any other class of men is capable to handle the job.

Railroad companies pay reasonable dividends on their investments because the construction and maintenance of their lines are in the hands of competent engineers, and yet the management of road affairs is rarely, if ever, intrusted to a competent engineer. The people seem to forget that in practically every county in Kentucky and a great many other states 50 per cent. of all county taxes collected is used for road purposes, and has been used for road purposes for

years. With the other 50 per cent. they built court houses, hospitals, poorhouses, support the paupers and pay the salaries of the officers who administer the law. In other words, they have something to show for the expenditure; but for the 50 per cent. invested in roads it would be difficult for almost any county to show that the money has been properly expended.

The day will come, and it should not be far distant, when the taxpayers will appreciate the fact that the roads are their property, that the same care should be given to the expenditure of such funds as is given to the management of their own private affairs. When they are ill, they consult a doctor; any legal problems are intrusted to a lawyer, and for the salvation of their souls they usually accept the advice and recommendations of ministers of the gospel. When they employ labor, it is their aim to secure a man who is familiar with the work he is supposed to perform, and yet when it comes to road affairs they eagerly listen to any demagogue who has pet theories concerning road building, forgetting that there are accepted standards for road work the same as for building railroads, steam engines, or office buildings. The demagogue's sole aim is to get into office by making misrepresentations to the people whose money he will squander.

When the people realize that the building of roads, and especially the selection of the type of road, is a high class engineering problem and that such matters should be intrusted to high class highway engineers, amply paid, the same as men in other professions, then and only then will the taxpayers be properly safeguarded and will we experience a wise and economical expenditure of road funds.—Good Roads.

ROAD CONSTRUCTION IN MEXICO.

The Mexican Government has committed itself to the policy of constructing at the earliest possible time a system of modern highways to connect all of the principal cities and ports of the country. This movement was inaugurated several months ago by the Department of Communications and Public Works, following the outlining of the tentative plan for construction and improvement of the highways of the country.

There was held in the City of Mexico a meeting of good roads enthusiasts from different parts of the country. This meeting has resulted in the organization of the National Highways of Mexico. The honorary president of the association is President Venustiano Carranza. The secretary is Jose H. Delgado, who holds the position of Mexican consul at Nogales, Ariz.

The tentative plans call for the construction of several trunk railways, the first to run from the capital to Tepic on Guaymas, thence north to Nogales. This proposed highway the west side via Guadalajara, thence up the coast to is approximately 1,200 miles long. It will parallel the Southern Pacific Railroad of Mexico all the way from Tepic to Nogales, a distance of about 800 miles. Branching off from this trunk highway will be a number of modern roads extending to towns and mining camps.

The second proposed highway which is to be built under the direction of the National Highway Association of Mexico with the financial assistance of the federal government and the different states along the proposed route is to run from the City of Mexico to Laredo on the Rio Grande border, a distance of about 800 miles. A branch of this road will be built from Monterey to Torreon and from Torreon north to Eagle Pass and south from Torreon to Durango. This second highway will be routed through Tuloaca, San Luis Potosi, Saltillo, Monterey and a number of smaller towns. It is also proposed to build a modern highway to run from the City of Mexico to Vera Cruz, following the ancient highway that was built by Cortez about 400 years ago. There are still remnants existing of other ancient highways which were built during the days of the Conquistadores, and wherever it is possible these old main highways will be rehabilitated and put to modern use. The fact that there have been imported to Mexico during the last two months through the ports of entry of Nogales, Agua Prieta, El Paso, Eagle Passes, Laredo and Brownsville and other small international gateways more than 5,000 automobiles, is serving as a stimulus for the good roads movement.—Good Roads.

Pavements in Suburban and Rural Districts Near Large Cities

By EUGENE W. STERN, Chief Engineer of Highways,
Borough of Manhattan, New York, N.Y.

There is no longer the slightest doubt but that the motor vehicle has come to stay. The experimental period has passed and the motor vehicle has taken its place along with the steam locomotive and electric trolley as one of the big things that work for the benefit of mankind.

A few years ago we sometimes heard at road conventions, when the failures of the existing methods of road construction were under discussion, such remarks as: "There is nothing the matter with our roads, they are built all right; it's the confounded motor vehicles that are doing the mischief. If we only kept them off the roads there would be no trouble."

This kind of talk, fortunately, is rarely heard to-day, and then only in very backward communities.

It has become apparent that the motor vehicle is already having a very great effect on our economic and social life, and that its use is increasing very rapidly. Its introduction into our everyday life marks, I believe, the commencement of an epoch just as important and far-reaching as when the steam locomotive appeared, over eighty years ago, rendering accessible districts previously inaccessible for the economic uses of civilized men.

To-day the very rapidly increasing use of the motor vehicle for comparatively long hauls serves as a very important secondary method of transportation and as auxiliary to the railroads, and undoubtedly will carry the benefits of community life to remote rural districts practically inaccessible to the railroads. The motor vehicle and good roads must go together. Without the latter the use of the former would be very seriously handicapped.

In the neighbourhood of large cities the vehicular traffic has, in recent years, increased by leaps and bounds, and we find, as quite a common thing, heavy motor trucks going as far as 100 miles into the surrounding rural districts. We also find that places which were but sparsely settled before become rapidly built up after the building of good roads. The case of Wayne County, Mich., is one in point. Land which was used for farming and sold for less than \$200 an acre, within a reasonable distance of Detroit, after the construction of good roads enhanced in value within a very short time to about \$1,200 an acre. The assessed valuation has increased from \$62,000,000 in 1906 to \$136,000,000 in 1915, and in the last year alone the increase was \$22,000,000, or 20 per cent.

The tremendous increase in the use of motor vehicles, however, has demonstrated the fact that roads which were entirely satisfactory a few years ago for horse-drawn vehicles are no longer suitable. The water-bound and bituminous macadam roads go to pieces very rapidly and cost a great deal for upkeep under even moderate traffic. Instead of considering old methods of road construction, we must now think in terms of city pavements or an approximation thereto, for even country roads.

The insistent and increasing demand for better roads from one end of this country to the other is resulting in the expenditure of hundreds of millions annually, and we have ample proof that many millions of this are to-day unfortunately being wasted.

We must, therefore, attack this problem with skill and an open mind, as mistakes are now proving very costly to the community, and the construction of bad types of roads will place enormous burdens on the taxpayers in the years to come.

