## The sthmicipal oillorld

Published Monthly in the Interests of Every Department of our Municipal System-the Best in the World

Vol. 3. No. 8.
ST. THOMAS, ONTARIO, AUGUST, 1893.
Whole No. $3^{2}$

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## MUNICIPAL CLERKS.

Lytle's Rate Tabless will assist you in entering Taxes in the Collector's Roll. It gives rates by tenths of a mill from one to nine and nine-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 $\$ 2.00$.

## Address orders to

Thr Munigipal World,
St. Thomas, Ont.

## CALENDAR FOR RUGUST, 1893

## Legal, Educationa1, Municipal and Other

## Appointments.

August.

1. Last day for decision by Court in complaints of Municipalities complaining of equaliza-tion.-Assessment Act, ssction 79.
Notice by Trustees to Municipal Councils respecting indigent children, 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 .
2. Last day for service of notice of appeal from Court of Revision to County Judge in Shuniah.-Assessment Act, section 68 (2).
3. Last day for County Clerk to certify to Clerks of local municipalities.-Assessment Act, section 85.
Last day for Overseer of Highways to return as defaulter, to Clerk of municipality. Resi-
dents, non-Residents, Owners, dents, non-Residents, Owners, etc, who have not performed Statute Labor. -Assessment Act, section 101.
Last day for receiving appeals against the High Schools Entrance Efxamination.
Provincial Normal Schools open (second session).
4. Rural Public and Separate Schools open.-P. S. Act, section 173 (1) ; S. S. Act, section 79 (1).
5. Applications for admission to County Model School to Inspectors, due.
6. High Schools open, first term.-H. S. Act. section 42 Public and Separate Schools in cities, towns, and incorporated villages open ; P. S. Act, section $173(2)$; S. S. Act, 79 (2).

## *NOTICE

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 be 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.

## Harrison's Municipal Manual-5th Edition.

This book should be on the Council table in every municipality in the Province The notes and explanations in reference to all important sections of the Municipal Acts make it a valuable assistant to Councillors who desire to discharge the business of the municipality in accordance with the true intent and meaning of the various Acts, with which they have to deal. The numbers of the Sections of the Muricipal and Assessment Acts are the same as in the Consolidated Acts of 1892 . Price $\$ 7.00$. Address orders with price enclosed to The Municipal World, St. Thomas.


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> K. W. McKAY, Editor,

> Box 749,

St. Thomas, Ont.

## ST. THOMAS, AUGUST 1, 1893.

We notice that some local boards of health instructed their sanitary inspectors to charge the sum of $\$_{2}$ for certificates of inspection issued to occupiers or users of slaughter houses and cheese factories.

An act for the better protection of free libraries was passed at the last session and provides that the county judge may, upon request of the board of any free library, appoint the janitor to be, while holding such office, a special constable.

Rural municipalities having within their limits large incorporations villages are frequently requested to pass by-laws prohibiting animals running at large in the portion of the township containing the village. This is a power that township councils do not possess and rightly so, as cattle are not apt to recognise imaginary lines fixed by by-law.

Complaints are often received by members of councils, especially those of rural municipalities, which adjoin a city, town or village, that the streets and highways are being used as a dumping ground for refuse and other filth from the adjoining municipalities. Clause 4 of schedule A, to the Public Health Act, makes this an offence, the penalty for which is not less than $\$ 5$ or more than $\$ 50$, in the discretion of the magistrate.

Members of councils should insist that all communications or statements referred to them should be in writing. A reference to council proceedings shows that very often important matters are brought before the council by outsiders who have been permitted to address them, and while permission should always be given to bring important matters before the council, verbally, still we think that such address should always be followed by a resolution requiring the proposition, etc., to be put in writing before being considered by the council.

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*^{*} *
$$

This season of the year is the time to agitate doing away with statute labor. It
is easy to show the difference between work under the statute labor system, and that performed by contract and the expenditure of grants from the council We are very strongly in favor of the total abolition of statute labor, and recommend that proceedings be taken in each township to obtain the decision of the people in reference to this important matter, that meetings should be held to discuss the question with a view to having all improvements on roads paid for the same as other expenses of the municipality out of the general fund.

The following sections of the Interpretation Act extend, and apply to every act of the legislature of Ontario, except insofar as the provision is inconsistent with the intent and object of such act. These will be interesting, and assist municipal offcers in determining the dates indifferently re ferred to in many sections of the Municipal Acts.
The word holiday *hall include sundays, New Year's Day, Good Friday, Easter Monday, and Christmas Day, Dominion Day, the days appointed for the celebration of the birth-day of Her Majesty, and Her royal successors, and any day appointed by proclamation of the Governor General or Lieutenant-Governor as a public holi day, or for a general tast or thanksgiving.
If the time limited * by an act for any or for the doing of anything under its provisions, expires or falls upon à holiday, the time so limited shall extend to, and such thing may be done on the day next followng which is not a holiday.
We were slightly ${ }^{*}$ mistaken in our criticism of the recent legislation in regard to by-laws referring to agreements granting exclusive rights to Telephone Companies. The vote required is two-thirds of the whole council, not two-thirds of the members present when the vote is taken.
A Judge, in a * rough-and-ready, but highly ambitious western frontier town, in commenting severly upon the heinous crime of horse-stealing, thundered forth : For century after century that dread command, thou shalt not steal has rolled along the ages. It is, moreover, a standing rule of this court, if not yet a by law of our town.

## Municipal Politics.

The tendency in this country is to concentrate municipal authority in a few hands, says Moorfield Storey in the June New England Magazine. In Glasgow and Birmingham the best results are achieved by enlisting a large number of able citizens and dividing the work among them, some taking charge of sewers, others of lights, others of water, etc. It makes little difference which system prevails if only good men are induced to do the work. Make it in popular estumation as great a tribute to a man's business ability to make
him an alderman as it is to make him a director of a bank or railroad, and men will be glad to take positions in the city government. Make it, as it is to-day, rather a questionable distinction to be prominent in city politics, and except the few whose public spirit leads them to do a disagreeable public duty or whose ambition makes them take municipal office as thh first step in public life, the men who hold city office will do neither their city nor themselves any credit. If your city officers are bad men, we cannot have too few. Of aldermen or councilmen who intrigue for patronage or consider only what their votes or influence ir, the city legislature can be made to yield, the fewer we have the better.

## Municipal Possibilities.

The direction in which our municipal government may be improved is that which will provide for the elevation of the official functions to a higher plane-at the same time making the duties appertaining to them less arduous and exacting, and for the allotment of a larger share of administrative responsibility to appointed officers. It will be recognized some day, though perhaps not immediately, that municipal government is an art demanding expert, intelligence, and trained ability and that it cannot be taken up advantageously by those who have no qualification for it. When therefore we have procured capable men as heads of the executive it would be the path of wisdom to place in their hands as much responsibility and power and executive competence as can be expediently entrusted to them. The result of this would be that the councillors and aldermen would be relieved from a good deal of detail which they now undertake.

## He was Suspicious.

Even a municipal councillor is picked up sometimes, remarked the reeve to a crowd of listeners. On one occassion I was going over my township to get posted, and in my rambles I ran across an old fellow away up on the head waters of a creek. He was hoeing corn in a field near the road, and I stopped to talk with him.
"Good morning " I said pleasantly.
" Morning," he responded, but never stopped his hoeing.
"Right nice looking corn," I remarked.
" Might be wurs," he replied, still hoeing.
"Excuse me," I ventured. "I'm the reeve of this district,"
"Air you?" he asked, still hoeing. "I voted for you."
"I'm much obliged I'm sure," I said. "I'm up here now taking a look over the country."
"Well, I hain't no objection," he said, still hoeing " ef you don't take nothing else," and he looked at me so suspiciously, that I bade him good morning, and rode on.

## Collectors' Rolls.

After the council has passed a by-law fixing the rate, the clerk can proceed with the completion of the collector's roll, and as provided in section 119, of the Assessment Act, he is required to set down in one column the amount ordered to be levied for county purposes, and in another column the amount raised for township, village, town or city purposes, as the case may be. In the column for special rates should be entered all debentures and other special rates.

Carefully kept records of debenture bylaws and the payments required thereunder will materially assist in arriving at the proper special rates to be entered in the roll, and the amount of any special rate imposed under debenture by-laws should be the amount required for debentures and coupons payable during the year 1894 , or the amount fixed by the by-law to be raised each year.

Under section 101 of the Assessment Act, provision is made for the return of statute labor lists before the $15^{\text {th }}$ of August, and the c'erk is required to enter the commutation for statute labor against the name of every resident, owner, tenant or occupant entered upon the assessment roll, who has made default in performing statute labor, or in payment of the commutation of the same.

