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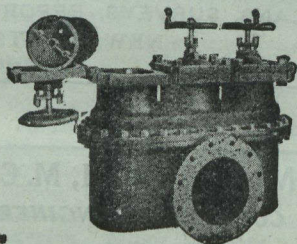
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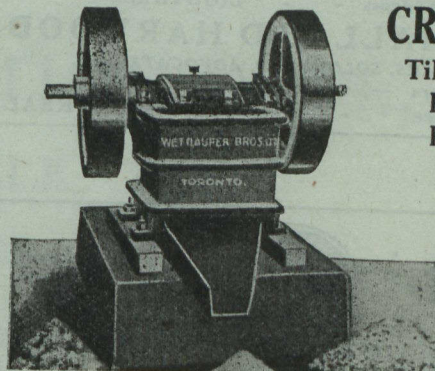
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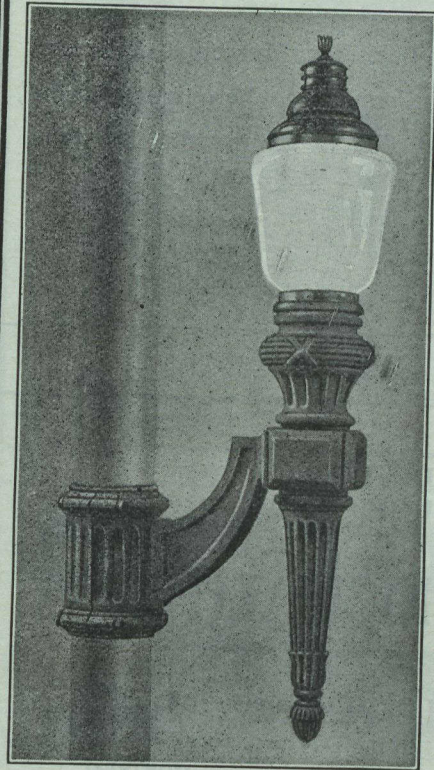
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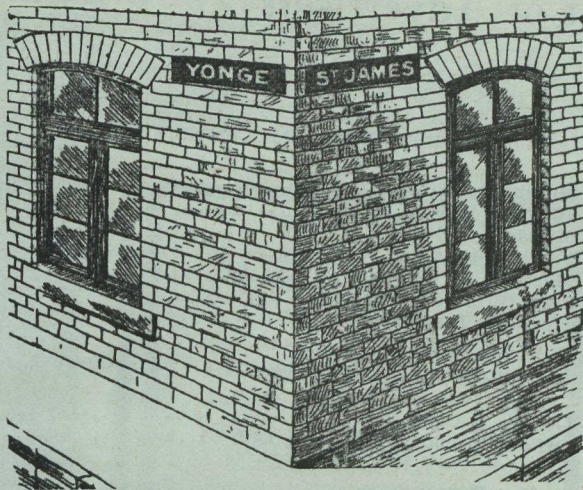
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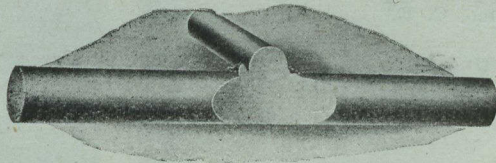
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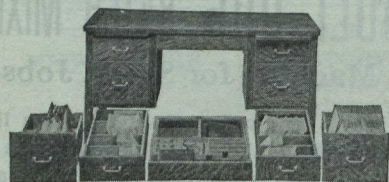
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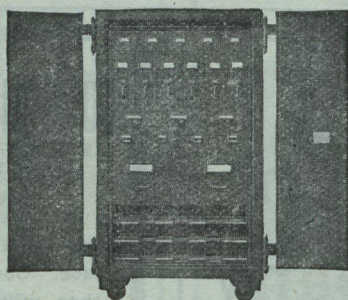
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NOVEMBER, 1917.

No. 11

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The Campaign to Increase the Consumption of Fish

At a recent conference of municipal executives of the Province of Quebec, which was called together by the Union of Canadian Municipalities for the purpose of assisting in the propaganda to increase the consumption of fish as the best substitute for those staple foods now so urgently required at the front, Mr. J. J. Harpell, representing the Fish Committee of the Food Controller's Office, gave the best reasons uttered so far as to why it was well nigh impossible to have fixed retail prices for fish for all Canada. His reasons may be epitomized as follows:

Canada is a land of great distances and long haulages, meaning different freight rates to different centres.

Uncertainty of catch, particularly of those fish in most demand, such as halibut.

Lack of knowledge on the part of the public of what fish are in season and consequently at their cheapest.

Mr. Harpell went on to state that though it was not politic to fix prices, the Fish Committee would take very sharp action against any dealer found making excessive profits out of fish, and suggested that the local authorities could do more than anyone else to control the prices, by sending in any complaint of undue profits to the Dominion Fish Committee. And to help the local authorities keep down excessive profiteering, the Fish Committee would be only too pleased to send to the councils from time to time, through the Union, the wholesale price lists.

With Mr. Harpell's reasoning we are bound to agree, which in other words means that the responsibility of keeping down the prices of fish, and other foods for that matter, rests with the local authorities. Their duty then seems to be to first create the demand for fish with the aid of the local press, and which can best be done by an assurance to the citi-

zens that only reasonable profits will be allowed to the dealers and second, to convince the local dealers that it is in their own interest to keep their fish fresh and to charge but reasonable prices. The fact of the citizens knowing that the local authorities have by them a wholesale price list, and who are prepared to take action if necessary, will be a strong check on profiteering.

To carry out these plans in anything like a thorough manner requires much thought, and would be better done by a committee of the council appointed for that specific purpose, as suggested in the letter sent out by the Union of Canadian Municipalities, and published in last month's Journal. A French translation is published in this issue for the information of the municipal councils of Quebec.

We believe that in this fish propaganda the municipal councils of Canada have a specific opportunity to convince the world of the practical nature of their patriotism, and there is very little doubt of the backing of the citizens, provided the propaganda is properly handled by the local committees. By each municipal council joining in this campaign of increased fish consumption within its community, more of the staple foods now required by our Allies would be released than by any other means, and it is the bounden duty of each member of each council to do his best towards making the campaign the success it deserves. There is another phase of this subject that deserves mention, and that is that the fishing industry is essentially Canadian, so that in urging the consumption of fish the councils would be serving two purposes—helping the mother country and our own boys at the front, and supporting a Canadian industry, and we might add a third purpose would be served in raising the standard of health of the people, and increasing their buying power, for fish is healthful and cheap.

Exploitation of the People's Heritage

Some years ago an unsuccessful attempt was made by the Aluminum Company of America, which originated from the Pittsburg Reduction Co., to dam the St. Lawrence River at the Long Sault Rapids. The scheme was frustrated by the strong protest of the Canadian people which caused the government of this country to take action, in concert with the International Waterways Commission and the government of the State of New York, to disallow the franchise, though not before a large sum had been spent by the promoters in land adjacent to the rapids; so sure were they that the scheme would go through. . . . At the present moment a second attempt is being made to attain the same object. But while the object is the same and the men backing the scheme the same, the plan of working is somewhat different. The present idea is to secure a Canadian charter through a Canadian corporation. Under this charter the promoters would be empowered to dam the St. Lawrence starting from the Canadian side, instead of from the American side as originally planned. Should such a charter be granted, the citizens of Canada, through their government, will be selling their birthright for a mess of pottage, for that is exactly what the granting of the franchise would mean. They would be giving away to American promoters, for export to establish American industries in place of Canadian ones, a perpetual power ultimately worth at least \$1,000,000,000 to us directly and indirectly. Happily for the country, Mayor Church of Toronto, in a telegram to the Premier, has drawn the attention of the citizens to the danger in time, though let it be understood that the application for the charter has not been withdrawn by any means. The promoters are right on the job, quietly but steadily steering their piratical bark through the shallows that all such charters have to sail, until it passes into the comparatively safe waters of public forgetfulness; there to be repainted to look like something else so that it may more easily be allowed to go through the locks of official inspectorship into the harbor of submarine franchises. . . . And then, the dear public be damned.

We know of more than one charter that has been obtained this way at the expense of the citizens of Canada, and we shudder to think of how this country would have been exploited by the charter sharks if the vigilance of the Union of Canadian Municipalities had ceased for one moment during the last seventeen years. Surely then the time has come that all applications for Dominion charters and plans that affect public rights, should be passed on by a permanent body of experts, such as the Railway Commission, before being granted by Parliament or the Secretary of State. We would go further, and allow no permanent charter giving special privileges to be granted for private profit. There are in existence many charters of private

companies that are a standing menace to public rights. They are permanent, some even perpetual, and what is worse, negotiable; as instanced in the case of a charter that was granted for a certain purpose in British Columbia being bought up by an eastern corporation because that charter contained the words "and elsewhere" at the end of the clause giving special privileges in the district to which the charter was to apply; the said eastern corporation not being able to obtain a charter itself because of the strong opposition of a rival syndicate.

In the case of the damming of the St. Lawrence by a group of private interests, there is brought home to us a specific instance of an attempt being made to exploit the heritage of the people for private gain at the further expense of an undertaking now owned and operated successfully by the State for the direct benefit of the citizens. Sir Adam Beck has stated that should the St. Lawrence charter be granted, a blow will be given the hydroelectric development of Ontario. Such a statement from such a man should be sufficient to warrant the Federal authorities to dismiss the application, but added to Sir Adam's statement is a strong protest from the Commission of Conservation through its chairman (Sir Clifford Sifton), whose letter is well worth the study of every Canadian who has the future of the country at heart.

Canada's water powers are vast, but not inexhaustible, and must be conserved and developed by the state itself if the people are to enjoy the benefit of their heritage. That this can be done successfully has been demonstrated beyond the shadow of a doubt by the Ontario Hydro-Electric — a co-operative movement between the provincial and local authorities by which the great power of Niagara is brought to the home of every citizen in the province at a price so low that has never been reached by any other province in Canada, nor in any other part of the North American continent. And Sir Adam, the genius of this great movement, is emphatic in stating that the other provinces could be equally as well off as Ontario. The resources of this Dominion are almost illimitable, but that does not mean that the authorities have any right to allow them to be exploited for private gain; otherwise Canada will soon be in the same position as Mexico — a country, one of the richest in minerals, oil, etc., yet one of the poorest, because its many governments have granted from time to time so many franchises for practically nothing that it has nothing left to develop for its own people. The citizens look to the government of this country to protect them from the onslaughts of the exploiter, not only in the case of the St. Lawrence development, but in every instance. The very fact of their election makes them keepers of a trust which they dare not violate by giving away that which belongs to the state.

MUNICIPAL GOVERNMENT.

In a recent issue of *The Journal of Commerce* the Hon. Wm. Fielding gives an analysis of municipal government as it appears to him and from which we quote the following:

"A thoughtful American public speaker said some years ago that the greatest danger to America's democratic institutions was to be found in municipal government. In the public affairs of the larger arenas there is more publicity and consequent inquiry than in the smaller field. It is an interesting fact that the party system, with its admitted faults, often serves to protect the public interest in a larger degree than other systems. Where there are two recognized parties struggling for the mastery, as usually is the case in National and Provincial or State capitals, the certainty of inquiry into every public matter is a very wholesome check on the doings of the party in power. The fact, too, that under that system not only the official immediately concerned but the whole party is held responsible for the official's action tends to produce watchfulness within the party. Thus, both inside and outside of the organization of the ruling party there are watchmen who serve the public interest. When so much happens to call for criticism of the party system let us not forget to credit it with the good that it accomplishes in this way.

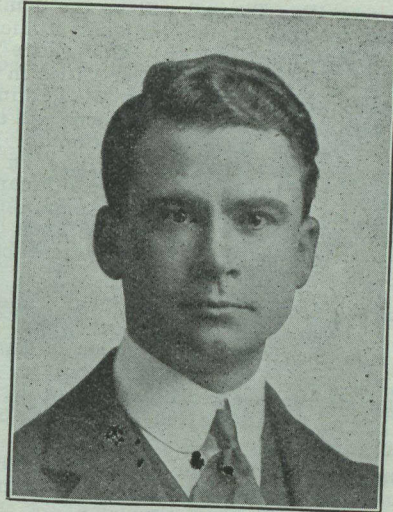
"In municipal affairs the party system is less common, and probably on the whole most of us will agree that such a system in the sphere of city government is unnecessary. From many quarters, however, comes the complaint that municipal government is inefficient, and too often worse than inefficiency is alleged."

As a student of the public affairs in Canada for many years Mr. Fielding's remarks are worthy of serious consideration, but we venture to say that in municipal government as it applies to Canada, he, like many of our public men, does not get a true perspective of the difficulties of civic administration. While we recognize that in the larger arenas of public affairs the limelight of publicity attracts men possibly of larger calibre and keeps them fairly straight because of the danger of enquiry, we do say that even under the lesser light focused on local affairs there is on the whole just as much a sense of responsibility and honesty in municipal executives and officers. A sharper check is now put on municipal expenditures by provincial authorities, and a better class of men are taking up civic affairs.

Frankly we do not believe that the greatest danger to democratic institutions is to be found in municipal government, rather we would say that the greatest hope for democracy lies in local government, because it is nearest to the people. It affects them directly. But the great drawback to successful democratic government, whether it be in the larger or smaller arena, is public apathy. . . . Under bureaucratic or autocratic government the less interest the people take in public affairs the better, but public spirit is the very life of democratic government, and this in Canada, as in the United States, is lacking to such an extent that maladministration has been allowed to enter to a large extent. As that public spirit grows so will we have better administration, not only in local, but we repeat, in provincial and federal affairs.

MANITOBA COUNCIL AND SOLDIERS' WIVES.

Charitable institutions and soldiers' dependents in Winnipeg will be able to purchase their wood this winter for \$1 a cord less, through the action of the city council. The city has some fifteen thousand cords to dispose of, and that means that those who need it most will save this winter some \$15,000. The city has thus made a start in municipal trading, but as self-evidence that it is not assured of its capacity for success, or perhaps the propriety of it, will confine itself for the present to soldiers' families and charities, instead of entering the field of competition with the dealers.

LATE CAPT. TALBOT PAPINEAU.

In the death of Capt. Talbot Papineau, who was recently killed in France when serving with his regiment, the Princess Patricia's, the Quebec branch of the Union of Canadian Municipalities has lost a valuable member. Capt. Papineau, who was a grandson of the great Papineau and cousin of Henri Bourassa, though one of the first to volunteer for service in France, was an enthusiast for municipal reform in his native province. He was one of the founders of the Provincial Union, and up to the time of his joining the forces acted as secretary. Municipal Canada can ill afford to lose such men as Talbot Papineau.

MUNICIPAL SERVICE.

(Rt. Hon. Henry Asquith, ex-Premier of Great Britain.)

One cannot forbear sometimes asking oneself the question why it is that British public men, to whatever party they belong, and in whatever sphere, civil, or military, or diplomatic, their activity may have been engaged, prize so closely and so dearly the offerings of friendship and honour which are from time to time made to them by the municipalities of our country. It is because everyone who has served Great Britain in any capacity or who has tried to serve her, small or great, realizes that it is in our municipalities, and their life and activity, that in the long run we must find the reservoir of public spirit and ability.