Essentials of a Good Road.

The essentials of a good road should include the following:

- 1.—It should be sanitary.
- 2.—It should be safe for public travel.
- 3.—It should possess a hard, smooth surface under all conditions of weather and at all times of the year.
- 4.—It should not be too slippery for horses, and, of course, must be thoroughly adapted to motor vehicles.
- 5.—It should have a reasonable first cost, and also a low cost of maintenance, coupled with ease of repair; in other words, the annual charges against the pavement, including amortization, interest on the money invested and maintenance, should be as low as possible.

The Selection of a Proper Type of Road.

It will be of interest to analyze briefly the merits and demerits of the various well-known types of roads with which the highway engineer has had experience in recent years. It is my opinion that there is not much necessity for further experimenting to decide as to suitable types, as ample experiences are already available, particularly if we carefully scan the recent information collected by the cities throughout the country and compare it with that from the rural districts. It is almost unbelievable that many country highways cost the taxpayer much more than city pavements having many more times the amount of traffic.

While there is no uncertainty about the first cost, there is some difficulty, however, in properly arriving at the maintenance cost. The most approved types of highways have been in common use for a short time only and the motor traffic is very recent; and while we know a good deal as to their durability under present conditions, we must look ahead and try to foretell how long their life will be and what the probable cost of maintenance over this period of years will be.

Let us consider now the following well-known types of roads and pavements:

Concrete.

Bituminous concrete on concrete base.

Sheet asphalt on concrete base.

Brick on concrete base.

Bituminous macadam on gravel or broken stone base.

Asphalt block on concrete base.

Water-bound macadam.

Wood block on concrete base.

Granite block on concrete base.

In order to arrive at a basis for comparison, let us reduce all these various types to a gross annual cost per square yard, which includes interest on first cost, plus amortization, plus annual repairs.

I have taken the country district immediately about New York City as a basis for comparison as to cost and therefore, of course, the figures of first cost given below must be modified to suit local conditions. In some districts, for instance, such as Worcester, Mass., a granite pavement can be laid with cement grouted joints and with concrete base for as low as \$3.10 a square yard, with an annual maintenance cost averaged for fifteen years of only 6/10 cent a square yard. There are places in the middle west where a brick pavement can be laid for considerably less.

As regards maintenance costs, I have taken the figures for recent years only, because the farther back one goes, the farther we get away from present conditions.

Concrete Pavement.

Assumptions. Useful life at 20 years as a wearing surface; after which to be used as foundation for a wearing surface such as bituminous concrete, sheet asphalt, asphalt block, brick, etc.

| | |
|--|-------------|
| | Per sq. yd. |
| Cost of concrete pavement 6 inches thick | \$1.12 |
| Value as a foundation | .80 |

Cost of wearing surface—20-year life \$0.32

Gross Annual Cost Per Square Yard.

| | |
|--|-------------------|
| Interest charge on pavement, \$1.12, at 4% ¹ / ₄ | 4.76 cents |
| Amortization on wearing surface, 32 cents at 3 ¹ / ₄ % | 1.04 cents |
| Annual repairs | 2.00 cents |
| Total cost | 7.80 cents |

Asphaltic or Bituminous Concrete.

2½ inches thick on 6-inch concrete base.
Assumptions. Useful life of wearing surface, 20 years;
top, 2½ inches thick; Borough of Bronx specifications.

| | |
|---|-------------|
| | Per sq. yd. |
| Cost of concrete base 6 inches thick | \$0.80 |
| Cost of wearing surface 2½ inches thick | .70 |

| | |
|--------------------------|------------|
| Total | \$1.50 |
| Annual repairs | 2.35 cents |

Gross Annual Cost Per Square Yard.

| | |
|---|-------------|
| Interest charge on pavement \$1.50 at 4¼% | 6.375 cents |
| Amortization on top, 70 cents at 3¼% | 2.275 cents |
| Annual repairs | 2.35 cents |
| <hr/> | |
| Total | 11.00 cents |

Sheet Asphalt.

3 inches thick on 6-inch concrete base.
Assumptions. Useful life of wearing surface, 25 years;
top, 3 inches thick; Borough of Manhattan specifications.

| | |
|--|-------------|
| | Per sq. yd. |
| Cost of concrete base 6 inches thick | \$0.80 |
| Cost of wearing surface 3 inches thick | .90 |

| | |
|--------------------------|---------|
| Total | \$1.70 |
| Annual repairs | 2 cents |

Gross Annual Cost Per Square Yard.

| | |
|--|-------------|
| Interest charge on pavement, \$1.70 at 4¼% | 7.225 cents |
| Amortization on top, 90 cents at 2¼% | 2.035 cents |
| Annual repairs | 2.00 cents |
| <hr/> | |
| Total | 11.25 cents |

Brick.

4 inches thick on concrete base.
Assumptions. Useful life of wearing surface 25 years.

| | |
|---|-------------|
| | Per sq. yd. |
| Cost of wearing surface (N. Y. State) | \$1.20 |
| Cost of 6-inch concrete base | .80 |

| | |
|--------------------------|---------|
| Total | \$2.00 |
| Annual repairs | 2 cents |

Gross Annual Cost Per Square Yard.

| | |
|--|-------------|
| Interest charge on pavement, \$2.00 at 4¼% | 8.5 cents |
| Amortization on top, \$1.20 at 3¼% | 3.9 cents |
| Annual repairs | 2 cents |
| <hr/> | |
| Total | 11.16 cents |

Bituminous Macadam.

Assumptions.
Cost of pavement Per sq. yd. \$0.871
Annual repairs of pavement121

Gross Annual Cost Per Square Yard.

| | |
|---|------------|
| Interest charge on pavement, \$0.871 at 4¼% | 3.7 cents |
| Annual repairs | 12.0 cents |
| <hr/> | |
| Total | 15.7 cents |

Asphalt Block.

2½ inches thick on 6-inch concrete base.
Assumptions. Useful life of 2½-inch wearing surface, 20 years.

| | |
|--|-------------|
| | Per sq. yd. |
| Cost of wearing surface | \$1.40 |
| Cost of concrete base 6 inches thick | .80 |

| | |
|--------------------------|---------|
| Total | \$2.20 |
| Annual repairs | 3 cents |

Gross Annual Cost Per Square Yard.

| | |
|--|-------------|
| Interest charge on pavement, \$2.20 at 4¼% | 9.35 cents |
| Amortization on wearing surface, \$1.40 at 3¼% | 4.55 cents |
| Annual repairs | 3.00 cents |
| <hr/> | |
| Total | 16.90 cents |

Water-Bound Macadam.