To make this complete, notify all pathmasters who have not made returns, to do so at once. This nutice should be issued after the ist August,

Section 109 of the Public Schools Act of 1891 , as amended by the act of $189^{2}$, does not refer to union school sections which include part of a township, and a village or town, provides that the municipal council of every township shall levy and collect by assessment on the taxable property of the public school supporters of the whole townstip the sum of $\$ 100.00$ at least, for every public school therein, in which a public school has been kept open for a whole year. When a public school has been kept open for six months or over a proportionate amount of the said sum of $\$ 100.00$ shall be levied and collected on the taxable property of the whole township, and an additional sum of $\$ 50.00$ shall be levied and collected in a similar manner for every assistant teacher engaged for the whole year, and a proporionate amount for such assistant teacher if engag ed for six months or over.

In the case of union schools they shall levy and collect a proportion of said sum as fixed by the equalization provided for under section 95 of the said act.

It is difficult to suggest anythıng that will materially assist clerks in making entries in the roll. Our practice is to prepare a table, containing, in the order of the columns in the collector's roll, the different rates to be entered opposite the name of each person. Clerks who have not heretofore adopted this plan will find
that the rates can be entered more correctly and in a shorter time than when each is taken separately. The table should include the county, township and general public school rate, and any other rate that is levied generally throughout the municipality. It is the custom in many municipalities to enter in the roll, but one amount for all these different rates. The section referred to, requires all rates to be entered separately, su that ratepayers will know under what authority the taxes to be paid are levied, it is also sometimes very useful in giving information.

Every collector's roll is required to be completed and balanced on or before the first day of October, and a summary showing the total of, the different rates entered therein, and should be handed to the treasurer of the municipality before the roll is placed in the hands of the collector, and the treasurer should charge the collector with the total amount on the roll, and credit the different accounts for which special rates have been raised, with the amount entered in the roll for each.

## The Assessment Amendment Act, 1893.

Section 7 is amended by the addition of sub-section 7 a , which provides that the property belonging to any municipality and in use as a public park, whether situated within the municipality owning the same, or in another municipality or municipalities is exempt from taxation.

Section I4 D is added, and provides that the assessors of every municipality shall make an annual census of all the children of the municipality between the ages of five and twenty-one years. The clerk is required to report such census to the public school inspector and the secretary of the board of trustees. In the case of townships, the clerk shall report to the inspector of the division and to the secretary of each school section. The inspector of the division would mean the public school inspector having charge of the schools of the municipality. This is the same information that was formerly required under the Public Schools Act, and is necessary to be entered by the secretary-treasurer of each school in their annual reports.
Sub-section 5 of section 47 is amended by providing that the expression "farmer's son," and the word "farmer," in section 47, shall have the same meaning as in section 79 of the Consolidated Municipal Act, 1892.

Section 47 A is amended by adding the following sub-section: (z) Where a ratepayer who has in the next preceding year been assessed as a public school supporter is being assessed as a separate school supporter, or where a ratepayer who has in the next preceding year been assessed as a separate school supporter is being assessed as a public school supporter, it shall be the duty of the assessor to give, in addition to the notices which
he is now required to give, a written or printed notice to such ratepayer that such change is being made.
Sub-section I of section 64 is amended by adding at the end thereot the following words, " and shall give a name and address where notices can be served by the clerk as hereinafter provided."

This is intended to prevent delay in serving notices. Query-Suppose the address is not given, as provided for in this amendment, would a clerk be justified in refusing to accept an appeal for that reason? We think not.

A recent amendment to the Ontario Voter's List Act will be interesting to all clerks who may receive appeals against the voter's list. Clause C of sub-section 2, of section 14, is repealed and the following substituted therefore.
When he has no known residence or place of business within the municipality. If a copy of the subpoena or order is, at least six days before the sitting of the court, mailed to him through the post office by registered letter, addressed to him at the post office address contained in any written affirmation made by him under the the Consolidated Assessment Act, 1892, and where no written affirmation has been made by him under the Consolidated Assessment Act, 1892 , then by mailing the said subpoena or order, by registered letter, addressed to him at his last known post office address, and also by separate registered letter ad dressed to the post office nearest to the polling sub-division in which he has entered, at least six days before the sitting of the court.

This remedies a difficulty that often presents itself owing to the indefinite informa. tion sometimes received with the appeals,

The ladies temperance and benevolent societies throughout the province seem to be making a united effort to furnish drinking fountains suitable for man and beast in all towns where suitable water supply is available. This is a very praise worthy undertaking, and councils and water commissioners receiving offers of this kind should not hesitate to grant the necessary permission and assnme the cost of making connections with the water mains.

We notice that some township Councils are assuming to order the expenditure of commutation money paid to the collector for work not performed in statute labor divisions last year in parts of the municipality other than those in which the work was neglected. Section IOI, sub-section 2, of the Assessment Act, seems to be directory in reference to this money. The clerk is required to notify the pathmaster of the amount etc., due the division, and the treasurer is required to pay out the money on the pathmaster's order.

## Amen dments to Municipal Act, 1893 .

## Continued from last Month.

Sub section 3, referred to, applies to the passage of by-laws for licensing, regulating and governing hawkers and peddlers. This will be a welcome amendment to councils to many towns, the business of whose merchants is often seriously affected by non-residents selling from house to house. By-laws under this section require to be very carefully prepared, as we know that in many counties by-laws, supposed to be good, when questioned in the courts have been found to be insufficient. Apparently no limit is given for the amount that may be exacted for the payment of licenses, but it must be reasonable.

Section 504 is amended by adding the following sub-section, $10 a$, for the granting of any lease or leases to any person, firm or corporation for any period not exceeding three years, upon the making of any such lease or any portion of lands so required in the three next preceding subsections, but not immediately required for the purposes set forth in said sub-section. This refers to the leasing of property which may have been required by a city or town for the purposes of an industrial farm, parks or exhibition.
(I2) For providing medals or rewards for persons who distinguish themselves at fires ; and for granting gratuities to the members of the fire brigade who may have become incapacitated for service on account of injuries or ill-health caused by accident or exposure at fires, or from old age or inability to perform their duties, and to grant pecuniary aid or other assistance to the widows of persons who may be killed while in the discharge of their duties by accident at fires, or who may die from injuries received or from sickness contracted while in the service of the corporation as firemen.

Sub section 1 of section 521 is repeal ed. This refers to giving of bounties for the destruction of foxes and other animals.

Section $533 a$ is amended by adding the following sub-section 10.

The council of any united counties where the union is composed of three counties, may by bylaw to be passed with the assent of two-thirds of the whole council, provide that when the united counties are required under this section to aid the construction or maintenance of any bridge or bridges situate within any one of the united counties, the council shall pay to the local municipality or municipalities the sum or sums agreed upon or awarded, and any costs which they may be required to pay, and shall thereafter from time to time, as occasion may require, pass the neces. sary by-law or by-laws for levying the same in the same or following year, from or upon the several municipalities of the county in which the bridge or bridges in respect of which such payment has been made, are situate. Such by-daw shall not be repealed within teu years, and then only with the assent of three-fifths of the whole council. The council shall not enter into an agreement under sub-section 2 or 3 without the assent of a majority of the reeves and deputy-reeves who represent the county which will be ultimately liable to make the payments thereunder:

Sub-section 3 of section 535 is amended by inserting the words "form or," after the word "ponds," in the seventh line. Section $544 a$ is added to as follows :

The council of every county, township, city, town or incorporated village through or adjoining which any toll road passes may enter into an agreement with the owner or owners of such toll road to expend on such road such statute labour or such sum of money as may be agreed upon for a limited number of years, and that at the end of the term of years agreed upon such toll road shall be made free and shall become the property of the municipality or municipalities in which the same is situate.

Section 630 is amended by providing that councils of townships and villages may provide for the purchase and laying of mains and other appliances and connecting with any existing system of waterworks. Sub-section 3 of section 630 is repealed and the following substituted:"Section 614 of this act shall not apply to any works under the powers by this section conferred."

Sub-section 2 of section 630 A of the said act is repealed and the new section reads as follows: "Sections 614 and 624 shall not apply to work done under provisions of this section."

Sub-section $I$ of section 636 A is amended by striking out the word "onehalf" in the fifth line and inserting the word "two thirds" in lieu thereot which requires a two-third majority of township councils before by-laws authorizing branch railways, tram and other railways along highways, can be passed. Sub-section 3 of section 636 A is amended by providing that in case of agreement between municipal councll and a street railway company defining the terms and conditions upon which the railway is to be constructed shall be published in full with the by-law required to be passed to levy the special rate. We consider this a very good provision as radial electric roads are being introduced in many parts of the province, and where councils grant aid to enterprises of this kind they are required to submit the by-laws to the people for their approval, and before they can vote intelligently they must be in possession of all the particulars of agreement under which the work is to be carried on.

