## PAGES

MISSING


## CONTENTS



## Calendar for October and November, 1896 .

Legal, Educational, Municipal and Other Appointments.

## Ootober.

1. Last day for returning Assessment Roll to Clerk in cities, towns and incorporated villages, where assessment is taken between 1st July and 30th September.Assessment Act, section 52.
Last day for delivery by Clerks of Municipality to Collectors of Collectors' Rolls, unless some other day be prescribed by by-law of the local municipality.Assessment Act, section 120.
Notice by Trustees of cities, towns, incorporated villages and township boards to Municipal Clerk to hold Trustee elections on same day as Municipal elections, due.-Public Schools Act, section 103 (1).
2. Make return of deaths by contagious diseases registered during September.- 59 Vic., chap. 17, sec. 11.
3. Selectors of Jurors meet in every Municipality.-Jurors' Act, section 18.
4. Last day for passing by-laws for holding first election in Junior Township after
5. Last day for passing oy - separation.-Municipal Act, section 91 .

November.

1. Last day for transmission by local clerks to County Treasurer of taxes on lands of non-residents.-Assessment. Act, section 121.
Last day for transmission of Tree Inspector's Report to Provincial Treasurer.-Tree Planting Act, section 6.
2. Last day for Collector to demand taxes on lands omitted from the Roll.-Assessment Act, section 154.

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.

## Books for Municipal Officers.

## Lytie's Rate Tables.

For Collectors Rolls-This valuable little work is intended to assist clerks in entering taxes in the collector's roll. It gives rates by tenths of a mill, from one to nine and nine-tenths 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, $\$ 2.00$.
Drainage Laws.
Consolidated in one book, with amendments of $1895^{-6}$, neatly bound in cloth, complete index. The Drainage Act, 1894 - The Ditches and Watercourses Act-The Tile, Stone and Timber Drainage Act. Price 30 cents.

FORMS REQUIRED BY JURORS' ACT.
R. s. O., CHAP. 52.


## For Making Report, 1896.

Hall-dozen Forms of Oath and three sheets each 1st, 2nd, 3rd and 4th Divisions, Schedule A,

50 cents 10 cents Cardboard Ballots, per hundred,

Address, with price enclosed,

## The ethumid cilonk

PUBLISHED MONTHLV
In the interests of every department of the Municipal
Institutions of Ontario,
K. W. MokAy, Editor, $\left.\begin{array}{l}\text { A. W. Campbell, C, E. } \\ \text { J. M. Glenn, LL.b. }\end{array}\right\} \begin{aligned} & \text { Associate } \\ & \text { Editors }\end{aligned}$
TERMS, $\$ \mathbf{F} .00$ per annum. Single
copies, $\$ 5.00$, payable in advance. Single copy, roc.; Six EXPIRATION OF SUBSCRIPTI
EXPIRATION OF SUBSCRIPTION. This paper will be discontinued at expiration of term paid for, of
which subscribers will receive notice. CHANGE OF ADDRESS
change their address, should give prompt notice of same and in doing so, give both give prompt notice of same, COMMUNIng so, give both old and new address.
COMMUNICATIONS, Contributions of interest to HOW TO REMIT
letter. Draft, express or money orders may by registered our risk. Draft, express or money orders may be sent at
outer. OFFICES- 28 Elgin Street, St. Thomas. Telephone $10 x$ Address all communications to

## THE MUNICIPAL WOORLD,

Box 1252,
St. Thomas, Ont.

## ST. THOMAS, OCTOBER $1,1896$.

The County Councils Act does not define the amount which nominating officers are to receive for their services. Under engact the first duty of this officer is to and then publish nominaton meeting, the same. His next duty is to attend the nomination meeting, and be available during the following day, for the purpose of receiving resignations from candidates
nominated. In view of the above, we nominated. In view of the above, we
think the nominating officers should be worth at least six dollars, services that his account should inc ludethe expense of posting and publication of notices of the meeting, rent of hall, and for services of constable at the meeting.
In municipalities where an election for county council only is held, the amount to be paid to deputy returning officers for
their services, polling places, etc, is to determined as usual, by the council is be local municipality, but the electionimposes an additional duty on the electionimposes and councils in passing a by-law this year, to appoint deputy-returning officers and fix polling places, should determine the amount their clerk is to receive for con-
ducting the county making returns, etc. council elections,

[^0]and in auditing the accounts of the municipali-
ties, and so the ties, and so the financial state of each would become a public matter through the government's report each year. The temptations to dishonesty in our present system temptations to as many counties and cities know to their cost. Let us have some legislation by way of reform.

## A Dangerous Class of By-Laws.

The by-law which is restrictive to the individual, has a very poor show if it ever comes before the judicial committee of the Imperial Privy Council for review. No semblance of authority that our Canadian legislatures can convey stands between that by-law and the settled interpretation of the British law, which guarantees the subject the most absolute freedom consistent with the privileges of others. If the alleged liberty of one man interferes with the real liberty of another it becomes license. British justice does not protect license. Neither will it interfere with a by-law that restrains it. But before a bylaw becomes worth the paper it is written on the matter which it prohibits must be a nuisance and an offence to the community or some members of it. A recollectiou of these facts may often save a corporation enormous costs. Cities are in the habit of passing illegal by-laws. People who suffer under them, as a rule, prefer to pay a trifling fine rather than risk a costly appeal. As a result, unjust judgments are pronounced year after year without question. But sometimes a corporation strikes a snag. Four or five years ago the city of Toronto undertook to say on what streets peddiers should sell their wares and on what streets they should not.
The peddlers banded together and fought the by-law. A test case was car. ried from court to court. In the mean time the by-law was enforced by the police. Peddlers were arrested, fined and imprisoned. Some who had regular routes were driven off them. Finally, after a couple of years' litigation, the case reached the judicial committee in England. It ended there. The by-law was quashed. Toronto found herself in for $\$ 5,000$ or
$\$ 6,000$ in costs and fifty or sixty writs for $\$ 6,000$ in costs and fifty or sixty writs for damages for false arrest, imprisonment, pecuniary loss, etc. That is a sample of the fate that sometimes overtakes corporations that attempt to regulate by by-law
that section of the that section of the British constitution which guarantees the liberty of the subject.

## The Payment of Aldermen.

An address presented by the grateful citizens of Toronto, to one of their aldermen on the occasion of the opening of the
Rosedale drive Rosedale drive, with which he, as chairman of the Board of Works, had had considerable to do, prompts the Week to refer to the untairness of expecting business men to devote themselves to the public business without remuneration. The people, it thinks, do well to be grateful
for these public for these public services ; but it fancies that they might do more. Speaking of
three aldermen in this connection, Carlyle, Shaw and Lamb, the Week says ${ }^{5}$
While filling, without remuneration, of office entrusted with the construcion no works costing millions of dollars, not of them was ever suspected of speculia is well to the extent of a single dollar. It it mivics that the village plan of unpaid servol
should end, but it is well also, to show should end, but it is well also,
hearty appreciation of the ability and rec hearty appreciation of the ability and old titude of the men who made the system tolerable.

If the average man who is opposed to the payment of aldermen would analy he his opinions, he would probably find that hes feels at bottom that they pay themsel hat a handsomely enough now; and hence be an salary or indemnity would only be little additional bonus. If he does a strike more thinking, however, it is apt to alicularly him that the present system is paricicuing. likely to lead to this kind of
Human nature prevails among the people out of whom aldermen are made as vigor ously as anywhere ; and it is not commol experience to find men ready in large numbers in any walk of life to do muntion for nothing. There are noble excepp life, to this rule in all branches of publicent to of course ; but it is bad judgmen of a attempt to man the Government it is country with "exceptions." As in serve many good men would be willing to ${ }^{\text {man }}$ : the public honestly and ably as chain pay but they simply cannot afford it. giadly them an indemnity, and they will game. make for themselves an honored nawho Compel unpaid service ; and the man withoul proposes to see that he is paid him any bothering the council to vote ${ }^{\text {mixen }}$ fixed sum, will find less opposition sita candidacy forthe council - Mont 5 f

## Oxford County Municipal Clerks in Session

The annual meeting of the municipa ${ }^{\text {a }}$ clerks in the county of Oxford was held 1 ast the court house, Woodstock, during lat month. Of the sixteen clerks in wes county fifteen attended. The chang ${ }^{\text {ge }}$ made in the municipal assessment, schois and drainage laws were thoroughly cussed. An interesting feature of the meall ing was a careful consideration and a coils discussion of the new County Counc ${ }^{1}$ Act.