Assumptions.
Cost of pavement Per sq. yd. \$0.648
Annual repairs15

Gross Annual Cost Per Square Yard.

| | |
|--|-------------|
| Interest charge on pavement, 64.8 cents at 4¼% | 2.75 cents |
| Repairs | 15.00 cents |
| <hr/> | |
| Total | 17.75 cents |

Wood Block.

3 inches thick on 6-inch concrete base.
Assumptions. Useful life of wearing surface, 20 years.

| | |
|--|-------------|
| | Per sq. yd. |
| Cost of wearing surface | \$2.00 |
| Cost of concrete base 6 inches thick | .80 |

| | |
|--------------------------|---------|
| Total | \$2.80 |
| Annual repairs | 2 cents |

Gross Annual Cost Per Square Yard.

| | |
|--|-------------|
| Interest charge on pavement, \$2.80 at 4¼% | 11.90 cents |
| Amortization on wearing surface, \$2.00 at 3¼% | 6.50 cents |
| Annual repairs | 2.00 cents |
| <hr/> | |
| Total | 20.4 cents |

Granite Block.

4 inches thick on 6-inch concrete base.
Assumptions. Useful life of wearing surface, 35 years.

| | |
|--|-------------|
| | Per sq. yd. |
| Cost of wearing surface | \$3.00 |
| Cost of 6-inch concrete base | .80 |

| | |
|--------------------------|--------|
| Total | \$3.80 |
| Annual repairs | 1 cent |

Gross Annual Cost Per Square Yard.

| | |
|--|-------------|
| Interest charge on pavement, \$3.80 at 4¼% | 16.15 cents |
| Amortization on wearing surface, \$3.00 at 1.28% | 3.85 cents |
| Annual repairs | 1.00 cent |
| <hr/> | |
| Total | 21.0 cents |

ROAD GUIDE TO QUEBEC.

Possibly out of all the road guides published on this continent, there might be one or two not over afflicted by advertisements; because most of them are little better than advertising schemes, the compilation itself only a secondary consideration and consequently patchy and inaccurate, so that when one does come across a really good road guide one cannot help but commend it as an example to follow. George MacNamee (Secretary of the Dominion Good Roads Association and also Secretary of the Automobile Club of Canada) at the beginning of this season compiled such a road guide—that is a good one. The book itself, which is strongly bound in a neat black leather cover, gives a good reading description of every route in the Province of Quebec, and all roads leading to. What is more the mileage is accurate. Practically every furlong is described with all the places of interest, not forgetting the hostelrys. A special feature of the guide is the splendid map, which has been drawn with the object of really helping the automobilist to pick his way. The map was drawn by Messrs. Ewing, Lovelace & Tremblay, the map makers of Montreal.

Mr. MacNamee is to be congratulated on his useful work, what should not only be in the hands of every owner of an automobile, but in the schools as well, for a better description of the roads of Quebec has certainly never been published.

“Municipal Canada”

Compiled by FREDERICK WRIGHT, Editor, “Canadian Municipal Journal.”

To the Municipal Councils of Canada.

We recently published in the interests of the Municipalities of Canada a PREPAREDNESS NUMBER, which was well received, one well known executive writing as follows:

“The Preparedness Number of the Canadian Municipal Journal contains a great number of valuable municipal contributions, and the municipalities should be indebted to you for bringing them together and making them available in the form in which they appear.”

As a direct consequence of the Preparedness Number many local authorities are already taking stock of the opportunities for material development in their respective localities. That we have been able, through our propaganda, to stimulate local ambition is encouraging. But our task is not complete by any means. There is that side of the propaganda which has for its object the placing before the civilized world in one large volume what Municipal Canada is and what it has to offer in its up-to-date conveniences, social life and educational facilities. Municipally speaking, Canada is better off than most countries, but the world as yet knows not of it. We have been too modest. Even those councils and Boards of Trade that have boomed their municipalities have limited their energies to Canada. We propose to go much further; in short, to place the claims of every municipality in the Dominion before the entire outside world. **AND EACH MUNICIPALITY IS EXPECTED TO HELP.**

With this end in view, we have made arrangements and have now in process of preparation for publication an Illustrated Descriptive and Statistical Gazetteer of the Municipalities and Civic Life of the Dominion, under the title of “MUNICIPAL CANADA,” which will be published as soon as it is possible to cover all the Municipalities.

The general outline of the scheme is that every Municipality in the Dominion will be tabulated, and the Cities and Towns written up in the form of pen sketches by men who thoroughly understand their work. The public utilities in each province will be described, and all the articles illustrated by drawings and photos, in addition to which will be inserted a map for each province, showing the exact location of each municipality. Spread throughout the book will be at least sixty special articles on municipal affairs written by the best men in Canada.

No Advertisements Will be Inserted.

So that the work will have local value, we propose publishing all articles relating to a municipality—including the pen sketch—separately, in the form of an illustrated booklet for distribution by the Council or Board of Trade to those who are likely to be interested in investing or locating in the district.

On the completion of the work, which will be when all the Cities and Towns have been covered, the book will be bound with a specially designed cover, and placed as a permanent souvenir and record of Canada's Municipal life in the Boards of Trade, Public Libraries, and Public Offices of Canada, Great Britain, the United States and Allied Foreign countries.

The work will not only be the first of its kind,

but will be the biggest civic production ever attempted in the Dominion, and its strength as a real advertiser of Canada will be the following facts:

1. Every article will be signed by a writer, whose name will be a guarantee of good work.

2. The work will be a true picture of the civic life of the Dominion, and a reliable guide to the intending investor and immigrant.

To bring all this about it is proposed that each municipality be asked to subscribe out of its publicity fund a sum of money, the amount to be left entirely to its Council, as representing the community. For the parish Councils and rural populations, the Provincial Governments will be asked to subscribe a lump sum for each province, and the Federal Government will be asked to do its share in despatching the volumes free to their destination.

The success of the work depends entirely on the generosity of the Public bodies of the Dominion, and in asking for your support we feel we are not asking in vain.