Section $630 a$ is amended by inserting after the word "Act" in the fourth line thereof "and the council of every such" and by substituting for the words "within these limits or within" in the seventh line in the said section, the words, "within or adjacent to its limits or adjacent to." This refers to the powers of municipal councils who are aiding iron and smelting works in certain districts, and extends the same powers which they have heretofore possessed to the council of any city. Subsections D and E make special provision in reference to the issuing of debentures for this purpose and for acquiring lands for smelting warks.

A regulation that is being called for generally in the towns and cities throughout the province is that all bread and milk vendors have their tickets made of metal. This is to remove the danger of transmitting infection thereby.

## Amendments to High School Act, 1893.

Sub-section 6 of section 2 is hereby amended by adding thereto the following words, extending the definition of the words, "Resident Pupils": " or whose parents or guardians are assessed for an amount equal to the average amount of resident ratepayers of the district."

Section 3I is amended by adding thereto the following sub-sections:

When any county council is required, as herein provided, to pay the proportionate maintenance of county pupils at any high school in the county, it shall be lawful for any municipality, not included in a high school district, to provide for the payment of its share of the proportionate maintenance of such county pupils, by assessment on the ratepayers of the municipality. The amount payable in such case shall be in the proportion which the equalized assessment of the municipality bears to the equalized assessment of all the municipalities of the county, not included in any high school district.
(8) When any rate is levied, as aforesaid, then such municipality shall not be liable for the payment of any other rates for high school purposes, and all money so collected shall be paid to the county treasurer on or before the 15 th of December in each year.

Section 35 is amended by striking out the word "municipality," in the fitst line, and inserting in lieu thereof, the word "county."

Section 37 is amended by adding thereto the following sub-section :
(4) The council of any municipality, not included in a high school district, may provide by assessment for the payment of any fees imposed by the county council on county pupils or by the board of trustees on non-resident pupils who reside in such municipality.

Electrolysis of water pipe due to street railway currents, is reported by superintendent George Reyer, of Nashville, Tennessee waterworks. A number of supply pipes on streets occupied by electric railways, have become unserviceable on account of pitting due to the pressure of ground currents, No main pipes have yet been injured, but some of those running parallel to car lines are said to be strongly magnetised. Some of the lead services were destroyed in two years, while under ordinary conditions such pipe in Nashville should last nearly fifty years.

Councils should see that the collector's bond is properly drawn up, signed and deposited with the olerk during this month.

ENGINEERING DEPARTMENT.
A. W. CAMPBELL,
P.L.S., C.E., A.M.C.S., C.E.,

EDITOR.

## Roads and Roadmaking.

The system of making a road with a foundation of large stone covered with those finely broken, is the one most commonly in use in this country, it differs from a road made of stone broken small, and of uniform size, in having the fouudation first made in the shape of a roughly laid pavemeut of stone six or eight inches in depth, this being first covered with stone coarsely broken, and then with a coat broken quite small, and this covered with a coat of gravel or screening from the crusher, and the whole compacted with a heavy irou roller. This is commonly called the Telford system. It is the practice to mix some clay with broken stone in making this kind of road, to help combine the whole in a solid mass.


A road of this class when carefully con structed, of the proper material, may be considered the perfection of a country road. In considering the relative merits of the two systems, I have been lead to the conclusion, that for most situations in this country, a road on the Telford plan would would be the least costly, and answer as well or better. In this climate, where frost is liable to penetrate very deep, I doubt whether a covering that McAdam specifies, would be sufficient, and where a depth of a foot or more of stone is necessary, if one-half of these may be of unbroken stone, and of cheaper quality-as is aliowable in Telford road - a considerable saving may be made in the cost ; and it does look reasonable to suppose that a foundation of large stone, if properly laid will better resist the tendency of heavily loaded vehicles to press them into the earth, and form ruts on the surface.

I can only reconcile the theory of McAdam, that a mixture of any kind of refuse with the stone is unnecessary and positively hurtful, on the supposition that the experience was not with stone of the hardest and best quality. I consider it most probable that in his experience, which consisted largely in lifting the stones from old roads, and having them finely broken and properly replaced, that much of this material was of a kind that soon ground up with the traffic over them, and afforded material for consolidating the mass. My experience has taught me that when the material used is not of the best quality, it will consolidate more readily than that, which is harder and better.

It may now be considered as settled that where the best quality of furnace slag is used, screening from this or some other substance must be added to consolidate them. And, again, when we consider that the interstices in a body of loose broken stone comprise one-half the bulk of the mass, and when pressed as solid as it is possible to get them, the open spaces comprise one-fourth of the bulk of the mass. It is hard to conceive how this can be impervious to water- and McAdam says, it will be-unless the crevices are filled with something.
As regards the maintenance of a road of this class it seems hardly necessary to say, that the way to keep it good is never to let it get bad. In nothing is the old adage "a stitch in time" more applicable. Every Telford or McAdam road should be watched over by a careful superintendent, with material always at hand to level up and smooth over all inequalities as they appear. This is not only the best, but it is by far the most economical method of keeping a road in repair, for there is nothing more clearly demonstrated than that the wear of a road increases in a geometrical ratio as its condition deteriorates. It will, however, sometimes happen where the travel is very heavy and continuous, that the road will become so worn as to require a complete resurfacing. It is recommended that in case the surface of the old bed is slightly loosened up with a pick before the new material is spread on so that the whole will combine better and form a solid mass. There are now machines for doing this in the shape of a steam roller with a pick attachment which are said to do the work better, at a great saving of labor. The advantage of compacting a road with the roller betore it is used tor traffic is so obvious as to require noth ing more to be said on it. If not done with the roller, it must be done with the travel, which is bad for the road, as it wears away rapidly in the process-and bad for those who who use the road, to be compelled to do, at their own cost, what should be done by those having charge of the construction.

The question of material to be used and how to ob ain them are of the greatest importance in road making, and are often difficult to detemine. It would seem to be a common notion with many who have essayed to en ighten the public on this subject, that stones suitable for road making are obtainable on every farm, and that all it is necessary to do is to encourage farmers to have them properly prepared at their leisure, and delivered on the roads. On the contrary, though there is an abundance of stones on most farms, those suitab'e for making, a first class artificial road are quite uncommon Stones gathered promiscuously from the surface of the field, though they may do very well to patch up a small place in a mudroad, are most likely unfit to be used : ven on the poorest kind of turnpike, if generally of good quality they
are sure to be mixed with soft and worthless ones which spoil the whole. Even where there are quarries of hardstone it is usually of stratified formation with layers of different degrees of hardness, and even if generally good are devorded of that uniformity which is so essential to make a good road. And besides, a quarry of road stone to be worked to advantage must be situated very near a railroad and have a track convenient that the cars may be loaded direct from the crusher. Breaking stone by hand will soon be a lost art in this country. Stones for surfacing a road should not only be of uniform hardness but must possess the greatest possible degree of toughness. Perhaps, the best measure of the quality of stone for this purpose is its power of resistance to crushing force, though it appears from experience that the qualities of hardness and toughness are not always the measure of the resistance to abrasion or the wearing away by the contact of horses' feet and the wheels of vehicles.

Just here, I desire to say a few words upon the intimate relations that exist between the railroads and roadmaking. So far as artificial roads are concerned, almost everything depends upon the facilities afforded by the railroads for hauling the required material at a moderate cost. Without this, the making of first-class roads would, in general, be out of the question. I believe there are many liberal-minded railroad officials who are tar-sighted enough to see that the prosperity of their railroad is largely identified with the prosperity of the country contiguous thereto, and knowing that the common roads are the natural feeders of the railroad, are disposed to aid all they can in their improvements, I am sorry to say that this disposition is not as prevalent as I think it should be. I was informed recently by a gentleman in the business of furnishing road material that a prominent official of a great railroad refused to deliver material for him at a point on their road where it would have been a great convenience to have it, and gave as a reason that they did not wish to accommodate the turnpike company that wanted the material, as their road was too good already, and was competing with the railroad to the injury of their business. If such a contemptable short-sighted policy as this was to obtain in railroad management it must put a stop to road improvement, as good material cannot now be obtained in most localities except by rail.