The meeting was taken advantage of the come to an understanding between the local clerks and the county clerk as and $^{\text {and }}$ form of ballot to be used, the forms oul $^{\text {nit }}$ ) documents to be supplied by the cond in for the purpose of that election; by loca
detail the duties to be performed detail the duties to be performed method of performing them.
Mr. Jas. Anderson gave an addres upon the subject of municipal drainage which was well received.

The election of officers resulted in $A$. McFarlane, Otterville, being choser president, and Wm. Fairley, Norming secretary of the association for the com year.

Municipal Accounts.
The past week has furnished an interesting theme for discussion by accountants in the public disclosures of irregularities Which have been for some ten or twelve years past taking place in the finances of a
city in wor some twe city in Western Ontario. Two of Toronto's well known public accountants have been successfully engaged in the task of unearthing the frauds by which the taxpayers of the burgh in question have confifteen cold cash to the tune of some fifteen or twenty thousand dollars, or an hundred annual instalment of about fifteen their dred dollars, to the "perquisites" of special city treasurer. The details of the lished auditors' reports have been pubhewspapers, and have been extensively copied, so that it may be assumed that our readers have become fairly conversant
with with them.
The features of the case which will tessional mind the attention of the properhaps, first, that the deficiencies, with ferbaps, first, that the deficiencies, with accounted fors, consist of revenue not
or excessin, as contrasted with improper ar excessive expenditures - actual or alleged, and second, the natural inferextent of therefrom as to the nature and annual auditors of these accounts, who appear to have of these accounts, who
delinen the now proven delinquent a regular and unvarying certifi-
cate cate of character year after year. It pould not seem that this perfunctorily checking duty consisted in more than a and balancing of the payments and the addition they ralancing of the books, for which
lars received each the sum of sixty dollars peceived each the sum of sixty dol-
person annum. The qualifications of the persons selected for this responsible work importappear to have been considered have been for we filled in that the positions eraployeen filled in turn by a railway schools, an auctioneer and a hardware dealer, Of course, gentlemen whose ${ }^{\text {apocations }}$ are of this varied character Work, but the less be competent for the
the probabilities are decidedly the other the probabilities are decidedly
it and in the present instance match fe admitted that they were no guardian the astute and accomplished Whose reputation the municipal exchequer, and polished manner, imperturbable good Convincing an assurance that was always garded encouragement of a fee, which seemed to bave been designed (judging by its smalltess) to further the plans of the treasurer, tevenork of verifying the many sources of ing anye, which is made up, as those havvill any knowledge of municipal accounts items, was, of almost innumerable small most, was a task calculated to dismay the than renscientious auditor. It is more deemed reasonable to infer that the auditors
deemed themselves employed to do $\$ 60$
worth of work for the money equivalent, and in this sense the municipality doubtless got what they paid for. However that may be, it is safe to assert that the very acceptance of the position for such a fee proves either incapacity or dishonesty. It goes without saying that anyone holding a position of trust and handling public funds should be honest at heart, honest because it is right to be so, and not because he is watched. If honesty of this brand cannot be had the artcle is liable to deteriorate unless very closely looked after. Probably the official who is now in disgrace and suffering the tortures of suspense as to his probable fate, might instead have been an upright, or at least a presumably upright, member of society, had not the temptation been placed in his way of profiting by the incapacity of those whose duty it was to render fraud difficult, or, indeed, impossible.
These revelations, following so closely others of a somewhat similar nature from other quarters of the Province, sound the keynote of warning to municipal bodies everywhere. The popular impression prevails that corruption and fraud is rampant in the administration of the affairs of municipal institutions. It is certainly trus that when "weighed in the balances" held by the expert accountant scarcely any thus far but have been "found wanting." The need for reform in the law relating to the appointment of auditors for municipalities is painfully apparent. A radical step in this direction would certainly be popular with the masses of taxpayers. To enforce common honesty is one of the surest methods by which a wise and thoughtful government may lighten the taxpayer's burdens. No matter how honestly disposed a municipal treasurer may be, his accounts, more certainly than those of any other class of official should be periodically subjected to scientific scrutiny for the reason that municipalities are really mutual non-profitsharing enterprises in which everyone is, perforce, compelled to join. From the very nature of the thing, in the administration of municipal affairs there is bound to be less business judgment displayed than in that of a private corporation. The question of municipal auditing is therefore one which is capable of being regulated wisely by our own lawmakers.Business for September.

The town of Welland has passed a by. law for the reduction of town councillors to two from each ward instead of three. This reduces the town council from fifteen to eleven members-large enough yet for a town three times the size of Welland. The council deserves credit for effecting an important reform in this matter.

The Roman roads, according to their importance, were from 8 to 30 feet in width.
The English statute mile is 1760 standard yards.

## Municipal Auditing.

During the course of the address delivered by the Hon. E. J. Davis, at his election, reference was made to the fact that as a private member of the legislature he had taken occassion to call public attention to the careless municipal auditing and repeated defalcations - some of them extending over a period of years-constantly occuring all over the Province, also to the necessity of reform alorig this line. In substantiation of the importance of the matter thus brought before the attention of the people by the Provincial Secretary we may state that quite recently the Ontario Government has appointed in compliance with a damand for an investigation, a commission to inquire into the finances of Dufferin County. On the demise of the late treasurer a deficit of some $\$$ Ir, 500 isalleged to have been discovered; and although these irregularities are said to have been going on for some years, the auditors annually appointed by the Dufferin County Council have certified to the correctness of the late treasurer's accounts.

Independant of the direct loss to ratepayers, more or less trouble occurs by the distrust thereby engendered. The efforts, therefore, of the Provincial Secretary to insure a more perfect audit of municipal and school accounts-one that will insure greater confidence in the future-will be hailed with satisfaction by the Province at large. In the case of Guelph, to which reference is made above, the special auditor reports the deficit at $\$ 13,000$.

He also mentions some of the reasons why the deficit was not discovered sooner. ist. The combination of the offices of clerk and treasurer. 2nd. A lack of system in keeping the books and records of the municipality; and 3 rd. Inefficient auditors-men without municipal experience, and without the knowledge of accountant work. The Provincial Secretary hinted that a uniform and more perfect system of book-keeping at least should be part of our municipal code ; and now that he is in the Government, we hope he will give effect to his views.-Newmarket Era.

## Electric Light Schedule.

The town of Newmarket does its own electric lighting. The following schedule of prices for domestic lighting was recently adopted by the council:


## THE MUNICIPAL WORLD

## Selecting Jurors.

The mayor, reeve, the city, town, village or township clerk, and the assessor or assessors, if there be more than one of the respective towns, villages or townships in Ontario are ex-officio the selectors of jurors for every township and village, and for each ward of every such city or town. They are required to assemble annually on the roth day of October, at the place where the meetings of the council of the municipality are usually held, or at such other place within the municipality as may, for that purpose, be appointed by the head of such municipal corporation.

Before entering upon the performance of their duties the selectors are required to make and subscribe before a justice of the peace an oath or affirmation, as folcase May A. B., do swear (or affirm as the case may be), that I will truly, faithfully affection impartially, without fear, favor or affection, and to the best of my knowledge
and ability, perform the duty of a selector of jurors, and will select from the proper lists the requisite number of the most fit and proper persons to serve as jurors for
the year of our Lord 18 . So help me God.