In these days, among the external good which can come to a community, there is none which is of more serious account than a pure and efficient municipal life. Nor is there any more encouraging spectacle in this country than the enormous amount of time, of labour and ability, unremunerated largely, which is spontaneously given day by day, month by month, year by year by men and women alike, to local public work.

If this work is to reach its highest level there are two conditions which must be satisfied. In the first place, the best men and women in the community must be ready and willing to take their part in it.

That has not been the case always. Many of us can remember times and places when the relatively humble and unadvertised labours of the town councillor and the Poor Law administrator were thought to be unworthy of men of intellect and what is called position. Happily, that is now an obsolete notion.

The other condition of sound and strenuous municipal life which I would require is the maintenance of a vivid and, I might say, a vigilant public interest. Almost all the scandals which have disfigured the annals of municipal history in this and other countries are due to the absence or temporary withdrawal of these restraining, stimulating and purifying influences. It is easy to sneer, as some superfine critics do, at petty interests, which are only worthy the attention and activity of a parochial mind. Just as the smallest communities are made up of individuals and families, so in the same way the State, the nation is as a whole but an aggregation of those communities themselves, and the maintenance of an effective and an ever-wakeful public interest in the local concerns of your own parish and borough is the best security in the long run for the maintenance of a high standard, both of character and intelligence.

CITIES DURING WAR TIMES.

"Cities During War Times," will be the dominant theme of the annual meeting of the National Municipal League at Detroit, in November (21-24.) One entire session will be devoted to the topic "Feeding Our Cities in War Time," the principal speaker being George W. Perkins, chairman of the New York Market Commission, who will address himself to the subject of state organization for food supply. President Marcus M. Marks, of the Borough of Manhattan, will speak on wholesale and retail markets, and a representative of the National Food Commission on "How the Cities Can Effectively Assist in the Food Crisis." Still another subject will be "Agents for Better Local Distribution of Food."

A session will be devoted to the "War Time Experiences of English and Canadian Cities," over which W. D. Light-hall, K.C., Hon. Secretary of the Union of Canadian Municipalities, will preside. Among the speakers arranged for this meeting are Sir George Gibbons, Mrs. H. P. Plumtre, Secretary of the Canadian Red Cross Society, and Mayor Church, of Toronto.

The annual review of the Secretary, Clinton Rogers Woodruff, of Philadelphia, will deal with "American Cities during War Time and Their Problems."

Underlying all the sessions will be the thought, "What must we do to make our cities effective during and after the war?" Consequently, budget making and training for public service will come in for a large share of attention.

One of the questions to be discussed in conjunction with the City Managers' Association, which will meet in Detroit at the same time, is "Will the City Manager Form of Government Fit All Cities." President Lawson Purdy will preside at this meeting, and the speakers will include Richard S. Childs of the National Snort Banot Organization, City Manager Cummins, of Grand Rapids, George B. Harris, chairman of the Republican City Committee of Cleveland, L. D. Upson, of the Detroit Bureau of Governmental Research, City Manager Carr, and Commissioner George W. Knox, of Niagara Falls, and City Manager Waite, of Dayton.

The question of executive or legislative budgets will be the theme of another session, to be held in conjunction with the bureaus of governmental research, likewise meeting at the same time in Detroit. The discussion will be opened by Dr. Frederic A. Cleveland, of Boston, formerly director of the New York Bureau of Municipal Research, and Dr. E. A. Fitzpatrick, of the University of Wisconsin, the former maintaining that the executive should frame the budget and the latter that the legislature should.

Judge Connelly, of Detroit, will preside over a luncheon at which Alderman (Professor) Charles E. Merriam, of the University of Chicago, who will discuss the question, "Can We Have Non-partizan City Government." Speakers from leading cities like Cleveland, Detroit, Seattle, San Francisco, Los Angeles, Boston and Toledo, will consider the question of whether the non-partizan ballot eliminates the party machine in large cities.

At the dinner on Thursday evening the executive budget will come in for further consideration at the hands of Governor Cox, of Ohio. The important administrative re-organizations in Illinois and Kansas will, it is expected, be discussed by Governor Lowden, of Illinois, and Governor Capper, of Kansas.

"The City and County" will be the subject of another session, at which will be considered the experiences of Baltimore, Denver and California. Among the speakers will be City Solicitor S. S. Field, of Baltimore; George C. Sikes, of Chicago, and William B. Guthrie, of New York.

"Selling Good Government to the People," will be the theme of a luncheon presided over by J. Horace McFarland of Harrisburg, who will himself speak on this theme along with Dr. D. F. Garland, the director of welfare in Dayton, who will speak on "Humanizing Welfare Reports."

A session on training for public service will be presided over by President Hutchins, of the University of Michigan, at which the speakers will be City Manager Gaylord C. Cummins, of Grand Rapids; Dr. William H. Allen, director of the Institute for Public Service, New York City, and Richard H. Dana, president of the National Civil Service Reform League, and a representative of organized labor.

President Lawson Purdy's annual address will deal with the highly important subject of "Municipal Pensions."

Meeting in conjunction with the National Municipal

THE LORD MAYOR OF LONDON.

Dr. John Reade in one of his recent sketches, which appear week by week in the Montreal Gazette under the general title of "Old and New" takes up, in his own delightful way, Canada's connection with the Lord Mayoralty of London; the article being inspired by the election of Mr. Chas. Hanson, of Montreal and London, to the great position. In referring to Mr. Hanson's election in last month's Journal the name was incorrectly spelled as Hansen. This, we regret, though the association of the name with the well known bond house of Hanson Bros. was sufficient to most of our readers to identify London's chief magistrate. Dr. Reade's article reads as follows:

The first Canadian Lord Mayor of London was a Nova Scotian named Watson, whose career was quite curious and eventful. We gave a fairly full account of him some years ago in "Old and New." Mr. Hanson has a special interest for Montrealers and his course in the Guildhall will be followed with more than ordinary interest by all who are proud when Canada's sons or daughters distinguish themselves. The record of London's Lord Mayors appeals to the historic imagination with a force that compels our sympathy. From the days of the Conqueror, the Sovereigns of England, Great Britain and the Empire have been desirous of conciliating the rulers of the city. They looked upon the Lord Mayor as a brother potentate. Some of the most stirring pages of British history are identified with the relations between the King or the Queen and the Lord Mayor. Again and again the Sovereign depended on the merchants of London, mainly represented by the Mayor and Aldermen of the city. In the time of Queen Elizabeth, the concord between the Queen and the merchants was deemed one of the happiest features of what Ian Colvin calls the national policy, as then inaugurated. The Company of Merchant Adventurers had, indeed, begun with a mistake, which they afterwards did all in their power to make amends for. When the Duke of Alva had severed the ties of goodwill that had long prevailed between the Kings of England and the City of Antwerp, the Queen was in great want of money. She applied to the Company of Merchant Adventurers of the City of London for a loan, but through some inadvertency her plea was rejected. The affair had been brought before a general court of the company, and a show of hands proved adverse. But, when the Privy Council had shown very real and not unreasonable resentment, some thirteen of the Aldermen and other merchants of London had negotiated a loan for Her Majesty, which satisfied her so well that she did not fail to express her gratitude. Henceforth an excellent understanding prevailed between Queen Elizabeth and the merchants of London who, as Maitland writes, "practically financed the Crown." The accession of a Lord Mayor has always been marked by ceremonies that were intended to emphasize the dignity and influence of his position as the ruler of the Empire's metropolis. In the year 1575, in the reign of Queen Elizabeth, five years after the unhappy incident above related and its happy reparation, William Smythe, citizen and haberdasher of London, wrote an account of the entry into office of the Lord Mayor of the royal city of London, capital of the realm of England. The day of St. Simon and St. Jude (he says) the Mayor enters into his state and office. Next day he goes by water to Westminster in the most triumph-like manner—his barge being garnished with the arms of the city, and near it a vessel of Her Majesty, rigged like a ship of war, with ordnance, standards, pennons and targets of the proper arms of the Mayor, his company and the merchant adventurers. Landing at Westminster, he takes his oath in the Exchequer, before the judge, and then returns by water and lands at Paul's Wharf, where he and the Aldermen take their horses and in great pomp pass through Cheapside.

MAYOR FOR FORTY YEARS.

By the recent death of Mr. Matthew J. Strong, who was for forty years without interruption, mayor of the municipality of Mille Isle. Canada loses one of its oldest municipal executives. He was 77 years of age, born at Gore, Argenteuil County, P.Q., and for twenty years was warden for the county. Surely a record of continuous civic life.

League will be the Civic Secretaries' Committee, and the Intercollegiate Division of the League, the City Managers' Association, the Bureaus of Governmental Research and the Society for Promotion of Training for the Public Service.

How the British Food Controller Works

In a recent address before the Montreal Canadian Club Lord Northcliffe, the head of the War Commission to the United States, gave a very graphic description of the co-operation between the British Food Controller and the local authorities in putting into force the measures to conserve the food of the country. It is a similar co-operation that was urged at the London Convention of the Union of Canadian Municipalities. The address reads partially as follows:

"Briefly, the aim of Lord Rhondda, the British Food Controller, is to safeguard the interests of the consumer, to do away with profiteering altogether and to prevent excessive profits of any kind. The framework of our machinery is formed on the famous British civil service. They are the administrators, but in all cases in the ministry of food, we secure the best available business men to advise the civil servants, as well as a number of expert committees dealing with almost every food commodity. The policy is to limit profits at every step, from the producer to the consumer, and at the same time regulate supply. A costing department, under the direction of chartered accountants, has been set up, through which the profits made by any manufacturer of food, or any retailer of food can be ascertained.

"Great Britain has been divided into separate areas, in each of which a leading firm of accountants has been appointed by this department to do the necessary work. Reasonable profit, based on pre-war rates, is added to the present cost, and price limits agreed on that basis after consultation with the representatives of the trades concerned. Decentralization is obtained by dividing Great Britain into sixteen food divisions. Each division is under the superintendence of a commissioner appointed by the food controller. The borough, urban or rural district councils, or other local authorities appoint local food committees with limited powers, and certain discretion, to carry out such regulations as regards price and distribution, as may be issued from headquarters. Local storekeepers are registered with their local committees, and if any storekeeper does not carry out regulations and orders he may be struck off the register, and put out of business. The various orders fixing or amending the maximum prices of meat, milk, potatoes, bread, etc., are communicated to the local committees, and the trades and public are informed through the daily and trades press. A staff of inspectors is kept at headquarters and a number of sentences have been imposed by magistrates throughout the country in contraventions of the regulations. The general penalty is a fine not exceeding one hundred pounds or a term of six months' imprisonment with or without hard labor, or both. One fine of twenty-five thousand dollars has been upheld for potato profiteering. This punishment may be inflicted for every several offences. It is proposed to make the penalties more severe.

While the price of practically all essential foods are now under control, no compulsory rationing is imposed on the general public although all restaurants and boarding houses are rationed as to the amount of meat, flour, bread and sugar which may be used in any week on the basis of an average for each meal. After December 13, only half pound of sugar per capita will be permitted. This will be obtainable through a system of each consuming household, or consumer registering with a specific retailer and securing from the local food committee a card entitling his household or himself to the ration.

The retailer will keep a record of his deliveries to ensure his not supplying any one customer in one week with more than the proper allowance. Arrangements for the issue of these cards are in progress and they will form the groundwork, should it become necessary to ration other foodstuffs. There are many restrictions in manufacturing. Flour made from wheat must be straight run flour milled to eighty one extraction. It is compulsory to mix in twenty per cent of flour from other cereals and pulse and permissible to mix it up to fifty per cent wheat. No bread may be sold unless twelve hours old. Following on restrictions of fifty per cent and forty per cent manufacturers are now restricted to the use of only twenty-five per cent of the amount of sugar they used in 1915. Malting from any cereal or the use of malt for any purpose except so far as permitted by the food controller is forbidden, and brewers are restricted as to the amount of very weak beer they may brew.

"Speaking generally the use of foodstuffs for industrial purposes, and for the feeding of animals has either been

restricted or prohibited. Waste of bread is a criminal offence. Appeals for economy in consumption have been made and a new campaign is being organized to this end. The maximum price of the quarter loaf has been reduced to eighteen cents for cash over the counter. It was only found possible to do this by subsidizing flour. It was found necessary to control practically all essential commodities.

"The danger that in introducing prices we may restrict supplies and increase consumption is obvious, but our food controller thinks it can be largely overcome. It has been suggested that our recent fixing of meat prices will lead to excessive slaughtering. If it does Lord Rhondda is in a position to control the transport of meat, and he is taking steps to license the slaughter houses. A condition of the license will be that no more than a certain number of cattle are slaughtered per week. He also proposes to control the sales through the auctions and he can limit the quantity there. In the course of a month or two he hopes to be able to determine approximately what quantity of meat ought to go to each industrial area, and to limit the quantity if necessary. Maximum wholesale meat prices for the whole kingdom have been fixed, independently of the cost of transport. He hopes to meet the danger that producing areas, because of this, might get more than their fair share of supplies by fixing a flat railway rate.

"As regards nearly all imported commodities, adequate distribution is being secured, as the sole control is in the hands of the Government, and importers or wholesalers are required to supply in fair proportion the needs of their usual customers."

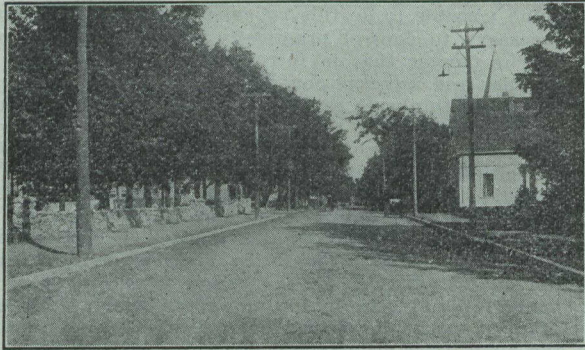
CANADIAN ANNUAL REVIEW.

Last year we reviewed in these columns Mr. Castell Hopkin's fifteenth edition of his Canadian Annual Review. One feature of the work that specially commended itself to us was the clear perspective that the author gave to his readers of Canada's part in the great war. This year, in his sixteenth volume that has just been published, Mr. Hopkins, evidently appreciating the fact that since the people have sacrificed so much in the great cause and consequently entitled to know how other nations are faring, has gone further and presented a general review of the world situation towards the war—the position of the Central Powers; their economic conditions and peace proposals; their war measures, etc. The Great Powers of the Entente; the Balkans and Japan. The war policy and general position of the Empire in 1916; Ireland's part in the war as affected by the rebellion; the neutral nations, etc.

Coming back to Canada the author deals very fairly with the war problems affecting the country, and in particular his chapter on the attitude of French-Canada towards war is well worth reading, not only by the student but by every Canadian, be he or she French or English speaking. Each of the Provinces is dealt with separately, showing the many war activities of the different centres, and the political aspect of and progress made by each government.

As far as the municipalities as units are concerned Mr. Hopkins has given little or no recognition to their war activities. It is true that some of the municipal councils might have done more, but others have done splendid work, and in all the municipalities the attitude of the local authority has affected the war activities of the community. So that in suggesting, as we did in reviewing the 1915 edition, that Mr. Hopkins take up this—the municipal—phase of Canada's part in the war in a future edition, we are confident that he would be well repaid for his labor and no doubt will be surprised at the results. In purely civic affairs the story of the Berlin-Kitchener issue is the only question dealt with, though the Hydro-Electric development and its problems take up part of the review.