There is a point connected with the making of all kinds of artificially-covered roads that cannot be too much insisted on ; that is, that no surfacing should be done until the road is well graded. For it should never be forgotten that while a road is left to its natural state there is a constant tendency to improve the grades, by the hills being washed down and the valleys filled up with every rain, but when once the covering is placed, the grades are fixed for all time, and can never be
improved except at a very great expense. No road should ever be graded to a perfect level, on account of drainage- this is not desirable-but the hills should be reduced to within two degrees, or about one to thirty, at least, where that is possible. A great advantage resulting from this is that in cutting away the hills and filling up the valleys, places that are liable to be quagmires and quicksand, are elevated, so as to tree the road from this danger.
So much is now said, and very properly too, about the inferiority of the roads in this country compared with those of Europe that it may not be amiss to say a little on this subject. When we come to look fully into the causes which have produced this disparity, I do not think there is any cause for discouragement; for besides the advantages of cheap pauper labor there, it must be remembered that centuries of civilization have given those countries time to accomplish very much that there has not yet been time for here. And there are other things to be taken into account. Before railroads and steam navigation were invented, all the mails had to be carried by stage coach over the common roads, and there was. no water communication; all merchandise traffic was by common roads. For centuries roadmaking has been a most important department of governmental care in those countries. For example, as early as 1816 there were, in England and Wales, about twenty-five thousand miles of turnpike roads, and this was just the commencement of scientific roadmaking. By that time the work of carrying the mails had become immense, and this required the constant oversight of the government, and a great deal of the time of parliament was devoted to the department of roads and the transportation of the mails. Before railroads were invented, all England become a network of good, artificial roads, and had been accustomed to them to such a degree that they were considered a necessity. This country, on the other hand, had scarcely immerged from a wilderness, when steam navigation and transportation by rail sprang into existence and soon claimed the bulk of all fraffic in the conveyance of persons and merchandise of every description. The great evolution in the business of transportation thus created put a check for a time to the progress of roadmaking. Had steam navigation and railroading been deferred for half or even a quarter of a century we would have been vastly further advanced in the science of roadmaking. But it was not to be expected that in a country so vast, where the temptation is so great for the population to spread over an immense extent of territory that it would be possible to make all roads through it such as would be looked for in densely populated countries where they have had centuries to do the where. We need not be discouraged, and can, at least, make a good beginning, and when once
the example is set and our people learn what a really good road is, they will not be satisfied without them, and lawmakers and supervisors and all concerned will have to give heed.

We have the material in abundance ; we have learned something of what a good road should be, and we have those who possess the skill and ability to do the work, and there is no longer an excuse for the lack of means which should be forthcoming For every other form of enterprise and public improvement capital is put forth in abundance, and it is universally admitted that here is no way in which money can be spent that would afford a better return than this in its beneficial influence to every member from the highest to the lowest of the community.

## Influence of Good Roads on Country Life.

The improvement of country roads undertaken upon a large scale would decentralize labor while it was in pregress as well as afterward. There would be a large floating population of laborers in the country while the work was proceeding. With the improvement of the roads would come a great improvement in the conditions of country life; greater facilities for social gatherings, church and school attendance; the discussion of public questions ; cheaper and easier transportation and improves access to the towns; less dependence upon the railways.

One defect of the railway system is its tendency to build up large cities at the expense of small towns and villages. Good roads help to build up thriving market towns and other small communities. Then they cannot be monopolized like railways. There can be no oppressive tariffs for carriage, nor discriminating rates, nor disputes about long and short hauls. They are the people's roads. There is no need of any movement to nationalize them. They are already nationalized, and all that is needed is for the nation to recognize the value and the splendid possibilities of its own property.

Fair and free, night and day,
Fair and free is the king's highway.

- Toronto Globe.


## Broad Tires Improve Roads.

The introduction of broad tires upon all farm wagons and carts adapted for heavy draft purposes alone would do much to improve roads, since half the trouble seems to arise from heavy loads carting over country roads at seasons of the year when the ground is soft. At Tuxedo, where all draft wagons are prohibited an entry unless furnished with broad tired wheels, the tremendous advantage over the ordinary tires has been plainly proved, for there, even when the roads are softest and at their worst, they never cut up through the constant carting of heavy loads of brick or stone. - Exchange.

## Bridges.

It is hardly too much to say that of late years more attention has been given to bridge superstructure than to the substructure. Bridge substructure is preeminently a branch of engineering which can be taught in the class room. At the present day the superstructure of bridges of magnitude are almost always made of iron or steel. Perhaps it would be moreproper to say, are always of iron, since steel is only a third form of iron, intermediate between cast and wrought iron: or, more properly, iron manufactured in a peculiar way is called steel. A century ago iron was not available for bridge superstructures. The bridge was made entirely of masonry, or largely of timber. The best way to understand modern bridge superstructure is to study its development. This develop. ment has taken place simultaneously in Europe and America, but on very difierent lines in the two continents. The development of the European bridge was from a masonry structure to a metallic structure The development of the American bridge was from a wooden structure to a metallic structure. This was the real order of development, theugh there have been in Europe many noted wooden bridges, and there are in America, some old structures resembling those of Europe. In America for the first time in the history of the world, a people possessed of modern tools have had at their disposal ancient forests. The steam engine and the saw mill have made cheap timber from the forests, which, in the other part of the world, were removed and worked up in early times by slow manual labur. The American builder has at his disposal the most convienent building material ever known. It has, however, three very serious defects. It is very short lived; if exposed to both air and water it may become worthless in less than ten years. It is very combustible. No addition can ever be made to the original stick, and if it is to be used in tension there is a great waste in making proper connections. The price measured by the unit of strain was formerly hardly more than one-twentieth the cost of iron. The cost of frequent renewals of timber was less than the interest on the orignal cost of iron. A structure built of timber, after charging up the cost of renewals and allowing a liberal premium for insurance against fire, was still able to earn more money than an iron struciure could, after deducting interest on the additional cost of iron. In other words, the wooden structure was the most profitable tool. Fifty years ago it was good engineering to build wooden superstructures, and it would have been bad engineering to build iron superstructures. Wooden superstructure were universally built. In many parts of the country, bridges were built almost entirely of wood; the piers which carried the wooden superstructure were timber cribs filled with rubble stone. In fact, wood was wisely used in ways which, at the present day, would seem absurd.

## Ditches and Watercourses Act.

In the bill to amend the Ditches and Watercourses' Act it is proposed to strike out sub-sections 2 and 3 of section 4 of the act respecting ditches and watercourses which provides that the drain shall be continued to a proper outlet so that no landswill be over-flowed or flooded through or by the construction of such ditch or drain, unless with the written consent of the party or parties consenting. This change is very much needed. It is difficult for us to see how a written consent to flood property would relieve the parties constructing the drain from liability from flooding, and in many cases it is not right to ask a consent of this kind, for, in our experience, we have come across owners of land who are struggling to pay for their farms and who cannot spare the time to do work that may be required of them in draining portions of therr land which they may not want to use for some time, such as bush land, and other swamps and runs on their property, which they can very well get along without, and to escape the work, we have known them to sign a consent without considering the extent of the injury that the flonding may do and it is not right to take undue advantage by asking them to sign such consent, and all drains should be carried to a proper outlet in order to save damage to property, and trouble after the drain is made.

Section 6 of the Act provides that any owner may file a requisition for a drain so long as the drain shall not pass through or partly through the land of five owners, the requisitionist being one. This is very indefinite, as it is difficult to say what the meaning of the words "partly through" may be. It may mean through the land of a less number than five, or through one lot and partly across another, and the limit "less than five owners" is a very variable one.

The five owners may own five small village lots, each owning one lot, or even one village lot may belong to five owners, as in case of undivided proprietorship, and in this case the requisitionist could not force a very long drain. Again, one man may be the owner of a township lot in a block, or separate lots not adjoining each other and the application of this limit would not, in such a case, authorize a very long drain, and it might be possible after leaving the private land to run along a road for a great distance, without exceeding the limit laid down. The requisitionist, according to the act, counts as one, this would lead us to understand that he can have the drain commence at the higher boundary of his land, but all the forms of notices and the forms of award show that he is only seeking an outlet, and in fact the whole act is framed for that purpose, and many of the county judges in their ruling hold that the drain must commence at the lower boundary of the requisitionist's land, and this ruling restricts the
drain from passing through the land of four or a less number of owners, and by this ruling, if the requisitionist requires to drain a certain piece of land and it is necessary to construct the drain through such land along the line between his property and the adjoining property with the width of the drain half on each, or if the drain should require to be entirely placed upon the land of the applicant, it could not be held to go through the land of an adjuining owner. Now, the intention of the act certainly is to provide for the extending of the drain to reach an outlet farther away than is reached by gojng through the land of five owners under certain formalities, although it is nowhere stated that such can be done, it merely states that without these formalities being complied with, extention beyond cannot be made and it is left to be inferred that if these formalities are complied with the work can be undertaken.