The manner of the selection is as follows: First, to write down on one or more sheets of paper twice as many names assersmens appearing by the voters' list or assessment roll to be possessed of the requisite property qualifications or otherhave been rualified to serve on juries, as to be selected and by the county selectors ship, village or wards af red from the townThe clerk is required of the municipality. information of the selectoduce for the voters' list and the selectors, the proper ing the names for the list roll. In selectselectors are for the list mentioned, the letter to letter in in ired to proceed from write down the names conlorder, and all those persons qualified to serve of juries, and not exempt by law, and at each subsequent annual meeting the selectors shail begin at the letter next to that at Which they left off the preceding year, and so on until they have gone through all the begin with the letter A. When the selectors have obtained the names of a sufficient number of duly qualified persons, and before they have exhausted the entire number of those qualified in any other letter, they are required at the next annual selection to commence at the beginning of such letter, but shall not select from the names any persons that were written down and selected from, and returned the preceding year. The selectors shall select from the list at least two-thirds of
the persons the persons whose names they have so best qualifin, who, in their opinion, are place a number to serve as juries and shall said two-thirds so selected, and shall the prepare a set of ballots of uniform and
convenient size, such ballot shall be numbered to correspond with the numbers opposite the names of the two-third selected, and the selectors shall then proceed to ballot for jurors until the number required from every such municipality by the county selectors has been selected.
The manner of ${ }^{*}$ balloting, is to place all the ballots in a box, which shall be then shaken so as to mix them, and for one of the selectors to openly draw from the said box indiscriminately one of the ballots, and declare the number of such ballot, whereupon the clerk or one of the selectors present shall immediately declare the name of the person opposite whose name the corresponding number is on the list, and the name and addition of the person whose name is so selected shall be written down on a piece of paper provided for that purpose, and the selecrors are required to continue until the necessary number has been completed. After having made such selections by ballot, the selectors shall distribute the names of the persons so balloted into four divisions, the first to consist of persons to serve as grand jurors in high court, the second, of persons to serve as grand jurors in the inferior courts, the third, of persons to serve as petit jurors in high court, and the fourth of persons to serve as petit jurors in the inferior courts, and shall make such distributions according to the best of their judgement.

The selectors are then required to make a. duplicate report, under their hands and seal, of their selection, ballot and distribution, which report is required to be in the form of schedule A of the Jurors' Act. One of the reports shall, on or before the 25 th day of October, be deposited with the clerk of the peace for the county in which the municipality lies, and the other duplicate with the clerk of the municipality. The clerk of the municipality is required to keep a book and enter the dates of the meetings of such selectors of the municipality, the persons present thereat, and the letters of the alphabet from which the selections of names of persons are from year to year, made.

For making the selection and distribution of jurors, the selectors are entitled to such sum of money as is authorized by the council of the municipality.

Mr. I. D. Bowman, County Clerk and Treasurer, of the county of Waterloo, is dead. In 1858 he was elected reeve of the town of Berlin, and in 1861 received the appointment of county clerk. In 1880 be was made county treasurer, and held the joint office together with that of town clerk of Berlin, at the time of his death. He was also inspector of the House of Industry, the pionece institution of the kind in Ontario, and county councils generally, when considering the question, profited by his years of experience.

## County Houses of Refuge.

In his address to the Grand Jury at Sandwich Justice Robertson
attention to the desirability, if not the attention to the desirability, if no
necessity, of providing a county house of refuge for the aged, the infirm and the poor. The gaol, he said was no place for such persons. Was it fit that such persons should be compelled to associate miles criminals? Old age was no crime unlec too it was to be regarded a crime to live were long. Life was sweet and most of us were desirous of living as long as we could The aged, infirm and poor we always havd with us. Age could not be avoided, and riches and poverty were not always contro able. It was often the misfortune rather than the fault of people that they were in firm and poor. He pointed out that the Ontario Government contributed $\$ 4,000 \mathrm{ol}$ towards the erection of such a home, and that he gave statistics which went to show thal such institutions by the labor of the in mates could be made nearly self suppor ${ }^{5}$ ing. For business reasons as well for humine reasons, such an instiution should be in existence in every county.
Essex is in a good position to prof firm such a haven for its destitute and and fine as it is practically free of debt, and to all locations can be found convenient to al sections of the county.

The county of Perth is just finishing it home of industry, which will be ready The occupancy in a couple of months. fitted buildings are large and substantial, , and up with all the modern improvements, cost but $\$ 16,000$, of which the Government contributed $\$ 4,000$. its first
The new Kent county council, at its tirs the meeting in January, should consider in in question of providing such an institu house Kent. The desirability of such a nod if of refuge has long been admitted, and site Perth can provide one for $\$ 16,000$,ifis included-the undertaking is not ase only one. The interest on that sum is dribbled $\$ 640$, and far more than that is dribes in away every year by the municipalitites dert affording partial sustenance to the in ac ing poor. It is time to take a step in ${ }^{2}$ vance.-Chatham Banner.

> A City Without Taxes.

With the beginning of next y said, the city of Glasgow is to levy taxes of any kind whatever upon have residents. The city authorities entite ascertained that from that date the en be expense of the city for the future de borne by the incomes which will bed by ceived from the public works owned water the city. Among the latter are striet works, gas and electric light piants, ins tith railroads, sewage farms and other which tions of lesser magnitude, all of the the are paying large profits annually int filly city treasury. Glasgow has municiple solved the problem of correct examp government, and has set an er larbe
worthy of emulation by every other city throughout the world.

ENGINEERING DEPARTMENT.

## A. W. CAMPBELL,

O.L.S., C.E., M.C.S., C.E.

EDITOR

## Trench Filling.

A matter of very great importance, and between which a frequent cause of friction between the municipal engineer and the contractor, and between the engineer and gas or water company is the filling of trenches on the public streets. If this Work is done on the principle that it is necessary to allow a certain amount of tinto to elapse for the dirt, loosely thrown that the trench to settle, it will be found that neither one year nor two will be sufficient ; but mysterious settlements will appear in the roadway for years, causing If on expense and difficulty to repair them. If on the contrary, the engineer knows how the earth should be stttled in the trenches made for the purpose of laying sewers, sewer connections, gas or water pipes, he will generally find it a difficult task to make the contractor believe that as much or more earth can be put back in a trench further wasen from it; he will find it a filled task to see that the trenth is rightly the tey the contractor, and in combating the tendency of gas and water companies to slight this branch of their work, any effort at reform is apt to be a difficult undertaking.
If properly rammed, more earth can be replaced in a trench than was taken out of it, and in eases where the pipe placed in the trench does not exceed twenty four groun in diameter, and is placed in the fround at a depth of not less than fifteen It will perceptible rise should remain. in will readily be inferred from this, that certainly of water and gas pipe there is of loose earth over the trench. The shrinkage earth over the trench. The stated on the best authority to average rom eight per cent. in sand to twenty-five to cent, in clay. It any corporation wishes lo preserve its streets and pavements, no patitude should be given contractors, companies and jobbers in the way of improp. exly filling excavations made in the roaday.
A common practice in replacing dirt is hydranoughly flush it from the nearest hydrant. If the soil is sand, this treatment tion if so objectionable, but it is a question if it cannot be more easily and cheaply consolidated by ramming. With clay However, the effect is very different, and Stabilit is most disasterous to the future case of of the road, particularly in the case of a sewer, when the trench extends along the centre of the strect. The clay absorbs the water to a very great extent, and in drying contracts, invariably resulting in settlements. The use of water in settling the earth in a trench is almost Variably bad practice.
Just what means are to be employed it is difficult to say, as the kind of soil and
other conditions must alter the requirements. Protably for the majority of towns and cities, it will be sufficient to specify that all the sirt taken from the trench must be replated. If this is strictly enf.ried, the contractor will quickly find the necessity of employing a sufficient number of men to compact the earth; he will sce that the pounding is not left until three or four feet of eaith has been shovelled into the trench, but will have it thoroughly rammed in layers of six or eight inches. In sand or gravel, one man may be able to pack the earth while another shovels, but with stiff clay, as many as four rammers may be netded to one shoveller.
To specify that a certain number of rammers are to be employed for each man filling the trench is obviously defective, as such a requirement could be taken advantage of by the contractor to employ cheap labor for this work ; or in case two many men were thus specified, an injustice or at least an unnecessary expense might be involved. Again, the nature of the soil being different from that which was expected, the town might suffer if too few were specified. A further restriction, and one which would be most satisfactory for the town at least, would be that the filling be done to the satisfaction of the engineer in charge. This of course is a necessary requirement in nearly all points of construction in engineering work.
When openings are to be made in the road for any purpose connected with gas, water and similar connections, the individual causing the work to be done should be required to make a deposit of from ten totwenty dollars as security for properly filling the trench and resurfacing the roadway. Where this is practiced, a permit is issued on receiving the deposit, and this latter is returned on the completion of the work after it has been inspected and pro nounced satisfactory by the engineer.

The matter is one of very great importance; time is not sefficient to entirely remove the possibility of settlements when the earth has not been sufficiently consolidated ; all such settlements are disastrous to pavements no matter of what kind, gravel, macadam, brick or asphalt, as none of them are intended to act as bridges.