Taking the sixteenth volume of the Canadian Annual Review as a whole we would say that it is 828 pages of good reading and quite equal to its predecessors. The work is informative and fair, and the articles, all of which are from the pen of Mr. Castell Hopkins, well written, and no Canadian desirous to know all about the war and where Canada stands, as well as the internal affairs of the country, and a perspective of its activities can afford to do without it. The volume is published by the Canadian Annual Review Co., Toronto.



BEAUTIFUL AND ATTRACTIVE ROADSIDES

By FRANK C. PERKINS.

The accompanying illustration shows an attractive roadside and indicate the imperative demand for expert supervision of planting and forestry along highways. A. D. Taylor, Professor of Landscape Architecture of the Ohio State University, points out that there is more to the highway question than is dreamed of in the philosophy of good road enthusiasts. Questions of pure utility relating to highways, have received a tremendous amount of attention, but America has not yet commenced to do the things that it certainly will do in the control of vegetation and appearances along highways.

It is held that frequently the investment that pays the highest returns in dollars and cents is the one which is, in some respects, the most highly sentimental. This is particularly true of those investments that concern appearances. An inter-urban route of auto travel that becomes noted for the stately trees or attractive shrubbery along the way will have three times the traffic that is found on a road of equal utility, but without scenic interest.

It is maintained by this landscape architect that people make land values, particularly people that seek out a locality to admire it. There is nothing new in the idea. Paving materials are continually being chosen on grounds of appearance. Urban real estate is vended on the basis of beauty. The only excuse for dwelling on the point at such length is the fact that in suburban road development we seem to have left the question of appearance entirely out of calculation, or else consigned it to the mercies of chance.

It is held that in spite of the fact that wonderful examples exist in many parts of the world, and that our attention is called to the desirability of entering upon a program of beautification repeatedly, two broad problems present themselves; first to plant trees where the roadside is barren; second to thin out the over-dense foliage found where roads are cut through forests. Each is the same in the sense that it is an effort to combat monotony and introduce variety. Taking the barren roadside first, there are several arguments for the planting of trees. One of the most is that of shade for the traveller; a second is found in the sheer attraction that it lends, particularly the air of established permanence that a shaded road has in contrast with a barren road. The former conveys the impression of a main highway, whether it is or not. The latter might have been opened last year, so far the eye can tell, and it conveys the impression of a by-road. Against this there are the occasional complaints of farmers that trees rob the soil near the road. Admitting the possibility that the effective acreage of a farm may be slightly reduced in this way, it is believed that the benefit usually overbalances the loss, even from the standpoint of dollars and cents. There are few farms in America that are cultivated so intensively that this loss of productivity cannot be made up in other portions of the farm.

Prof. Taylor maintains that: "As we are combating monotony, warning must be issued against too regular and symmetrical a scheme of planting. A road-side with uni-

form trees planted at regular intervals is tiresome, if continued too great a distance. Skilled supervision of the work will result in effective grouping of trees, with suitable intervals to assist the perspective."

The treatment of dense wild foliage, he claims is largely that of making openings for the eye and eliminating the raw evidence of axmanship. Undergrowth must be controlled. Vistas must be opened through the trees. The question of safety is involved here. An abrupt turn in a woodland road means danger of collisions. Intelligent treatment of such a situation results either in the removal of trees and undergrowth at the turn, or cutting an opening through the trees, so that the roadway can be seen before the turn is actually reached. The use of shrubbery, both at the open roadside and in the more wooded effects, must not be overlooked. Viburnums, dogwoods, wild roses, thornbushes and sumach are native shrubs that can be secured for a few cents and are hard to kill. Imagine, for example, a sloping shaded roadside banked with dog-wood shrubs, all in bloom; an effect easily within the reach of thousands of land owners who will submit to a slight amount of trouble.

Attention is called by this landscape architect to the fact that another fit subject for a few elementary suggestions is the treatment of exposed earth surfaces, especially where cuts and fills have been made during construction. The bare angular cuts left by the steam shovel are unnecessary, unsightly and often a menace to the usefulness of the road. It would require only slight additional attention to round out some of the sharp angles in these cuts and give them a finish such as good workmen strive for in any other sort of mechanical task, but which the excavator seems to regard as non-essential. Then, by all means, cover the surface with foliage of some kind. If the slope and soil permit, a vigorous grass may be best, but this entails a certain amount of labor in cutting that cannot always be afforded. Shrubs take less subsequent attention, and can be grown on steeper inclines. One of the best and quickest methods to hide a bare space is to plant quick growing native vines, such as the wild honeysuckle or the Virginia creeper. Vines that give forth roots at the nodes are to be preferred.

It is held that this vegetable growth not only serves the purpose of beauty, but it preserves the shape of the bank when frost or rain might otherwise bring down large quantities of it, either upon the roadway itself, in case of a cut, or into the drainage ditch, in case of a fill.

Prof. Taylor disagrees with some of the exponents of his profession, who say that a road or path is, in a scenic sense, merely a necessary evil to be made as tolerable as it can be. He points out that there is an ancient wayfaring instinct in all of us, closely linked with our perceptions of beauty, which makes the road a subject of allurements. A road contains a vista and the vista is one of the simple scenic effects which will never cease to charm. Then, the mere possibility of rapid travel has its scenic value, for it means continual change and continual possibility or surprise."

What of the Morrow?

R. O. WYNNE-ROBERTS, C.E.

So far as is publicly known our governments, federal, provincial and municipal are doing very little in preparation for the morrow when peace will once more prevail and our ordinary civil affairs will gradually resume their routine in our normal daily activities.

These are abnormal days when everything has to be more or less set aside for the prosecution of the war. Our first duty is to win the war, because failure in the struggle will render all our project of less value. This predication will be agreed to by all thinking people. Democracy must win in this war or democratic principles and institutions are in grave danger of being throttled until they are some day re-established by our descendants.

But, whilst we may be obsessed by the titanic struggle for the ideals which constitute the fundamental basis of democracy, we must, nevertheless, give a thought to the duties and responsibilities which devolve upon those who are not privileged to carry arms by considering how we may play our part in the fulfilment of the obligations to uphold democratic ideals at home not only for ourselves but also for those who are valiantly fighting our battles in Europe and elsewhere.

It would be out of place to discuss this subject from various viewpoints in your columns, since the Canadian Municipal Journal is devoted to municipal affairs. Consequently consideration will be confined to two points in relation to civic matters. The first point is our objection to maintain democratic municipal government, to develop its powers and to promote its efficiency. In many respects Canadian towns and cities have not suffered by the withdrawal of men and plant to the battlefields as is the case in Britain, France, etc. Consequently the city administration has not been disturbed nor has the maintenance of the public works been upset in this country, like elsewhere, for which we should be thankful. As we have less disturbing influences at work here, we should find the present time a suitable one for a thoughtful consideration of the various problems which have to be solved. Now is the time to take stock of the deficiencies and imperfections of the laws governing municipal affairs and to devise methods or seek new powers which will tend to eliminate them. Later on we shall be immersed in troubles of other kinds, to which reference will be made. Civic government is always in the melting pot. It is never complete or perfect. It must always be in the process of development so as to adequately cope with new conditions which perpetually arise. Now is the time when persons, who are interested in public welfare—and this should include all ratepayers—may do their bit in promoting better government and advancing movements for the common good.

The other point is our obligation to organize municipal works so that employment made be found for those who may need it in the days to come. Even now, munition works are less busy and the number of employees are reduced, which fact means shrunken pay-rolls and diminished circulation. When the war is over—and it may collapse at any moment—the supply of munitions will no longer be required. There can scarcely be any doubt that we and our Allies will cease making all kinds of munitions as soon as possible, for the stock on hand will suffice for many years under peace conditions. The government will certainly stop the expenditure of money on war and incidental operations with such a suddenness that it will occur like an explosive shock to the employers and the employees. This is usual in ordinary war and is practically certain in this extraordinary war. More than this, the governments will make a strenuous effort to be relieved from the financial burden of supporting huge armies as expeditiously as possible after the declaration of peace. The debts incurred during this war have already reached such a colossal magnitude that every Minister of Finance will be eager to close the accounts. And, moreover, the taxpayer will be even more delegated with the prospect of putting an end to the stupendous expenditure because he is fully aware of the fact that it is he who has to pay the piper, although he did not call for the tunes.

If these anticipations are fulfilled, it is evident that the factories will have to seek elsewhere for orders to take the place of munitions; workers will be seeking employment which will not be so plentiful nor so lucrative; soldiers will be returning home to resume their civil occupations at the time when Canada will be doing her best to

rearrange her internal affairs. That is not the time to plan or to organize. We shall then be immersed in troubles with less power of doing the proper thing for others. If inadequate preparations are now made the prospects will be gloomy. We like to believe that all will be well and if they are, we shall truly have cause to be thankful. The aftermaths of other wars were not tinted in optimistic colors mainly because sufficient provision had not been made for the men returning from the wars. The Russian-Japanese, Spanish-American, British-Boer Wars, each had their aftermaths of troubles of more or less severity.

If preparations are to be made for the morrow it is time now to organize. It will take some months to set our affairs in order.

There will undoubtedly be a great demand for materials and manufactured goods, not only for the devastated areas in Europe and elsewhere, but also for all parts of the civilized world. It must be remembered that the civilized world has been thrown into commercial chaos for three years, and this has held over every kind of enterprise, to a more or less degree. It will be probable that Canada will participate in the business of supplying some of these materials and manufactured goods, and it is to be hoped that her share will be considerable. Still, even with a large share of the business, it will not furnish work for the many men and women seeking employment, for the reason that their experience and training will not be suitable.

Under an autocratic form of government much pre-arrangement might be made to meet the anticipated conditions, but that possibility has been largely obliterated by the enormity of the task and the impoverished exchequers. If the problems confronting Britain and her allies are serious, those facing the Central Powers are staggering. Our form of government, however, is democratic and preparation therefore devolves on all citizens. The federal and provincial governments of Canada may be able to do something to adjust the labor question after the war, but it will inevitably be inadequate. The hope of the morrow must be with the municipalities, because they are numerous, they have a greater variety of opportunities, and the work of organization will be more distributed — if they will only consider their plans in time. "Forewarned is forearmed" is excellent in principle and productive of good, but neglect of opportunities with the resulting calamity are conditions we do not care to contemplate.

What then can the municipalities do to prepare for the morrow which is certain to arrive? Practically every one of them has some work in view. The monetary market has been unfavorable for municipal purposes and has caused many municipalities to defer the consideration of new enterprises. The financial stringency may continue, but that is an unsatisfactory reason for not preparing. Time is necessary for the investigation of schemes and to obtain the best results. Inadequate consideration or development of public undertakings is wrong and yet this is often the case. No surprise need be expressed concerning the manner engineers and others sometimes prepare schemes, because the Councils allow the matter to be held over from meeting to meeting, eventually to allow insufficient time for the scheme to be properly arranged.

The soldiers returning home at the conclusion of the war will naturally expect much from the democracy for which they have given their best and in thousands of cases—their comrades have given—their lives. The soldiers were promised many things on return. Shall they be disappointed? Shall democracy redeem its promise or shall it ignobly fail? It may be declared, with some amount of truth, that the federal and provincial governments are too partisan in character for fulfilment of their obligations. But as a rule municipal authorities are not so characterized. Even if Councils cannot devise plans to fully meet the exigencies of the situation during the period of reconstruction of the commercial and social fabric of our land, they can at least help to ameliorate the lot of many who may otherwise have to experience the chagrin of an empty larder after serving so well on our behalf on the firing lines in Europe.

Municipal Experiments in England

JOHN CABBURN.

(Associate Editor, Municipal Journal of England.)

British municipalities are making experiments with what is called ionized air as an aid to agriculture, with the assistance of the Government. At Hereford tests in electric-culture are being carried out under the auspices of an agricultural expert appointed by the Government, Mr. Jorgensen.

The usual experimental procedure is to plant several plots, taking care to keep the conditions as nearly as possible identical in all. One plot is treated in a special way and the rest in the normal manner so that any difference between the growth under special treatment and the average growth of the others may be taken to be due to that treatment and, where measurements can be made, a ratio obtained.

As a matter of fact for the last twelve years experiments have been carried out in England on an extensive scale in different places on different soils and under different climatic conditions, the pioneers of these experiments being Sir Oliver Lodge and Professor Priestly, the latter with the help of the Board of Agriculture.

The Hereford experiments have already given wonderful results. For example:

Young strawberry plants have increased in yield by 80 per cent, older ones by 36 per cent and 25 per cent.

Potatoes are good subjects and invariably show increases, usually between 20 per cent and 50 per cent, the increase being in the size of the tubers and not the number—from which it would seem that there is here a means of bringing new potatoes on the market earlier.

Carrots, beets, tomatoes and mangolds all show increases of from 20 to 50 per cent.

Wheat has been the subject of the most extensive and prolonged experiment, and the average increases shown are from 20 per cent. to 40 per cent., but one crop grown under a very much more intense discharge showed an increase of about 50 per cent. in grain and nearly 90 per cent. in straw, besides ready for harvesting earlier. The grain was also of a superior quality.

Municipal authorities which own electricity undertakings are taking a keen interest in these experiments and sending deputations to ascertain the possibilities of electric culture. Mr. Jorgensen tells the deputations that in his opinion the discharge of electricity appears to act, roughly speaking, as artificial sunlight, so providing a means of counteracting the lack of sunshine, which is the one drawback from an agricultural point of view to the very fertile lands of England. In these circumstances it would be of little use to make use of the apparatus other than on cloudy days. Crops under treatment apparently draw more from the soil, both moisture and food, and therefore plenty of water and manure must be given.

At Hereford the Government has taken over fifty acres for experimental purposes. Stout poles with large insulators mounted thereon have been erected in parallel lines across the fields. Span wires of galvanized iron are taken along the length of the field and supported on the insulators. Fine discharge wires are strung across from span wire to span wire. The discharge wires are connected at the ends to light brass hooks which from a good connection to the span wires and allow them to be shifted or taken down as required. The H. T. current is fed to the thick span wires, which conduct it to the fine wires, from whence it discharges on to the crops.

When the apparatus for generating the H. T. current is started, the discharge to earth from the overhead wires can be distinctly felt and by means of an instrument, the density of the discharge at any particular spot can be seen. The apparatus itself consists of a motor generator which takes direct current from the mains of the Corporation and generates alternating current which is led into a transformer and stepped up to the immense pressure of 150,000 volts. At this pressure it is passed through a rectifier which reconverts the current from alternating to direct and then it passes through elaborate insulators to the span wires.

Mr. Jorgensen has no doubt in his own mind as to the advantages to be derived from the use of ionized air in agriculture, but he thinks that the present method of application is haphazard and unscientific and that as the method of experimenting is naturally slow, it will probably take some time before any definite information can be obtained. He states, however, that good results have been obtained even by working without scientific information.

It would appear that the electric discharge has the same

effect as the sun and splits up the ions from the atmosphere and enables plant growth to extract the nitrogen. It is necessary to manure the soil heavily to get good results. Though the subject of electro-culture is still in the experimental stages, the majority of investigators in this field are optimistic and more than one foreign Government is investigating the matter.