Sub-section A of section 6 provides that unless such owner shall first obtain the assent in writing thereot, including himself, of a majority of the owners affected or interested, it would appear from this, that if the drain is to pass through the lands of more than five owners, the requisition to bring on the engineer shall be signed, as assenting parties to the work going on bya majority of the owners of the land through which the drain will pass. But it may mean of all concerned, those whose lands the drain will pass through and those who will be required to do work on the drain. Now, these portions of the act which I have recited, certainly require remedying. The commission recommend that the provision as to consent be struck out and that the drain be carried to a sufficient outlet. This certainly is right, as under the present act the consent of the owner or owners whose land is flooded is obtained and the ditch constructed across a certain part of the land and in a few years afterwards the person giving consent for the purpose of being relieved of the trouble and expense of constructing the drain at the time would be obliged to continue the drain when they require it at their own cost, and if they took advantage of the provisions of the act nearly at their own expense, because if the first of such owners below the terminus of the drain take advantage of the provisions of the act to have the outlet continued, he could only have the drain constructed from the lower boundary of his possession, and in ali probability the fifty rod limit from the point of commencement of the drain, to which the assessment of the engineer is confined, would not take in more than his own land, and the parties above on the portion of the drain already constructed would be relieved from any portion of the cost of continuing the drain, and the tendency would be, after sufficient fall is obtained for the land of the requisitionist to try if possible to get the consent of the owners
below to the termininating of the work, in order that they may be relieved from their interest in constructing and maintaining the remainder of the drain to a proper outlet. I do not favor the amendment, section 5 , in the proposed act, " Every ditch constructed under this act shall be limited in length to pass through or into five original township lots, exclusive of any part or parts of the ditch running on or along any part of a road allowance." This, in our opinion, is placing too much power in the hands of one man. It may be all right where five owners own five original lots, each one owning one lot, to leave this power in the hands of one of the said owners, but where a man is the owner of a certain piece of land, it may be lying by a village or town, it is placing too much power in his hands to say that he should have the right to enforce a drain through the various sub-divisions of the original lots, possibly through the whole village, and at the same time not crossing more than five original township lots. As it is difficult to make a provision that would be just in all cases, we think that the municipal councils should, in event of an extreme case, have the right to say whether or not the applicant is making a just demand, and where it is found necessary that the drain required by the applicant should extend across or into the lands of more than five owners, I think it is only just that the consent of the majority should be obtained, and if such majority should, from particular reasons of their own, object to giving such consent, then the municipal council, who are responsible to the people for their acts, and in whom we have sufficient confidence to know that they would not grant a request without there being good reasons for it, should be in a position to say whether or not the request of the applicant is just or the drain should be constructed. I am strongly of the opinion that the law, with reference to this matter, as it now exists, is as fair as could be made, and is better than the proposed amendment.
The evidence given before the commission appears to be, that limiting the length of drain to the lands of five owners is too restricted, but we cannot see that this is the case, for in our opinion the act should not be used but for drains of small dimensions leading into main outlets, for experience has proven that it is very difficult and expensive to make and maintain large drains construct ed under this act, because the various persons who are awarded to do the work try to do it themselves, and having no experience make a bungled job of it, besides this, the continual annoyance of one man demanding the other to clean his portion of the drain causes dissatisfaction and a great deal of trouble between neighbors. Again, the act confines the engineer in his assessment to a very small territory, and this is by no means just, in a large drain, the whole watershed should be assessed, and where the drain is so large that it cannot be constructed under the present act, the parties should be obliged to take advantage of the drainage provisions of the Municipal Act, because we find, as a general thing, injustice is worked in constructing a drain where a majority of the parties interested do not wish to sign the petition.

## Drainage.

It is a common impression that clay is impervious to water and that, therefore, a clay soil cannot be drained, especially by underdrains. A moment's reflection will satisfy anyone that such land is not absolutely impervious. We find clay land wet in spring at any depth, and in the latter part of the summer we find it comparatively dry. How comes it wet at any time if water does not go into it? And how comes it dry at any time if water does not come out of it? In treating of the power of the soil to absorb moisture, we have shown that a clay soil will absorb more than half its bulk of water, and that it holds more water than any other soil with, perhaps, the single exception of peat.
The facts, however, that elay may be wet and that it may be dried, and that it readily absorbs large quantities of water, though they prove conclusively that it is not impervious to water, yet do not prove that water will pass through it with sufficient rapidity to answer the practical purposes for agriculture. This point can only satisfactorily determined by experiment. It is not necessary, however, that each farmer should try the experiment for himself; because, although we are very apt to think our own case an exception to all general rules, it is not probable that any new kind of clay will be discovered hereafter that is different from all the known clays, that established principles will not apply to it. So far as nur own observation extends, owners of farms nearly always over-estimate the difficulty of draining their land. There are certain notorious facts with regard to clay, which mislead the judgment of men on this point. One of these facts is, that clay is used for stopping water by the process called puiddling. Puddled clay is used for the bottom of ponds and of canals and of reservoirs and such purposés, and is regarded as nearly, or quite impervious.

We see that in our clay fields, water stands upon the surface, especially in the ruts of wheels and on headlands much trodden, late in the season, and when in other places it has disappeared. This is due also to puddling.
Puddling is merely the working of wet clay or other soil by beating, treading or stirring, until its particles are so finely divided that water has an exceedingly slow passage between them with ordinary pressure. We see the effect of this operation on common highways where water otten stands many days in puddles because the surface has been ground so fine and rendered so compact by wheels and horses, that the water cannot find passage. This, however, is not the natural condition of any slay nor can any clay be kept in this condition, except by being constantly wet If once dried and sübjected to the action of the frost, the soil assumes its natural condition of porosity. In drying under the influence of the sun, soils shrink, and thus diminish in
bulk in proportion to the quantity of clay or of peaty matter they contain. Sand scarcely dimishes at all in bulk by drying; but peat shrinks one-fifth in bulk, and strong agricuitural clay nearly as much. By laying drains in land we take from it the portion of water that will run out at the bottom. The sun, by evaporation, then takes out a portion at the top. The soil is thus contracted, and, as the ends of the field cannot approach each other, both soil and sub-soil are torn apart and divided by a network of cracks and fissures. Everyone who is familiar with clay land or who has observed the bottom of a ditch or frog.pond by the road-side must have observed these cracks thus caused by the contraction of the soil in drying The same contraction occurs in winter, by which, in cold regions, deep rents are made in the earth and reports like those of cannon are often heard. The cracking by drying, however, is more quiet in its effect, the ground being divided noiselessly into smaller and smaller masses as the process proceeds. Were it not for this process it might be well doubted whether clay lands could be effectually drained at all. Nature, however, seems to second our efforts here, for wt have seen that the stiffer the clay the greater the contraction and the more the soil is split up and rendered permeable to its operation.
These cracks are found by observation to commence at the drains and extend further and further in almost straight lines into the sub-soil, forming so many minor drains or feeders all leading to the tiles These main fissures have numerous smaller ones diverging from them so that the whole mass is divided and sub-divided into the most minute portions. The main fissures gradually enlarge as the dryness increases, and at the same time lengthen out, so that in a dry season they may be traced the whole way between the drains. In draining a certain piece land more than four feet deep in stiff clay, these cracks were seen to extend to the very bottom of the drains, not in single fissures from top to bottom, but in innumerable seams running in all directions, so that the earth, when moved with a pickaxe, came up in little cubes and cakes and could be separated into pieces of an inch or less diameter. This was on a ridge which rectived no water except from the clouds, having no springs in or upon it, yet so nearly impervious to water that it remained soft and muddy until late in June. In mid-summer, however, under our burning sun, it had by evaporation, been so much died as to produce the effect described. In clay that has never been dried, as for instance that found under wet meadow from which the water has but recently been drawn, we should not of course expect to find these cracks. Accordingly, we find sometimes in clay pits excavated below the permanent waterlines and in wells that the clay is in a compact mass and tears apart without exhibiting anything like these divisions.

## Road Repairing.

Road repairing is a practical rather than a theoretical art. The first requisite is a kit of tools, consisting of a roller, one road dray, two wheel scrapers, two slush scrapers, road plow and other paraphernalia. The crew should consist of a sufficient number and an expert road. maker. First and most important is drainage.-W. S. Chowern.