## Water Supply.

The use of springs as sources of public water supply is quite common in some localities, notably in the New England States. The conditions governing the yield of springs have not been so carefully studied as those relating to surface sources, the reason apparently being that springs have been utilized only where comparatively small quantities of water are required. One or more springs have been piped to towns at the outset and others have been added later, or other sources of supply sought as the demand for more water arose. But even where small waterworks are to be supplied, prudence demands
that the available yield from a spring, or springs, shall be determined as nearly as possible before being adopted as a source of water supply. The most obvious and common method of determining the yield is to make a gauging of the flow from the spring, but a single gauging or a season's gauging is not sufficient to determine what may be expected through a series of years, even when backed by the assurance of the oldest inhabitant that "the spring was never known to run dry." When the drainage area tributary to a given spring and the rainfall of a locality are known, the problem of yield, year in and year out, is very much simplified, but there still remains the governing geological conditions, especially the character of the material throngh which the water must flow and the relation of permeable and impermeable strata. These geological conditions may be in part determined by an examination of the surface, but cannot be completely learned without putting down borings or test pits. When all else has been decided there will still remain the percentage of rainfall lost by run-off, by surface evaporation and by plant absorption and evaporation.

With the growing demands for pure water supplies, the yield of hillside springs, ever popular sources of supply, will become a matter of increasing importance, for however thoroughly it may be possible to purify water most people will prefer that which is naturally pure. In addition a public water supply is already almost a necessity for some small villages of a few hundred inhabitants and where these may obtain from springs ample supplies of clear, cool and sparkling water at slight expense, where a water purification plant might be entirely beyond reach, the question is very much simplified.

## Floor Timber for Bridges.

The variety of timber generally used for the flooring of bridges are white and yellow pine and oak ; to "these may be added maple, beech and birch,sometimes spruce, when used as the lower of two courses, the upper being of hardwood. Of this list, oak, where it can be obtained for a prop: $r$ price, is looked upon by the majority of bridge builders as the most serviceable. The difficulty of obtaining it at a suitable price compared with that of pine very frequently places the latter in the first place. Close grained yellow pine is preferred by some on account of being less slippery for horses in frosty weather. Care should be exercised however in obtaining that which is close grained and of an unquestionably sound quality as coarse pine splinters and wears very rapidly under heavy traffic.

As to what sound timber is (and only sound timber should be allowed in any part of a bridge) very many different opinions are expressed and frequently unreasonable exactions are imposed. To be sound it is sufficient that it is not cut from the logs of dead trees ; that it is free from
wind-shakes., heart cracks, and black and loose knots.

The cracks in seasoned timber, due to exposure to the direct rays of the sun, are not to be confused with heart cracks and wind shakes. These latter are spiintery, the splinters in many cases easily torn off, while cracks caused by seasoning are sharp and well defined. Bridge timber should be seasoned as it wears much longer than green timber, but this is often diffieult to obtain as public works seldom have their needs anticipated by the trade. Seasoning proceeds much more rapidly and the value of timber is much increased for bridge purposes, if it can be kept soaking in water for several months after being cut into plank. The water acts as a sol vent in ridding the pores of sap and nitrogenous matter which are the decaying ele-
ments of wood.

The wood of newest growth, that is the part next the bark known as "sap-wood" is not durable but it is impossible to obtain any large amount of timber entirely free from it. Sap-wood is lighter in color, softer and of more open texture than heartwood and decays and wears away much faster. Timber is "merchantable" if it has not more than three sappy corners, but it is not advisable to allow more than two. The sap corners can then be end downward, the heart wood exposed to the wear, and as bridge plank always wears faster than it rots, two corners which can Bark edges, if are not objectionable. can be laid downward, should not which the condemnation of the wood, but if on more than one comner, it indicates that the plank is composed entirely of sapwood, that it is from that portion of the log next
the slab, and it therefore should not be allowed to enter the bridge.

## Shingles.

A bundle of shingles, if full size, should have 25 courses on each end, and be 20 inches wide; or else have 22 courses on one end, and 23 courses on the other, bundles cantain 1,000 wide. Four such bundles cantain 1,000 shingles, each supposed to be four inches wide. They are nicest class of shingles ; sometimes in the long. It is poor economy come 18 inches ior quality of shingles; it costs rather more to lay them than it does good ones, and they may make a leaky roof, almost from the first. Spruce shingles are used considerably by some, but are not suitable to make a rool, as they warp and twist, and very quickly split to pieces. Some soft pine or cedar shingles, best quality, are the cheapest in the end; but even bundles of the best quality will contain some hard, glassy shingles, which will act almost as
badly as spruce; they should be thrown out,

It takes about five pounds of four-penny nails per thousand shingles ; or three or
four pounds of three-penny coarse, which we think are preferable.
One thousand shingles, laid four inches to the weather, will cover in i square feet. One thousand shingles laid four and onehalf inches to the weather will cover 125 square feet. One thousand shingles, laid five inches to the weather, will cover I 39 square feet. One thousand shingles (eightteen inch shingles only, except on walls), laid five and one-half inches to the weather, will cover 153 square feet.

The above does not include waste, which must be allowed.

## Laying Sewer Pipe.

The method of laying sewer pipe varies somewhat with the character of the ground, the fall and other particulars. A common method and a very poor one is to set stakes at intervals of 25 feet or so in the bottom of the ditch, and take out the bottom by eye to a gradient joining the stakes. Where the gradient is near the mininum this method is bad, because it is not accurate enough to keep the flow line of the pipe straight, and low spots in the grade will tend to produce deposits which may catch and hold large objects and produce stoppage. The method is also bad because the pipes rest on the bells, and when the trench is filled the weight above is liable to break the pipe. Small holes should be dug with a trowel below the bottom of the trench to receive the bell, as the pipe is put in position, and the pipe thus made to rest in the ground throughout its entire length. An excellent method of fixing the position of the pipe which finds favor with the contractors when they have been induced to try it, is to stretch a line along the trench, usually above the surface of the ground, which shall be a fixed distance above the flow line of the pipe. A pole is provided with a piece projecting at one end at right angles. The distance of the flow line is measured from the bottom of this projection along the pole and marked. As each pipe is put in place, the projection from the pole is inserted in the pipe, and the mark on the pole is brought to the line by raising or lowering the pipe as necessary. Care should be taken to leave the bottom of the trench too high rather than take out too much so that it will never be necessary to raise the pipe any considerable amount, as the dirt put under is liable to settlement.

Before the spigot of the pipe is inserted in the bell of the pipe previously laid, morter is put in the bottom of the bell for about one-third its circumference. When the pipe is properly placed, the remainder of the joint is filled full of morter, and a bevel of about 45 degrees is formed on the outside of the surface. Some pipe layers can do this work quickly and well with no tool but a trowl, other require rubber mittens to press the mortar in place and properly shape the outside. Bells of pipe should be large enough and well formed to leave a quarter of an inch all round the
spigot end of a new pipe. When the ground is soft, some foundation must is put under the pipes. If this foundalid not of boards, the bells of the pipe should the be rested directly on the boards, as has weight of earth on top of the pipes in been known to crush almost every pipe built a long line laid. Concrete should be pipe up on the boards to the form of this conto give it a uniform bearing.
crete may be of gravel or sand, five parts crete may be of gravel or sand, five poft to one part cement. Sometimes 50 , and material can be excavated a foot or material. the trench refilled with proper matecially When the ground is wet, and it is especialy desirable that the leakage of ground wate into the pipe should be a minimum, or when the sewerage must not be permitted to leak out of the joints, practicalily ${ }^{2}$ water-tight joint can be secured by and driving into the bell of the pipe a strantly of oakum which has been thert mortar, soaked in a neat portland cement mo joint and then filling the remainder of the laken in the usual manner. Care must be force in placing the pipe in position, not in into
any portion of the oakum to project the pipe, as it may be a source of trouble from stopping matters sliding along the bottom of the sewer, and finally producing serious obstructions. Earth should the carefully tramped under and around the pipe, and for a foot or two above, so as the prevent disturbance of the joints before ${ }^{\text {the }}$ cement sets, and no walking on the piper should be permitted.