In the Hereford district there is a good demand for electricity for agricultural purposes generally and at one farm there is a wonderful electrical equipment. The current is conveyed to the farm by a system of light transmission lines made of aluminum to reduce the cost. The installation consists of a 10 horsepower motor with starting panel mounted alongside and on the left hand side is fixed a vacuum pump for milking purposes. This machine under normal conditions is used twice daily for about two hours in the morning and one and a quarter hours in the afternoon. The cows milked average about seventy and the machinery has a capacity of eighty-eight. The motor also drives root pulping and chaff cutting machines on the floor above. A machine for kibbling corn and rolling oats is installed, also a circular saw for splitting wood and fencing material. The farm buildings are lighted throughout, there being 25 lamps of 25 c.p. This represents a typical farm installation. The use of electricity from the farmer's standpoint undoubtedly means a considerable saving in labor.

As stated, many municipalities are taking an interest in this subject. Swansea Corporation has sent a deputation to Hereford which has returned to Swansea with a recommendation that the electrical engineer shall start an experimental installation and note the results. It is mentioned that the cost of the complete installation would be probably about \$1,250.

"THE SHORT SIGHTED MAYOR."—A Fable.

The Long Suit of the Mayor of Spotless Town was Scrubbing Up the Town, whereas this Mayor's Big Idea was Keeping the Tax Rate Down.

The City Fathers argued about the Need of Adequate Fire Protection; they spoke of the Rapid Growth of the City; they Pointed with Pride to the Fact that, in spite of Poor Fire Protection, New Industries were Constantly Coming in; but they likewise Bewailed the Fact that, Because of Poor Fire Protection, Many Desirable Concerns which the Board of Trade had Expected to Induce to Locate there had Gone to Other Towns where they COULD get Proper Protection.

But all to no purpose. "I am Strong for Municipal Economy," said His Honor. "That was the Platform on Which I Ran, and It's the Platform on Which I stand. Our Present Apparatus has been Putting Out Fires Ever Since I Was a Boy, and I guess It's Still Good Enough to Do the Job."

So the Proposition Met with such Strong Opposition that it was Passed Up for the Time Being, much to the Regret of the Chief and his Men, who Feared that Sooner or Later the Big Fire Would Come and They would Not Have the Needed Equipment with which to Fight it.

"Talk about the Devil and He Is Certain to Appear," is an Old and True Saying. And, Sure enough, One Night he Did Appear. For Several Hours it Certainly Looked as if He had not only Come Himself, but had also Brought his Place of Abode with Him. It was the Big Fire, all right

It was a group of Large Factory Buildings, in one of the Outlying Districts, a Mile and More up the Railroad Track. By the Time the Horses had pulled the Apparatus through the Deep Mud up Several Steep Hills, they were Badly Winded, and the Fire was Beyond Control Long Before a Single Piece of Apparatus Arrived.

Motor Apparatus would have Plowed Through that Mud in Quick time. The Fire was what the Cub Reporters called a Great Conflagration, and the loss was what the Insurance Companies called a Total Loss.

Moral: When a Growing Community Needs the Protection Which Only the Best Type of Motor Fire Apparatus Can Give, there are Bigger Things to Consider than a possible Rise of a Point or Two in the Tax Rate.—Exchange.

The Rights of the Child

By DR. C. J. HASTINGS.

In a recent report to the local Board of Health, Dr. Hastings, the Medical Officer of Health for Toronto, takes up the rights of the child, and in particular its claim on the community, in very forcible language, from which we quote the following:

The records of history teach us that in all ages nothing but a calamity or an impending calamity will rouse mankind, individually or collectively, to a sense of their duty towards their fellow men. Ever since the barbaric ages, when infants were put to death or sacrificed through superstitions or delusions, down to quite recent date we have found ourselves confronted at every turn with evidences of man's inhumanity to man, through sins of commission, omission or cold indifference. It seems almost inconceivable that the attitude of society towards the child could ever have been anything but tender. It has taken over nineteen hundred years of so-called civilization and Christianity for nations to realize their obligations to the child. The awakening first occurred in connection with the development of the child's mind. Consequently, under the Truancy Act, which has been in force since 1891, it was made compulsory for every child to attend school until fourteen years of age—and advisedly so—but they failed to recognize that a pre-requisite for a good citizen is a sound mind in a sound body. Galton, in his study of distinguished men of science in England, found that of those who had obtained great eminence, 95 per cent. were men of unusual energy, and were the children of parents noted for energy. Physical growth, then, seems to be both a sign of mental growth and a condition of mental power. "The Clay Cottage," as Locke called our bodies, is more than a shelter for the mind; it is also a support and an instrument of the mind. In other words, a sound body is essential as a dwelling place and place of safety for a sound and developed mind. Herbert Spencer said years ago: "The first requisite for a man is that he be a good animal." Professor Tait MacKenzie has said: "After the war, Great Britain will become like a boat in which there is no room for the man who cannot pull his own weight." Any nation is committing suicide that does not see to it that the physical development of every child is kept in advance of the mental, for the foundation of accomplishments, national or personal, must rest on the physical as well as the mental ability to accomplish what we set out to do, and the nations that can see and act on this will out-distance those that do not. Obviously, then, every child in the interest of the state as well as in its own interest, is entitled to be well born, and being well born, is entitled to the best mental and physical development of which it is capable.

It must be apparent, then, that for character building, and in fact for nation building, the principals and teachers of our public schools easily rank first. They are the custodians of the child in the most plastic period of its life, and, consequently, for the mental, moral and physical development of our children they are much more responsible than any others. In fact, it would be difficult to over-estimate the wonderful opportunities these custodians of our children have for the moulding of character, for it must be remembered that by the time the boy or girl leaves the public school his or her ideals are practically fixed. Obviously then, the best type of citizen should be chosen for instructing on character building in our public schools, and the governments should be prepared to pay these teachers commensurate with the responsibility to the nation and to the individual of their positions.

However, it is gratifying to know that the child is at last coming to its own; that nations have learned, as they never could be taught before, the value of man power, and the importance of the development and conservation of mental and physical energy.

The provisions necessary for the efficient safeguarding of the child from the public health standpoint, are embraced in three words—organization, co-operation and administration. In connection with every department of public health, there should be a carefully organized division of infant and child welfare that will embrace the prenatal care, the care of the infant, the care of the child during the pre-school age, and the medical, dental and nursing service of the school child.

As has been repeatedly observed, disease unfortunately has left its impress on a large number of children by the

time they are five years of age. This has been forcefully illustrated in the examination of some 75,000 children in an infants' department of the London schools, where it was found on medical examination that more than 5,000 had decayed teeth, and over 2,000 defects of the nose and throat, such as adenoids and enlarged tonsils; 600 were suffering from infections of the ears and defective hearing; 450 from infections of the eyes and defective sight, and approximately 600 with various other defects.

It must be obvious that no municipality and no nation can afford to neglect the supervision of their children until they enter school, when the cost of restoring the physical defects would be much greater, to say nothing of the number of cases that, by this time, are irreparable.

Nations have long since recognized their obligation to educate their children, but have failed in a large measure to recognize their responsibility to safeguard their lives and health, and thereby secure their physical fitness. Just how much this neglect of the health and lives of our children has cost the various nations can be appreciated through the results obtained by one of the States of the Union which, on making a thorough investigation along the lines of tuberculosis in children, discovered that it was costing the State two million dollars a year to educate children who died from tuberculosis before they reached the age when they could return to the State any of the money expended in their education. This is especially interesting in the light of recent developments in regard to the period of life at which infection from tuberculosis most frequently occurs. We are indebted to Professor Adolphus Knopf, of New York, for much valuable information in this connection, all of which points to the fact that tuberculosis in the vast majority of cases is contracted in infancy and early childhood, and in many cases lies latent until early adolescence. The conclusion arrived at is obvious that, if we hope to control this dread disease, we must more efficiently safeguard our infants and children from infection. Consequently, departments of health must in the future look to their divisions of infant and child welfare as well as to their divisions of tuberculosis for the more efficient control of this disease. Here, again, the supervision of the school children affords an excellent opportunity not only as regards the preventing of their infection, but the maintaining of their high physical fitness. As Freeman has said, a national school which would have trained the mind only and neglected the body would have been inconceivable to an Hellene. As you are no doubt aware, in the schools of Hellas physical education was recognized as an essential in the development of the ideal citizen. Paul may have had a vision of the possible disregard we would have for the welfare of our bodies when he said: "Know ye not that ye are the temple of the Holy Ghost?" Should we not be more respectful of the abode of this omnipresent guest?

Medical supervision of schools on this continent was introduced primarily for the purpose of controlling outbreaks of communicable diseases. This is now recognized as but a fraction of the responsibilities of modern school medical service. It now embraces a thorough examination of every pupil in order that a record may be filed with the school and the Department of Public Health as to the mental and physical fitness of the child, and that it may at the same time afford an opportunity, at the earliest possible date, for having any abnormalities corrected.

Last year the cities treated their water by liquid chlorine and thus made it safe from typhoid danger at a cost of about two cents per capita. Rather reasonable insurance, it seems.—Minnesota Municipalities.

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

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

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

If one energetic fly can produce in one season, 5,589,720,000,000 flies, how many flies will one pile of manure produce?

Good Roads a Municipal Problem

G. L. SQUIRE, C.E.
(Department of Highways, Ont.)

Roads form a Municipal Problem; because our Highways afford one of our largest **Spending Departments**. And all honest Municipal men—and all Municipal men are honest, or should be—are desirous of securing for their rate-payers 100c value for every dollar spent.

It is a further problem:

Because of the broad service the Highways perform, and yet not as efficient a service as might be obtained.

The subject assigned is the better for analysis, and one may be justified in asking why are Roads "Municipal" and then consider some of the problems.

I have considered the question from a County Standpoint with some of the representatives of the Counties: My desire to-day is to view the subject from a Provincial standpoint as affecting Municipalities in order that we may get a glimpse of the **bigness** of the question.

Highways are Municipal because of their ownership.

They have a real and nominal ownership and an operating partner. The nominal owners are the Municipalities—the real owner the Crown. The operating partner is the General Public. The Rolling Stock is private owned.

To the nominal owner is delegated the responsibility of constructing, maintaining, and improving the Roads. They, too, must defend an action for damages.

They are allowed to assess the ratepayers for the necessary monies required, and are responsible to them.

The fact that Highway control has been so long a Municipal matter has had the tendency to narrow and not broad-en viewpoint. The standards have become local and not national. The improvement has been sectional and not continuous. This forms one of the problems.

The Public as the operating partner not only uses the Highway for business and pleasure, but delegates himself as Road Inspector and freely finds fault with all that he thinks is bad; occasionally, however, offering some helpful suggestion.

The Public has always considered itself warranted to elect whoever it fancied as municipal councillors and then as a reward criticize their actions and this not always charitably.

Let us consider of what the Highways of Ontario consist—dealing with investment and service performed.

It may not be out of place to furnish some figures which I hope may prove interesting and illuminating in connection with the ownership and development of the Highway System of the Province as they represent in total the "Highest Capitalized Public Owned Business in Canada."

The Province of Ontario has a map measurement of Roads slightly in excess of 58,000 miles. While all of these roads are not of a uniform width, they would average 60 ft. and require a land acreage for Road purposes of 460,000 acres which, if valued without the cost of improvement at \$30 per acre, an average less than farm land assessment, the investment in land is worth \$13,800,000.

The cost of improvement including grading, drainage, bridges, and surfacing estimated at an average of one thousand dollars (\$1,000) per mile, would be \$58,000,000; making a total permanent investment in County Roads of \$71,800,000.

The maintenance of the investment costs in cash and labor over \$3,000,000 annually. The Counties are spending at the rate of \$900,000 annually. This large amount does not include the City and Town streets; the capital invested in which, I like to consider as the cost of the terminals. Nearly all traffic centres on these and the total investment in 31 cities and towns, on their street improvement, is over \$20,000,000, not including land value. The 250 cities, towns, and villages in the Province would probably have an investment of \$40,000,000; making the total road bed investment in the Province of Ontario over \$110,000,000.

This large public investment furnishes a means whereon the privately owned Rolling Stock may operate.

The value of the Rolling Stock needs to be considered; the automobile, the farmer's buggies, waggons and horse-power, the companies' trucks, etc. Investment in these is necessary because of the Roads, and the Roads are necessary because of the investment. The Rolling Stock investment, privately owned, reaches over \$200,000,000.

Traffic:

Let us briefly consider Highway traffic on the roads of Ontario. This, of course, can only be approximately estimated. The figures presented, however, have been sub-

mitted and carefully taxed by some who have made a study of this matter.

There are approximately 75,000 autos in the Province, averaging 4,000 miles yearly, thus travelling 300,000,000 road miles, which is 7 times the distance travelled by all the passenger trains in the Dominion of Canada. They, the Autos, carried 60,000,000 passengers, averaging 4 to the car, and an average trip of 20 miles. This is 1½ times the number of passengers carried by all the railroads in the Province.

The necessity of the Highway and the important functions which they perform, reflecting the progress of civilization, add to the problems of the municipalities.

There is a greater demand for improved roads caused by traffic conditions. This illuminated the problems and caused us to consider their solution.

Cost.

Considerable controversy has been occasioned by this phase of the subject.

Who should pay for the roads? The spirit of co-operation is now evidenced and with Government assistance the assessment for Highway Improvement has been placed upon the Government, the cities and the rural municipalities—paying as nearly as can be arranged in proportion to—benefit.

The money required may be obtained by the municipalities by annual levy or the issue of debentures:—

No municipality should issue bonds for any public work having the bonds outlive the life of the work.

The issuing of bonds should be discouraged.

Pay as you go should be the rule and should be encouraged. The people have discovered during the last three years that money is available for important work.

Bonds should never be issued for maintenance.

The Management:

The necessity of trained men is emphasized in every walk of life—excepting in municipal matters—and I submit that men are often elected to fill important municipal positions who have no qualifications, except they are considered "Good Fellows."

The Municipal council are the board of directors elected by the people to supervise the construction and maintenance of the Highways in the municipality. In 95 per cent. of the Rural Municipalities, this work is delegated to pathmasters who are appointed annually by the Council. The qualifications of these Pathmasters as road builders are often discovered only when a good road bed has been destroyed.

The farce of trying to create good roads by bad management is daily exposed. To obtain efficient management in Road Building, no one should be employed as manager or overseer who does not possess recognized qualifications, and when a man is discovered who has gained knowledge and experience, he should be retained.

If the Municipal control of the Highways is continued and good roads obtained, not only will roads have to be standardized, but men who build them will have to be standardized also.

Increased speed in travelling has shown new dangers. Many roads possess sharp turns where slight differences occur in surveys. Damage actions may never occur if these are straightened by purchasing slight deviation. Safety First can be practised with good effect.

Serious problems are occasioned by the number of opinions to satisfy, and by indifference on the part of rate-payers. It is often difficult to get the public to take an intelligent interest in that which is essentially its own business. The people do not realize the immense annual waste occasioned by experimenting with the highways.

Problems are prevalent not only of management and administration, but also of ascertaining just the best kind of Road to build.

There are men who will tell you that this or that kind of a road is the kind and only kind to be constructed. I submit that with present day traffic, the perfect road has not yet been discovered.