Gas-tar Macadam roads are built in Harrowgate, England, in the following manner, according to the Borough engineer, B. Stead. The foundation material is first prepared by forming a heap of two and ore-quarter inch broken lime stone, six feet wide, fifteen to eighteen inches high, and of any convenient length. A fire of wood and cinders is then made on top of the stones, gradually turning over until they are the same temperature. The stone is then spread on a iron plate, while warm, and mixed with gas tar, after which it is stacked in a heap for a few months. The surface material is tormed by preparing a nine-inch bed of funace ashes. This bed is six feet wide and twelve or fifteen feet long, and is covered by one of the same dimensions of three-eight inch stone. A fire is then kindled on the stone covered with ashes and allowed to burn three or four days. A pan is afterwards formed, as in slaking lime, with six inches of material on the ground, and tar enough poured on to thoroughly coat the separate pieces. This material is allowed to stand about twelve hours, after the tar has been mixed into it, and is then mixed again. In forming a roadway, a three-inch layer of the foundarion stone is first put down and rolled with a ten-ton stearn roller, after which enough three-quarter inch clippings are spread over the top to even up the surface. These clippings are then rolled and covered with a thin layer of surface material clippings and ashes. This is rolled and the surface finished with a thin sprinkling of fine, well -rolled limestone screenirgs.

The Central Bridge and Engineering Company, of Peterborough, have taken the order for the roof of the Union station at Toronto. The design will be similar to that of the Windsor street station of the C. P. R. at Montreal, and has some very good features about the trusses, which could be copied by some of the railways on the other side of the line with advantage.

The water commissioners of Windsor, propose to improve the water supply (quality not quantity) by extending the intake about one and three-quarter miles further up the river Detroit, at a cost of $\$ 55,000$. The scheme will be voted on by the people July 6th, and if carried, work will be prosecuted at an early date.

## LEGAL DEPARTMENT.

H. F. JELL, Solicitor, Editor.

## Municipal Councils.

THEIR POWERS AND JURISDICTIONHIGHWAY8.
Section 527 applies as much to highways dedicated to the public by permissive uses as to highways created by some express act of dedication. No person is bound to dedicate a highway to the public, and if the public see fit to take it and use it as such they must do so, subject to the rights and ownership of the individual thereon, and to any condition he may impose. The individual owner parts with no other right than the right of passage to the public over the land so dedicated, and he may exercise and perform all other rights of ownership not inconsistent therewith. In an English case it was decided that an owner who opens a passage through his land neither marks its limits visibly nor excludes persons from passing through his land in positive terms, shall be presumed to have dedicated it to the public; but any obstruction, such as a gate, chain, etc., may be regarded as evincing his intention to the contrary. Many important provisions are contained in the Municipal Act, conferring on municipal councils the power and authority to acquire lands for the purposes of public highway, to assume roads already estab. lished, or to open or close and stop up road allowances. This power and authority should always be exercised by by-law, and where conditions, precedent to the passing of the by-law, are laid down by statute, they should be strictly observed. For instance, the notice mentioned in section 546 , and the posting up of the same for the time and in the manner set out in the said section, are conditions precedent to the validity of a by-law passed by a municipal council for the purpose of "stopping up, altering, widening, diverting or selling any original allowance for road, or for establishing, opening, stopping up, altering, widening, diverting or selling any other public highway, road, street or lane." These notices should be written or printed in the English language, and should state a day in which the council purpose considering the by-law. Proof that a party attacking a by-law of this kind had notice of its intended passing in some other way than the above, would not be a sufficient answer by the municipality on an application to quash the by-law. It is advisable, in these cases, that the corporation preserve evidence of the posting up of the notices, in the shape of an affidavit of the person doing the work. This notice must also be published weekly for, at least, four successive weeks, in some newspaper (if there be any) published in the municipality, or if no such newspaper, then in a newspaper published in some neighboring municipality, and in either
case, in the county town, if there be any such It will be observed that the statute does nit fix any number of insertions of the by-law in a newspaper but requires the publication weekly for a fixed period, namely, "four successive weeks." The council must also hear, either in person or by council, any one whose land might be prejudicially affected by the by-law, and who requests to be heard. Where an applicant, or a person requiring to be heard in reference to the passing of the intended by-law, being aware of the day on which it was to be passed, gave notice that he intended opposing the same, but took no further steps in opposition, until making an application to the court to quash the by-law, is not entitled to the relief asked. The person opposing the by-law must state to the council the the specific grounds on which he objects to its passing. He cannot take general grounds of opposition before the council, and afterwards urge specific grounds on an application to quash the by-law. It is the duty of the clerk to give the above notices, at the request of the applicant for the by-law, and he is entitled to the reasonable expenses of so doing.

> Legal Decisions.
fox, vs. williamson.
This was an action for injuries done by a dog to the sheep of Mr. Fox. The plaintiff al'eged that in the early part of December last, his sheep were in the yard on his farm, and that a large dog owned by Mr . Williamson, and a smaller dog, were in the early morning caught on the premises, the large dog being in the act of chasing the sheep, and the smaller one in a neighboring yard at the time barking. Evidence was also given as to the size, ferocity and character of the two dogs.

The statute under which the action was brought provides that the owner of any sheep or lamb, killed or injured by any dog, shall be entitled to recover the damage occasioned thereby from the owner or keeper of such dog by an action for damages. Under another section when, in the opinion of the court, judge or justice, the damages were occasioned by dogs, the owner or owners of which are known, and dogs, the owner or owners of which are unknown, the court, judge or justice may decide and adjudge as to the proportion of the damages which, having regard to the evidence adduced as to the strength, ferocity and character of the various dogs shown to have been engaged in comitting such damage, was probably done by the dogs, the owner or owners of which have been summoned to appear before the court, judge or justice, and shall deterime in respect thereof, and apportion the damage which the court, judge or justice decides to have been probably done by the dogs whose owners have been summoned.

In this case, the owner of the other dog was unknown, and the action was in part
to determine the amount of damages Mr . Williamson should pay. The plaintiff claimed besides this that an agreement had been made by which detendant actually agreeded at the time to pay $\$ 170$ and take the sheep killed and injured. This was denied by the defendant, who claimed that he only agreed that arbitrators should be appointed to fix the amount of damage payable on the whole and not his share of it. The defendant also claimed that under the Act the judge alone could apportion the damages, while the plaintiff claimed the act gave the owner the right to an action for damages, with all the rights incidental to an action, and that the words court, judge or justice, included jury. and that it was specially a case in which the judge should have the opinion of a jury on the facts.

The defendant had paid \$100 into court and it was admitted the plaintiff had received $\$ 25$ more for the sheep.

His Honor decided to let the case go to the jury, subject to objections raised, and submitted the following questions:
I. Did Williamson agree to pay the whole sum of $\$_{1} 70$ himself ?
3. Ought Williamson to have paid into court more than the sum of $\$ 100$ ?

The jury answered the first question in the negative. They answered the second question yes, $\$ 125$.

Judgment was accordingly entered up for plaintiff for \$125 with a stay of proceedings to enable counsel to argue the question of apportionment by the judge or jury.-Guelph Mercury.

RE CAMPBELL AND VILLAGE OT LANARK.
Judgment on appeal by James Weir Campbell from an order of Galt, C. J., refusing an application to quash a by-law of the municipality providing for the issue of debentures to the amount of $\$ 4,000$, ostensibly for the purpose of making provision for a system of electric lighting for the village by securing the erection of a building suitable for the purpose, and by acquiring waterpower for a period of 0 years, but really, as the applicants alleged, for the purpose of aiding one Kate S. Coldwell to erect, equip and operate a grist mill The applicant contented that it was in fact a bonus by-law passed in form stated, in evasion of the provisions of the Municipal Act of 1892 making bonus by-laws illegal. The respondents did not deny that they had in view the advantage to be derived by the village from the building of a grist mill, for the erection of which the by-law distinctly provided. Galt, C. J,, stated that he was unable to say that the sole object of the by-law was to give a bonus to the millnwner, and dismissed the application on that ground. The appeal court held that the by-law was a plan evasion of the wholesome provision of the statute forbidding the passing of a bonus by-law. Appeal allowed with costs.