## The Good Roads Exhibit.

Among the new features of the Toronto Industrial Exhibition this year was a display of roadmaking machinery under the patronage of the Ontario Good Roads Association. All kinds of road machines were represented. Stone crushers, rollers (steam and horse), graders, wheel $t$ l drag scrapers, plows, etc. Some of tros. principal exhibitors were Copp Hamilton) Hamilton; Sawyer-Massey Co., Hamileon Western Reversible Wheel Scraper don : represented by H. A. Brownell, Lons Co. J. C. Steele, Thornhill ; Waterous by Brantford. Trap rock was also show
the Powell-Mitchell Co., Marquette, Mich. the Powell-Mitchell Co., Marquette,
Short pieces of road were each day direc $^{2}$ structed on the grounds under the mmis tion of the Provincial Highway shown in sioner and all machinery was she bet $^{\text {to }}$ actual operation. The effect has bee the create in the minds of those yisit faror the exhibition a feeling decidedly in The The the use of machinery in roadwork interestiog, stone-crushers were particularly inte and sep
the stone being broken, screened the stone being broken, screened more per erated into various sizes much moribly be fectly and effectively than can posipalitied done by hand. Several mumit to send took advantage of the exh of comparino deputations for the purpose ofines and ded excellent opportunity was thas affor lady them to choose a machine particulity. adapted to the needs of their

Next year the exhibit will undoubtedly be Vory much enlarged, and the opportunity for corporations to compare the work and merits of the different machines will be admirable, as it can be done at such a time much more cheaply and satisfactorily than can possibly be done by visiting the
different different manufacturers.
Municipal officers and others interested in roadwork found the exhibit most instructive and were impressed with the neCessity of using machinery in obtaining the best and most economical results, and that a road made by the use of the proper buaders and rollers was not only cheaper but better than one on which hand-labor only had been employed.
Among the distinguished visitors who
ielved viewed and were specially interested in the Good Roads exhibit were : Lord and Lady Aberdeen, Hon. John Dryden, Minister of Agricnlture for Ontario, Hon. Sidhey A. Fisher, Miniture for Onter of Agriculture for The Dominion, and Dr. Mills, of the OntaWario Agricultural College. The exhibit Was in charge of Capt. Sheppard, of Alcenston, representing the Good Roads Association. Literature, prepared by the ${ }^{\text {Provincial }}$ Highway Commissioner, was Treely distributed, and of these pamphlets We reprint several in this issue.

## Road Metal.

The best road metal is that which is hard, tough and not affected by the weather.
For the light For the lighter traffic of country roads, gravel or stone from local sources must generally be employed, as the cost of transportation will, at the present stage of Toadmaking in Ontario, preclude the use of more durable stone from a distance. For heavier traffic in or near large towns,
the sestone from the best material at almost any price is the Most economical, as the decreased cost of mainteoining a alaod metal (under heavy ${ }^{\text {traffic }}$ ) quickly makes up for the greater Original cost of construction.
In this Province the roads may be rougbly classed as (1) dirt, (2) gravel, (3) and crushed stone (or macadam). Dirt roads give the least satisfaction, and are
Usually usually almost impassable for several months of the year. By greater attention to the drainage, however, their condition might be vastly improved. Roads of a Pery light sand may be improved by placOn them a coating of clay; and stiff clay Theads are improved by a coating of sand. These means should be adopted only where Thavel or crushed stone are not available. is treatment of clay and sand, however, is beneficial as a foundation for either gravel or stone.
Gravel must first be screened so as to remove all stones over two and one-half ${ }^{\text {inchebs in }}$ diameter. It should be again and ted so as to remove all earthy matter and pebbles less than one quarter inch in halfeter. Any material over two and oneUsed as a foundation lajer upon which to Place the finer material. Stones over four
inches in diameter should be broken. River or lake gravel is generally better than pit gravel on account of its freedom from dirt. Clean material is absolutely necessary.
Broken stone is beyond question very much better than gravel. The hardest and toughest rock is the best since it forms a more durable surface, diminishes the resistance of loads upon it and is more cheaply maintained. Limestone is the most common stone in the settled portions of Ontario. It varies in quality from that which is almost useless to that which in point of economy cannot be surpassed. What is lacking in durability is largely made up by its binding characteristics. But some limestone of doubtful quality, which is porous or slaty, decaying readily on exposure to the atmosphere, moisture or frost, should be used with caution. The only perfect test of any stone for road metal is its actual use.
Sandstone is obtainable in some parts of the Province, but as it readily crumbles and wears to sand, should be used only for lighter traffic on country roads. Granite is usually of inferior quality and, like the sandstone, readily crumbles under wear from the brittleness of the felspar which it contains ; and gneiss, of which there is an abundance in northern Ontario is no better.

Trap rock occurs in the vicinity of Kingston and Gananoque it is also imported by American cities from Poole Island in the Northern part of Lake Superior. This is an exceedingly durable stone, and should be employed where traffic demands a more expensive pavement than that which can be obtained from local sources.

In many parts of the Province the fields by the roadside are almost covered with boulders and stones, there, apparently, for no other purpose than to be carried by the landowners to the road and converted by the use of a portable crusher into road metal.

Boulders for a number of reasons are not the best stone for macadam, but in those localities where the material at hand must be utilized should by all means be employed, care being taken to discard "weathered" limestone and sandstone.

Absolute cleanliness of material is necessary in building gravel or macadam roads. No "binder" is needed when limestone, sandstone, gravel or the softer and less durable metals are used. Very hard granites and traps, however, need the use of some aid to consolidation, but usually the best binder to use is the "screenings" of these materials. Sand is hurtful to the road, and clay should be kept from metal completely.

Machinery is necessary for the proper construction of these roads. Dirt roads need a grader, and in every municipality where the road mileage is great, one or more should be owned. No municipality can be without a roller save at a loss. A rock crusher is most advisable in those localities where suitable stone for macadam
roads is available ; and where the gravel contains much large material a crusher is very useful. Machinery is as much needed in building roads as in any other form of manufactuie.

## Tires.

It is not only necessary to make' good roads ; it is also necessary that they shall remain good. For this reason all European countries advanced in roadmaking, have laws regulating the width of tires used on wagons, carts and vehicles for heavy draught.

In France the width of tires ranges from three to ten inches, usually from four to six. Every market wagon and tonnage wagon is a roller ; the forward axle is about fourteen inches shorter than the rear axle, so that the hind wheels run in a line about an inch outside the level rolled by the fore wheel.
In Germany, wagons used for drawing earth, brick, stone and similar heavy loads must have a width of tire at least four inches.

In Austria all wagons built to carry a load of more than two and one-quarter tons must have tires at least four and onethird inches in width. In lower Austria a rim of four and one-half inches is required for wagons drawn by two horses.
In the State of Michigan persons using wide tires receive a rebate of one-fourth their road tax. The States of New York, California, Ohio, Indiana, Kentucky, Vermont, Pennsylvania, Massachusetts, Connecticut have laws pertaining to the width of tires.
Experience goes to show that broad tires are very much to be preferred for drawing loads through fields and on farm roads, as they sink less deeply into the soft earth and employ less draught to move them. On rough, rutted roads, the advantage is slightly in favor of the narrow tire in point of draught, but when wide tires are used by all there will be no rutted roads. One farmer using tires as narrow as three inches says that in the spring time he has only to drive up and down his lane to or three times to change it into a smooth, level driveway. Those who will observe the occasional wide track made on our country roads will understand this result.

Towns and cities are no less affected by narrow tires than are rural districts, and it is little short of an absurdity that property owners should go to the expense of laying expensive pavements while those most benefited continue to destroy them with narrow tires. Coal carts, drays, tonnage and express wagons on narrow tires should soon become a thing of the past. The city of Ottawa has recently adopted a wide tire by-law, and this example it is to be hoped will soon be followed by others.
To understand the evil effects of narrow tires one has only to observe an empty, springless wagon jolting along the highway, or a loaded wagon ploughing its way through

## The Municipal World

the crust of a gravel road in fall or spring. At all times narrow tires on wagons of heavy draught are the greatest destroyers of roadways. To get the most benefit from the $s$ atute labor and other road expenditure in the Province, to lessen the cost of road making and maintenance, narrow tires must be discarded by those engaged in heavy teaming on our roads.

Broad tires, on the contrary, are in a way a benefit rather than a detriment to roads. Their broad surfaces perform the work of rollers in keeping a smooth and compact roadway free from ruts. Wide tires more than any other means that can be adopted, distribute wear over the surface of the road. Narrow tires do the work of a pick on a roadway, while broad tires do the work of a pounder. The one tears up, the other consolidates.

