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# The Municipal World 

Fuiolished Monthly in the Interests of EVery Department of the Muninioipal Instituticns of Onterio -the Fest in the Worla.


## For Collectors' Rolls

## Lytle's Rate Tables

This valuable little work is intended to assist clerks in entering taxes in the Collector's Roil. It gives rates by tenths of a mill from one to nine and nint-tenth mills. The author, a clerk of considerable experience, knowing what was wanted, issued the work, which should be in the office of every clerk. Price, $\$ 2.00$.

## CALEDDAR FOR JULV IND

## Legal, Educational, Municipal and Other Appointments.

## JULY.

1. Domimion Day.

All wells to be cleaned out on or before this date. Section 113, Public Health Act, and section 13 of By-law, schedule "A."
Last day for County Council to pass by-law that nominations of members of Township Councils shall be-on last Monday but one in December.-Municipal Act, section 113.
Before or after this date, Court of Revision may, in certain cases, remit or reduce taxes. -Assessment Act, section 67.
Last day for revision of rolls by County Council with a view to equalization.-Assessment Act, section 78.
Last day for County Treasurers to return to Local Clerks amount of arrears due in respect of non-resident lands which have become occupied. - Assessment Act, section 143.
Last day for establishing new High Schools by County Councils.-High School Act, section 8.
Treasurer to prepare half-yearly statement for Council.-Section 251, Municipal Act.
Treasurer to prepare statement of amount required to be raised for Sinking Fund to be laid before Council previous to striking annual rate.-Municipal Act, 1893.
5. Last day for service of notice of appeal from Court of Revision to County Judge.-
14. Last Assessment Act, section of duties of Court of Revision in Shuniah. - Assessment Act, section 64, sub-section 19 .
15. Public School Trustees' semi-annual reports to Inspector due.-P.S. Act, section 40 (13).

Last day for making returns of births, deaths and marriages, registered for half-year ending 1st July.-R. S. O., chap. 40, section 6.
20. Last day for performance of Statute Labor in unincorporated townships.-Assessment
31. Act, section 113
31. Last day to which judgment on appeals, Court of Revision, may be deferred, except in

Shuniah and other districts. - Assessment Act, section 68.
August. Last day for decision by Court in complaints of Municipalities complaining of equaliza-

1. La tion.-Assessment Act, section 79.
Notice by Trustees to Municipal Councils respecting indigent ehildren due.-P. S. Act, section 40 (7) ; S. S. Act, section 28 (13)
Estimates from School Boards to Municipal Councils for assessment for school purposes due.-H. S. Act, section 14 (5) ; P. S. Act, section 40 (8) ; section 107 (10) ; S. S. Act, section $28(9)$; section $32(5)$; section 55.
High School Trustees to certify to County Treasurer the amount collected from county pupils.-H. S. Act, section 14 (5).
High School Trustees to petition Council for assessment for permanent improvement. H. S. Act, section 33.

## *N○TIGE

The publisher desires to ensure the regular and prompt delivery of The World to every subscriber, and requests that any cause of complaint in this particular he reported at once to the office of publication. Subscribers who may change their address should also give prompt notice of same, and in doing so, should give both the old and new address.

## Blank Forms Required by the Ditches and Watercourses Het, 1894.

"It shall be the duty of the Municipality to keep printed copies of all the forms required by this Act."-Section 7, sub-section 2.

For the convenience of municipalities we have prepared the following:

| Form B.-Declaration of ©wnership. | 20 Cents per Bozen. |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Form C.-Notice to Owners. | 50 | 66 |  | -6 |
| Ferm D.-Agreement by Owners. | 25 | * |  | 6 |
| Form E.-Requisition for Examination by Engineer | 20 | 6 |  | 6 |
| Form E.-Notice of Appointment for Examination by migy | 25 |  |  |  |

Full explanatory notes are printed on each form. Price, 300 forms assorted, $\$ 5.00$. Address, with price enclosed, The Municipal World, St. Thomas, Ont.

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In the interests of every department of our Municipal System-the best in the world.
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office of publication not later than the 20th of the month. office of publication not later than the 20th of the month. Address all communications to
K. W. McKAY, Editor,

Box 1252,
St. Thomas, Ont.
ST. THOM AS, JULY 1, 1894.

## Special Meetings.

The head of every council may at any time summon a special meeting thereof, and it is his duty to do so, whenever requested in writing by a majority of the members of the council. All the members are entitled to be present at a special meeting, and should be notified to attend, and if practicable, notified also of the purposes for which the meeting is called. The omission to notify a member entitled to be present may be held to invalidate all proceedings at such meeting, and where the purposes for which the meeting is called is specified in the notice, there is, in general, no power to transtact business besides that specified.

In the absence or death of the head of the council, a special meeting may be summoned at any time by the clerk upon special requisition to him signed by a majority of the council. Where there is no by-law of the coucil fixing the place of meeting, any special meeting is required to be held at the place where the then last meeting of the council was held. Ordinary meetings of the council are required to be open to the public, but under the authority of section 237 , of the Municipal Act, power is given a council to have special meetings in private when, in the opinion of the council, by resolution in writing, the public interest requires it.

Requisitions for special meetings of councils should be carefully worded both as to the purpose for which the meeting is cal'ed, and the time at which meeting will be held. The most insignificant error might render the transactions of special meetings of the council void. The same care should be taken in wording the notices of special meetings given to members of the council.

The Kent county council at its recent session, passed the following resolution: " Moved by Messrs. Morrison and White, that on account of the Blenheim public school obtain-
ing os high a standing at the departinental, art
and and leaving examinations, that this councilgrant a gold medal suitably engraved to the school."

Before the motion was voted upon, the mover stated that for three years, the school had ranked first among the public schoo of the province.

The year : 893 was marked by a general sanitary revival and the consequence has been that while cholera raged a deadly warfare in other lands, and found some victims even in Hamburg, where such stringent measures had been taken, there were very few cases on this side of the Atlantic ; in fact the whole country was unusually free from the class of preventative diseases. The great danger now is that we will, while thus congratulating ourselves, allow the means of defence to grow weaker. The fight against disease must be kept up, and because we have done a good work in one year is no reason why we should be idle the next. The cholera scare has done much good work and many filthy places have been changed under Hygeia's cleansing glance. This warfare against pestilence must be continued, and as the summer months are upon us we must renew our efforts.

The special committee of the Ontario county council appointed to consider the advisability of erecting a house of industry, reported that during the last five years the total expenditure of the local municipalities in the county for indigent purposes, averaged $\$ 5.911$, The committee have been instructed to prepare and distribute facts for the electors, and a vote will be taken on the question at the next municicipal elections.

We notice that several councils in passing by-laws for borrowing money under the Tile, Stone and Timber Drainage Act, only provide for the sum of $\$ 2,000$; this is the smallest amount for which a by-law can be passed, and as the expenses are the same whether the by-law is for $\$ 2,000$ or $\$ 10,000$, the cost to the borrower for the expenses of the by-law, etc., would be less if the council would pass by-laws to borrow the maximum amount of $\$ 10,000$.

The county council of Welland will solicit the co-operation of other counties in petitioning the Ontario Legislature to amend the Anatomy Act, so that the disposal of bodies of inmates of county houses of industry will be absolutely under the control of the county councils, and also for an amendment to the Act respecting coroners, so that its provisions will not apply to inmates dying in houses of industry.

In reply to an enquiry made by the Elgin county council last year in reference to this matter, the Deputy Attorney General gave the following opinion in reference to inquests on inmates in houses of industry:
" Looking at the language employed in section 3, of the Act respecting coroners, R. S. O., chap. 8o, I am inclined to think that the provision as to holding inquests has reference to prisoners committed to the house of industry, and not merely to persons sent there to be cared for without any, formal committment. The word 'prisioner" used in this section points to this conclusion."

## Collectors' Rolls.

The preparation of collectors' rolls, will during the next two months, engage the attention of municipal clerks. Section 119, of the Assessment Act, refers to these duties. It is very necessary that the work of the clerk in this respect should be accurate, as the financial business of the municipality depends on the payment of correct amounts by the parties liable under by-laws that may have been passed in accordance with the Municipal, Drainage and other acts. The first duty of the clerk should be to enter as much of the Assessment roll as is required in the collector's roll, and ascertain the total assessment of the municipality. This will be required by the council in striking the rate. In townships, clerks will find it to their advantage inchecking these additions to ascertain the valuation of each school section, and the total valuation of all the sections should agree with the total of the assessment roll.