## County Bridges.

## THE VILLAGE OF NEW HAMBURG VS. THE COUNTY O WATERLOO.

This case, which was begun some time ago and which has been stubbornly contested by both parties to the same throughout, was argued before the supreme court of Canada at Ottawa, and judgment has been pronounced. As the decision in this case involves a question of vital importance, affecting nearly every municipal corporation in this province, we consider it worthy of special mention. Although the judgments given in the several courts before which this case has been argued have, from time to time, been reported in The World, still we deem it advisable to indulge here, in a short review of the whole matter. A dispute arose between the plaintiff and defendant corporations, as to which of the said corporations was bound by statute to maintain a certain bridge over the river Nith, said bridge being within the limits of the village cor poration. The sections of the Municipal Act under which the dispute arose, and which in this action were required to be interpreted are as follows: Sec. 532 provides that "the county council shall have exclusive jurisdiction over all bridges crossing streams or rivers over one hundred feet in width, within the limits of any incorporated village in the county, and connecting any main highway leading through the county," and section 534 provides that "the county council shall cause to be built and maintained in like manner, all bridges on any river or stream over one hundred teet in width, within the limits of any incorporated village in the county necessary to connect any main public highway leading through the county." The question to be decided in this action was as to whether the river Nith at the point where the bridge crossed the same was over a hundred feet in width, within the meaning of the sections quoted above. It was admitted by both parties that the bridge formed part of a main highway leading through the county. They were also in accord as to the place where the stream should be measured, namely, where the bridge crossed it, but they were at variance as to the proper mode of measurement. The village corporation contended that the measurement should be taken from the top of one bank to the top of the other, or where the bank on one side was lower than that on the other, from the top of the lower bank to a point on a level with it on the opposite bank. The county corporation contend that such measurement should be the width of the river in its natural channel at high water marks, that is, after the spring floods had abated, and the stream had resumed its normal condition. Mr. Justice Perguson heard and tried the case and gave judgment in tavor of the village. An appeal was then taken to the Queen's Bench Divisional Court, which sustained
the contention of the county and reversed the decision of Mr. Justice Ferguson. The matter was ther taken to the Court of Appeal and the judges were equally divided in their opinions, two endorsing the view of the Queen's Bench Divisional Court, and the other two holding that the measurement of the stream should be made for the purposes of the act at flood-tide. On appeal to the supreme court judgment was given sustaining the contention of the village corporation. By this decision the length of the bridge and not the width of the stream in its natural channel is made the standard, and in every case similar to this one, where the bridge is or must be over 100 feet in length, the liability to build and maintain the same, be it light or heavy, is laid upon the county.

## A Fine Point to Decide.

The appointment of Mr Robt. Fleck, reeve of Moore, and a member of the county council, to the office of clerk, protem, raises a question of some importance and of no little interest. Owing to the serious illness of Mr. Hugh Smith, county clerk, which everyone regrets exceedingly, it became necessary to provide someone to act in his stead.

The statute provides that in case the clerk is absent or incapable through illness of performing his duties of clerk, the council may, by resolution, provide that some other person, to be named in such resolution, or to be appointed under the hand and seal of such clerk, shall act in his stead, and the person so appointed, shall, while he so acts, have all the powers of the clerk.

It is claimed that Mr. Fleck, having been so appointed by resolution, became absolutely clerk of the council, and invested with all the powers of such clerk. That is, he became clerk, as much as the absent incumbent. The question is, did Mr . Fleck, in accepting the appointment and entering upon the duties of the office, vacate his office of reeve of Moore, and member of the county council? It is laid down by authorities on the subject that when two offices are incompatable they cannot be held together ; therefore, the acceptance of the one is an implied resignation of the other, and it matters not whether the second office is superior or inferior to the office first held. In such a case, it is said, that quo warranto proceedings to dispossess the incumbent of the first office are unnecessary.

There are other fine points involved in the dual position held by Mr. Fleck which can be decided only by legal experts. As Mr. Fleck himself is an authority on municipal law, it may be assumed that he has satisfied himself as to the legality of his position and that he has not jeopardised his reeveship by entering upon the duties of county clerk. It would be well, however, if the law on this point was clearly laid down, as there are many who regard the act of the county
council in appointing one of its members to the acting clerkship, as a clear breach of the Municipal Act.-Observer.
[ED.-Wr fully realize the importance of the question raised by the above appointment and would invite a discussion of the matter in the columns of The World. The subject will bear investigation.

## A Curious Toll Road Oase.

T. J. Stewart, a city traveller, was charged with not paying Mrs. O'Brien legal toll on passing through the gate on the Dundas road, near the city on June 6th. Mrs. O'Brien's evidence was to the effect that ten days before June 6, the defendant gave her an English sixpence for the toll, eight cents, expecting to receive four cents back, but Mrs. O'Brien returned only two cents, valuing the sixpence at ten cents, and Stewart threw the two cents back, refusing to accept them. On June 6, on passing the gate again, he tendered four cents, to be added to the four cents left on the previous occasion. Mrs. O'Brien demanded six cents, but Stewart declined to pay it, and the charge followed. Defendant was not present, but his lawyer was willing to allow the case to be disposed of by his client paying the two cents and the costs. Complainant's counsel refused to accept this, and asked for a small fine to show the public that toll must be paid by legal tender, and that sixpences cannot be valued at twelve cents. The magistrate held that defendant was in the wrong, and suggested a settlement by the imposition of a nominal fine of twenty-five cents and the costs. Defendant's counsel declined to accept the suggestion in the absence of his client, and the case was adjourned.

The town council of Simcoe has adopted a new plan to prevent bicycle riding on side walks, after considering the matter they were addressed by a representative from the club of that town who promised that the town riders would keep off the sidewalks except in muddy weather. When upon them, would use every care to keep out of the people's way. On this understanding the council decided to put the bicyle men on their good behavior, and a further consideration of the matter was postponed.
This is very complimentary to bicyclists and we believe if a similar step was taken by councillors throughout the province, the feeling which has been created in some municipalities by endeavoring to entorce by-laws would thereby be avoided.

An excellent little manual for councillors and municipal officers is The Municipal World of St. Thomas. It keeps its readers posted on law and other matters affecting corporations and if councillors in general read it closely they would not have to depend upon one or two of their number at each council board to supply all the legal information.-Uxtridge Tournal.

## QUESTION DRAWER.

Subscribers only are entitled to opinions through the paper on all questions subimtted if they pertain to municipaper on all questions subimitted if they pertain to munici-
pal matters. Write each question on a separate papec on pal matters. Write each question on a separate paper on
one side only.
When submitting questions state as briefly as posssible all the facts, as many received co not contain suffictent information to enable us to give a satisfactory answer--Ed.

Town Clerk.-1. A person has a yearly income as a wage-earner to the amount of $\$ 900.00$ and is thierefore assessed on $\$ 200.00$. Can I place such person's name on voters' list in part I under seetion 79 of the Municipal Act.
2. How do you reconcile clause secondly of section 79 with section 82 of the Municipal Act?

For example ; at the time of making the voters' list, A. is a tenant of municipality, and is entered on list, but subsequently moves into another municipality. At the following municipal election Mr. A. presents himself to vote. Can any objections be raised to his voting under section 82 ?
I. - Yes. The person referred to is in receipt " of an income from some trade, profession or calling or office, of not less than \$400."
2. A's vote can be objected to at the election mentioned. He may be properly required to be sworn, and if he is he cannot take the necessary oath.-See the 5 th clause of the oath laid down in section 103 of the Municipal Act.
B. J. -Would it be legal for a township council to add 10 per cent. on all unpaid taxes after the 15th December ?
2. Can a council prevent rate-payers draining their farms in road ditches.
I. No.
2. Yes, if the result be injury or damage to the highway. In this event, proceedings should be taken to have a proper drain constructed under the provisions of the Ditches and Watercourses Act, or the drainage clauses of the Municipal Act.
A. - The township under the provisions of section $z$ of chapter 62, 53 Victoria, has provided by by-law that no dog tax shall be levied within the municipality and claims that the effect of such by-law is to suspend the operation of sections 17 and 18 , chapter 214 revised statutes Ontario. B who claims compensation under said section 18 maintains the contrary. Who is right?
The inference to be drawn from the wording of sections 7 (latter part) and 21 of R. S. O., chap. 214 , is, we think, that the municipality is not liable for the payments mentioned in section 18, if such a by-law, as is mentioned by our correspondent, has been passed, unless it might be to the extent of the balance to the credit of the dog fund at the time the by-law is passed. We must confess that there is considerable obscurity surrounding the tnatter, the difficulty being that the statute (chap. 62, 53 Vic.) does not, in terms, suspend the operations of sections 17 and 18 of R. S. O., chap. 214, as is done in the event of a by-law being passed, pursuant to the provisions of section 8 of the last-mentioned act.

Dogs.-A council petitioned by twenty-five ratepayers, passed a by-law doing away with dog tax. A ratepayer lost a number of sheep by dogs, and applied to the council for compensation, as per chapter 214 , section 18, R. S. O. The council, having no dog tax fund maintained, they were not obliged to pay. He then wished to be sworn as to loss, stating that his lawyer said we were liable.
I. When there is no dog tax fund has the council to compensate for loss by dogs?
2. Can the council legally pay for loss by dogs where there is no dog tax fund ?
3. If the council did swear the ratepayers as to loss, would it commit them in any way?

We cannot better answer questions I and 2 than by referring our correspondent to our answer to the questions of "A," in this issue.
3. If the council conclude that they will not entertain the application, it would be better not to swear or examine the applicant at all, as this might be construed as an entertaining of the application on their part.