Extracts from Letter of a Provincial Agent in London, Eng.

“I am more than pleased to see that you are going to publish a Gazetteer and Review of the Dominion Municipalities. It is exactly what is wanted to advertise properly our Dominion, and specially my province. It is exactly what I have been wanting from the different municipalities, and I had no proper means to come to the point.

I hope the municipalities will appreciate your efforts and will encourage a publication like this one you propose to publish.

The good people on your side have no idea how much the Europeans are interested and how much they investigate the probabilities and possibilities they could have to invest their money to establish new industries, and to try to find some openings for their children, . . . and I am sure that the whole Dominion will certainly draw benefit, if the municipalities understand their interests.”

WAR MEANS LESS POVERTY.

Strange to say, one of the few benefits conferred by the war has been a large reduction in poverty among indigent classes. Many men who were of very little use to their families owing to irregular habits, enlisted, and as a result their families have been steadily receiving monthly payments far in excess of anything they could possibly have hoped for had the father remained at home.

The distribution of cheques from the Militia Department and the Patriotic Fund has almost entirely done away with the need of charitable maintenance. This is a good illustration of what happiness and good order can be brought about through the reasonable distribution of the world's wealth.

There are moral advantages, too, connected with the Patriotic Fund, that are worth knowing. The visitors and inspectors, in making their usual official rounds, are able to observe wrong social conditions, and by calling attention to them, bring about immediate improvement. For instance, they have been able to insist that there should be a certain standard of living as a result of the liberal payments, and also there have been many cases in which mothers have been warned that doubtful conduct on their part would lead to the stopping of payments.

All this has had an uplifting influence on the people concerned, and has indirectly, been of great advantage to the Province and Dominions.—J. J. Kelso.

CONVENTION RESOLUTIONS.

(Continued from page 383).

No Interference in the Hydro-Electric Propaganda of Ontario.

Whereas the Hydro-Electric Power Commission of Ontario, by virtue of the Hydro-Electric Railway Act, and in response to requests from several hundreds of municipalities, has made surveys and prepared estimates and plans for the construction of a number of railways through many different parts of the Province;

And whereas some of these estimates and plans have been presented to the Municipalities who requested such information.

And whereas By-Laws have been submitted to the rate-payers in a number of the municipalities interested in these lines and carried by substantial majorities in practically every case;

And whereas the Councils of those Municipalities who voted favorably on their By-Laws have signed agreements with the Hydro-Electric Power Commission of Ontario, to provide for the construction and operation of the lines in their districts;

And whereas the delegates attending this Convention of the Union of Canadian Municipalities have in mind the great advantages already derived by the use of cheap power in the municipalities now served by the Hydro-Electric Power Commission, and believe the construction of the Hydro-Electric Radial Railway, where the same is shown to be feasible and self-sustaining, will not only afford transportation facilities to the municipalities, but will also afford an easy and inexpensive means of serving them with cheaper light and power than would be possible under the present power system;

Now, therefore it is hereby resolved:

That the Dominion Government is respectfully requested to refuse to grant the extension of charters or to grant new charters for the construction of electric railways throughout the districts now being served and reported upon by the Hydro-Electric Power Commission of Ontario, believing that it would be in the interests of the Municipalities as a whole that the construction of electric lines should be left in the hands of the municipalities under the Hydro-Electric Railway Act.

That the legislature of the Province of Ontario be commended for and requested to continue the policy of the last two sessions in refusing to grant extensions of charters to electric railways throughout the province, particularly in those districts where the Hydro-Electric Power Commission has been asked by the Municipalities to make surveys and estimates.

Amendment to the Ontario Assessment Act.

That the Ontario Legislature be asked to pass an Act amending the Assessment Act, as follows:—

If at any time within six years after the date of making any assessment return pursuant to Section 18, it shall appear to the Assessor or Assessment Commissioner of any municipality upon such evidence as shall be to him sufficient, that the return or statement of income made by any person liable to make the same did not fully or completely set forth the income of such person, he shall enter upon the Assessment Roll of such year if the same has not been finally revised, and if so upon the Assessment Roll of the year next following, against such person an assessment for income of such amount as would have been placed upon the assessment roll for the year or years during which such false or incomplete returns of income was made if the same had shown accurately the income of such person and notice of such assessment shall be given by the assessor to such person, pursuant to section 49, and he shall have the same right to appeal therefrom as provided by section 69, and such assessment or the amount fixed upon any appeal therefrom shall thereafter be entered by the Clerk upon the Collector's Roll as provided by section 99, and may be collected from such person or from the executors, administrators, trustees or personal representatives of such person in such manner and by such processes as are provided by this Act for the collection of any taxes which are not a lien upon land.

This section shall be deemed to have been in force and effect from and after the 1st day of the month of January, 1912.

Niagara Power Company.

The Union of Canadian Municipalities now in session at London, Ont., resent the methods used by certain corporations to deprive the Municipalities of Canada of the rights to control their own streets, and protests against any changes by the Senate of Canada in the general act now before them, re the Toronto Niagara Power Company.

That the Union of Canadian Municipalities petition the Parliament of Canada to repeal the extraordinary rights and powers given this company in 1902, over, on, along and across the public highways of every municipality in Canada, which legislation was passed without the knowledge of the said municipalities and also granted extraordinary powers for the production, sale and distribution of electricity in direct opposition to the rights of the municipalities, and the people of Canada.

This Union also requests that the outrageous powers granted this company by the said Act of 1902, shall not be exercised within any municipality in Canada without the consent expressed by the by-law of the Council of such municipality.

This Union of Canadian Municipalities further requests the Premier, Sir Robert Borden, Sir Wilfrid Laurier, leader of the Opposition in the House of Commons, Sir James Lougheed, Government leader in the Senate, Hon. Frank Cochrane, Minister of Railways and Canals, Hon. Robert Watson, Chairman Railway Committee of the Senate, and the Honorable Members of the Senate, to stand by and protect the municipalities in this fight, and strongly urges the Federal Government to sanction the necessary changes in this legislation as it is an outrageous infringement on the rights of the municipalities of this country, and that copies of this resolution be telegraphed to the honorable gentlemen aforesaid, and to the Senate.

Objections to Lobbying.

That the Union of Canadian Municipalities hereby direct the attention of Sir Robert Borden, and the Prime Ministers of the various Provinces of Canada, to the lobbying now going on at Ottawa against the interests of the Municipalities of Canada, and the infringements of their rights by the Toronto Niagara Power Co. Act of 1902.