Owing to the difference in the rates imposéd, clerks should be very careful in checking over the valuations of the different schools ctions in their n.unicipality to see that the assessor has made no errors, and that the property rightly belonging to the section is assessed therein. To obtain a requisition from trustees in the proper time, it is advisable to send each secre-tary-treasurer a circular or letter giving the valuation of his school section as it appears on the assessment $10 l l$ for the year and number of children between five and twenty-one, as shown by the assessment, and as required by section 2 , of the Assessment Amendment Act, 1893, and enclose a blank form of requisition to be filled in, signed by the trustees and returned to the clerk on or before the first day of August. This would insure uniformity of requisitions. The circular should also direct the trustees to enter in requisition the full amount required by them, and the council in levying the school section rates can deduct the amount to be raised by the general public school rate imposed under section 109.

The suggestions contained in the circular issued by the Provincial Board of Health, re vaccination, have caused many councils to put into force the compulsory clauses of the act.

The New Jersey State Road Improvement Association suggeststhat during the National Editorial Convention which will be held at Ashbury Park this summer, a general conference of the advocates of road improvement in America should be held. General Roy Stone, engineer in charge of the office of road enquiry, Washington, D. C., has the matter in hand and will furnish full information on application. The 5 th and 6th of July are suggested for date of meeting.

## The Assessment Amendment Act.

Section 1 refers to the assessment cf farm lands in towns and villages as follows:
"In assessing lands under the first sub-section of section 7a, of the Consolidated As iessment Act, 1892, the assessment shall be on the same principles as the twenty-seventh section provides for cases under that section, subject to the other sub-sections of the said section numbered 7 a ; and it is hereby declared that the said sections apply whether the lands assessed have or have not been divided into building lots or not."

Section 2 repeals section 63 , of the Consolidated Assessment Act, and substitutes a new section referring to the compulsory attendance of witnesses at courts of revision.

Section 3 amends section 67 , of the consolidated Assessment Act, by adding thereto the following :
(a) Wherever it shall be shown to the satisfaction of the court that taxes have become due and owing upon a parcel of land assessed against the same in one block, but which block has subseqently been sub-divided, and a plan of such survey thereof registered and sales made thereunder, and where it appears that such taxes or any portion thereof have remained unpaid upon such land and are a charge upon the whole thereof, the said court, upon the application of or on behalf of any person claiming to be the owner of one or more lots in such survey, may, after due notice of the application to all owners, direct the apportioning of such taxes in arrears over and upon said lots, according and in froportion to their relative values at the time of the assessment, regard being had to all special circumstances attending such application, and upon payment of such amounts as may be apportioned upon any such lot, the same shall be applied in full satisfaction of the taxes thereon, or make such other direction in reference thereto as the particular circumstances of the case may require. The provison herein contained shall be retroactive in its operation, but shall not apply to any lands which have been advertised for sale for taxes.
(b) An appeal may be had to the judge of the county court against the decision or appointment of the court of revision by the municipality or by any owner or owners.
(c) Forthwith after such apportionment has been made, the clerk of the municipality shall notify the treasurer thereof in the case of cities and separated towns, and the county treasurer in other cases, of such apportionment, and shall transmit there with a copy of the same as finally settled by the court, and upon receipt thereof, such treasurer shall enter the same in his books and thereafter each lot or other sub-division of the land affected shall be liable only for the amount of taxes apportioned thereto, and shall be liable for sale for non-payment of the tax so apportioned or charged against it as if such lot or sub-division had been originally assessed therefor.

Section 4 provides that subpoenas to witnesses to attend the court of revision may be issued by the clerk of the county court.

Section 5 amends section 70 , by the addition of sub-section 2 , as follows:
(2) The hearing of the said appeal by the county judge, shall, where questions of fact are involved, be in the nature of a new trial, and either party may adduce further evidence in addition to that heard before the court of revision, subject to any order as to costs or adjornment which the judge may consider just.

Section 6 adds section $76 a$, which provides, that in order to facilitate the uniformity of decision without delay or expense of appeals, the county judge may state a case for the information of the court of appeal.

Section 7 amends section 132 of the Consolidated Act, by adding thereto, the following sub-section 2 and 3 :
(2) The collector of every town and village shall pay over to the treasurer of such town or village once every week until the final return of the roll, the total amount collected during the preceding week.
3. The collector of every township shall pay over to the treasurer of such township once in every two weeks, until the final return, of the roll, the total amount collected during the preceding two weeks.

Section 8 amends section 157 , by adding thereto the following sub-section:
(2) In every municipality where by law taxes are payable by instalments, and five per cent. has been added to such tax by reason of default in payment of any such instalments, the treasurer shall add to any balance remaining unpaid upon the first day of May in each yea: five per cent. thereon, instead of ten per cent. as hereinbefore in this section provided, or a percentage sufficient to make not less than ten per cent. in all when less than five per cent. has been added in the first instance.

With the exception of the last section, which came into force on the first day of May last, the first day of August, 1894, has been fixed as the day, on which the amendments referred to become law.

A recent outbreak of typhoid fever in an American town, was due to what is usually called, criminal carelessness. A milkman in whose family there was a case of typhoid fever, washed his cans in contaminated water and then distributed infected milk to many customers in that town, with the result that several cases of the disease broke out, and not a few deaths followed. After some investigation the cause of the disease was traced to this milkman, but not until irreparable harm had been done, and even then while every one blamed the man who carelessly started the epidemic, no one suggested, nor indeed is there prescribed any form of punishment for such persons.

Another case of carelessness occurred in a family which alone suffered. The head of the house had a large collection of fowls in the country, and some of them had what is known as the "rupe," which corresponds to diphtheria in man. Some of these chickens found their way into the house, and the youngest child, who amused himself by fondling the chickens, was taken sick with diphtheria and soon succumbed. The isolation of the child and the killing of all the diseased fowls prevented the spread of the disease. Here are two instances of criminal carelessness and there are many others on record. If some form of punishment could be inflicted to suit such cases they would not occur so often.

The Municipal World, now in its fourth year, edited by Messrs K. W. McKay, county clerk of Elgin; A. W. Campbell, city engineer, St. Thomas, and H. F. Jell, solicitor, clerk of Aldborough, is an invaluable publication to every member of a municipal council or municipal officer.-St. Thomas 7 imes

## Special Audit East Zorra.

We have had the pleasure of examining report of the special auditor, appointed by the township council of East Zorra to examine the treasurer's books and auditor's -reports from the 15 th of December 1889 , to the end of 1893 .

In addition to giving in detail, the entries required to be changed in the treasurer's books to show correct balance on hand, the auditor, A. C. Neff, F. C. A., of Toronto draws the councils attention to special matters as follows:-

In reference to the difference between the funds on hand, and the balance shown by the books. I find no evidence of intentional wrong doing. The shortages have been largely caused by the disposition of the treasurer to pay amounts known by him to be due without insisting on a written order when it was inconvenient to get one, relying upon the promise of getting one at a later day. Instead of charging up the payment when made, the entry was defered until an order could be got, and was thus lost sight of.

It is to be regretted that the auditors had not made a more careful examination of the bank account, for if they had done so, or if they had complied with the statutary requirmemt for a statement of assets and liabilities at the end of each year, the many errors must have been discovered at the time, and would then have admitted of much easier explanation and correction. An imperfect audit is unfair to all parties concerned, and chiefly so to the treasurer's bondsmen, who rely upon it for their safety.

By the cash report it is shown that a number of important errors and many smaller ones had occured in their reports, the most important being the introduction of over-drawn bank balances into the payments as the receipts and payments which produced the overdraft were already in the book, and the bank was only the representative of the treasurer. These balances overdrawn would have treasurer.

The system of book-keeping can be improved, and I have opened a new set of accounts in the general ledger, and also a cash book for the municipal drain account, which will, I trust simplify and shorten the records. This provides a cash book ald a ledger, each for the general accounts, and the drain accounts. Two accounts entitled "municipal drain accounts" and "ditches and watercourses account" should be kept in the general ledger to be debited with all payments which are in the way of advances, and credited with all refunds and assessments showing in each entry which drain it is for.

In conclusion the auditor suggests, that the 15 th of December is probably the worst day in the year in which to strike a safe balance.

We believe it is the system in many municipalities for the treasurers to place too great reliance on their memories, while others look to the auditors to correct any errors they have made during the year. The fact, that in this case, a special auditor was appointed, and that his report shows an accumulation of numerous irregularities, involving small amounts, leads us to repeat that the auditing of municipal accounts is a farce in many municipalities. A happy combination in the appointment of auditors is an expert accountant, and a man thoroughly posted in the business of the municipality, a good audit would thereby be secured, and a report that every one could rely on.