Rivers.-I. If ratepayers refuse or neglect to clear a river, as per by-law passed in accordance with chapter 184 , section 521 , sub-section 16 , can the council enter on their lands to clear the stream without being trespassers?
2. When dams are formed on the river by ratepayers having obstructions placed there and catching drift wood, etc., that come down stream, are they liable to clear all the dam or only what obstruction they placed there ?
3. Can the council make use of their land to haul out and pile up timber they haul out of the river ?
r. Yes.
2. The sub section referred to provides for the passing of by-laws "for clearing away and removing such obstructions at the expense of the offenders, or otherwise." This seems to limit the portion of the expense chargeable to any party to the extent of his offence, and the inference seems to be that he can be required to remove only such obstructions as he has been the means of creating.
3. The council would be justified in using such portion of the land as is necessary to enable them to remove the obstructions, but we think it would be an unwarrantable use of the lands to pile up and leave thereon the timber they haul out of the river.
T. D.-By-law for drain passed in December, 1880, parties assessed to pay for drain in equal annual instalments for the succeeding five years. Contract let but not finished in 1881, during which year no assessment was levied against parties. Would it be right to charge the parties up with the interest on money borrowed to pay contractor for work done in 1881, and divide the whole cost into four payments annually, beginning with the year 1882?

There would be nothing inequitable in charging the interest mentioned against the parties assessed for the drain, although not strictly legal, but we do not think the four annual levies instead of five could be made without the passage of a new by-law.
J. M. - Is it necessary for a by-law to be prepar ed to rescind any other by-law. We have a bylaw appointing a constable, who has resigned. Would the same by-law answer by inserting another party's name therein.

Under the circumstances mentioned by our correspondent a new by-law will have to be passed by the council, either repealing the old by-law in toto or so much thereof as relates to the appointment of the constable, and appointing some other person to the office in his stead.
T. S. R.-Is the municipal council of a township compelled by law to open up a new road for one or two settlers, where the municipal tax paid by said settlers would not pay three per cent. on cost of said road, as they would have to buy the right of way for part of said road, as government road allowance is such that it can not be made fit for public travel.
The settler or settlers are assessed rate-payers in said municipality.

If the road mentioned is necessary to give the settlers ingress and egress to and from their respective properties, it seems to us they are legally entitled to demand the opening up of the road allowance. No doubt the parties settled and bought their respective premises with the knowledge that a road allowance had been laid out in the neighborhood, and could be rendered available for their use as a public highway.
O. L.-In 1885 the council passed a by-law establishing a public road between concessions A and 1. The by-law stipulated that the road was to be of a width of 33 feet, north and south of division line between concessions $A$ and I . In 1887 there was a village plan, or survey made from division line north leaving a street or road. Along the line 66 feet wide which plan or survey was duly registered in 1887 . No work or public money has ever been expended south of division line. Opposite the village survey the property south of division line is fenced right on said division line. The street mextioned is used and travelled and has always been used and travelled as a public road or highway. Can the council now abandon the street or the north half of the street, and estabish the road 33 feet south from division line withut compensation to the owner of land who has a deed of this property.

If the by-law passed in 1885 establish ing a public road between concessions $A$ and I be a legal and valid by-law, the 33 feet south of the division line is, whether fenced in or not, land set apart for the use of the public as a public highway, and the party who has it fenced in should be required to move his fence to the proper line, namely the southerly limit of the 33 feet south of the division line ; as to the portion 66 feet north of the division line, it must be taken to be a public highway, and could only be closed or stopped up by by-law of the council passed after the preliminary steps mentioned in section 546 et. seq. of the Municipal Act, had been taken.

> T. U.-There is a railway passing through our municipality, and the company have neglected to make crossings at several of the road allowances which they have crossed through the township. When the matter was brought to their notice, they claim that they are not required, and cannot be compelled to make crossings on road allowances unless said roads are open for actual use, which would make it necessary for the municipality to be continually making application until they were all done, are they not obliged to make all such crossings when requested to do so ?
2. In your answer to my question in the Jun number you assume in answer to number 2 tha the road was orginally laid out to the width o sixty-six feet surveyed and staked, but as a matter of fact such is not the case as a rule in the laying out of colonization roads in the free grant districts. Certain points were given to make, and the intervening space between those points was run as it best suited the convenience of the inspector or overseer with no other guide than a centre blaze on the route and without any regard to surveyed lines or straight lines of any kind, and the overseer or contractor was required to cut so m
feet from this centre blaze on each side and make the roadway or grade in the most convenient way through this lane which in all the early roads was never more than 40 feet wide, and such a thing as surveyors' stakes, defining the width of road was never thought of. Now the question is, after such roads so laid out have been used for ten or fifteen years, and often fenced that length of time just the width they were cut say 35 or 40 feet, can a municipality assuming control of these roads compell the owners to set back their fences to the width of 66 feet, and if so how shall the line of road be determined.
It is evidently the intention of the Railway Act, that crossings should be constructed, as provided in the act, at all places where the railway crosses a highway or road allowance, but if an allowance for road is not travelled or used by the public as a highway, and the railway had neglected or omitted to put in a proper crossing over it, it would seem somewhat arbitrary in the part of the council to require them to do so.
2. Your municipality can assume conttol of so much land as has been dedicated to and used by the publio as a highway, but cannot compel parties to move their fences back, so as to make the road allowance 66 feet in width, without taking the proceedings to do so, and purchase the requisite additional land, laid down in the Municipal Act. It seems to us the services of a competent surveyor should be obtained to settle the question of the location of the present road.

Town Clerk.-I. In order to entitle a person to vote he must be rated in this town at $\$ 200.00$ and in preparing voter's list I am confronted with the following.
A. and B. are assessed as owner and tenant respectively, with names bracketed on roll in the sum of $\$ 375.00$.

Can I place either or both names on list?
2. Is C. sufficiently qualified to be placed on voter's list being assessed as tenant on property valued at $\$ 175.00$ ? see sub. section 1 and clause secondly of section 79 of the Municipal Act.
I. Both A. and B are qualified voters, and should be placed on your voter's listA. as owner and B. as tenant of the property for which they are assessed, see section 86 of the Municipal Act, and note " $V$ " thereto in Mr. Harrison's manual, th edition.
2. No.

## Publications Received.

Proceedings and By-Laws, Township of Woolwich, 1892, and Voters' List, 1893. John L. Wideman, clerk.

Township officers are quite numerous in this municipality, no less than five collectors and five assessors being employed.

## Municipal Reform in British Columbia, by W. J. Walker, Reeve of Surry.

This is a neat pamphlet of sixteen pages, which presents many valuable suggestions and much information concerning municipal systems in England, United States and other portions of the Dominion, which should be valuable in improving the municipal system in that province.

Rules and Regulations for the Government of the Common Gaols of Ontario.

## Continued.

20. He shall be present at the opening of the corridors and cells in the morning, and at the locking-up of the same at night; he shall be the custodian of the keys of the male department of the goal during the night, or he shall see that the turnkeys keep them in a safe place ; and he shall be present at the meals served to the male prisoners, and shall see that the food is good, properly cooked, decently served, and in accordance with the dietary rules and regulations hereinafter prescribed.
21. In order to guard against escapes he shall, on his daily visits, carefully observe all parts of the gaol, and shall, at least once a week, carefully inspect all the doors, windows, iron gratings, locks, chimneys, and openings of every description, and search the bedding and furnishings, and all parts of the yards, in order to see that everything is secure and in good order and that everything which would help a prisoner in effecting an escape is removed beyond the reach of the prisoners; and in his visits at any time to a ward in which important prisoners are confined. he shall always be accompanied by a turnkey, and in like manner a turnkey must be accompanied by the goaler or another turnkey.
22. He shall keep, and be responsible for the safe sustody of the following books, and shall see that they are entered up regularly and neatly every day.
I. A goal registerer, which must be entered up whenever a prisoner is recelved, and must be closed and all columns of figures added up on the 3 oth September in each year, so as to correspond with the annual returns made to the inspector.
23. A Journal, in which shall be entered daily, all occurrences of importance within the goal, together with the goaler's remarks upon structural defects and all other matters which should be brought to the notice of the inspector.
24. A dietary book in which shall be entered all the information required by the headings of the different columns of such book, as prescribed from time to time by the inspector.
25. An account book, showing the amount of articles used in the maintenance of the goal, the exact quantities of ail such articles bought for use in the goal, and the prices paid for them. The book to be balanced on the 3 ist March, 3 oth June, 3 oth September, and 3 Ist December, in each year, and an exact statement made out from the same, together with a statement showing the number of prisoners and their collective stay during each quarter, and the daily cost of each prisoner's rations, These statements, duly certified as to their correctness, shall be given to the sheriff for transmission to the inspector.
26. A punishment book, in which shall be minutely recorded all punishments and deprivations awarded to the prisoners.
R. COAD

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## The Municipal Index

BEING AN

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