That this Union resents the way in which Municipal rights have been outraged by this legislation and respectfully requests the Prime Minister of Canada and the Prime Ministers of the various provinces to take such action in the premises as will secure either the repeal of this obnoxious legislation or ample provision that the powers of the said Act shall not be exercised within any municipality in Canada without the consent of the Municipal Council expressed by by-law.

The Late Major Baker.

That this Convention of the Union of Canadian Municipalities has learned with deep sorrow of the loss which Mr. Samuel Baker, the esteemed City Clerk of London, Ont., has sustained in the death of his eldest son, Major Horace Greely Baker, in action, at the front, on August 20th, the sad intelligence of which came suddenly to him while making arrangements for the success of this Convention, and the comfort of the visitors to the municipality of which he is the clerk. We extend our sincerest condolences to Mr. Baker, and to Mrs. Baker, who has just arrived in England, hoping, doubtless, to see her son, Major Baker, who was serving his country so loyally and courageously, and who has now made the supreme sacrifice, with the thousands of his fellow Canadians, in this great world-war, and to the brothers and sisters of the deceased hero.

Sir Adam Beck.

That this Convention of the Union of Canadian Municipalities, composed of municipal representatives from all parts of the Dominion of Canada, desires to express its appreciation of the great public service rendered to the people of the Province of Ontario by Sir Adam Beck, K.B., and the members of the Hydro-Electric Power Commission of Ontario, by their successful administration of the system of distributing Electric Energy to all parts of the Province.

Full Report of London Convention will appear in our October issue.

CONVENTION OF MUNICIPAL TREASURERS OF CANADA.

In these columns last month was published an announcement that this Journal, with the co-operation of a number of our prominent municipal officials, was organizing a three days Conference of Canadian Municipal Treasurers, Accountants, Chairmen of Finance, etc., and which is expected to take place in Toronto in the latter part of November or beginning of December. There is still much to do before final arrangements can be announced, but in the meantime the following programme, subject to change, indicates the subjects to be introduced by the best exponents, discussed by the delegates in the light of their own experiences.

From letters already received from municipal officers, located in every part of Canada, our conferees and ourselves are encouraged to believe that the Treasurer's Convention will be a great success. We might also add that the Conference is receiving the active support and co-operation of the executive of the Union of Canadian Municipalities.

TENTATIVE PROGRAMME OF CONVENTION OF CANADIAN MUNICIPAL TREASURERS, ACCOUNTANTS, CHAIRMEN OF FINANCE, ETC.

FIRST SESSION.

Chairman's Address.

CITY TREASURER AND HIS STAFF.

Distribution of duties, discipline, encouragement and remuneration.

Qualifying examinations and graduation.

SECOND SESSION.

INCIDENCE OF TAXATION.

Present incidence—ownership.

Proposed incidence—occupation.

Proposed incidence—occupation and ownership.

THIRD SESSION.

MUNICIPAL ACCOUNTING.

Cost accounts and stock and store accounts.

Prescribed forms of revenue accounts, capital accounts and balance sheets.

Double account system.

Practical vouching and certification of expenditure.

FOURTH SESSION.

PREPARATION OF ANNUAL FINANCIAL STATEMENTS.

Government requirements as to Statistics.

Statistics vital to welfare of municipality.

Publicity and its educational value to citizens and to prospective buyers of a municipality's bonds.

FIFTH SESSION.

AUDIT OF ACCOUNTS OF MUNICIPALITY.

Internal or staff audit.

Complete or professional audit.

SIXTH SESSION.

LOANS AND BANKING.

Flotation of debentures.

Refunding.

Sinking Funds and administration of.

SEVENTH SESSION.

UNIFORM SYSTEM OF MUNICIPAL ACCOUNTING.

General nomenclature and standardization of accounts, and details.

EIGHTH SESSION.

LOCAL GOVERNMENT BOARDS.

Legislative powers and control.

Utility of Special powers compared with comprehensive powers under a general municipal act.

Sweeping away of special charters and simplification of procedure.

Uniformity of general powers and elimination of special by-laws and their effect on administration of municipality.

NINTH SESSION.

PRESENTATION OF RESOLUTIONS.

Discussion on same and vote.

**Our Services
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Municipalities that are contemplating the issue of Bonds, the investment of Sinking Funds, or any change in financial policy, are cordially invited to avail themselves of our services as specialists in—

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Stocks & Bonds dealt in on all Exchanges.

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Western Municipal, School District and Telephone Debentures specialized in. Secretary Treasurers should communicate with us regarding the disposal of their issues.

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CANADIAN GOVERNMENT MUNICIPAL AND CORPORATION BONDS

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Fifteen years of service to Canadian Municipalities and Investors in Canadian Municipal Debentures enables us to give every facility to Municipalities in marketing new issues.

Our organization is represented in the principal markets of Canada, Great Britain and the United States.

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ESTABLISHED 1901
HEAD OFFICE: 26 KING ST. EAST, TORONTO
MONTREAL LONDON, E.C., ENG.

Serial Bonds Versus Sinking Fund Bonds

By RICHARD M. CHAPMAN, of the New York Bureau of Municipal Research.

The growing favor with which serial bonds are being considered as offering a better solution of the problem of redemption than does the more venerable expedient known as sinking fund bonds, stimulates inquiry into the cause of their growing popularity. This scheme for providing funds to discharge a loan at maturity is essentially simpler than the scheme attending the gradual accumulation of a sinking fund.

Under the serial plan the annual installments provided by taxation are devoted at once to the retirement of a pre-determined portion of the loan. Under the sinking fund plan the amount of the annual installment paid into the sinking fund, the exactions and limitations attending its investment and the realization of its income necessarily involve calculations and administration of a very precise order.

Difficulties in Conducting Sinking Funds.

..Even when the greatest care is exercised in the conduct of sinking funds, the best measures that can be followed either fall short of meeting the requirements or overshoot the mark. This is inevitably consequent upon the uneven amounts and periods in which funds lie uninvested and at best yield only bank interest on idle deposits. Sinking funds conducted upon scientific principles and taking advantage of all ages invariably come very close to providing the required amount. They are never exact, however, and only the exercise of extreme care and watchfulness by experts in such matters can a close approximation be secured. Moreover, there are being constantly uncovered in the revision of public accounting methods and procedure sinking fund schemes conducted so irrationally and with such disregard of mathematical rudiments as to lose all value and significance. They are merely spasmodic and wild guesses at the requirements and reflect no co-ordinate provision whatever.