## The Municipal Framework of German Cities.

 -The Municipal Structure.Although the framework and general structure of the municipal house are not of vital consequence togood housekeeping, they have a very considerable importance. It happens that the Germans care less than the French for a modern and regular system-one that shall conform to geometrical rules and harmonize with a philosophical ideal. In the United States, reformers have too often quite lost sight of the aims and objects of good government in striving after good government as an end in itselt. Their attention is concentrated upon the structure and mechanism, and so far as the cities are concerned, they keepchanging it perpetually. They are forever overhauling, repairing or reconstructing the house, but they seem to have no very inspiring uses for which they are eager to make the house ready. The Germans, on the other hand, have taken their old framework of city government as they found it, and have proceeded to use it for new and wonderful purposes, altering it somewhat from time to time, but not allowing its defects to paralyse the varied activities of the household.

## the franchise and the electoral

 SYSTEMS.The electoral system is somewhat complicated. A city, Berlin for instance, is laid off in a number of electoral districts ; the voters are listed in the order of the sums they pay for taxes, with the heaviest taxpayer heading the list; they are then divided into three classes, each of which has paid a third of the aggregate amount, thus: the first class will contain a group of very heavy taxpayers, the second will be made up of a much larger number of men of moderate fortune and income, and the third class will comprise the great mass of working men and small taxpayers.

Thus, the elections are indirect, and a voter of the first class has as much weight as twenty voters of the third class, or as five of the second; and a voter of the second class counterbalances from three to five of the third. In large parts of the German empire, it is true, the class system is not maintained in municipal elections, and in nther parts the voters of the three classes choose their representatives directiy without the intervention of the foaly-marmer. An extreme instance of the preponderance that this system gives to wealth is afforded by the manufacturing city of Essen, where, in a population of some 80,000 , there are three men who pay one-third of all the taxes, and are therefore empowered to designate onethird of the electors. The Krupp gun works form the great industry of Essen, and at the last municipal election, one voter appeared for the first class and counted for quite as much as the nearly 2,000 men who appeared for the third class. Where the class system exists, it is not always true that that the voters select men of their own class to represent them.
the elected council as a vital fact.
As far as the voters are concerned, their one task is the selection of a good municipal council. Everything in the life of the gemeinde revolves about this one central body. It finds the burgomaster, designates his expert associates of the magisterial coterie, supplies the means for carrying on the city government, and represents in its own enlightenment, ability and aspirations, the standard and the character of the community's progress. It is to this body that one must go to discover the secret of the consistency and continuity of German municipal policy.
Stability in the German municipal council is secured by partial renewal. Thus, the councillors of Berlin and the Prussian cities are elected for six years, and one-third of the seats are vacated and refilled every two years. In Berlin there are forty-two electoral districts, and these are arranged in three groups of fourteen each. Each group elects its councillors in its turn. Thus, group one chose its forty-two councillors in 1889 , group two had its turn in 1891 , and group three renewed its representation in 1893 . Each district elects three councillors, corres. ponding to the three classes of voters, and thus each group contributes forty-two to a total elective council of 126 members.
the COUNCIL AS A FOCUS OF GOOD

## CITIZENSHIP.

Municipal councillors in Germany are, as a rule, very excellent citizens. It is considered a high honor to be elected to the council. Membership is a title of dignity that merchants, professional men and scholors are usually eaget to hold, No salaries are paid to the councillors and a penalty is attached to refusal to serve if elected. The sentiment toward these positions is much the same in Germany as in Great Britain, though stronger with men of high education in German than in British towns. The reelection of good councillors term after term is common in both countries.

In addition to the magistracy and the council, there is in Berlin, a body of about seventy-five so-called "citizen deputies," who are selected by the council for their general fitness to serve as associates on committees charged with the over sight of the various municipal interests, such as parks, schools, the care of the poor, and the sanitary services. They have no authority to vote in the council, but they illustrate at the centre of admistration, the excellent practice which is followed throughout the entire ramification of German city government, of enlisting the cooperation of unofficial citizens in manag. ing the ordinary concerns of a community.

## THE BURGOMASTER AND EXECUTIVE

 magistrates.The burgomaster and the magistrates are the most highly trained experts that a German city can secure. The burgomaster is an expert in the general art of municipal administration. Assocrated with
him in the magisterial council are experts in law, experts in finance, experts in education to administer the schools, experts in engineering to oversee public works of every character, experts in saritary science, experts in public charity, experts in forestry and park management, experts in the technical and business management ot water and gas supplies, and so on.
We may deprecate German officialism as much as we tike, but the Germans will not cease to manage the business affairs of their municipal corporations through the employment of a trained professional service, untul American railway corporations cease to seek the best technical and expert talent, whether in administration or in engineering to carry on their enterprises.

The German magistratsrath is the glorification of the expert chiefs of departments that one finds in the Eng'ish system. It may be regarded as a fusing into one supreme executive group of these professional and salaried experts, and the level-headed old chairmen of council committees. Of the Berlin magistracy, seventeen are salaried and are appointed for twelve year terms, and seventeen are unpaid, and are chosen for six year terms. The salaried men, including the mayor and deputymayor, are selected for their expert qualifications, exactly as a board cf railway directors would make up its staff of general officers.
ADMINISTRATION BY PERMANENT EXPERTS.
The mayor or head of the municipality, in some cities, called the oberburgermeister and in some simply the burgermeister, is the general manager of the whole mechanism of administration, and usually the guiding spirit as well in the economic policies of the municipality. He may feel that success in the management of a smaller city will perhaps be rewarded by the prize of the mayoralty of a greater one.

The tenure of the paid magistrates, in general, follows that of the mayors, and the cities which give life appointments to the chief of the municipality, commonly give them also to the expert professional element among his associates, while limiting the unpaid magistrates to terms corresponding with those of the popularly elected councillors. Duties are so well distributed among the magistrates that there results the highest types of executive efficiency, and the least possible friction or waste of energy. New departments of administration may either be assigned to the portfolios of existing magistrates, or may be provided for by the appointmert of additional members. Thus the magistratsrath is sufficiently flexible to respond to the changing circumstances of a city, and the presence of its unsalaried citizen members keeps it always sufficiently in touch with the spirit of the community. It should further be said that in the details of administration, the magistrates have the co-operation in various ways of numerous unofficial citizens serving in a voluntary or honorary capacity on countless sub-com-mittees.- Albert Shaw in Century for June.

## ENGINEERING DEPARTMENT.

A. W. CAMPBELL, o.L.S., C.E., A.M.C.S., C.E.

EDITOR.
In looking abroad upon the world and contemplating the various changes and improvements from the past in the physical conditions of life, we are naturally led to inquire about the forces and agencies that have been employed in effecting the present superior conditions of things, and also about the class of men who have proved themselves equal to the emergencies of distributing those forces and controlling their energies for ameliorating the lives of their fellow men.
Conspicuous among the contributors fur these advanced and still advancing ideas are the engineers; let their work lie as it may in any one of the special departments of the chosen profession. It is well for us of to-day that brilliant minds have in the past devoted their lite work to effect this mighty change. Are we to be heirs only 1.f this heritage, or are we to use it as being the proper lever in our hands to effect still greater achievements? if so, then we must put ourselves in suitable condition with our surroundings, being equipped with all available knowledge; bringing to bear the experience of the past for the solution of the problems of the present, and bequeathing these as data for those of the future.

The engineer is in a position between the earth with its elements, its forces, and its people, to fill the barns of the farmer with plenty, to relieve in a measure the patient ox in his toil of the furrow, and the ever serviceable horse from over exertions on the road ; to assist workman in all the avenues of life, by harnessing the elements for their reliet; to give water to the thirsty land, and bid it depart from that which is submerged, to give light for darkness, heat for cold, to make the afar near, to bring that which is high, down and to elevate that which is low. The engineer's duties should not consist only of the performance according to the rule of certain pieces of work under pay, but his whole life should be one of continued careful observation, to be as sagacious in the various lines of his profession as the indian or the hunter, or trapper becomes in woods crafty; besides his skill and dexterity in the manipulation of his instruments of precision, and his ability for the correct solution of the problems in hand, he needs, as a further preparation for his work of usefulness, a thorough training of all his faculties and constant test of conclusions ; let his senses by their training become so acute and under such subordination and cuntrol as apparently without effort to reveal to him the state and condition of nature in all her mutations as well as the state of things in general. But how shall the engineer go about to effect these things? Let us see. Are the roads bad, low, muddy, almost impassible fcr periods in the year? Investigate them
thoroughly, see what is required to make them good, what different modes of 1 m provement may be adopted with feasibility, look up hills or beds containing gravel or quarries, in which to crush stone and are easily accessible with which to surface them after proper drainage and turnpiking. Are the well waters impure? Seek first the cause, then, if possible, the cure ; or if a supply of better quality cannot be secured by some of the methods usually employed, construct waterworks. Does sickness prevail in a neighborhood and disease become epidemic? Be sure there is a cause, do not be content with ascribing it to the mysterious hand of Providence, but to a neglect of duty, a want of vigilence, a sleeping of the proper sentinels, be sure a foulness is lurking somewhere-construct sewers.