That Road which can be constructed and maintained at the lowest cost, keeping in mind traffic conditions and efficiency, is undoubtedly the best road. The problem is to find the road suited to your municipality. I submit that with councils changed annually this is a serious difficulty.

(Continued on page 471.)

Civic Affairs in Manitoba

H. E. MORTON.

Most of the municipal elections in Manitoba take place at the end of November or early in December, and just now all are in the throes of electoral campaigns, indications of the approach of the elections being apparent on every hand.

So far as Winnipeg, the capital of Manitoba, is concerned, it seems that every seat from the mayor's downwards will be contested, and that a big list of candidates will be drawn up by nomination day, November 20. For the mayor's seat, the contest as it appears at present will be between the sitting, mayor F. H. Davidson and last year's opponent, F. J. Dyson, the well-known manufacturer. So far as the contest for controllers is concerned there will be a change this year in the matter of voting. The seat system, known as "A, B, C, D," under which controllers were elected to perform specific duties, will be abolished — much to the relief of electors, and this year the old method of election will be resorted to, the four candidates polling the highest number of votes being elected. Many hope that, in course of time, this method will, in turn, give place to what some consider the more accurate system of the single transferrable vote. No controller will then hold office as a representative of a minority of the electors voting.

A by-law providing for the two year term of office for controllers was to have been submitted at this election. This proposition agitated for at the election of 1916 has rightly obtained widespread approval; wider probably than it received formerly when a majority of the electors voted in its favor, though not the two-thirds majority sufficiently to carry it. The technicality preventing the by-law from being submitted to the electors just now, lies in the fact that in the legislation empowering the referendum the word "ratepayers" was inserted instead of as intended "electors," and the council has therefore wisely refrained from submitting it until this ambiguity has been cleared up by the provincial legislature. The same mistakes will also cause a delay in the removal of the property qualification for the office of aldermen, this at present being fixed at \$500.

A new departure in connection with the 1917 election will be the sending to every elector, a postcard stating the exact polling station at which he is entitled to vote. The experiment, already carried out in Toronto, ought to result in a heavier vote than is usual. In this connection the assessment department which will be responsible for the sending out of the cards, has been active in carrying out the provisions of the by-law, and has struck off the list nearly 500 names of owners and tenants not naturalized British subjects. To remove also the risk of impersonation which was general at the last election, all voters will be called upon to sign the register and if necessary prove their identification and nationality even on the polling day. On the whole the innovation is worthy of trial and is looked forward to with much interest.

Brandon will also hold its elections on November 30, the nominations, however, being on November 23, three days later than Winnipeg. Interest in the election in that city is the one theme just now, especially among those

GOOD ROADS (Continued from page 470).

Problems when correctly solved prove blessings in disguise. Agitation for improved Highways preceded the automobile. "As coming events cast their shadows before," the automobile has produced Road problems, but I believe they are hastening the day when Good Roads will become an economic asset in every municipality, and this will prove a national blessing.

The Public need leadership. Legislation must not precede public opinion to too great an extent. There are municipal men to-day who are convinced that changes are necessary if Good Roads are to be obtained.

The Municipal Officials should be the leaders of public opinion. If by such leadership the public could obtain an appreciation of the magnitude of the Good Roads Question, having a broader conception of the important functions the Highways perform, the high place it occupies in the economy of present day civilization, and the immense waste in labor and capital occasioned by the system employed in most of the Municipalities, the ratepayers in mass would demand changes in administration which would efface the problems and produce a system of Good Roads in our Dominion comparable with the best Highways of Europe.

connected with the Labor Representation league which has already selected candidates for three of the wards. Mayor Cater, as far as can be ascertained at present, will again be in the field as candidate for the mayoralty. Some time ago there was some talk in the city that the Labor League would run a candidate for the mayoralty, but as far as can be judged, they are satisfied with the work of the present mayor, and will not oppose him.

Civic Pensions.

Among the legislation that the outgoing Winnipeg council will leave unfinished is the civic pensions scheme, which has been a source of trouble to successive councils for some years past. For many years pensions have been awarded to outgoing employees and the cost provided for out of current expenditure, but it has been apparent that the city has been, and is still, piling up a liability for future citizens without making the proper provision.

Whether the discussions that have been proceeding for a long period with the object of drawing up a scheme of pensions for permanent civic employees results in an immediate action or not, there can be no question that the council and the civic pensions committee which has more direct charge of the projected new legislation has approached the subject in a sympathetic spirit. The difficulties inherent in such a scheme are far from slight. The experiences of some larger cities, notably New York, with similar undertakings, show the absolute necessity for painstaking research and careful examination of all proposals put forward. Mistakes involve great expense in their later rectification, while hardship may be easily inflicted upon those whom it is intended to benefit.

One of the big stumbling blocks is the question of whether the scheme shall be made compulsory or not. The compulsory or voluntary character of the contributions necessitated and the benefits conferred may seem at first sight to be of comparative unimportance, but the adoption of one or of the other principle makes all the difference to the basis of the plan to be adopted. There may be sound reasons for requiring every permanent servant of the city to make contribution to the pensions fund as one of the conditions of his employment, and there may be equally good cause for determining that, if there is to be a pension fund at all, the employee must make some sacrifice as well as the taxpayers who under the scheme proposed will be called upon to approve of the floating of debentures to the extent of \$704,000 to provide for liabilities to date, and contribute in future annually a sum equal to that paid by the employees themselves. At present civic employees are divided on the question of whether it should be made compulsory, and have made many other suggestions which it will be hard to overcome.

From time to time the upward trend of prices of daily commodities produces a demand within or without the city council for municipal trading. At different times municipal bakeries and municipal dairies have been pressed for, and now, as at the commencement of last winter, there is talk of the city council being forced to enter the fuel business. It seems evident, however, that the present period of world-wide abnormal conditions is not opportune for such experiments. Leaving on one side the inadvisability of adding to the war-time disturbance of business conditions the additional dislocation which would ensue upon the entry into any particular department of trade of a corporation like the City of Winnipeg, the case for municipalization would have to be very clear to justify the city employing capital and labor in any such venture at the present time. Recent meetings of the city council have seen motions and motions brought forward asking for this legislation and that legislation to be sought—to enable the city to enter the dairying business; to secure and sell coal; to purchase large quantities of wood and to sell retail at cost, and such like propositions, the fact being lost sight of that the city council in avoiding purchasing more than it actually requires for its own use, will tend to keep prices down and thus reduce hardship to the general public. Municipal trading as a permanent policy ought not to be intermixed with the difficult problems produced by the war in nearly every department of public service, and as a general principle it may be said that public ownership of undertakings concerned with the production, or purchase, and distribution of commercial commodities has so far been justified only by the existence of monopolistic conditions, making protection of the public absolutely necessary.

A MUNICIPAL HORSE RACE.

A. WISELY BRAGG, Rome, Italy.

The ancient city of Siena, in Tuscany, carries its history back to the Roman days, when it was Sena Julia, or Sena, and like many of the Italian cities, is rich in antiquities. Its churches are famous, even in a land of splendid churches. The pavement of the Cathedral is unique in its wonderful engravings of Bible scenes. Its books of public accounts not only interesting because of their extended history, but specially for their elaborate and artistic covers.

But the most unique of all its attractions is the Palio.

The Palio is sometimes spoken of as a horse race, but it differs very essentially from the ordinary race. The name is derived from the Latin "pallium," a banner, because the prize is a handsome banner, ornamented with a picture of the Virgin. This leads up to the fact that the Palio is, to a certain extent, a religious ceremony.

The horses which are to compete in the race, are solemnly blessed in the various churches, as are the accoutrements of the men; and the principal race, (for there are two), takes place on the festival of the Assumption of the Blessed Virgin, when the tributary towns, and the nobles, brought offerings of candles, wax and palli to the cathedral. This dates from 1238, at least. The second is comparatively modern, having begun as late as the 17th century.

In the early days, mimic fights were added, which later became boxing matches. In 1260, the city was dedicated to the Virgin, and her aid was invoked against the Florentines, and the Sienese were victorious. But they often forgot their Lady Paramount, and re-dedications were frequent. In fact, every time the city was in danger from its enemies, the citizens had a new dedication ceremony, and evolved the Palio as a tribute to the Virgin's aid.

During all these years, the Palio was kept up, varying from time to time, even donkey races being a feature at one period.

The races were organized by the 17 contrade, or wards, each striving to excel. The horses are not trained beforehand, so the result is chance. But to offset this, each contrada invokes its own special saints, in its own church, where the horse is blessed. But if the patron saint does not bring success, he receives a warning from his worshippers; in one case, the saint's image was thrown down, as a warning, and the horse from that contrada and church won the next race!

About ten days before the race, each contrada which desires to compete must give notice, and deposit a sum of money for the hire of a horse. A week later, the judges meet and choose a sufficient number from the large crowd of horses brought in; they choose average animals, neither very fast nor too slow, and all about the same, as far as possible. The horses are then given out by lot.

The race takes place in the Piazza del Campo, in front of the Palazzo Publico, or City Hall, and has been held there since 1605.

A ring, several yards in width, is fenced in, and tiers of seats are erected all round it against the buildings, while spectators stand inside also.

There is serious rivalry between the Contrade, and the riders try, not only to win the race themselves, but also to prevent their opponents from winning, by heavy blows with the nerbo, or whip, which they grasp at the thin end, and use as a mace on the heads of their rivals, which have to be protected by small helmets, that are frequently indented by blows. This incidental fighting is not considered unfair, and the winner of the race sometimes presents his nerbo to the church that he represented.

On the grand day, the Piazza is filled by an enormous crowd, as many as 30,000 people having been present occasionally. Citizens, visitors, and peasants in the old Tuscan costume crowd in until the space is packed, the bright colours of the peasants' costumes making a very lively scene.

Even the track is full, but a few policemen and carabinieri walk quietly round, and the central space, already apparently tightly filled, is more congested than before.

The course having been cleared, the procession emerges from the great entrance of the Palazzo Publico. First comes the standard-bearer, mounted, and accompanied by trumpeters. Then follow the ten contending Contrade, each led by a Duca or Capitano, in complete armour, barbaresco, leading each horse. Then two alferi, or stand-

PREPAREDNESS AND PATRIOTISM.

As illustrating the patriotic spirit of Municipalities in the United States since our neighbours have entered the war, the following communication to the American City from the city of Knoxville, Tenn., makes interesting reading:

The business men of Knoxville have just completed a so-called tour of Applied Preparedness and Patriotism, covering 1,200 miles and visiting about forty cities in Eastern Tennessee, Georgia and the Carolinas. Although the tour was originally intended as a trade trip, when the war crisis developed, the trip was made to serve the immediate needs of the United States Government. The offer met with the sanction of the President, the Secretary of the Navy and the Secretary of War. Officials of both of these departments accompanies the men on the trip and made speeches in the interest of preparedness and for the purpose of stimulating the government's recruiting campaign at all the towns visited. There were one hundred and forty business and professional men in the party, which was headed by a brass band and a Boy Scout drum-and-bugle corps. National anthems were played and patriotic speeches were made, but not a word was said in the interest of trade. The business men of Knoxville take these trade pilgrimages annually, and are referred to in the towns as "Trade Trippers." This year they were styled "Pilgrims of Patriotism."

A court reporter and a motion picture machine operator were also in the party. An account of the proceedings, as well as motion picture films showing the crowds at the stations when the speaking was in progress, will be sent to the Secretary of the Navy. It is hoped that commercial organizations in other cities will follow their lead.

PREVALENCE OF VENERAL DISEASES IN CANADA.

A very important article by Dr. C. K. Clarke, Superintendent of the Toronto General Hospital, in which he states that more than 12 per cent of the patients admitted to the public wards of that institution have syphilis, is a feature of the eighth annual report of the Commission of Conservation, recently issued. These conditions, it is pointed out, are no doubt representative of those prevailing elsewhere in Canada where statistics are not yet available. The return of thousand of soldiers at the end of the war lends more than usual interest to this feature of the Commission's report. Other phases of the subject, including measures for controlling the menace, are discussed by Drs. J. J. Mackenzie, C. H. Hair, and Wm. Golde of the Faculty of Medicine, University of Toronto.

An address on The Production and Preservation of Food Supplies, by Dr. P. H. Bryce, gives tables showing the relative values of different foods. Results of experiments by the Commission at Port Dover, Ont., in utilizing fish waste in the manufacture of stock meal, oils and fertilizer, are set forth, while Drs. H. J. Wheeler and Frank T. Shutt make interesting contributions on the use of commercial fertilizers. In addition, a readable account of commercial fertilizing activities of the Commission including town-planning, game preservation, water-powers, agriculture, mining and general publicity work.

ard bearers, a drummer, and five or more pages, and a barbaresco, leading each horse. There are also several men-at-arms, with medieval weapons, some of which were used in battles in the olden times. By a regulation of 102, each contrada must have at least twenty men.

Next comes the carrocci, or war chariot, drawn by four horses, and bearing the oriflamme of the city, the banners of the Contrade, and the Palio which is to be contested for. By the time the last contrada has taken its place the city standard bearer has nearly completed the circuit, and for a short time, the 34 standard bearers and the 300 or 400 performers are all in sight at once, making a wonderful picture.

Then gradually, the procession melts into the entrance of the Palazzo, the principal performers taking seats in front. The course is again clear, a pistol is fired, and the fantini, or jockeys, now mounted, ride up to the starting point, about a third of the course from the Palazzo. As soon as they have taken their places, the signal to start is given, and away they go, urging their horses, but more eager to strike at their rivals, to prevent them from winning. Three times round the course, and the race is over.

The Troubles of the Land Speculator

By G. R. MARNOCH.

In our Preparedness (May) issue an article appeared under the title of "Immigration—Canada," by J. E. Martin. Below is the other side of this great question by Mr. G. R. Marnoch, President of the Lethbridge Board of Trade.

No sensible person will quarrel with that part of the lengthy disquisition on land settlement in Canada recently broadcasted by Mr. J. E. Martin of Minneapolis through the Dominion, which deals with the bad principle of limiting the amount of personally-owned farm machinery and livestock that a new arrival may bring into Canada. Due safeguards against the misuse of such a privilege could easily be made. The regulations as they stand are a survival from the days when the only farmers who were coming into Canada were quarter-section farmers with their little store of implements; but with conditions such as now obtain in the Lethbridge district, where hardly any of the new settlers are buying less than a half section, and many of them a whole section and more, they should be encouraged to bring their full equipment with them, so as to let them get quickly settled to the business of the fullest production possible. There are, however, signs that this matter may soon be adjusted fully to the satisfaction of both newcomers and old residents, by the adoption of a policy of letting in livestock and all agricultural implements either free or at much lower rates of duty than have hitherto prevailed. It is certain that very soon after peace is declared our friends in the East will rediscover the truth that had dawned on them in 1913, that their business was in poor shape if things were not well with the western farmer.

But all the rest of Mr. Martin's remarks are a case of special pleading for the men who bought western lands just as so much merchandise, to be turned over at a profit. That they helped to advertise such lands and did their best to find buyers was, of course, part of their business. Nobody in the west could wish that they should not be successful in selling their lands to farmers who will put them to good use. Our side of the story is that we are the people who have to live with these farmers as fellow citizens; we are the people who have to do business with them all our lives; whereas Mr. Martin and his friends have but one transaction with them; they take their profit, and then it is a case of "Home he's gone and ta'en his wages." It is natural therefore that we wish to see the incoming farmer get his land at such a price that he may make a profit on his labor; and we are not averse, either, to seeing him get a share of the increment in land values which he helps to create by his efforts.