## Drainage of Roads.

The most fiequent cause of bad roads in Ontario is lack of drainage. When a road is good during the summer months, but scarcely passable in spring and fall,
the plain inference is that if it cold the plain inference is that if it could be kept dry it would be good the whole of the year. In a coupie of months of spring and fall, roads otherwise good because of insufficient drainage are destroyed more than in all the remaining ten months of the year. Because of neg-
lect in the simple matter, road labor and expenditure are very largely wasted. No farmer or business man can conduct his personal affairs in such a manner without
failure.
Excavations called "drains" ate, it is is true, made at the side of the road, it is
frequently are frequently are not provided with outlets,
or the outlets are allowed to speedily fil up. From these receptacles speedily fill into and softens the foundation of the road. Loose dirt from this "drain" is piled in the center of the road. This is soon roughened and tracked so as to hold water on the surface until it penetrates into the roadbed; thus softened, each succeeding vehicle deepens the track to a
rut, then to rut, then to a series of pitch-holes -and actions against the municipality for dam-
ages. Under-drainage is ages. Under-drainage is seldom thought
of to carry the water away from dation. The water away from the founappears to be to cover the water with gravel or crushed stone, a tedious with costly process. A road must have a firm foundation-obtained by under-drainageto suppoit not only the weight of the road metal, but also the traffic upon it.
A perfet system of drainage is obtained by surface and tile drainage. The surface of the road must be sufficiently rourface
or crowned in the centre to shed water readily to the side ditches or ghed the The water in its course do thes or gutters. not be impeded or held the gutters must or ruts in the roadway. The gutters must be carried to a free outlet as often as must sible, having a good fall, as often as pos-Under-drainage is fall.
face drainage. A dry foundation is more
necessary than a dry surface. Underdrains are needed not so much to carry away the water which falls on the surface of the road as to intercept the water rising in the saturated earth from the impenetrable stratas beneath, "to lower the water line." Common field tile should be used, three or four inches in diameter, hard, wellburned, and upwarped, every care being taken to lay it in the trench with a constant fall to a free outlet. Usually it is best to lay two tile drains, one on each side of the road, above two and a half or three feet below the bottom of the open drains. Thus placed they may be used as outlets for the surface drains if better cannot be obtained, proper catch-basins being provided.
It is bad practice to carry water long distances and pour it over hills by the road side. Deep and dangerous gulches are thus created. This water before reaching the hill should if possible be carried through adjoining property to an outlet. Roads along sidehills should have a tile drain and an open drain along the inner side of the roadway, and the entire roadway sloped towards the hill. Unless this is done the water is apt to run over the side of the embankment and wash it away, necessitating constant and expensive repairs. The trench containing the tile should be filled with gravel, broken stone or other porous material to readily intercept the soakage water from the hill.
Water in "springy" places on a road-bed should be conducted by blind drains from the centre of the road diagonally to the side underdrains. Springy places on a hillside embankment should also be tapped by a blind drain and the water led quickly to the tile drains.
Take the water out and keep the water out.

## Forming a Roadbed.

System is as much needed in constructing a roadbed as io building a house. When the improvement of a road is undertaken definite plans should be decided upon, so that all work done from year to year will be successive steps towards the one end. When "system" is neglected the work of one year becomes useless by the change and interchange of plans adopted from year to year, gravel is placed on the road before a foundation is provided, or other premature work is
attempted, attempted.
In making a road the grading and draining should be carried on during the same season, first the grading, then the draining. A road which is graded only, and then subjected to the traffic of fall and spring before draining is undertaken is generally a shapeless mass by the ensuing summer, and a large amount of grading must necessarily be repeated. A road should also be drained and brought to the grade which it is to retain permanently before the road metal (gravel or crushed stone) is placed on it. Metal placed on
an undrained roadway is so mixed with mud in spring and fall as to be almosh the wasted. The natural soil under sustain gravel must be sufficiently firm to sustain of not on'y the gravel, but the weight do traffic upon the gravel. No soil ${ }^{\text {wil }}$ this unless it is sufficiently drained.
The roadway must be crowned, or ${ }^{\circ}$ rounded up towards the centre to shed the water from the surface ; the suracks, must be kept smooth and free from ravel or and it is as much the duty of gravel ${ }^{3}$ clushed stone placed on a road to toim the smooth, hard surface that will permit is to water to flow readily off from it, as it is wear form a durable covering to resist the wear of wheels.
The centre of the road should be ess cavated to receive the gravel or cruishen stone. Where this care cannot be tak and the metal may be placed on the cen of the the sides graded up. The crow by rounding up the natural soil, but the metal should be several inches deeper in the centre than at the sides. On country roads a crown of one inch rise to one foot of width from the side to the cent be is generally sufficient; on hills it may followgreater, so as to prevent the water them ing the wheel tracks and deepening to ruts.
The width of roadway to be metalled depends on the amount of traffic it will be required to accommodate. From eigh to sixteen feet will be ample for the majority of roads in rural districts. Road forming the approach to towns may some times be metalled to a width of twent twenty-five feet. For residential streeterny towns and villages from twenty to twenilly six feet between the curbs is gener sufficient.
The metal should be placed on ${ }^{10}$, layers and each layer thoroughily foll well the subsoil having also been first consolidated.
After the work of forming the roadbed has been completed a great deal may ding done toward leveling the sides, seed read planting trees, etc., and not until the frought allowance between the fences is broub be to a right condition should the road investrent considered finished. No buitling offers better returns than the builuab good roads.

## Different with Municipalities.

"I shall have to give up that $\mathrm{ca}^{\text {a }} \mathrm{en}^{\mathrm{n}}$ Dusenbury's, on which I have bet lawt gaged so long", said the eminent wid wil to a rriend. "I shall feel rather
it out of the way, for it has been the stand-hys of the office for mal years."
"You have exhausted all legal esped ents, have you?" is
"No, but Dusenbury's money
gone-"
The comparatively small king dom? Italy has 51,000 miles of highwas.

## QUESTION DRAWER.

Subscribers are entitled to answers to all queslions submitted, if they pertuin to Municipal
matters. factsers. It is partioularly requested that all racts and circumstances of each case submitted for an opinion should be stated as clearly and explicity as possible. Unless this request is comO with it is impossible to give adequate advice. Questions to insure insertion in the following cation of paper should be received at office of publication on or before the 20th of the month.
Communciations requiring immediate attention will be answered free by post, on receipt of a stamped addressed envelope. All questions answered will be published.

## Claim for Hay on Lot Sold at Tax Sale.

268.-H. D. - In the township of Olden, the They il bought at a land sale a lot sold for taxes. but raten sold it to a ratepayer in township, Year and rayer could not get deed for it for a or four ye day. Another party had for three or four years been cutting hay on lot ; he went The usual this year and cut and drew off hay. Paid party who bought lot forbid him, but he claim hattention. Can party that bought lot Thay, and how?
The purchaser may sue for use and ocuse untion of the land, and claim what such entite occupation are worth. He was entitled to the use of the land, and therefore is entitled to recover the amount which he lost by being deprived of the hay.

## To Compel a Colleotor to Make Returns.

269.- C. A. R.-Our collector gave to the $\$ 22,00$ the school treasurer, No. 2 section, ${ }^{2} 2,00$ more than his levy. Collector says money may look after school treasurer for the ho base, as he will not pay on the ground that $H_{e}$ wis cashed orders and the council knew it. the will go as witness. Which of the two should
2. If thl take legal proceedings against?
conitt the collector, will we sue to the division 3. If or send sheriff?
3. If the council pass a by-law in issue derutepayers be pay off county debt, must vote of
. Mers be first taken?