- But as to the manner, and the means to effect these improvements, seek every favorably opportunity to post the people up as to the necessity for the needed measures, let no stone be u.sturned, no vigilence remitted, for having them thoroughly imbued with the necessity for the desired work and the advantages to accrue from the execution, and there will soon be found a leading spirit materializing who will rally the people and procure the necessary means to carry forward the undertaking. The people thoroughly aroused, the work is half accomplished, and little more effort is required for its successful completion. Our views are tied too much to the past, our movements too prone to the incumbency of yesterday, we hesitate to step into the fields where none have trod before, we are timid in venturing where the way has not been pointed out, and we would urge men to strive to rise sufficiently to seize the cord that may lift the curtain and lay hold of the string, to raise the latch, that may open the door for the mind to grasp, and the eye to gaze upon the things which lie upon the threshold of the, as yet, unknown.

As long as the ashes and refuse from cities are taken out and dumped by the careless drivers on the nearest out-lying vacant spaces, these places will form very dangerous building lots, and when sanitary inspectors fail to notice unhealthful ground, private citizens should be on their guard. When such made land must be used, the cellars should be well cemented and the stone foundation run down deep enough to reach solid ground,

Cities and towns with surface drainage may be more unsightly than those provided with underground drainage, but the former, in time of rains, are certainiy made much cleaner and are swept of all filth, especially if the streets are hilly and uneven. Sti!! it is very disagreeable, to say the leaast, to see house waste and wash water running from houses and buildings in gutters exposed to view.

There is, however, less danger to the
houses themselves, for when waste pipes connect with underground gutters, backward currents of air, especially when the house has been vacant or unused for a ong time, are very liable to fill the house with sewer air.

As to the composition of sewer air, opinions differ, but it contains very few harmful bacteria. This is principally because the bacteria of decomposition act antagonistically to the disease-producing bacteria and the result is annihilation of the latter. Furthermore, the bacteria adhere to the moist surface of the urderground sewer. This is why frequent examinations of the sewers of Berlin have shown almost complete absence of bacteria Let the sewer, however, be unused for a long time and the bacteria attached to bits of dust may by backward currents of air be carried into the houses.

It is just as well to close all closets and sink outlets when the house is to be vacant for a long time and then the certainty of cutting off this mode of enterance for bacteria will be assured.

## Roads.

The best road making in many populous and naturally thoroughly drained districts is complicated by the practice for many years of attempting betterment of clay, hard pan or gravel, containing much clay or loam, or other material which has destroyed the drainage of the road-bed, that formerally existed and increased its water holding capacity. In such cases it may be cheapest to select a new line for proposed rock road. Or, if sand is plenty and there is room enough in a rural street, let the artificial mud be scraped entirely away to grow grass upon, down to the original sand to which other sand may be added and on this well trampled by turning teams, may be built the best stone road. Many years of travel on simple sand will grind that to mud in wet weather.

Wherever water ${ }^{*}$ with or without frost is liable to render the foundation of a road insecure, provision must be made against it. There are perennial springs that anyone can see, and basis of rock, hard pan or clay, which becomes springs in wet weather that few will see before hand. These are the cause of trouble where cuts have been made for roads-the chances are too numerous for specification. Simple land drainage of clay will improve lines of highway in frosty regions. Three inches of sand along the line of a wet meadow under drained, furnished a dry foot path. And when it is overgrown with grass, thatched roofed as it were with grass fibre, frost never softens that sand and we see illustrated the effect of solid stone floor roofing upon a ridge of drained ciay.

Drainage should ${ }^{*}$ be done separately from road work and months before it,
unless extraordinary pains are taken to ensure the earth settling. But as part of the filling on clays exposed to water and frost let it be repeated that coarse pit sand or fine loose dry gravel are better than broken stone to lay the best stone road upon, because they pack easier and hold as well. Herein so many mistakes have been made that we need line upon line, and precept upon precept.

Let us beware, however, of trusting to gravel that is part clay, or that will grind the clay inside of a road. Clay mingled with water is a very insiduous and slippery thing. Chemists have difficulty in separating some forms of clay from water. We want no manner of it mingled with the bottom or top stone of a road, that we design to be frost proof, because of its great water holding capacity, and because it acts as a lubricant in preventing the fractured surfaces of broken stone from clinging together. The relay acute road maker will be as shy of having clay in the interstices of his stone work as the vigilant mason of having clay in a brick or stone wall. Wherever unburnt clay goes, there water will stay if it gathers, and then frost may expand it with irrestible power.

If we bed large stones on clay alone, without the utmost faithfulness. of fine grit packing (for which sharp sand may be cheaper and better than crushed rock) up will come the dilute clay whenever the road is used in a rainy, freezing and thawing winter. Even with the ideal vigilance on the part of authority, there will be the insiduous clay unless every man engaged upon the work knows wherein the danger consists.
Cover that clay with a thick blanket of course sand or fine gravel, free from earth and clay mixtures-though in some places fine crushed rock may be cheaper ; and the best road making may go on above in perfect security.

Earth roads go to ruin everywhere for lack of surface drainage, and ready appliances for securing that are not at all commensurate with the need, or the ingenuity and mechanical contrivances fitted to a hundred concerns of far less importance.

Another great feature in a properly constructed road is its elasticity. Uniform traffic upon the surface tends to distribute the wear and tear of its component parts so that they offer equal resistance, and enable the road to keep its solidity, cohesiveness and elasticity. Roads retaining these properties cause less friction and shaking to both vehicles and pedestrians. Such qualities are only to be obtained by exercising proper precaution in construction, compactness and cohesiveness being thus assured. This may be illustrated by noting the different effects in driving or walking upon an asphalt road compared with those constructed of hard stone and like material.

Economy is as applicable to highways as to public or private expenditure, and the golden rule of "The maximum of benefit at the minimum of cost" should be the leading idea in road construction. The progressiveness of the age demands the better education of the people to the necessity of a high standard of roads and the immense advantages of good over imperfectly constructed ones. The economic benefit of a good road can be readily seen byits cheaper maintenance, greaterand easier facilities for travelling, less cost for repairs to vehicles, corresponding relaxion of strain upon animals drawing same, and consequent saving of time, ease and comfort to those driving over them. It is well known that a horse will draw a much heavier burden over a good road than over an indifferent one. From the experience gained in recent years, the advantages just stated are so apparent that it would excite no misapprehension of the fact that the time has arrived when the people are inclined to appreciate them, and are determined to have them, on the ground of economy. The most important factor of maintenance is the question of cost. The charges are reduced by the fact that a properly constructed road requires less maintenance, The charges for material are also lessened, and when from any cause reconstruction is necessary, the economy is demonstrated by the reduced expenditure required.

Increase in the value of property adjoining first-class roads follows their construction as is proved by the rise in price of land having the advantage of proximity to macadamized or turnpike roads. The necessity of presenting a tabular statement of the cost of county roads may be saved by quoting an adage well known to those versed in highway principles viz: "It is cheaper and easier to maintain a good road than an indifferently constructed one". The economy of maintenance depends entirely upon the system employed. The present system under which the greater number of townships roads are maintained is not of an economical nature and it is absolutely necessary for the sake of greater economy to place their control under more skillful and liberal management.

The measures necessary to be taken for affording the means of travelling from place to place, easily and rapidly, and for transporting farm product and other merchandise in quantities at an economical rate at all seasons of the year, form an essential part of the domestic economy of every people, and as the making of roads is fundamentally essential in bringing about the first change, that every county must undergo in its development, it becomes one of the important duties of every government to enact the necessary laws, required for such purpose to the end that a well-constructed highway be made the means for intercommunication between all populated places.

## Road Makıng.

With all the new inventions and appliances for excavating and handling material for road construction, which we believe has reduced the cost of roadmaking at least fifty per cent within the last ten years, we are satisfied that the next ten years will see a revolution in the system of making and maintaining a wonderful change in the condition of our country roads. The earnest determination of the people to no longer endure the inconveniences and enormous costs which have arisen from the impassible condition of our roads, and the necessity for better ones throughout the country has never before been more intellegently placed before the public than at the present time. The paramount importance of the subject is manifested by the wide-spread interest taken in it by municipal councils, governments, and technical schools and by private energy and enterprise, in all parts of the country. The measurers necessary to be taken for affording the means of travelling from place to place easily and rapidly, and for transporting farm product and other merchandise in quantities at an economical rate at all seasons of the year, form an essential part of the domestic economy of every people, and as the making of roads is fundamental'y essential in bringing about the first change that every country must undergo in its development, it becomes one of the important duties of every government to enact the necessary laws required for such purpose to the end, that well constructed highways be made the means of inter-communication between all populated places.