Answers to Mr. Martin's criticisms will perhaps be more readily understood if these are applied to a definite case. Everybody in this district is gravely concerned in regard to the withholding from development to an enormous tract of some five hundred square miles within a short distance of the city of Lethbridge. Briefly, the history of this area is this. These lands formed part of a land grant given by the government of the old Alberta Railway and Irrigation Company fifteen or twenty years ago, in consideration for their developing the now highly-successful Lethbridge irrigation plan. The company was often embarrassed for lack of capital to carry on its pioneer enterprise of railway and irrigation development; so about eight or nine years ago, these lands were sold to whoever would buy them, at low prices around five or six dollars an acre. A considerable part of the area is still held by the original buyers; but in other cases the lands have changed hands among speculative buyers at increased prices. The present writer used to inquire in 1911 and subsequent years why it was that these splendid and fertile lands were not developed. The reason at first given was the lack of a railway. The C. P. R. built right through the heart of the District in 1911 and 1912, and so that reason was removed. But still no development took place. And, to cut the story short, these lands remain still as virgin prairie, with the exception of a farm here and there; just enough in fact to show the splendid possibilities for grain and live stock raising.

The C. P. R. naturally hoped that their enterprise in building this road would be rewarded by the development of heavy traffic; and in face of their discouragement in that regard as year after year went by, it required all the combined efforts of the people in Lethbridge and the farmers who were settled farther out in the direction of the

line to get the railway company to extend into that home-steaded territory beyond. Their enterprise in building beyond that uncultivated area has been rewarded by very heavy grain traffic from Foremost on to Manyberries, a distance of some forty miles. But the uncultivated stretch of fifty miles still remains between Stirling and Foremost.

Now Mr. Martin is very voluminous in his writings about the iniquities of the old wild lands tax, and the unearned increment tax and so on. What about those few farmers who are already in the district described and who are demonstrating the farming value of these lands? They cannot build the roads they want; they cannot get the schools they need for their children; and in short, they have put up with pioneer conditions until the land-merchandisers make up their minds to sell. Does a wild land tax of about six or seven dollars on each 160 acres seem too much for the privilege of holding these lands out of cultivation?

None of the original holders from the A. R. & I. Co., can complain about what they paid for their land. It was not the people of Alberta or of Canada who sold any of these lands at higher prices. Why then complain of such taxes as are levied now to help in general development?

We cannot be expected to waste any public sympathy on people who are retarding the development of our country. If they bought their lands at low prices, let them take a reasonable profit and be done. If they paid too high prices, surely the best thing they can do for themselves is to cut their loss.

There is hardly likely at any time to be a better opportunity for selling than now. Crops of wheat of forty and fifty bushels in 1915, and thirty and forty in 1916; favorable weather conditions for another big crop in 1917; high prices likely until the world scarcity is caught up, even if the war should end to-morrow; farmers on high priced land in the States eager to come to Canada with their families if land at reasonable prices is available—surely land-merchants who are weary of paying taxes will avail themselves of the opportunity to quit.

The board of trade of Lethbridge will willingly do what they can to help make sales if holders show a disposition to sell. Land prices are firm and slightly higher than they were at the last considerable auction sale of school lands in this district when some 250 quarter-sections were sold at an average of \$14.00 per acre.

But, we have to live with and do business with these incoming farmers; and we want to see them buy lands on which they can grow grain and live-stock that will show them profits through the years that are to come.

With regards to the complaints regarding legislation adverse to the security of mortgage loans on land, the best assurance that can be given that there is nothing more to fear in this direction is that the farmers' organizations now fully realize that any legislation that impairs a first mortgage security reacts against every farmer who wants to borrow money. The conference carried on by the joint committee of commerce and agriculture has cleared the air and our legislators realize now that our farmers want to be honest and fair in their dealings, and that legislative acts which may enable dishonest men to evade their obligations are not appreciated. If any further assurance is required, it is provided in the fact that all western provincial governments are now in the land mortgage business themselves, and that their transactions will be subject to the same laws that apply to other lenders.

SOCIAL PROBLEMS CHANGING.

Sixteen prisons have been closed in England since the beginning of the war, but on the other hand, there has been a large increase in juvenile delinquency. Social problems are steadily changing, and the solutions of yesterday are no longer applicable. Probably the future will see, among other changes, the uniformed policeman on the street corner turned into a trained social worker, having the legal authority to redress human wrongs. Thus instead of rushing people off to the lock-up he could be devoting his energy to the protection and guidance of the public, especially the young and inexperienced, saving them from themselves in many cases, and spreading sunshine and kind deeds all along his path.

How a City Library Can Co-operate with the Schools

The City of Grand Rapids, Mich., a community of 112,571 people, is fortunate in having a municipal library under the care of a Board of Commissioners who are evidently alive to their opportunities in making it of real use to the future citizens of Grand Rapids. In a recent survey on the local schools, conducted by Prof. Judd of Chicago, this co-operation is appreciated in the following extracts taken from his report, which should be very helpful to those who in Canada are trying their best to make better use of our public libraries.

Among the things needed for the effective conduct of public education, after teachers and buildings have been supplied, the most important doubtless is a supply of reading materials adequate in quantity and suitable in quality for the children of the different levels of advancement. In connection with the topics of reading, history, geography, science, etc., we have discussed the textbooks and supplementary reading sets. A no less important factor, however, where the work is adequately developed is the educational co-operative work of the city public library. In this respect Grand Rapids is fortunate in a highly unusual degree.

To begin with, the form of organization is excellent for the purpose. The library is governed by a board that is sufficiently separate from those who control the school affairs proper, and yet it is sufficiently linked to the educational organization to secure thorough-going co-operation. Of the six members of the Board of Library Commissioners, five are elected by the citizens at large, including women, on a non-partisan ballot, and the sixth member is the superintendent of the public schools, ex officio. At the present moment the superintendent of the city schools is the president of the library board. The title to all property of the library rests with the Board of Education.

For more than twenty years the city library has been placing deposit and branch libraries in all of the school buildings in the city. The legally connected and closely co-operating boards of education and of the library are thus by means of a single service systematically taking care of the reading opportunities of all of the people of the city, both juvenile and adult. In the purchase and management of books the board of education takes care primarily of the desk books, the supplementary books, and the classroom reference books—all of those books that are kept permanently within the classrooms for the systematic classroom work. On the other hand, the board of library commissioners supplies the general all-round reading needed by both children and adults, and also the periodical literature which is supplied in unusually generous amounts, both in the central library as well as in all of the branch libraries in the school buildings of the city.

A reading room of generous size is now supplied for the branch libraries by the board of education in about one-third of the regular school buildings of the city; and such a room is being provided in each of the new buildings. The school board supplies heat, light, and janitor service, while the library board supplies the books, periodicals, card catalogues, and the librarians, and conducts the weekly story hour during the season, the course of free lectures for children and adults through the year, and the systematic instruction of the children in the uses of the library. These branch library rooms are so arranged that they can serve as reading rooms for the children during the school day and as reading and library rooms for the adult community during the day, the evening, Saturdays, and all school vacations, except certain legal holidays, both afternoon and evening. Separate entrances and separate heating facilities are provided for the community uses while the schools are not in session.

The classrooms of the regular size used for branch library purposes in the beginning having been found to be too small, the boards are making provision in all new buildings for much more commodious quarters. This is demanded not only by the needs of facilities for the reading activities, but also for the increasing development of the library lecture courses and the ever-increasing attendance.

The branch libraries are equipped with from 1,500 to 3,500 volumes, of which about half are for children and the rest for adults. Each is supplied with twenty-five to thirty current periodicals in the English language, and special periodical literature in foreign languages, adapted to the population of the district. The use of the books intended for children and adults is carefully studied so as

to keep only "live" books upon the shelves, and to return any unused books to the central general library.

In most of the schools in which branch libraries have not been opened, there are what are termed deposit libraries managed by the principal and the teachers, except in the case of five of the larger schools, where an assistant from the library takes care of this work one day each week. The size of these deposit libraries is largely determined by the demands of the pupils. They consist of books that are currently used, unused books being returned. The size of the library is thus taken care of automatically. Its expansion and diminution constitute a barometer of readign conditions within the building.

In addition to the relative permanent library sets referred to, the travelling library sets constitute an important feature of the work. When a teacher is treating, for example, a topic in history like the American Revolution, she sends in to the central library for a travelling library box of books, ranging according to the topic from twenty-five to two hundred books, for collateral reference. This special collection may be kept at a building for four or six weeks, and the books are issued by the teachers to the pupils in informal ways—that is to say, they are not charged in the usual manner upon the regular cards. Those who have not tried the plan in the generous way in which it is carried out in Grand Rapids are inclined to venture the guess that this plan would result in the loss of many books. The books of both travelling and deposit libraries are kept in the buildings and classrooms on open shelves, the pupils having access to them at any and at all times while the building is open, whether the teacher is present or not. The library makes the statement, however, that according to the last official report the entire number of books lost in connection with all of the library work in the schools for the entire year was only fifty-eight copies. A number of these copies will probably find their way back into the library in time. It appears that where books are made so easily accessible and so abundantly accessible as that provided by the library service in the city, there is no motive for a child trying to keep books that have not been charged, and thus trying to build up a little unneeded private library at the expense of the big ever-ready public library.

The library employs a number of ways of encouraging the children to use the books so variously supplied. There is the weekly story-hour from October to March at the central library, and at each of the branch libraries. Monthly bulletins are issued calling attention to all new books and to classified lists of books of various kinds. Eight or ten public lectures are provided each year for adults and children at each of the various school branches. Printed slips are prepared announcing each of these public lectures well in advance throughout the district. On each printed slip there is given a list of ten to fifteen books and periodicals relating to the topics treated in the lecture, which can be read preparatory to lecture, or which may be read after the lecture has stimulated interest in the subject. These lectures are attended in continually increasing measure by both children and adults, with a consequent continual increase in the value of the lectures for stimulating reading on the part of juvenile and adult population.

A further method of stimulating reading is the organization of reading clubs in the schools. In one of the buildings of the city last year an average of nineteen books per child was read by the pupils of the building, the children of all grades including the kindergarten being counted in taking this average. Many children read a book a week, the habit formed during the school year tending to persist during holiday and vacation seasons. There are some children who read two books a week through the year. Their library cards permits them to take out at one time one of fiction and one of non-fiction. Two a week is not excessive for rapid readers when the content is of the balanced type. Since children should be early trained for rapid silent reading, this constitutes one of the most effective possible devices for providing the training. It is rapid voluminous reading of this type that should take care of the major portion of the training in the mechanics of reading.

The books for the schools are chosen by specially trained librarians familiar with children's reading. Recently published and therefore untried books are tried out in the children's department of the general library before they

(Continued on page 475).

LEARNING TO PLAY.

The value of teaching children that elementary, but necessary lesson, of learning to play, was very evident at the exhibition given by the Montreal Parks and Playgrounds Association on the McGill Campus recently.

Some two hundred children from the five playgrounds under the supervision of the Association took part, and aroused applause by their clever dances, and other forms of supervised play. That the little performers enjoyed their work was very evident, while the ladies of the Committee told how the rosy, bright-faced youngsters were very white and listless at the beginning of the season.

To a critical spectator, there was more than merely the result of being taught to "play the game," and that is a splendid start for life.

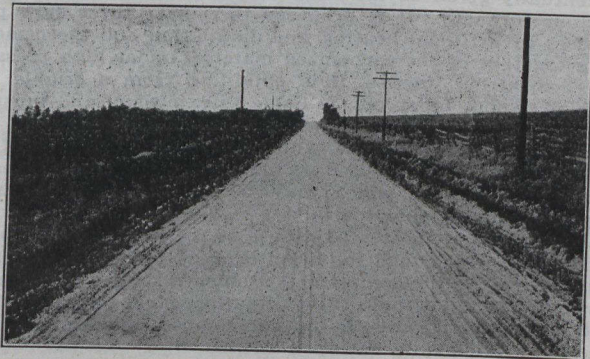
The results were both physical and moral.

That the children must have better health from their out-of-door sports, is certain; and this alone would warrant all the money subscribed and spent on this good work.

But the discipline which the children learn under their instructors is worth much for the future citizens. They are not allowed to come with dirty hands; to use bad language on the playgrounds; or to quarrel and fight. They are taught to play fairly, and to win or to lose like sportsmen. In fact, to "play the game" with all that the phrase means.

Certainly the work means the betterment of a large class of citizens who would not otherwise have any chance of the results, and is a credit to those who undertake it.

Unfortunately the Montreal Association is handicapped this year in its finances.

**HOW A CITY LIBRARY, Etc. (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.

A SUPPLEMENTARY VERSE TO OUR NATIONAL SONG "O CANADA."

The following is an extract from an Ontario journal which may be of interest to all our Municipalities.

Dr. J. M. Harper, the gifted poet, author and historian of Old Quebec, earlier in the war wrote the words:—

Sing we our Empire's might,
Armed to uphold the right,
Under God's grace.
May all the nations feel
'Tis for the common weal
Britain ever makes appeal
In war or peace.

These words were used in many place throughout Canada as a supplementary verse to "God Save the King," and the thought contained in the verse no doubt had a wholesome effect in impressing the true conception of Empire in its better sense.

More recently Dr. Harper has written a verse that may be added to the various versions of "O, Canada," while the war lasts. In Dr. Harper's home province and in many other sections of Canada, "O, Canada," approximates more to the standing of a popular National Song than any other air. Because of this fact, the poet who would add to "O, Canada," the special touch of patriotism that gave it the vital connection with the winning of the war would be doing a noteworthy service to the land. It was another sage philosopher who said that he cared not who made the laws if he could only make the songs of his country. He knew the quiet but powerful growth in sentiment and action that comes indirectly from the songs a people sing.

Speaking of the "War Verse" for "O, Canada," Dr. Harper writes: "A charge of plagiarism has lately been preferred by one of the many versifiers, against another of the same, who have ventured to frame a setting of words to Calixa Lavalee's inspiring national air, which the world is now so familiar with. The first to give a national permanence to the said bit of classical music was Sir Adolphe Routhier, who wrote a set of words for it in French. And it is little short of an anomaly that there have been so many differing sets of words tied on to the striking elocution of the composition, in which it may be said there is no borrowed musical interval discernible. As one of the first to issue a set of words to the tune in English, I may perhaps be allowed to say that, if the charge of plagiarism referred to above were only to eventuate in the using of one set of English words to Lavalee's tune, as has been the case in the one set of French words used it would be somewhat of a convenience to our Canadian patriotism when it seeks an utterance in choral form. In the meantime, I venture to suggest that the following verse may be added to each and all the properly metred versions extant of what has come to be one of the most popular exponents of our blending Canadian patriotism.