By those accountants who are skilled and experienced in the planning and operating of sinking funds, such means of retiring loans are still held in high favor. This method is mandatory by statute in some states, and in certain localities and under certain conditions no other way is permitted.

The Redemption of Serial Bonds.

Experience in some of the states where the practice of issuing serial bonds has been tried has given reason for believing that the element which above all others makes a bond attractive is security. The feature which contributes in the largest degree to its security is such means for its redemption as are obviously most practical and least likely to disappoint at the eleventh hour. In every large and wealthy community such an event as a default in retiring a matured loan seems too remote to contemplate. In small and relatively weak communities, however, the administration of their debt service often occasions doubts and misgivings which seriously affect their credit. They can then borrow to meet their growing needs only at prohibitive or exorbitant rates.

Serial bonds may be issued in a manner providing (in lieu of sinking funds) for the annual retirement of a stated amount of principal without identifying by number which particular bonds are to be surrendered. The bonds to be paid off may be selected either by lot or by inviting bids and accepting such as are offered at the lowest premium. The first plan is something in the nature of a gamble, as a class of investors will be prone to take a sporting chance at a long-term bond that may not be called and pay a higher premium therefor than for a bond having fewer and a known number of years to run. The prevailing practice in issuing serial bonds by counties and cities is to issue only relatively short-term bonds, rarely exceeding twenty years, and to provide for the retirement of a fixed proportion annually by the maturing and surrender of definite bonds identified by registration numbers. Thus a series may consist of twenty bonds of a twenty years' loan, ranging from one to twenty years to run, one bond redeemable each year during the term of the loan. Only full series or multiples thereof are sold at the outset to dealers or large investors at a uniform price or premium. These can again be sold to small investors according to the length of time for which they wish to invest at prices governed by the law of supply and demand in each instance.

For long-term or fifty-year bonds which are sought by estates wishing to avoid the necessity of the frequent reinvestment of funds consequent upon the maturity of their investment securities, the sinking fund bond is still a favorite.

Sales of Bonds.

The question of bond budgets or the borrowing program attaches equally to both sinking fund and serial bond. A loan may be for the total contemplated expenditure for a public work, and may be marked by the simultaneous sale of the entire issue, or it may consist of a series of sales taking place at predetermined periods, calculated to provide the funds when, and not before, they are required for expenditure. In small communities, or where it is contemplated that the work will be performed within a comparatively brief time, one sale of the entire issue authorized is the rule. In large communities where the work is more or less continuous or necessarily protracted over a long period of time, not only will the necessary funds be realized from a succession of sales of one authorized loan, but there may also be a series of authorizations relating to the same subject of outlay as new plans are made or extensions of the original plan develop.

Where sinking funds are operated, the choice of expedients covers a wide range. One sinking fund may function for a succession of sales under authorizations covering a period of years, or separate sinking funds may be operated for each year's borrowings of all bonds issued within the year. Again, a separate sinking fund may be operated for each authorization, identified by the title of the work extending over several years, or a separate fund may be operated for each year's borrowings under each designated authorization.

The Accounting Work.

The segregation of the installments, investments and free cash of each fund occasions no appreciable work over what would be necessary in determining the just proportion of each item in administering the same aggregate value in one consolidated fund. In either instance it requires care and knowledge of the subject in hand—knowledge, too, of no mean order—and a high degree of accounting skill. In view of the relatively crude processes commonly followed in rural communities, the operation of a group of funds is supposed to simplify the process in each case by concentrating the problem upon the redemption of each issue.

With respect to serial bonds the scheme of retirement is automatic, and the annual total is derived by a simple process of tabulation whereby the amount necessary to be included in the tax budget is ascertained without any special knowledge being required.

The Advantages of Serial Bonds.

For all relatively short-term bonds where the avoidance of the reinvestment of funds is not a matter of great concern, the serial bond is growing in favor. They certainly possess the advantage of a ready and rational means of retirement, subject to none of the embarrassing problems that arise from a congestion of liquidations for which inadequate provision has been made, and uninvolved with sinking fund complications. The risks that attach to a reliance upon sinking funds that have been unskillfully administered are too obvious not to be understood and appreciated by those familiar with bond buying. These risks exert a decided influence on the public credit and the rates obtainable for public obligations. Serial bonds have a marked advantage and convenience, both with respect to those features of the contract relating to redemption as well as the removal of the necessary exactions that are always attendant upon the administration of a sinking fund. Not only is the matter of convenience, but the matter of equity to be considered. The years over which the repaying of the loan is to be spread and the succeeding generations upon whom the burden will fall must sustain a just relationship to the periods and the people that will enjoy the benefit of the outlay for which the debt was incurred.

The immediate cost of maintenance of works exceeding in magnitude the present requirements—to which, however, the present generation is committed in its effort to adequately provide for the future—becomes an expenditure possessing the characteristics of capital outlay as well as revenue expenditure. It is a form of cost incident to the preservation of a property for which the immediate need is only partial. While there is not the occasion to share such outlay with posterity in the same degree as necessitated by the original acquisition of the property in ques-

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tion, still it is not just that the whole burden be included in the revenue expense of the current year.

The facility offered by serial bonds for relieving the minor and immediate hardship of upkeep seems unusually appropriate to such need. For the longer term of benefit conferred by the initial capital outlay in its strictest sense, the type of undertakings known as sinking fund bonds would appear to be equally scientific and equitable for spreading the repayment of the loan, were it not fraught with the temptation and dangers of maladministration already noted herein.

In consequence of the increase in size and number of communities and the widening scope of local improvements and utilities, it has become necessary that the extent to which the present generation shall be allowed to pledge future credit must sooner or later be made more a national or state question than a purely local one. This trend is already manifest in the tendency to require legislative approval of local loans of any considerable extent and to elevate them from the plane of local ordinance to that of statutory enactments. This brings the relative merits of sinking fund and serial bonds before a larger tribunal of experts and aids in reaching a competent opinion as to the features and capacities for adaptation in which each excels the other.

The confines of this article have not permitted a full description of the relative interest saving as between the two kinds of bonds, but it is to be noted that this is one of the arguments usually advanced in favor of the serial method.—American City.