1. Against the collector.
${ }^{2}$. An action may be brought or a war-
See may be issued directly to the sheriff.
e section 231 Assessment Act.
2. By-laws for raising money not requirdrain ordinary expenditure except for local age or work chargeable entirely by of thessment, must receive the assent countie electors, except in the case of ceeding which may raise a sum not exrequired for ordinary expenditure. See section for ordinary expe

## Bonus Cannot be Granted.

270-J. F. W.-Can the present council ry for te hundred dollars per year to any factory for ten years, without a vote of the property
Oouncil cannot grant aid to factory, 320 with or without vote. See section ${ }^{320}$, Municipal Act, and 2I, Municipal
Amendment Act, page 547.
Oonnoil not Liable for Obstruotion in Stream on Private Property.
271.- G. H. - The Saugeen River runs

20, Cong the township of Normanby, and at lot
20 , Concesssion 5 , divides into three branches,
the " main stream running west, and the two other branches northwest, crossing the road and running through south part of lot 20 , in the 6 th concession. About eight rods from where the river divides it is obstructed by trees, stumps, brush etc., by natural causes of which the owner of the land had no control. The owner of lot 20 , in the 6th concession, claims that his land is injured every spring in consequence of such obstructions, and threatens to sue for damages, as some of his land is carried away. The council is willing to remove obstructions, but the owner of the land where obstruction are found, threatens to take council up for trespass when removing obstructions and placing same on his land. What steps should the council take of enforcing the removal of said obstruction?
The facts as stated above do not show any neglect or omission of duty on the part of the council, and why should it interfere. Nothing is shown to justify or warrant the council in interfering.

## Cost of Sohool Arbitration.

272.-S. M.-I will draw your attention to the July number of The Muncipal World question drawer No. 231, respect ing the appointment of an arbitrator. Since then, the arbitrators having met, and after hearing the evidence decided to leave matters as they were, and form no new sehool section. At the same time they decided that the cost of arbitration be paid by the municipalities. Could they, the arbitrators, legally do so? Or is there any way that the municipalities can get out of paying for the cost of the arbitration ?

Section 84, of the Public Schools Act, 1896, provides, in making their award the arbitrators shall among other things determine the liabilities of the party concerned for the cost of the arbitration, and such determination shall be final and conclus. ive.

## Sale of Road Allowances.

273.-W.H.N-Have municipal councils the right to sell road allowances or any portion thereof? If so, are they compelled, in the event of the ratepayers petitioning them to repurchase the same, at any future time?

Yes, under certain circumstances. See sub-section 9 and ro of section 550 . The council is not bound to repurchase a road which has been sold.

Reeves Qualification-Supposed Error in Roll.
274 .-P. S. - In our municipality, wild land is aesessed at one dollar per aere, and cleared land at two dollars per acre. A is assessed for a lot containing 180 acres, sixty acres cleared land, no personal property. The total is carried out by assessor as $\$ 400$, which would qualify A for office of reeve or councillor. Is A qualified, when the amount, if carried out correctly, will not make $\$ 400$ ?

If it is apparent on the face of the roll that there is an error in the addition of the values of the separate parts, A would not be qualified, but as there is only one parcel, how does the error appear on the roll? The assessor is not required to value cleared and uncleared portions separately. He is required to value each parcel, and then give the total value. Ste section 14 of Assessment Act. The roll as finally revised is conclusive, and it alone must be looked at to ascertain the assessed value, for the purpose of quali fication.

Liability for Damages on Roads.
$275 .-W$. W. T. -1. Is the municipality responsible for accidents on settlers roads, where statute labor has been performed ?
2. How should the council proceed in taking over certain roads and bridges?
3. Is the council responsible for accidents on such roads before they are taken over by ihe council?
I. The liability of the municipality depends upon whether the roads mentioned have become public highways. Section 524 of the Consolidated Municipal Act, 1892 , declares that any roads where in the statute labor has been usually perfurmed, shall be deemed common and public highways, whether the roads mentioned have become public highways by reason of the statute labor having been performed on them is a question of fact dependent upon the circumstances, and the intention of the council. If these roads have been used for public travel, and statute labor usually performed upon them they would thereby become public highways and the municipality would be responsible for accidents caused by the negligence of the corporation in the same manner as upon other highways.
2. If the roads and bridges are public highways they are already vested in the municipality. If they are not public highways, or there is any doubt about it, you had better take the course provided by section 546 .
3. No, unless they have become public highways, under the circumstances above stated.

## Street Improvements-Members of Council not to Participate in.

276.-F. D. N.-Several ratepayers are having ditches fronting their property in the public streets, drained and filled up with earth. The council have agreed to pay forty per cent. of the expense thereof. Is such an agreement legal? Two of the men having the work done, are members of the Conncil Board.

If the work is being done for the benefit of the street, the agreement is not illegal, except as to the two persons who are members of the council. The agreement with them is void. See section 43 I, Consolidated Municipal Act, 1892 . A member of a council may be legally appointed a superintendent or overseer of roadwork, and may receive compensation for his services in that capacity. See section 479. But councillors should avoid entering into any contract, directly or indirectly, with the council of which he is a member.

Olerk may act as Deputy-Returning Offloer in Townships and Villager.
277.-A Muniotpal. Clerk.- Would it be legal for a municipal clerk to act as returning omcer at a munioipal election, and also to act as deputy-returaing officer of one of the polling sub-divisions in the municipality?

The Municipal Act, section 136 , contemplates the appointment of other persons as deputy-returning officers, except in the case of municipalities which are not divided into wards, when the olerk is authorized to perform the duties imposed in other cases upon deputy returning officers. Section 155 , sub-section (3a), implies that
the returning officer may act as a deputy, and where the duties of the two officers do not conflict. We can see no reason why he cannot act in both capacities
The Municipal Act of 1896, requires the clirks in cities and towns to be at their offices to receive the ballot-boxes, which are to be delivered the same day, after the close of the poll. In these municipalities we think the clerk should not be appointed a deputy-returning officer.

Tenant Assessed not Liable to Statute Labor Tax. 278.-J. McD.-Where a tenant rents a place, and agrees to pay the taxes and do the
statute labor as rent for the use of the place, the owner being assessed as owner on the assessment roll, and the other party assessed as ten-
ant, is the tenant liable ant, is the tenant liable to do one day as poll-
tax, or is he exempt from statute labor, he having performed the statute labor for the owner ?
The tenant is not liable to poll-tax under the circumstances stated.

## Municipality not to Borrow from Treasurer.

279.-A Subscriber.-Having noticed in September issne of THE MuNicIPAL Worid answers re municipality loaning money from treasurer, Nos. 257,266 in legal department.
Be so good as to state in what part of the Municipal Act in the Revised Statute defines it illegal. I would here premise, that municipal
treasurers are not treasurers are not members of the council, and are therefore not subject to the law that prohibare therefore not subject to the law that prohib-
its corporation members to enter into any conits corporation members to e
tract with the corporation?

The New York Commission of Appeals regarded an Act of the Legislature making it unlawful for a member of the common council to become a contractor under any contract authorized by the council, and declaring such contract to be void at the instance of the city, as but declaratory of the common law, which, on the ground of public policy, prohibits a trustee from contracting with himself. We think it is not in the public interest that councils should borrow money from or enter into contracts with their own officers. The oath of office provided by section 27 I of the Consolidated Municipal Act, 1892 , is sufticient to show that municipal officers ought not to enter into any contract with volved in their appointment to office.

When the Electors to be Entered in one Division Only
of Voters List.
280.-A. B, -Is it intended by statute labor that the names of electors having property in
more than one polling division in mincicities more than one polling division in municipalities not divided into wards, should be entered in
voters lists, for each of the polling divions in voters lists, for eanh of the polling divisions in
which such property is situated? which such property is situated?
No. They should be entered in one polling subdivision only.

[^1]If the Court of Revision passed upon the assessment and reduced the amount, as stated, it could not reconsider the matter. The court, however, was not bound to give its decision in the presence of the appellant. It could hear the evidence and take time to consider the case and give its decision. But if a vote of the members of the Court of Revison was taken in the presence of the party and a majority voted for a reduction of $\$ 70$ the court exhausted its power, and the only remedy left was an appeal to the county judge.

Statate Labor Returns-Aftor Collector's Roll OlosedWork not Performed.
282. - A Towsship CLerkK. - Suppose a path.
naster does not return his road lisp until after master does not return his road list until after the collector's roll for the current year is closed, and some of the persons whose names are on the list have refused to work their statute labor: or suppose the pathmaster has not called out his men to work until after the fall seeding, and some of them say, "you have allowed the regular time for doing the work to go by, you can't malke us work it now, and they do not work it." The pathmaster returns his list to the township clerk, with "refused to work" "pposite the names of the parties so refusing. Can the township clerk,
in either case, enter on the hlletor's roll for in either case, enter on the collector's roll for the following year the amount so in arrears for statate labor to be collected as other taxes,
under the prorisions of section 101 of the Assesunder the prorisions of section 101 of the Asses-
sment Act?