"There can hardly be any legitimate umbrage taken at the suggestion, during these war-times at least, unless it be over the inefficacy of the versification itself to parallel with such a soul-inspiring piece of musical composition as is Lavalee's "O, Canada." The supplementary verse is as follows:

O Canada, thy sons and daughters, we
Would join, as one, to rescue liberty,
From the tyrant's sway that dares betray
Thy service blessed of God—
From the rampant Might that fain would blight
The gifts of nationhood!
O realm benign, be it ours and thine
To bless our brave ones of the battlefield,
While we uphold the Right till the foe's forced to yield!

FROM FLIES AND FILTH TO FOOD AND FEVER.

Under the above heading the Health Dept. of St. Louis, Mo., has published some very telling posters showing the results of ignoring the fly danger, one of which contains the following telling sentences:

No sanitary improvement worth the name will be effective, whatever acts you pass or whatever powers you confer on public officers, unless you create an intelligent interest in the public mind.

5,598,720,000,000 is the normal number of flies a single fly will produce in a season of five months, according to the statement of Dr. L. O. Howard, U. S. Government Expert.

If flies were as much feared as bad water there would be less typhoid fever.

From Lignite to Anthracite

R. A. ROSS, C.E.

(Member of National Council for Scientific and Industrial Research.)

Even in the most primitive community in order that the individual may survive, it is necessary that he should be in possession of food, shelter (including clothing) and sufficient fuel for domestic purposes and heating where necessary. Lacking any one of these, the individual must succumb or remain at the mercy of those who can supply him and to whom he must pay tribute.

In Canada, although we have an abundance of all three, yet we depend upon the United States for one half of our coal, and are thus placed at the mercy of their strikes and embargoes with the possibilities inherent in any misunderstanding with our neighbors.

Attention need be called in this country to the very well known fact that coal prices are advancing, and none so rapidly as that of anthracite upon which we depend for our house comfort. It is not perhaps so well known that the exhaustion of the anthracite mines of the United States is so well within view that the Government has been urged by its responsible officials to prohibit export. In any case we are faced with the elimination of anthracite in one of three ways:

- 1st. By the increasing cost which will eventually become prohibitive to the ordinary individual.
- 2nd. By a complete embargo being placed on all shipments of coal outside the United States.
- 3rd. During some international crisis very effective pressure might be brought to bear upon this country by the stoppage of coal shipments.

While not neglecting the factor of proximity to the mines, short haul, etc., as determining what fuel will be used in any particular district, and without any attempt to override by artificial processes the law of supply and demand based thereon, it does seem as though this country would be well advised to at least study the whole fuel problem with a view to the contingencies of the future, and so that we may become independent as regards a vital necessity in such a climate as ours.

When it is realized that next to the United States Canada has the greatest coal reserves of any country in the world, and next to Russia, the greatest peat fields in existence, it does seem that the question of self-support in fuel is one which lends itself to easy solution.

In the fat days through which we have lived up till the present, and while we apparently prospered by borrowing and spending capital, it was easy to neglect vital matters of this kind because we were able to pay without feeling it. The case for the future is different for it is safe to say there will be no influx of capital, and that the accumulated savings of Canadians will be largely absorbed for war purposes before the end comes, and that, therefore, there will neither be foreign nor domestic reservoirs of capital to draw upon, and the business of the country will be production and not construction.

Apart altogether, therefore, from the question of direct profit and loss on purchases of coal from the States, sound economics would indicate that we should as far as possible keep our money in circulation at home rather than send it abroad in payment for that which we can produce ourselves with a little expenditure of energy and enterprise.

Canada's coal fields lie in the Maritime Provinces and in the western provinces of British Columbia, Alberta and Saskatchewan. These districts are, therefore, supplied from their own mines, while the great central districts of Quebec, Ontario and Manitoba must be fuelled from outside those provinces. As a matter of fact, up to the beginning of the war the province of Quebec was largely supplied from the Maritime Provinces, while Ontario and Manitoba were fed from the coal fields of Pennsylvania and Illinois through the agency of the cheap transportation afforded by the Great Lakes. This American coal, therefore, pushed its way to the centre of the province of Saskatchewan. In the neighborhood of Regina and Saskatoon where the prices from East and West are equal, we find the highest cost of coal suitable for domestic purposes in America, and yet a large portion of that district is underlaid with countless millions of tons of poor lignite, which, however, may by proper manufacture be transformed into the equivalent of Pennsylvania anthracite.

Neglecting wood, straw and other burnable materials, the fuels with which we are vitally concerned and their characteristics are indicated in the table below, the arrangement of which is such as to indicate the process of manu-

facture which goes on in the laboratory of nature, resulting finally in the production of anthracite coal from peat; the figures illustrating the progressive concentration of heat values as the process is carried out:

Average Constitution of Fuels.

	Moisture			Heat Units.
	P.c.	Ash P.c.	Volatile P.c.	
Peat (On dry basis)		10	60	8,500
Lignite (As received)	37	7	26	6,500
Sub-bituminous (Rocky Mountain)	25	5	30	9,000
Bituminous (Rocky Mountain)		10	36	12,500
Bituminous (Appalachian)	3	6	37	13,500
Anthracite (Pennsylvania)	4	15	9	12,000
Carbonized Lignite Briquets	5	15	16	11,700

The last line of the table shows what has been done by hastening the process of nature in converting the poorest class of lignite mined in Saskatchewan, into a domestic fuel which is the equivalent of the best Pennsylvania anthracite.

In the laboratory of nature long centuries have been devoted to the production of anthracite coal from lignite. Processes of distillation have gone on through untold ages, and this combined with immense rock pressures have eventually given us the hard anthracite coal which we use in our furnaces. It is proposed to replace these slow processes by artificial heating and distillation and the cementing together of the carbonized material under high pressure in briquetting presses, thus obtaining from a friable fuel which cannot be stored, is liable to explosion, and must be used immediately it is mined, a permanent material of half the weight per heat unit, which can be shipped at half the freight charges, will stand up under handling and all weather conditions and which may be stored without fear of spontaneous combustion.

The study of figures like these of the table led to Honorary Advisory Council for Scientific and Industrial Research to investigate the commercial problem in order to ascertain whether this desirable transformation could be accomplished economically, and the output compete successfully with nature's product in the open market.

At present the requirements of the district under consideration for domestic fuel are met by the importation of Pennsylvania anthracite and some semi-anthracite from the Rocky Mountain fields, and while a certain amount of lignites are used for domestic purposes, its low heating value, friability, liability to spontaneous combustion and general dirtiness, renders it very undesirable. It is felt, therefore, that if a briquet could be produced selling at anything less than the cost of anthracite and obtainable in sufficient quantity to satisfy the demand that there would be little raw lignite used. It would, however, be no demonstration of commercial feasibility merely to manufacture briquets in a laboratory or even in a superlaboratory way. A complete demonstration would have to be given, not only of the possibility of actual manufacture, but of the cost and specially of the ability of the manufactured fuel to drive anthracite from the market. The decision, therefore, was reached to suggest to the Government that this matter be handled free from governmental restrictions and on a commercial basis for a period of at least a year during which time the processes would be standardized, adjustments completed and the product actually marketed and sold, by which time a successful demonstration would render it possible to duplicate the equipment at any point desirable for the supply of the district market.

The Council realized that one of the largest, if not the very largest question within their view was the fuel situation in Canada, and while desirous of taking the problem on a broad front, they felt that the most vulnerable point to attack was the domestic fuel situation especially in its relation to the North West provinces.

Investigation showed that a great deal of work had been done by both the United States and Canadian Governments and private individuals on the briquetting of various classes of coal, but that so far no acceptable method had been found for briquetting the dry lignites of Saskatchewan and Dakota. It was found, however, that by carbonizing or coking these lignites a structure was given to the material which would allow of successful briquetting under com-

(Continued on Page 482.)

Municipal Finance

By JAMES MURRAY.

COLLECTION OF INCOME TAX.

During a debate in the House of Commons last session it was suggested to the Minister of Finance that he should utilize the services of the municipal clerks and treasurers to collect the new Federal income tax, which said suggestion was not received with too much enthusiasm. There seems to be an innate suspicion among Federal public men that municipal officials are a poor lot; one member actually stating that "there are some counties where the municipal officers would not be competent," meaning, to collect a Federal income tax, he giving as a reason for his conclusions that "their record as tax collectors is not a good one; their training has not been very good," and so on. It is very evident that the member quoted above knows very little of the municipal administration of this country, otherwise his conclusions would be very different. But the point we wish to make is that the member was but voicing the thoughts of many public men—and private individuals for that matter—who have had no actual experience in municipal work and whose knowledge is at best second hand; very often obtained from reports of municipal shortcomings which seem to find such a prominent place in the local press, whereas the really effective work of the council is noted by its absence. As a matter of record the municipalities of Canada are in the whole as well administered as those of any other country, and the officers as efficient as either the provincial or federal officers, for the very sane reason that there are no political appointments in local administration on the one hand and on the other the increasing intricacies of civic government has necessarily brought about a standard of efficiency amongst the officers that was not thought of but a few years ago. So much so has the standard increased that municipal government has brought to its service men of big calibre. One would suggest that our federal official machinery could learn many tips about successful administration from the officers of our municipal governments.

To illustrate, the Minister of Finance would have us believe that in the appointment of new men (not necessarily with any previous knowledge of assessment and collection of taxes) the Income Tax will be more efficiently and more cheaply collected than if the work was done by the present municipal machinery which has taken years of hard work, disappointments and failures to build up. It is no exaggeration to state that for every dollar it will cost the country to collect the federal income tax it would not cost above fifty cents by using the municipal machinery, and probably with better results for the reason that municipal officials being in close touch with the ratepayers, those who tried to evade the tax would have a hard road to follow. And let us repeat that the municipal machinery covers every square mile of the country.

WINNIPEG SELLS ITS WASTE METAL.

Taking advantage of the high metal market, the city of Winnipeg is to sell all its old metal and junk. For some time past the staff of the city engineer has been busy rounding up and making an inventory of all the metal in the city yards, which includes three steel bridges, all in good condition, but which have been replaced by more handsome structures. The total value of the metal, of which an inventory has as yet been made, is approximately \$100,000, and several offers of \$20 a ton for iron have already been received.

BANKERS AND CIVIC ADMINISTRATION.

A flat contradiction is given to those who claim that the municipal administrators of Canada are not taken from the best business men of the country in the two recently elected directors of the Bank of Montreal, Messrs. J. H. Ashdown and H. Cockshutt. Mr. Ashdown is an ex-mayor of Winnipeg, and Col. Cockshutt, ex-mayor of Brantford, Ont. The former gentleman, who is president of the J. H. Ashdown Hardware Company, has always taken a keen interest in the local affairs of Winnipeg, and the same interest in the civic affairs of Brantford may be said of Col. Cockshutt, who is also an ex-president of the Canadian Manufacturers Association.

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WINNIPEG'S ELECTRICAL SYSTEM.

In his annual report, Mr. F. A. Cambridge, the city electrician of Winnipeg, points out some of the activities that his department has to take up outside its work proper, such as consulting with the other municipal departments, advising private citizens in regard to installations, etc. This is to be expected in this age of electricity though Mr. Cambridge is quite right in suggesting that there are outside electrical engineers who might be consulted, particularly by private individuals who are prone to think that public servants are at their personal disposal. The financial statement, which is given below, is satisfactory inasmuch as it shows a splendid service at a low cost.

Financial Statement—Fiscal Year 1916-17.

Fire Alarm System.

Total Investment on Capital Account	\$182,932.81
Cost of Operation:—		
Interest and Sinking Fund	\$ 10,608.87
Operation and Maintenance	10,318.22
Manitoba Gov. Tel. Exchange Service	1,158.00
Total Cost of Operation	22,585.09

Police Telegraph System.

Total Investment on Capital Account	\$132,337.92
Cost of Operation:—		
Operation and Maintenance of System exclusive of operators' salaries	6,619.81

Inspection Services.

Cost of Inspection of wiring in buildings	\$ 5,597.14
Cost of Inspection—poles and wires on streets	1,657.26
Cost of Supervision—Grounding of Secondaries	488.05

Miscellaneous

Salaries and office expense, etc., not charged to other accounts	\$ 4,743.46
Work done for other civic departments and credited to Electrical Dept. accounts	\$ 2,173.93

Revenue Accounts.

Inside Wiring Fees	\$ 2,372.60
Operation of Private Fire Alarm Systems	970.00
Dominion Messenger and Signal Co.	401.17
May Oatway Fire Alarms	238.50
		\$ 3,922.27

THE WORLD'S BID FOR QUEBEC'S FORESTS.

How the people of Quebec are benefitting from the world-wide advance of timber values is shown by a comparison of timber sales conducted by the Quebec Government last month and those held 14 years ago.

In 1900 the average price received by the public treasury for timber berths was \$111 a square mile. In the following year it was \$138 a square mile. In September, 1917 the bids averaged \$440 a square mile, one substantial tract going at \$1,000 a square mile. This enormous advance does not represent a speculative value because the purchasers were industrial companies intending to turn the forest growth to more or less immediate account.

Quebec tax-payers owe to their forests their freedom from direct taxation. Last year no less a sum than \$1,683,000 was taken by the Quebec Government as forest revenue and this paid a great part of public administration, road construction, public buildings, etc. The year before Confederation, Quebec took from the lumber industry a net total of \$294,000. In 1866 this had risen to \$630,000, and by 1905 was \$1,280,000.

Every tree in Quebec is growing more and more valuable. The industrial development and volume of employment grows greater year by year, and the public treasury is a substantial gainer. Quebec cannot afford to hand over any part of her forest endowment to the needless waste of fire. Every fire represents a blow at employment and the public good.

One thing further—the Quebec Government should not encourage and permit land sharks to exploit our forests.

THE VICTORY LOAN.

On November 12 the people of Canada will be asked to subscribe to the Victory Loan, which is expected to be for \$150,000,000. To secure this huge amount from the citizens of this country the Minister of Finance will be aided by all the large and small organizations, and much is expected from the municipal councils to help the local committees by all the means within their power. That it is necessary that the new loan should be entirely subscribed for in Canada is apparent when it is considered that the three previous war loans were subscribed very largely in the United States. That country is now at war itself, and consequently every dollar it can raise is wanted for its own war purposes, so that the responsibility of making the new loan a success rests with every person earning a wage or receiving an income in Canada.

Though Canada has been at war for over three years her people, outside those at the front and their families, have made no real sacrifices as have the people of Great Britain, and now that they are called upon to help their Government to supply the sinews of the war, the least they can do is to meet that call; it certainly will be no sacrifice, for buying Victory Bonds is a splendid investment. The rate of interest is to be 5½ per cent., and the denominations as low as \$50. As the means of payment are to be made easy, everybody should be able to own a Government bond, and the municipal councils cannot do better in the interests of their community as well as in the interest of the nation than urge every householder to invest, and if the councils themselves have any spare cash they should use it in the loan and thus set a good example to the people.

FACTS ABOUT CANADA AND CANADA'S VICTORY LOAN.

The proceeds of CANADA'S VICTORY LOAN, 1917, will be used for war purposes only and will be spent wholly in Canada. The money will be loaned to Great Britain with which to purchase Canadian farm produce and manufactures.

War orders have made Canada prosperous, as the following will show: (000's omitted.)