Earth roads should be kept smooth, hard, up to grade and cross-sections by the addition of suitable materials at frequent intervals and in small quantities at a time, on all places out of grade, securing a surface such as shall quickly convey the water to side ditches. The latter should be kept open, of uniform and sufficient slope, free from rocks, ridges, depressions, and continuous to some natural or artificial outlet. Sprinkling and rolling are valuable adjuncts of repair especially in dry weather, and a thorough rolling in spring after ground has settled, is a market benefit.

Sarnia township council have decided to favor a scheme for deepening the Perche drain at a cost of $\$ 17,800$. Mr. Pike, of Chatham has the contract for dredging.

Guelph, Ont. council has given the contract for laying 155,000 square yards of composite stone sidewalk to the Ingersoll Silica, Barytic Company. The price is 15 cents per square yard for sidewalk and $181 / 2$ cents for crossings.

The township of Gray has awarded the contract for improving government drain No. 2 for $\$ 14,000$, under plans prepared by Jas. A. Bell, Engineer.

Farm Drainage.
The benefits which high lands, as we ordinarily call them in distinction from swamp or flowed lands, derive from drainage may be arranged in two classes, mechanical and chemical; though it is not easy, nor indeed is it important to maintain this distinction in all points. Among those that partake of the nature of mechanical changes are the following.

Drainage deepens the soil. Every one who has attempted to raise deep rooted vegetables upon half drained swamp land has observed the utter impossibility to induce them to extend downward their usual length. Parsnips and carrots on such land frequently grow large at the top, but divide into numerous small fibres just below the surface and spread in all directions. No roots except those of aquatic plants will grow in stagnant water. If therefore it is of any advantage to have a deep, rather than a shallow soil, it is manitestly ncecessary from this consideration alone to lower the line of standing water at least to the extent to which the roots of our cultivated crops extend. A deep soil is better than a shallow one, be cause it furnishes a more extensive feeding ground for the roots. The elements of nutrition which the plants find in the soil are not all upon the surface. Many of them are washed down by the rain into the subsoil, and some are found in the decomposing roçks themselves. Thesethe plants-by a sort of instinct search out and find as well in the depths of the earth as at its surface, if no obstacle opposes. By striking deep roots again, the plants stands more firmly in the earth, so that they are not so readily drawn out or shaken by the winds. Indeed, every one knows that a soil two feet deep is better than one foot deep, and market gardners and nursery men show by their practice that they know, if others do not, that a trenched soil three feet deep is better than one of any less depth. We know that indian corn, in a dry soil sends down its roots two feet or more, as well as most of the grasses. It is manifest that a wet soil can never be pulverized. Plowing clayey or even loamy soil tends rather to press together and render it less pervious to air and water. The first effects of under draining is to dry the surface soil, to draw out all the water that will run out of it, so that in early spring and autumn it may be worked with the plow as advantageously as undrained lands in mid-summer. All land which is not level, and is not in grass, is liable to great loss by heavy rains in spring and autumn. If the land is already filled with water, or has not sufficient drainage, the rain cannot pass directly downward, but runs away upon the surface, carrying with it much of the soil, and washing out of what remains of valuable elements of fertility, which have been applied with much expense. If the land be properly drained, the water falling from the clouds is at once
absorbed, and passes downward saturat ing the soil in its descent, and carrying the soluable substances with it into the roots, and the surplus water runs away in the artificial channels provided by the draining process. So great is the absorbent power of drained lands, that after a protracted drought all the water of a heavy rainstorm will be drunk up and held by the soil, so that for a day or two none will find its way to the drains, nor will it run upon the surface.

Drainage lengthens the season for labor and vegetation. In the colder latitudes of our country, where a long winter is succeeded by a torrid summer, with very little ceremony by way of an intervening spring, farmers have need of all their energies to get their seed seasonably into the ground. Snow often covers the ground in April, which is so saturated with water, that the land designed for corn and potatoes frequently cannot be plowed until late in May. The manure is to be hauled from the cellar or yard, over land lifted and softened by frost, and all the processes of preparing and planting are necessarily hurried and imperfect.

On drained land the ground becomes almost as dry in two or three days after a frost comes out in spring, or after a heavy rain, as it would do in as many weeks before draining. But the gain of time for labor is not all. We gain time also for vegetation by thorough drainage. Ten days may frequently be the security of our corn crop against fros̀t. In less than that time, a whole field passes from the milky stage, when a slight frost would ruin it, to the glazed stage when it is safe from cold, and twice ten days of warm season are added by this removal of surplus water.

The growing of winter wheat has been entirely abandoned in some localities, on account of freezing out or winter killing, and one of the worst obsticles in the way of getting our lands into grass and keeping them so , is this very difficulty of freezing out. The operation seems to be simply this ; the soil is pulverized only to the depth if the plow, some six or eight inches. Below this is a stratum of clay, nearly impervious to water. The autum rains saturate the surface soil which absorbs water like a sponge. The ground is suddenly frozen. The water contained in it crystallizes into ice, and the soil is thrown up into honey combs, and the clover roots or wheat plants are draw from their beds, and by a few repetitions of this process left dead on the field in the spring. Draining followed by sub-soiling lets down the falling water at once through the soil, leaving the root bed of the plants so free from moisture, that the earth is not heaved, as the term is, and the p'ants retain their natural position, and awaken refreshed in spring by their winter's repose.

It is often difficult to find a day fin the year, when a wet piece of land is in suit-
able condition to plow. Usually such tracts are unequal, some parts being much wetter than others, because the water settles into the low places. In such fields, teams are driven knee deep in mud, and a stream of water follows in the furrow, and now we rise upon a knoll, baked hard and sun-cracked; and ore half of the surface, when finished, is shining with the plastered mud ready to dry into the consistency of bricks, while the other is al leady in hard dry lumps like paving stone and about as easy pulverized.

This is hard work for the team and men, hard in the plowing, and hard through the whole rotation. The same field well drained is friable and porous, and uniform in texture. It may be well plowed and readily pulverized, if taken in hand at any reasonable seasorn.

Land which has been puddled by the tread of cattle or by wheels, acquires a peculiar consistency, and a singular capacity to hold water. Certain clays are wet, and beaten up into this consistency, to form the bottom of ponds, and to tighten dams end reservoirs. A soil thus puddled requires careful treatment to again render its permeable to water, and fit for culti vation. This puddling process is constantly going on under the feet of cattle, under the plow and the cart wheels, wherever land containing clay is worked upon in a wet state. Thus, by performing a day's work on wet land, we often render necessary as much additional labor as we perform to cure the evil we have done.

## The Importance of good Foundations.

It is a curious fact that the Swiss roadways of to-day are really a revival of Roman engineering, both in method of construction and in selection of routes, a return being made to it after years cf mistaken experiments. It is stated that the most important lesson tor us from European experience is that the worst surface with a good foundation, affords a better road than the costliest surface without a foundation. No matter how much money is laid out on the surface, the result will be swift ruin unless it is properly supported from beneath. But with a good foundation the surface may be of gravel, or even of common soil if nothing better is available.

Allison McKay, Leamington, Ont., has the contract for drainage work at Point Pelee. The price is $\$ 16,000$.

The contract for ${ }^{*}$ paving Dovercourt road from College to Bloor street, Toronto was awarded to Shannon \& Wellings for $\$ 10,887$.

Sudbury, Ont., is voting on a by-law to introduce systems of waterworks, sewage and electric lighting.

## Bridges.

The theories advanced by those who advocate the use of cast-iron to resist the unbalanced thrust of an arch or a bank of earth or water have their dead loads in direct vert cal line. The moving load, except that due to wind pressure, also acts vertically, and the resulting load on any pier being the sum of the live and dead loads can be borne by a structure having the majority of its members in a state of compression. Now, cast iron is admirably fitted for transmitting compressive strains, and moreover by a process of manufacture it becomes coated with external skin or layer of silicate of iron, formed by the union of the molten metal with the sand of the mould which effectually prevents corrosion even in moist earth or water. Iron substructures may be roughly divided into tubular piers and iron columns or piling.

Tubular piers consist of an iron shell or encasing enclosing abrick, stone or cement column. The shell is usually made of tank iron from 1-8 to $3-8$ of an inch thick, rivetted up into a tube from 16 inches to as many feet in diameter, and of length to reach above high water, and often quite to the bridge shoe which it supports. These tubes are usually put up in pairs with one tube under each truss of the bridge they are connected and braced together by struts and diagonal rods to counteract wind pressure. The foot of the pier is usually placed on over wood piling, and after being levelled and adjusted to the proper height and position, the whole is filled with rubble mortar, and the bridge shoe placed directly on top. It is also to protect the outside of the foot of the piers with rip-rap to prevent wash and make the piers more stable. The outside of the piers should also be kept wellpainted in order to protect them against corrosion. These piers are often worked out with many variations in the details and are often sunk many feet below low water by excavating from the interior. Often, these excavations are made by means of sand pumps, and the piers are sunk without removing the water from the interior. But, when the ground must be dug by means of natural labor, either drivers are employed, or the water is forced out by means of compressed air.