SUMMITS ON STEEP STREETS.

In days of horse-drawn traffic the fact that two teams approaching the same summit from opposite sides could not see each other until one or both were practically at the top was of little importance. But the driver of an automobile rising at middle speed over a summit may find himself confronted head-on with another mounting the other slope at equal speed. This condition is especially dangerous on a smooth, wet pavement, when skidding may make it impossible to avoid a collision.

It is suggested that this danger be eliminated by flattening all summits so that the drivers of approaching cars can see each other when they are at least 300 feet apart. This would require that the vertical curve connecting the two rising grades have a rise of not more than 6 feet in a chord length of 300-feet. While this will require more excavation in grading the street, it will improve the appearance as well as the safety. Where the roadway is wide and traffic keeps on the right hand side, there may be little danger of collision; but for narrow roadways it is a very desirable precaution; and, as just said, the appearance of the street is greatly improved, and the wider the street the flatter the curve should be for the sake of appearance.

DISCARD IMMATURE FOOD.

Big headlines have called attention to the fact that certain concerns across the line have decided not to serve young and immature animals at table.

But very little publicity, if any, has been given to the fact that the Canadian Pacific Railway Company has had a very interesting footnote on their menu card for some time. It reads as follows:

"In the interest of Food Conservation, young spring lambs, squabs, chickens, little pigs, and their by-products are not used in the C. P. R. service."

It must have required some grit, as well as a full sense of duty for an institution which includes such Hotels and Restaurants as are found on that railway, to put such a memorandum before their high class patrons. But it has been done, and its moral effect has been wider than the actual wastage that has been saved. Those who have read the notice, have, in some cases at all events, followed the good example of the Railway, and have given up purchasing any of the immature animal food.

If the Food Controller would prohibit the sale or use of these young animals, it would be another means of Food Economy.

CHARITY OR SOCIAL WELFARE?

Men with a wonderful talent for accumulating money often show exceedingly poor judgment in its distribution. They leave large bequests to unnecessary charities, and ignore the social movements that would bring the most benefit to the community. Before drawing up their wills they would do well to employ a social expert to prepare for their consideration a plan of social beneficence.—J. J. Kelso.

SOME RECENT MUNICIPAL AWARDS.**NEW TORONTO, ONT.**

An issue of \$50,000 6 per cent. 20-year waterworks debentures, awarded to C. H. Burgess and Company, Toronto. Price 97-78.

TRENTON, ONT.

An issue of \$9,500 5 per cent. 30-year debentures awarded to Macdonald, Bullock and Company.

BROCKVILLE, ONT.

An issue of \$28,000 5½ per cent. 5-year patriotic bonds has been entirely purchased by local investors.

KENYON TOWNSHIP, ONT.

An issue of \$15,000 5½ per cent. 18-year drainage debentures has been awarded to W. L. McKinnon and Company, Toronto.

PETERBOROUGH, ONT.

The city trust will buy \$10,000 debentures at par, to cover the last expenditure in connection with the purchase of the Peterborough light and power plant.

ESSEX, ONT.

An issue of \$60,000 5½ per cent. 10-year bonds awarded to Macneil and Poug. Price 98.25.

PRESTON, ONT.

Messrs. George A. Stimson and Company, Toronto, have purchased \$33,100 bonds, bearing 5½ per cent. interest and repayable in 10 instalments. Purpose, local improvements and permanent pavements.

CHATHAM, ONT.

The issue of \$60,000 5½ per cent. 20-year school debentures has been awarded to Mulholland, Bird and Graham, Toronto. Price, 95.26.

CARLETON COUNTY, ONT.

An issue of \$20,000 5½ per cent. bonds was sold to the Bank of Ottawa at par.

LA SALLE, QUE.

Messrs. J. O. Davis and Company, Montreal, have purchased \$50,000 6 per cent. 25-instalment bonds at 9.373.

SHAWINIGAN FALLS, QUE.

Messrs. A. E. Ames and Company have purchased \$25,000 6 per cent. 10-instalment bonds at 96.829.

LONDON, ONT.

An issue of \$760,000 5½ per cent. 5-year bonds has been awarded to A. E. Ames and Company, Toronto.

SASKATCHEWAN.

The following is a list of bonds reported sold:—

School Districts—Butterton, \$1,600. Goldman and Company, Regina; Howard, \$1,200. Goldman and Company, Regina; Mabel Hill, \$1,200. C. M. Gripton, St. Catharines, Ont.; Olga, \$500. Town of Francis; Bird's Eye View, \$600, Town of Francis; Quill Lake View, \$1,200. Canada Landed and National Investment Company, Winnipeg; Wymark, \$2,000. Canada Landed and National Investment Company, Winnipeg; Parkside, \$1,200. Canada Landed and National Investment Company, Winnipeg; North Instow, \$1,400. C. M. Gripton, St. Catharines, Ont.; Estuary, \$15,000. Great-West Life Assurance Company, Winnipeg; Curzon, \$2,000. Goldman and Company, Regina; Acreworth, \$1,900. C. M. Gripton, St. Catharines, Ont.; Glasslyn, \$1,500. C. M. Gripton, St. Catharines, Ont.

Rural Telephone Companies.—Prairie Rose, \$9,000. W. L. McKinnon and Company, Regina; Wartime, \$11,000. Wood, Gundy and Company, Saskatoon; North-East Webb, \$3,400. W. L. McKinnon and Company, Regina; Rock Creek, \$2,700. G. T. Brander, Regina; Fielding, \$4,800. Wood, Gundy and Company, Saskatoon; Bromhead South, \$9,600. J. A. Thompson, Winnipeg; Hawoods, \$9,000. Geo. Foley, Saskatoon; Dilke, \$8,400. W. L. McKinnon and Company, Regina; Sceptre, \$22,000. W. L. McKinnon and Company, Regina; Wiseton, \$20,500. W. L. McKinnon and Company, Regina.

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WINNIPEG'S FIRE TAX.

The citizens of Winnipeg, according to a Bulletin issued by the local Citizens' Research League, pays in fire insurance premiums \$1,500,000 each year. Added to this is the annual cost of the fire brigade, which amounts to \$500,000, making a total cost to the citizens of two million dollars, or \$10 per head. As a reason for this tremendous yearly fire tax the bulletin says that "Winnipeg's comparatively dry climate, the high winds, the long months when buildings must be heated, the large number of frame houses and the prevalence of shingle roofs all contribute to make the fire risk abnormally high," and adding that only by the Fire Department being kept up to the highest level of alertness and efficiency can it cope with such unusual risk.