	1913.	1914...	1916.	1917.
Agricultural produce..	\$150,000	\$198,000	\$250,000	\$373,000
Animal produce	45,000	53,000	103,000	128,000
The fisheries.. .. .	16,000	21,000	22,000	25,000
Forest	43,000	43,000	51,000	56,000
	\$254,000	\$315,000	\$426,000	\$582,000
Manufactures	44,000	57,000	242,000	477,000
	\$298,000	\$372,000	\$668,000	\$1,059,000

These figures show that in natural produce Canada shipped in the last fiscal year \$267,000,000 more than in the best year before the war, while the manufactures in the last fiscal year are \$420,000,000 more, or over eight times as much as they were in the best year before the war. CANADA'S VICTORY LOAN must be fully subscribed if this prosperity is to continue.

Since the outbreak of war, Great Britain, through the Imperial Munitions Board, has placed orders in Canada for \$972,000,000 of shells, munitions and chips. These orders alone are keeping 225,000 Canadians employed at good wages.

The total value of all the orders placed in Canada by Great Britain and her Allies from the beginning of the war to the end of 1916 was \$1,095,000,000. By the end of this year the total will exceed \$1,500,000,000. These orders include flour, wheat, cheese, butter, oats, meats, fish, ships, munitions, blankets and numberless other manufactures. If CANADA'S VICTORY LOAN is fully subscribed by the people of Canada these orders will keep on pouring in and every farmer and merchant will have a ready market for all his goods at high prices.

The United States has already agreed to loan to Great Britain and her Allies \$3,000,000,000, but the money must be spent in the United States for the purchase of farm produce, manufactures and munitions of war. Every merchant, farmer, manufacturer, mechanic and clerk in Canada should invest his present and future savings in CANADA'S VICTORY LOAN, so that all war orders possible may be placed in Canada. If CANADA'S VICTORY LOAN is not subscribed in full, war orders which it is intended to place in Canada, will have to be given by Great Britain to the United States instead, as she will loan the money to pay for these orders if Canada will not.

Great Britain had invested in Canada before the war over \$2,900,000. The people of Canada are now asked to

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subscribe to the VICTORY LOAN in order to loan Great Britain the money with which to purchase Canadian goods. The money will stay in Canada and the goods will be shipped to England.

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THE BANK OF MONTREAL.

The Bank of Montreal this month celebrates the 100th anniversary of its foundation. The Bank during all this time has been so closely associated with the material growth of the Dominion that to-day it is rightly looked upon as one of Canada's national institutions. Acting as banker for many of the larger undertakings that have built up the industry and trade of the country, and as fiscal agent for many years of the Federal and some of the Provincial Governments, it has been the biggest factor in financing them, often during periods of depression . . . To the municipalities of the country the Bank of Montreal has always been a friend, and many mayors and financial officials have journeyed down to the head office in Montreal to receive the advice of the general manager as to the advisability of floating loans, etc. And in all cases where this advice has been followed the municipalities affected have received much benefit.

It was on the 23rd of June, 1817, that nine merchants of Montreal, namely, John Richardson, George Garden, George Moffat, Thomas Turner, Robert Armour, James Leslie, Horatio Gates, John C. Bush and Austin Cuvillier, signed articles of association for the formation of the "Montreal Bank."

The first meeting of the stockholders was held on the 7th of August, 1817. At this meeting the following directors were elected: John Gray, who became the first president; Thomas A. Turner, the first vice-president; John Forsyth, George Garden, George Moffat, Horatio Gates, Fred W. Ermatinger, John McTavish, Austin Cuvillier, James Leslie, Hiram Nicholas, George Platt and Zabdill Thayer.

The directors and chief officers having been elected, the organization of the bank for the conduct of business was immediately effected. A house, occupied by Robert Armour on St. Paul street, between St. Nicholas and St. Francis Xavier streets was selected for the bank premises and rented until the 1st of May of the following year.

The first employees of the bank were appointed on the 23rd of August. They were Robert Griffin, cashier; Henry Dupuy, accountant; Henry B. Stone, paying teller, and James Jackson, second teller. A discount clerk and second bookkeeper and a porter were added shortly afterwards, and it was with this staff of seven that the bank began business.

The announcement regarding the opening of the bank's premises for regular business was inserted in the local papers on the 23rd of October and read as follows:

"The Bank of Montreal will commence operations on Monday, November 3; banks hours, 10 to 3; discount days, Tuesdays and Fridays; bills and notes for discounts to be delivered to the cashier on the previous day."

Promptly at the time appointed, the modest establishment in St. Paul street opened its doors, and the bank was started which was destined to play such a beneficial part in Canada's resources. Two weeks after the opening of the bank, the directors appointed an agent at Quebec. In the following June the agency became an office of discount and deposit, and a month later agents were appointed at Kingston and York (later called Toronto.)

A striking illustration of the strides made and the work achieved by the bank is afforded by a study of its expansion during its first century of operation.

From the opening of business on November 3, 1817, the bank made steady and profitable progress, as the directors were able to inaugurate dividend payments at the end of the first year. With the exception of two years, 1827 and 1828, when they were suspended as a precautionary measure, dividends have been paid ever since. The expansion of its business necessitated frequent increases in capital, and the bank in every way possible had to add to its re-

sources in order to meet the requirements of its growing clientele. From a capital of \$350,000 in 1817, a capital of \$5,759,320 is reported in 1858, after forty years of business. In the same year the principal accounts of the bank stood as follows:

1858.	
Deposits	\$ 2,506,863
Discounts	9,612,055
Total assets	11,589,390

By 1867, when the Bank was celebrating its fiftieth anniversary, the expansion enjoyed enabled it to report:

1867.	
Deposits	\$11,198,831
Discounts	11,021,526
Total assets	19,787,499

Then started a report of still more rapid advancements, and the larger the bank became the faster seemed its progress. In 1877, after sixty years, the principal accounts stood as follows:

1877.	
Circulation	\$ 3,275,508
Deposits	16,018,575
Discounts	30,827,510
Total assets	38,625,238

At this period the assets were increasing at the rate of about a million dollars a year, for in 1888 the assets of the bank had grown to \$48,633,211.

In the next decade to 1897 the increase was at the rate of approximately \$1,500,000 a year, and at the end of eighty years the principal accounts stood as follows:

1897.	
Circulation	\$ 4,563,386
Deposits	40,024,750
Discounts	36,725,725
Total assets	64,095,486

Then came the most wonderful period in the annals of the bank. It seemed to go forward with leaps and bounds, and by 1901 its assets had jumped close to one hundred millions, while in the period from 1901 to 1910 its total assets increased by \$120,000,000, its deposits \$120,000,000, the note circulation was more than doubled, and the loans expanded by \$90,000,000. As a result the position of the bank at the end of 1910 showed as follows:

1910.	
Circulation	\$ 11,950,522
Deposits	194,942,370
Discounts	183,538,917
Total assets	234,436,315

The strong and effective organization built up from the Dominion and the service it rendered resulted in full confidence being placed in it, for every year the increase in deposits seemed to be even more rapid than in the previous year and at the same time the bank continued to handle its share of the growing requirements of the merchants and manufacturers. Since the outbreak of the European war the Bank of Montreal, feeling that Canada should be prepared to meet any contingency that might arise, has maintained a condition of exceptional strength as reflected by the liquid assets equivalent to 75 per cent. of its total assets. This position has attracted special attention in London and New York, and, as a result, outside bankers have recently drawn attention to the strong condition that Canada has been able to maintain during the period of the war.

The figures that show the growth enjoyed up to the present year are as follows:

1917.	
Circulation	\$ 21,891,437
Deposits	324,144,279
Discounts	109,906,303
Total Assets	386,806,887

REASSESSMENT OF MANITOBA.

The reassessment of the whole Province of Manitoba is expected to form an important subject at the forthcoming convention of the Union of Manitoba Municipalities, to be held in Winnipeg, November 27, 28 and 29th. Considerable dissatisfaction exists with the assessment for provincial patriotic purposes, and the gap between various municipalities is expected to become widened on the new equalization of assessment for apportioning the levy necessary to cover the cost of the big \$14,000,000 aqueduct of the Greater Winnipeg Water district. The convention will be presided over by D. D. McDonald, of Dauphin, president of the union.

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FROM LIGNITE TO ANTHRACITE.

(Continued from page 476.)

mercial conditions, resulting in the transformation of two tons of lignite into one ton of artificial anthracite which is perfectly weatherproof, is nearly as rich as anthracite in heat units, and as a matter of actual test in house furnaces shows a slightly better heating result even than Pennsylvania anthracite.

It was felt if this project admitted of an economic solution with the poor lignites of Saskatchewan that the problem of briquetted fuel would there upon be automatically solved for the better grades of coal mined elsewhere in Canada.

It was found upon investigation that machinery was available and had been used successfully for carbonizing lignites, although those from this particular field had never received adequate attention.

The Council also satisfied itself that briquetting of this carbonized fuel with a proper binder either of pitch or of sulphite pitch was entirely feasible, and prices were obtained and estimates made for the necessary machinery to establish a plant of commercial size at the mouth of operating mines to be selected in southern Saskatchewan.

Briefly, it was found and reported to the Government that for an output of one hundred (100) tons a day, an expenditure of \$400,000. for plant would be necessary, and that the product from such a plant, using the dust coal at present discarded by the operating mines would cost at the mine not to exceed — \$7.00 per ton, included in which an allowance of 20% for interest and depreciation on the total capital invested was provided.

It was heretofore, felt that making due allowance for transportation and retail selling cost, this small commercial plant could supply a limited district in its own neighborhood with briquetted fuel at — \$10.00 per ton, where the normal cost of anthracite is from — \$12.00 to \$15.00 per ton, and this without any allowance for the valuable by-products derived from the process of carbonizing.

It was realized by the Council that private enterprise was very unlikely to take up a proposition of this kind, knowing that if it failed the capital was lost, and that if it succeeded, competitors would spring up in all directions and utilize the experience gained without compensation. It was felt, therefore, that the matter was decidedly one for either the Dominion or the local Governments to handle, and that once success had been attained and a demonstration made, the governments interested could either throw the whole field open to private competition or preferably reserve the utility for the benefit of the public.

The Council, therefore, approached the Government asking for an appropriation to carry on this work, but at the moment of writing, the matter of the granting of this appropriation has not been finally decided upon, and owing to war conditions — prospects are not encouraging.

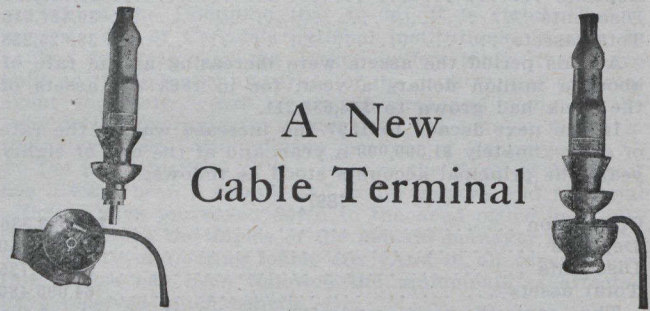
If an appropriation be not granted by the Dominion Government, it would seem that those most interested in the problem, namely: the provinces of Alberta, Saskatchewan and Manitoba, might take the matter up.

Falling governmental assistance, this matter of providing fuel for the central provinces of the North West, will have to be attacked by some group either private or public; and it has seemed as though it might almost be made a municipal affair through concerted action as in the water power situation in Ontario, for in the manufacture of briquets, purely for domestic purposes, there is given off about 10,000 cubic feet of gas with a heat unit value of about 400 B.T.U.s per cubic foot, a certain amount of ammonia sulphate from which nitrates can be obtained for fertilizing purposes and a certain amount of tar and oil; so that with plants of this kind municipally owned, any community would be able to supply itself with fuel, light and power and have by-products to sell, and its sales of briquets need not be restrained within the bounds of the municipality itself, but might extend outward as far as possible to the district. In other words, the project becomes a district public utility.

While the briquet question was the first problem attacked in detail, it does not by any means cover the activities of the Council in dealing with fuel matters in Canada, for they have already investigated the Oil Sands of the Athabaska and the Oil Shales of Nova Scotia and Ontario, and propose to immediately proceed to study the best methods of burning in steam boiler furnaces the dust fuel from all mines.

This latter project, however, is not yet ripe for commercial exploitation as is that of briquetting, and the necessary appropriation from the Government to carry on the work may be difficult to secure, but if the Council receives that encouragement and support from the Government which the problem merits, they are prepared to deal with every phase of the fuel problem in Canada, for they realize that our raw coal should not be burned, but practically all of it should go through a manufacturing process which would yield by-products in the way of gas, oils, tars, dr fertilizers, etc., which will more than recoup the costs of manufacture.

This has been recognized in Germany for years past, it practically being unlawful to burn raw coal, most of it being coked and the by-products collected and used for the benefit of Germans and to the detriment of Canadians, who possess greater and better natural resources than the population of that Empire which has profited so much from research.



A New Cable Terminal

A new style of outdoor (Type D. O. A.) cable terminal has recently been placed on the market by the Standard Underground Cable Co. of Canada, Limited, Hamilton, Ont. It is known as the Protected Disconnection style. All the copper parts are covered by a porcelain hood, as shown in the illustration, which permits the disconnection of the aerial extension wire even while the circuit is alive.

All the outdoor (Type D. O. A.) cable terminals made by the Standard Company are readily disconnected from the aerial conductor, either by means of a set-screw, cap-nut or turnbuckle stem. The stem of the new terminal is a modification of the regular cap-nut stem and has some additional advantages where frequent disconnection of the aerial circuit from the terminal is necessary. The new terminal, as well as the complete line of Standard outdoor cable terminals, is fully described in bulletin No. 700-2.

POISONOUS BEANS.

The attention of the Department of Health has been directed by the United States Government, to the fact that a variety of bean known as the Burmah White, or Rangoon bean, and laboring under the scientific name of "Phaseolus lunatus," has been sold in large quantities in the United States and Canada.

This bean has been planted by the acre, and in no case has it come up. Furthermore, it is poisonous. Analyses of samples taken in Toronto and analyzed in our laboratory show it to contain .028 per cent. prussic acid, and cases are on record, in Holland for example, where people have died from eating it.

The Rangoon bean is a small, yellowish bean, with marked lines radiating from the small eye on the concave surface. These radiating lines and its yellow color serve to distinguish it from the small white bean.

Its importation has been recently stopped by the Government as an injurious article of food.

We understand that this variety of bean has not been used by canners to be made into pork and beans, so that there would be no danger to fear from that source.—Toronto Health Bulletin.

The Saskatoon "Star" says: "There is a dispute between the C. P. R. and the conductors. Just what the point of difference is, is not yet known, but those conversant with railway matters say that the company is demanding a share of the fares."

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If for no other reason than that of self interest, it is of the utmost importance to every manufacturer and merchant that the fourth War Loan of the Dominion of Canada (to be known as Canada's Victory Loan and to be offered in November) be fully subscribed.

The further extension of credits to our Allies is imperative if Canada's manufacturers wish them to continue buying here. And there can be no question about that, because upon their purchases will depend our industrial and agricultural prosperity.

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The money must come from our entire people, but a good lead from manufacturers and merchants is absolutely essential and will encourage the multitude of smaller investors. The bonds are an excellent investment. Money is not tied up in them, because they are readily saleable and because of their value as collateral.

Apart from all business and financial reasons, however, the great fact remains that Canada must have more money to carry on her part in the war.

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