The company who will build the international bridge at Brockville, have officers as follows: President, Mr. Pusey; vice. president, Mr. Cole ; and L. H. Howland, secretary-treasurer. The company has now amalgated with the St. Lawrence Bridge Company.

The wooden bridge over the river Speed at Hes peler, Ont., will be replaced by an iron one.

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The Hamilton Bridge Company has closed down owing to the dull state of business.

We are sorry to observe that in some of the city councils and boards of trustees the spirit of a petty economy is struggling for the mastery. An effort is being made to do away with the kindergartens and other departments or subjects, which some out of the depths of their profound want of knowledge of the child mind and its laws of growth, are pleased to regard as "fads." One great mistake often made by parents and guardians is that the beginning of the training of children is to long delayed. The restless energies of childhood, both physical and mental, will not remain quiescent. If these are not properly directed and scope given for the free play in a right direction, there is great danger of their early perversion. Bad habits, mental and moral, are often formed before the child enters school, which, if not absolutely inveterate, can often be eradicated only by dint of long and patient effort. Hence, even on the low ground of simple economy, it would not be hard to prove to an intelligent and open mind that the money expended in the support of kindergartens of the genuine stamp, and in cultivating tastes and habits whose practical usefulness is not always seen on the surface, is really economy of the very wisest kind. It tends not only to the promotion of the public good negatively, by turning the currents of youthful activity from wrong channels, but positively, as greatly increasing the proportion of intelligent and useful citizens, whose developed intelligence may one day be of the greatest service to the community and the state.

Though the destruction of the waste material in our cities and towns by cremation has hardly yet been undertaken on any extensive scale in this country, says a contemporary, its removal in this way has occupied a great deal of attention in Great Britain, and in many places, like Halifax it has been successfully undertaken. At Halifax, the heat is such that it supplies one electric lamp per head to the population in the form of steam power.

This is a form of the utilization of garbage which is far from being the best, because it implies the destruction of waste matter rather than its utilization. A similar method was employed at the Chicago Fair for the removal of garbage and other waste matter from the grounds. and it was managed with great success, though it was not utilized in any permanent way. It is claimed that the destrucion of this waste material can be so handled in the process of cremation that the chemical result can be made very profitable to those who know how to handle it.

The Welland county council has granted $\$ 100$ to the Lundy's Lane Historiral Society to be used in improving the graves of brave men who fell in 1814, and for publication purposes.

## Increased Interest in Sanitation.

It is a very satisfactory sign of the times when the press and the public generally manifest an increased interest in matters of healih and sanitation. There are some who say that the world is not growing better; whether this be true or not, there is certain'y no doubt that civilized parts of this earth are growing cleaner. In general, the public has a clearer idea of what disease is, and understands better what contagion is and how to avoid it, and while much nonsence is palmed off under the guise ot health advice, still in this chaff there is much wheat.

It will not be long ere boards of $h$ ealth will turn their attention to the hygiene of hotels. Hotels, sleeping cars and other public places where the same bed is successively occupied by different persons should be under intelligent supervision, and cleanliness demanded as a right of those who are compelled to use these necessities.

It would be impossible to lay down any fixed rules at this early stage, but local boards of health should have a staff of inspectors whose business is simply to go from hotel to hotel and see that the sleeping rooms, beds and other conveniences are in a cleanly condition. Even the use of the tableware needs supervision. As long as it is well nigh impossible to restrain the movements of the consumptive in the beginning of his disease, it is but natural to suppose that in a hotel and resturant he would scatter infection and perhaps contaminate others. Forks, knives and plates should always be washed in boiling water and this will at least lessen the chances of infection.

The urban municipalities that have food inspection laws will soon begin with renewed activity to look out for unwholesome food and vegetables and to test the milk supply as well. It would be a good idea to have the drinking water looked after under this same law.

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The Wentworth county council voted \$roo the other day to be awarded as a prize for the best essay on the history of the county-competitors to have their work in by the end of the year. Here is an example for other councils to follow.

A municipal reformer has proposed to use the garbage of his city as fuel to supply power to an electric plant. There is an element of economy concealed in this proposition that should appeal to the tax-payer.

The Weddell Bridge Company, of Trenton, Ont., have the contract to build a steel-lattice girder bridge, over the Bonnechere at Renfrew, Ont. The price is \$2,475.

## The Municipal World

## LEGAL DEPARTMENT.

H. F. JELL, Solicitor,

EDITOR.

## Municipal Corporations.

THEIR POWERS AND JURISDICTION-HIGHWAYS.
Dangerous places on a highway, subject the corporation in whom the highway is vested to an action for damages for injury arising from such places being allowed to $r$ main in such highway. The power to regulate such places is therefore essential for the protection of the corporation as well as for the satety for the travelling public. By sub-section 5, of section 550, of the Consolidated Municipal Act, 1892, the power to regulate such places is given to the councils of counties, townships, cities, towns and incorporated villages. This power is permissive, not obligatory. No one is at liberty to have an excavation, of any kind, adjoining a highway, if it render the highway unsafe for the use of travellers, passing along the same. The right of the municipal corporation to sell timber growing and standing on a road line so as to invest the property in the trees in the purchaser was at one time doubted. But the express power given to municipal corporations to sell such timber by sub-section 6 , of said section includes the power to pass the property, and also gives the right to collect the value of the trees wrongfully taken from the road allowance, without sucb provision the property in trees, growing on an original road allowance would be in the Crown as the owner of the soil, the main object, however, of the reservation of the road allowance, was, as has been judiciously stated, not to grow timber trees upon them, but that they should be subserving to the use of settlers apon land adjoining or neat thereto as well as of the general public. It has been judicially decided, that, in the absence of legislation, the crown has no right without the consent of the municipality to sell standing timber on road allowance. This section also empowers the council to sue persons for removing sand or gravel from the highway. The act referred to in the latter part of the last mentioned sub-section was passed in order to comply with a legal decision on the former part as before mentioned, declares road allowances to be ungranted lands for the purposes of granting licenses to such timber, giving a right to the government licensee to cut the same, declares that no municipal by-law shall have any effect against such a license, but entitles the municipalities to a portion of the timber dues to be expended on improvement of highways within the municipality.

Sub-section 8, of said act, confers on municipalities above mentioned, the power to pass by-laws for searching for and taking such timber, gravel, stone, or other material or materials, within the municipality, as may be necessary for keeping in repair any road or highway within the municipality and with the consent, by resolution expressed of the council of an adjoining municipality, for searching for
and taking gravel for the aforesaid purpose within the limits of such adjoining municipality and the right of entry upon such lands as well as the price or damage to be paid to any persun for such timber or material shall either be agreed upon by the parties or settled by arbitration as provided in said act. Where the gravel is to be taken or removed from the premises of any person in an adjoining municipality the price or damage shall be first agreed upon between the parties or settled by arbitration. The corporation acting under this sub-section must, by the by-law or by the notice to the owner, define the quantity of gravel required, and the arbitrators should hy their award fix the value of the quantity required and also the amount to be paid for the right of entry to take the same away.

## Legal Declsions.

EWING v. TORONTO CITY.
In this case the facts were, that the plaintiff was sitting on a wagon which was being driven on that part of the street, occupied by the rails of a street railway, and while going down a steep incline. the motor car and trailer coming along behind by reason of the motor man, not having proper control of the car, and of the excessive speed thereof the wagon was run into and the plaintiff injured. It was held that defendants were liable for the injurv sustained by the plaintiff.

The right of way which street railways cars have over the portion of the street, on which the rails are laid, is not an exclusive one or a right requiring vehicles or pedestrians to get out of the way at their peril ;and not withstanding the actions of any regulation as to speed, the cars must be run at such a rate as may be reasonable under the circumstances of each particular case.
atcheson vs. municipality of Portage La Pararie.
This was an action against the defendants to recover damages for improper and negligent construction of a ditch, whereby the plaintiff's lands were overflowed with water and his crops damaged. The plaintiff's lands were in an adjoining municipality and the ditch was constructed along the highway between the plaintiff's lands and the defendant municipality. The provisions of the municidal Act re!ating to highways between adjoining municipalities require the joint action of the two in any work upon the same, and no such action had been taken. The council of the defendant municipality had not passed any resolution or by-law or motion providing for the construction of the ditch in question. The municipality was divided into two wards, the east ward and the west ward, and the evidence showed that there was a committee of the côuncil for each ward, and that these committees decided upon the expenditures of the appropriations for public works in their respective wards, the appropriations being divided proportionately to the assessments of the
respective wards.
There was no evidence of any by-law, rule, or resolution of the council adopting such a course of procedure, except two resolutions, each authorizing the treasurer to pay out monies for ward appropriations on the orders of the chairman of the ward committees. There did not appear to have been any direct authority from the council to the committee in connection with the work in question, nor any formal repert upon it by the committee, and the ditch appeared to have been constructed wholly by authority of the committee ot the west ward. Two payments were proved to have been made by the council to men who dug the ditch, and for the work in question. These cheques were shown to have been given on the authority of the chairman of the ward committee. It was held that this was not sufficient evidence of the adoption of the work by the council and further that the work was wholly ultra vires of the council of the munıcipality, and that the municipality was therefore not liable for the acts of its agents wholly beyond the scope of their authority. The judge found that the ditch had been negligently and improperly constructed, but that the defendants were not liable and entered on non-suit. The above is a Manitoba case.