The bulletin then gives suggestions taken from the recommendations of the Fire Commission, which was held in 1912, and which reads as follows:—

1.—That the fire brigade should make closer and more detailed inspections.

2.—That the question of increasing the capacity of the domestic water system should be the subject of an investigation and report by competent engineers.

3.—That the high pressure system should be more frequently flushed.

4.—That revolving screens, capable of being cleared by flushing, be installed at high pressure intakes.

5.—That owners of buildings should instruct employees as to promptly calling the fire department.

6.—That display cards should be placed in every building giving location of nearest alarm boxes.

7.—That in the interest of public safety, it may be advisable for the city council to obtain legislation requiring buildings of hazardous occupancy, especially where large numbers of people are employed or congregated, to be safeguarded against fire by the installation of automatic sprinklers, the enclosure of vertical openings or such other methods as are deemed necessary.

The bulletin, which is worth reading by every head of a fire brigade, can be had by applying to the secretary of the Citizens' Research League, Winnipeg.

SOCIAL WORKERS UNDERPAID.

Men in business gladly pay large salaries for efficient service. But the same men, when directing charitable enterprises will spend two or three hundred thousand dollars in buildings, and then employ an untrained man to direct the work at a ridiculously low salary. If high class men were put in charge of all charitable work at proper remuneration many social problems would soon be in a fair way to solution.

STATIST FAVORABLY IMPRESSED BY C. P. R.

In discussing the recent Canadian Pacific report, the London Statist, which is one of the most conservative financial publications in England, has a two-page article headed Canadian Pacific Economies, which says that though the volume of traffic was all that desired, 1916 was one of the most difficult years ever experienced. Enormous business had to be handled with a serious shortage of cars, while the cost of material was rising by leaps and bounds; fuel and wages were increasing, and labor was scarce and less efficient. Had not the road been vastly improved in recent years, and the capacity greatly increased, serious congestion must have occurred, making proper control over expenditure impossible.

The Statist alludes further to the great improvement in train and carload statistics, and to the increased economy shown by the conducting transportation ratio. It thinks that notwithstanding the advancing costs, the net earnings and profits for 1917 will compare favorably with those for 1916, and that there is every likelihood that the growth of the company's activities will prove as wonderful in the future as in the past.

"If officials want their city to grow they should study the methods of merchants in their show windows; have something to attract the people.—Prof. Dana C. Munro.

Civic government should be responsive on the one hand and responsible on the other—not to the past, not to political parties, not to interests—but to the people.—F. C. Howe.

MILITARY ROADS IN FRANCE.

A very interesting sidelight on the military roads in France and Belgium was given in a letter from Col. Mackendrick, of the Warren Paving Co. of Toronto, to Mr. George Warren, the President of the parent company of Warren Bros., Boston. Col. Mackendrick is Assistant Director of Roads of the Canadian Army, so that his statement has a special interest for Canadian readers. In part it reads as follows:

All the roads in France and Belgium are macadam or macadam with stone setts on sand in the centre of roads except in the towns and villages where the main streets are mostly stone setts or Pavie as they call them here. Nearly all French roads are very light construction, from 4 to 6 inches of gravel or stone, and a few inches of chalk or sand. They do not stand up under the intensive traffic in the army areas of the 3 and 5 ton lorries, guns, etc., and in the spring, fall and winter it is a case of strengthening them with macadam, slag, mine refuse, chalk, old soft bricks from the destroyed villages, or anything that can be had. Bad places wet and swampy we use sleeper roadways, i.e., railway ties on 3 bearers spiked down, or 3in. plank roads or 3 bearer or corduroy roads similarly built.

When building roads in France or Belgium we used to adopt Macadam's methods of standing large stones on end, hand placed and then breaking off the tops and placing macadam on top and rolling, but I found for this climate on wet soil this method was very expensive, as the huge lorries drove the stones down into the mud and it kept on sinking so I adopted the method of laying the large stones, or soling as they call it here, on its flatest side to give good bearing so it would carry the lorries better and then filling macadam on top of this in dry weather, rolling and consolidating as usual and binding with mud off the side of the road in wet weather, first place the soling with more on top, and let the traffic wiggle it into shape. No rollers are used in winter as they block traffic too much and are unnecessary.

The road from Albert to Bapaume was rebuilt and re-coated in this way and we carried all the army on it without a roller on the road until the dry weather of May, when we started to put a regular coating of macadam on it and had 8 rollers working two shifts per day licking it into shape.

Time is the factor in all advance road work such as is only possible in these armies as from the minute an advance is made by the infantry the guns must go up in support and the munitions must go up constantly thereafter, and whatever can be got to make the roads usable is the thing for the army. We carried all the roads in the recent advance for many weeks with repairs made to all shelled sections, which in the worst spots comprised from 80 to 90 per cent of the road near and in villages with the bricks and building chalk from the destroyed buildings in the nearest village. The traffic grinds this material into powder and in wet weather into mud and it had to be renewed every day or two, but with stone costing 30 shillings a ton and at any price not available we had to use what we could get. We have built many miles of railway sleeper roads for temporary use.

Cost never enters into the question here when we are moving whatever we can get that will hold up the guns and traffic is used. Trees are used, old sleepers, rafters and so forth from houses in the demolished villages are laid down to enable the guns and regiments to get along and keep moving and in many cases we could only make roads good enough for the horses to pull in the ambulance carts and limbers could not be taken in over the only available roads until many days or weeks work had been put on them. I have had 10,000 to 12,000 men working for many months and have used up to 2,000 tons of metal a day not counting corduroy sleepers or pit props or brick; when possible we fill all holes with broken bricks and fill 4 to 6 inches macadam on top for a wearing surface and all the while we must keep the traffic moving usually two ways on roads 16 to 78 ft. wide.

A POLICY OF DRIFT.

Charitable organizations are just like business concerns— they start with the proper degree of zeal and enthusiasm, but when a certain standard is reached they relax. The world keeps moving, and soon leaves them behind. When people, charitable societies or business houses become self-satisfied, they automatically relegate themselves to the rear.

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