## vergo vs. City of toronto.

This case was recently heard by the Supreme Court of Canada on an appeal from the judgement of a court of appeal for Ontario. By a by-law the City of Toronto hawkers. petty chapmen, and other small traders were prohibited from pursuing their respective callings on certain streets comprising the principal business part of the city and covering an area of about ten miles. It was held that the authority given to municipal councils by section 495, sub-section 3, of the Municipal Act to license, regulate and govern trades, did not empower the city council to pass this by-law which was therefore ultra vires, this is a reversal of the judgement of the court of appeal.

The by.law of the city council provided that hawkers and pedlars of fish, etc., and small wares that could be carried in a hand basket, should not be required to take out a license. It was held, in affirmance of the judgement of the court of appeal that a subsequent by-law fixing the license fee for hawkers and pedlers of fish was not void for repugnancs: The judgement of the court of appeal in this case will be found on page 140 of The World, 1893.

CONFEDERATION LIFE ASSOCIATION vS. TOWNSHIP OF HOWARD.
This was an action to recover the amount of a debenture issued by the defendants, pursuant to their by-law number 16 , ot 1893 , passed for the levying of a special rate upon a particular locality for the purpose of cleaning out and repairing a drain, The debenture was silent as to the purposes for which it was issued, but reterred to the by-law under which it was
issued which disclosed the purposes. There was no representation by the defendants that it was good.

It was held that the by-law was void, the defendants having no power to pass a by-law for such a purpose.

It was further held that although the plaintiffs were innocent holders and had paid the full value of the debenture, they could not recover the same, because the defendants had no power to make the contract professedly made by it.

It was further held, however, that as the defendants were bound to keep the drain in repair and pay for repairs out of their general funds, and as they had received the price of the debenture directly from the plaintiffs and had the full benefit of it without giving any consideration. The plaintiffs were entitled to recover their money, as money received from the defendant.

## HATCH VS. COUNTY OF NORFOLK.

The circumstances giving rise to this case are: Fatch is abridge builder and one Scott, a municipal councillor, of Middleton, gave him an order to build a bridge over a certain gully on the Big Otter on the county line between Elgin and Norfolk. He did so and presented his bill in two sections, half to Elgin and half to Norfolk. Elgin paid its share promptly but not so Norfolk. They did not claim that the work had not been done, nor that it had not been well done. They merely said they could not be made to pay and declined to do so. Hatch sued and lost. Judge Robb held that Scott could not bind the county of Norfolk, and that Hatch must look elsewhere for his pay. The case will be appealed.

## RE-CHRISTIE AND THE TOWN OF TORONTO

 Junction.This was a motion by the claimant to set aside an award made by two out of three arbritators, appointed to ascertain the compensation to be paid to the claimant by the town corporation for injury to certain houses of his, by reason of the grade of the streets to the front and side of them being raised by the corporation. The claimant set up the objection that one of the two arbitators who made the award, was disqualfied by reason of interest. It appeared that for some years prior to the arbitration he had from time to time acted as chamber counsil for the standing solicitor of a corporation, one of the parties to the arbitration, and had advised him with respect to matters effecting the corporation. It did not appear that he was the standing counsil for the corporation, nor for the solicitor in matters effecting the corporation, not that he had advised or acted for the corporation or for the solicitor, after he had been appointed as arbitrator, nor that there was any business connection between him and the corporation. On these facts it was held that there was no such relation between him and the corporation, as might give rise to bias or show an interest which would invalidate the award.

## QUESTION DRAWER.

SUBSCRIBERS only are entitled to opinions through the paper on all questions snbmitted if they pertain to municipal matters. Write each question on a separate paper on
one side only. When submitting questions state as briefly one side only. When submitting questions state as briefly
as posssible all the facts, as many received do not contain as posssible all the facts, as many received co not contain answer.-ED.
T. F. W.-I. When assessor is appointed does his salary cover his attendance at court of revision if required, when not mentioned at time of appointment, or can he claim extra compensation for attending the court ?
2. Where there is a union school section and equalization of the assessment is required every three years; who pays the expense of said equalization, the school section or each municipality?
I. If not mentioned in by-law fixing assessors salary, he should be paid extra.
2. We are of the opinion, the expense should be paid by the municipality.
J. K. W.-Is it necessary or compulsory, or only customary for township councils to have the minutes of their several meetings published in a newspaper, and if so must the same be published in a newspaper, published in the county or union of counties, or could it be done legally in a paper in an adjoining county, both papers having about the same circulation in the municipality. The same thing in reference to the auditors annual report ?

It is not necessary or compulsory that township councils should publish the minutes of their respective meetings in any newspaper. It is a voluntary act on the part of said councils, and customary with some of them.

As to the publication of the auditors report, section 265, of the Consolidated Municipal Act, 1892 , provides that the clerk shall publish the auditors abstract and report (if any) and shall also publish a detail statement in such form as the council directs. In most municipalities, the council directs the clerk to have the auditors report printed in phamplet form for distribution among the rate-payers, and does not require publication in any newspaper.
J. W. B.-Section 67 of the Consolidated Assessment Act, 1892, provides that the court of revision shall before or after the first of July, and with or without notice receive and decide upon the petitions of any person assessed for a tenement which has remained vacant for more than three months in the year, etc., cases of poverty, manifest error and twenty-five per cent. overcharge are also covered by this section. The section then says, the court may subject to the provisions of any by-law in this behalf, remit or reduce the taxes due by any such person, or reject the petition, and the council of any local municipality may from time to time make such by-laws and repeal or amend the same.
If there is a by-law, it appears the court is to be governed by it, but if there is no by-law should the court act at all under this section?

We see no reason why the court should not act under the section, notwithstanding the fact that there is no by-law of the municipality regulating the matter in the said section mentioned passed pursuant to the authority therein contained, but if there is such a by-law, the court must be governed by its provisions.
S. A.-Can not, or rather, are not the reeve and treasurer of a municipality empowered by statute to borrow money on behalf of the municipality up to a certain amount, without it being necessary for the council of such municipality to
pass a by-law authorizing them to co so. If so, will you kindly state what section of the Municipal Act gives such power?

Section 10 of the Municipal Amendment Act, 1893, empowers the council of any municipality to pass by-laws to authorize the head with the treasurer thereof to borrow money for current expenditures. We believe that this power can only be exercised by by-law passed in accordance with this section.

A Subscriber.-I. If the council of a township pass a resolution, authorizing each of the councillors to spend say $\$ 300$ in their respective divisions for the repair of roads, and ditches, and one exceeds that said sum, is the township bound to pay that excess ?
2. B. was councillor in 1893 ; he sold a job of ditching which was completed only in $1894 . \mathrm{B}$. being not a councillor this year, is it legal for him to sign an order for the payment of said job?
3. If a councillor has some work done in the township without having been authorized by by-law or resolution of the council, who is responsible for the payment of such work?
I. It the work let by the councillor under the circumstances mentioned by our correspondent was necessary to keep the township roads and ditches in repair, and thereby warrant the expenditure, the township would be compelled to pay the amount although it might exceed the sum set apart by the council for expenditure in the particular division where the work was done.
2. The township treasurer could not pay the price tor which this job was sold, but if the work were actually done, and was necessary, the present council could issue an order on the treasurer for the amount of same. It would be well for the council to have a certificate from the councillor who authorized and let the work, that it was actually done and of the amount for which it was let.
3. It is not necessary that every act of a councillor should be particularly authorized by a by-law or resolution of the council. If a ccuncillor does an act beyond the scope of his duties as a councillor which neither the statutes nor the necessities of the case authorize, the councillor alone is responsible.
F. J. C. -I. We have a petition to exempt certain farm lands in whole or in part under subsection No. 2, section 7 a, Assessment Act 1892. The Act reads, " of the character hereinafter mentioned". Now what improvements " of the character hereinafter mentioned" would be included in this definition, othes than those actually mentioned in said sub-section ?
(2) Does this definition include repairs to the works mentioned, or does it include only the making of such improvements?

In the case before us there seems to be some difficulty on these two or three points, and as the act is of recent date, we have nothing but the act to guide us, and hence our desire for further light on the subject.

## 1. None.

## 2. We are of opinion that it does.

Councillor.-See Chap. 48, section Ioo, subsection 2. If a man owned 350 acres of land would it all be assessed together or would it be assessed as two separate parcels of land ?
Would the statute labor be charged to the whole assessment or on each lot separately, there
being 100 acres in each lot, the fourth being cut up by lake?
r. Each lot should be assessed separately and the total valuation be placed opposite them in one amount.
2. The statute labor should be charged upon the assessed value of two hundred acres and one hundred and fifty acres.
A. C.-Can councils legally give statute labor in private roads?
Sub-section 2, of section 53 I , of the Consolidated Municipal Act, 1892, provides that the liability of a municipal corporation to keep in repair a \{public highway or road, does not apply to any road, street or highway, or bridge laid out by any private person, and the corporation, shall not be liable to keep in repair any such last mentioned roads, streets, bridge or highway, until established by a by-law of the corporation, or otherwise assumed for public use by the corporation. However, if the municipal corporation in which the road referred to is situated, a lows statute labor to be performed, or causes other work of a public nature to be done thereon, it might be held that the road in question had been in effect, assumed by the corporation as a public highway, and that their liability for its non repair would therefore attach. See note T. to subsection 2, of section 53I, of Municipal Act in the 5 th edition of Mr. Harrison's Manual.

Cierk-We are about to take a vote on a bonus by-law, on a certain part or portion of the township, and I am at a loss to know, how to make up the voters list, in regard to a certain elector, or in regard to a certain lot in the portion of the township, that is effected by the bylaw, and to do it strictly according to statute.

The case is this. I find or the assessment roll that
W. W., F. M. F., Con. 3, S. W. pt. Lot 8.49 acres, $\$ 950$.
F. W., F. M. F., Con 3, S. E. 1/4 Lot 8.50 acres, $\$ 650$.
95 acres, $\$ 850$.
Con. 2, W. pt, Lot 8-
25 acres, $\$ 850$. Total $\$ 245^{\circ}$
in the will notice lot 8 in the 3 rd concession, is in the portion of the township which is not effected by the by-law. Lot in concession 2 is effected, but this lot opposite it there is no name, there is no letters to indicate that either are owners, occupants or tenants.
I. Should I fut one or both their names on the list of voters, to vote on the by-law? or
2. Should I put neither?

The entries in the assessment roll clearly show, that both of the parties are assessed jointly as owners of part iot 8 in the and concession. If there is any doubt as to this, your best plan would be to put both names on the voters list as owners ot lot 8, in the and concession. They would then have a right to swear in their votes, and this privilege should not be denied them.
H. M.-Is it legal for municipal officers, that is reeve and councillor to furnish themselves, each with a copy of The municipal world, and charge the same to the township?

This question is rather personal to ourselves, but we cannot see anything illegal in a reeve and councillor acting as referred to by our correspondent. There is no special statutory authority impowering the
council to purchase stationery office supplies, statutes, or other things considered by them necessaty to the proper conduct of their business, still such purchase is legal, and if the reeve and councillors deem the Municipal World a material aid to them in the discharge and conduct of their business, they have the right to purchase the same with the township funds,
W. A. S.-Has the municipal council the right to open a drain along concession line, without loing compelled to build approaches over said drain, opposite the different gates? My opinion is that the council are not compelled to do so, am I right?

A municipal council is not compelled to build a bridge or crossing over a ditch or drain running along the road in front of any person $s$ residence, for the use or convenience of such person. In his note to section 531, of the Municipal Act, Mr. Harrison says in the fifth edition of his manual "it is not a duty (of a municipality) to plank from each man's house, across a ditch to the street, and keep such planks in repair."
W. H. G.-I Can an officer, under by-law of council lead a horse or cow to pound by rope or string, he finds running at large violating by-law ? Often bad animals cannot be driven, running through streets to danger of life and limb.
2. At nominations, can one elector nominate or second 7 or 8 , or more candidates, and should any mover, or seconder, or nominator be a duly qualified elector known to be such, or nomination no good. I have always contended this one man, council business is wrong Each candidate should have a separate and distinct mover and seconder, except a seconder could nominate another if he choose.
3. Has a council authority by by-law, to extend the collector's time, month after month simply because the collector does not do his duty, because he is in business?
i. We see no reason why the officer under the by-law could not legally lead a horse or cow to pound by a rope or string. i $N$ e see no reason why the officer should not lead or drive the horse or cow to pound, if running at large, in violation of the by-law in any way he sees fit, provided he does not abuse the animal.
2. We see no reason why the same elector could not legally second as many nominations as he sees fit. The person moving or seconding a nomination should be a duly qualified -elector at the time of his moving or seconding the nomination. The meeting for the nomination of candidates is a meeting of the electors (see section 109, of the Consolidated Municipal Act, 1892 ) and electors only, can take part in the business of the meeting.
3. It is in the discretion of the council to extend the collector's time as they see fit. consistent!'y with the provisions of sections I 31 and 132 , of the Consolidated Municipal Act, 1892 . We think the council its own judge of the reason of such extension of time.

The county council of Huron has decided on the erection of a house of refuge, and the site selected by a committee adjacent to the town of Clinton, has been secured for the purpose. The scheme has been advocated for a number of years.

The Municipal Amendment Act, 1894.

## Continued from last month.

Section 16 amends section 623 by adding the fullowing thereto: " 623 C -.
(i.) It shall be lawful for the council of the cerporation or any city or town which has not adopted the local improvement system in respect of sidewalks. by by-law to provide from the general funds of the municipality, or to raise by way of loan on the credit of the debentures of the municipality, forty per cent of that part of the cost of the construction of granolithic, stone, asphalt or brick sidewalks upon leading or principal streets of such city or town as local improvements, falling on the property benefitted. In addition to the part of such cost to be proyided by the municipality, and to add said forty per cent to the said part of the cost of the construction of said sidewalks to be provided by the municipality, and to issue debentures for the amount thus obtained, and is shall not be necessary to submit the by-laws of the said corporation authorizing the issue of the said debentures to, or to have the assent of the electors of the municipality before the final passing thereof, but any by-law for carrying the provisions of this section into effect. Both as to selecting streets and providing the neeessary funds, shall require an affirmative vote of three-fourths of the members of the council.
(2.) The remainder of that part of the cost of constructing the said sidewalks, falling on pro perty benefitted, after the said forty per cent has been deducted, shall be assessed for, and dealt with in the manner provided in this act as to assessment for local improvements in other cases.
(3.) Sub-section 4 of section 352 of this act shall apply to by-laws and debentures passed and issued under this section.

Section 17 amends section 637 a by extending the power of the council of any municipality to pass by-laws granting aid by way of bonus for the promotion of iron or o her smelting works.

Section 18 provides for the repeal of sub-section 6 of section 480 as enacted by section 15 of the Municipal Assessmen: Act 1893, which related to the municipalities having a population ot 100,000 or more as to contracting for additional water supply, etc.

The whole of the act is in force with the exception of section 13 , which is to be in force from the first day of September, 1894.

The North American Guarantee company is the new surety for the county treasurer, but has demanded a better system of auditing and checking accounts. No fault is found with the treasurer's books as handled at present, but in reference to banking the company asks the county to pass legislation requiring the treasurer to deposit all moneys and pay out all moneysthrough the bank, so the bank hook will contain every item. Then, as to auditing, the county is obliged to stipulate that its auditors shall make it their business to find out all the sources of revenue, and find out if all the moneys have been paid in as well as paid out. The custom of some auditors heretofore appears to have been to allow the treaurer to deposit what money he choose in the bank, and then to merely stand with a club, so to speak, and see that it was taken out of the bank by the right parties. The auditors must now see that every cent is put in the bank, as well as taken out or accounted for.-Whitby Chronicle.

## The International Sanitary Conference.

The resalt of the work of the International Sanitary Conference recently held in Paris, has just been made public, and the object of this conference to enact measures preventing the spread of infections and contagious diseases, especially those of an epidemic form, is well known. The conference this year deals more particularly with Asiatic cholera and the endeavor is to cut off cholera at its starting place in India rather than to let it loose over the country and then to quarantine infected places.

There are two ways of stamping out cholera in the beginning, one is to ensure pure drinking water everywhere and the other is to keep the Mecca pilgrims clean. Beyond these all measures are as nothing. Hagar's well where the Mussulman pilgrims wash and drink is nothing better than sewer water, and the deaths from drinking this water are many hundreds in one day. The pilgrim has a right to die for the glory of Mohammed, but has he the right to carry this plague wherever he goes and thus to the rest of the world ?

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