No. The overseer ought to have demanded the performance of the work in sufficient time to haveenabled him toreturn the person refusing as a defaulter before the ${ }^{15 t h}$ of August. This duty appears to be clear and imperative, and the overseer has rendered himself liable to the penalty provided by section 225 of the Assessment Act.

Barbed Wiro Penoss-By-law-Prosecution-Information Before the Council.
283.-X. - A man was fined for having a barbed wire fence near a sidewalk, wand because he refused at first to remove the barbs. There Were several others, perhaps a dozen people, that had baxbed wire fences also.
Was it a just thing to fine the one man and let the others go free ; and have the council, by resolution, the power to legally remit back the
fine to the man prosen fine to the man prosecuted?
During the discussion as to the remitting back the fine, a councillor called on the chief of police, to state if there were others that had barbed wire fences, who had not removed their barbs. The acting mayor, ruled that it was out of order to allow the chief to give any information of that kind. Now, was it in order or was
Note.- There is a by-law of the town, to the effect that barbed wire fences must not be near the sidewalks. The fence that the man was fined for was in the suburbs, where there were no houses, and was a two plank walk, plank placed lengthwise.

If the fine has not been actually paid over the council is not bound to enforce payment of it. It was not bound to pass the by-law in the first instance, and though it passed the by-law it was not bound to prosecute any person who offended against it. If the council, however, has prosecuted and the offender has actually paid the fine over it has become the money of the municipality, and the council has no more right to direct its payment than it
has to direct any other money of the municipality to be paid out to a persot
who has no legal claim to it. It was not who has no legal claim to it. It wallow just to prosecute one offender and it was the others to go free. We think police perfectly proper to ask the chiel or patter. for information in regard to the matie.

## Widoning Roads.

284.-J. W. K.- What is known as a road with us here, was made many years-ntray $y$ sixty, for ought I know to the cond 100 diagonally across the lots, from ton in first fourteen in second concession, It was made winding, about it my concession. It was made wince width it mand crooked as a cow pain, whow fenced, have been chopped out, it is now reses scarcely has been for thirty years, in some plac a more than thirty feet wide. Time with suow. place to drift in the winter time with land The land is not first-class agrioultural through What process would have to be gon they force
by the municipal council? Could wideit open wider, and if so, how wrid the forty, sixty or sixty-six feet wide? Could could council force the parties to sell, and how land the price to be given be arrived at? lien of and I do not think, was ever given in wners, whel other road, neither were the then ownigg fo
first opened or since, ever paid anythin A petition with a very large number of to bo pavers could be obtained asking for it widened.
Section $550^{\circ}$, Consol:dated Municipal Act, 1892 , empowers councils to widen roads, but the preliminary proceediben provided by section 546 must be Section before the road can be widened. compen 483 provides that any claim for concil in sation for lands taken by the coundeter the exercise of its power shall $\mathrm{cann}^{\mathrm{nol}}$
mined by arbitration if they mutually agree. An existing road may to make widened to any extent necessary to mee $\mathrm{seC}^{\circ}$ it sufficient for public travel. See tion 465 .

## A Seoonder not Necessary.

285.-J, M. Is a motion a motion witho a seconder? At the council board seconder no sets cillor makes a motion and gets noid motio it Has the reeve a right to put samiled,
And if the reeve puts it and it is carr And if the reeve puts it and it is can? In the absence of any rule of the call cil requiring a seconder, the: reeve has the it right to put the motion, and if cartied is a valid act of the council.
 286. - Surescr-Re-opening Watoroourse. water gathers on $A$ 's farm, and the and a porn of B's farm, thence down intn council some years ago built a culve the road, but B , not wishing to
flow over his land, got lesve of flow over his land, got leave o
close the culvert and deepen road so as to cause the water to flo ditch. The water has gradually be towards the centre of the road,
C. Now B refuses to sad also objects to the council culvert. A part of the council pay B $\$ 25$ for fixing the ditch, a part thinks he should either fix of charge or allow the council culvert
4. In case a township council gives 1. In case a township changing the
ratepayer the privilege of chater off his
watercourse of the surface wate
and allows it to drain away in the ditches of or the public highway, should the ratepayer Or the township stand good for the damage done by such water to the road?
damage the council must stand good for the the eut done, has the council a right to re-open coursey arse?
municinall deputy-reeves be elected in local If so, for whatin in the future as in the past?
r. The what purpose?

1. The ratepayer is not liable for damges under the circumstances.
2. Yes.
3. Yes. To transact the business of the municipalities, as in the past. After the end of the present year reeves and deputy-reeves of local municipalities can-
not be members of the county council.
28\%. - Opening a Iownlino.
2ecessary to Boundary. - What procedure is
the boundary line between two townshiry to get the boundary line between two by-law to opened? One council has passed a refuses to open the road. The other council theires, to pass a by-law, because a ratepayer of notirs, who has a fence across the road, was to given eight days' notice that they intended the pass such a by-law. Was it necessary for Trust they coll to give eight days' notice? How road ? If proceed to compel the opening of the Would it they have to put it to arbitration,
In the other council have to pay all costs?
there the boundary question submitted to you
theo original no road opened in lien thereof; only
It original Government survey.
him the circumstances of the case bring Municithin section $55^{2}$, Consolidated as provided Act, 1892, a notice in writing, as provided by section 553 , must be given a malter of precaution, it would be wise
to give the to give the notice and pass another by-law
and and serve a copy of it upon the head of if the council of the other municipality, and if the latter should onit to pass a similar arbitration matter can then be referred to tion of the The costs are in the discre539 and the arbitrators (see sections $53^{8,}$ 339 and 540 ), or the matter might be sections before the county council under
2eeroes and Deguty-Roeves to bo Mlooted as Formorly.
4. 

288.-S. C. W.-Under the new Municipal villages County Council Act, the townships, send hes, towns and cities are not required to and their reeve and deputy-reeves to form the
depaty council. Is is necessary to elect any
und four reves hereafter? Are not the reeve Reer councillors all that will be required?
Reeve and deputy reeves must be elect-
${ }^{\circ} \mathrm{C}$ as heretofore.
Betrane for Tazeo in Musukoka-Sohool Tax collector oamnot bo Appointod by Trustees.
$M_{\text {Misko }}^{289}$ - A Subscriber-1. In the District of Brize for has a tax collector any authority to
mother taxes outside of his township or in
2 . Has anicipality?
Ruthority a board of school trustees in a village
village and to collect their school tax in the
l. and appoint their own collector?

1. No,

Public No. See sections 62 and 67 , of the
Fic Schools Act, 1896.

passed a by-law establishing said road. Be tween the time it was located and the passing of the by-law the owner of one of the lots built a wire fence on the line, and now refuses to remove the same to a proper distance from the line which is to be the centre of the road?

1. What sieps are to be taken to compel the removal of said fence?
2. Will council have to pay the owner for removing the fence?
3. Can council remove fence and make owner pay the expense?
4. How can the expense be collected?

Uncil the by-law was passed, the land belonged to the owner. The fence was built by him while he was the owner. He was not therefore guilty of placing an obstruction upon a public highway, and the council connot compel the removal of the fence at his expense. The council having expropriated the land for a public highway, and the same being now a highway, may direct its pathmaster's to remove all obstructions, so as to put the road in condition for public travel.

## Form of Clenk's Cortificate to Collector's Zoll.

291. -Clerk. - Please give form of certificate to be atfached to collector's roll, as required by section 120 of the Assessment Act.
I,
clerk of the municipality of bereby certify this to be the Collector's Roll of the said municipality, for the year 1896 , and that
is the duly appointed collector of the said municipality for the said year.

Dated at
in the said day of municipality, this 189

> Seal of
> Municipa'y.
> $\xrightarrow{\longrightarrow}$ Clerk of the Municipality Olosing Treapans Boad-Collootor May Seize and Soll in Counts.
292.-Clerk.-1. A road across lots has been used for about sixteen years for a public road. Last summer the road was taken up. Gas he (the man who bought the lots) close the road, it being the only road to town for the settlers back of it?
2. To make the road in the proper place would cost the council about $\$ 500$. Will the council have to open the surveyed road?
3. Can a collector seize and sell outside of his municipality for which he is collector, the person living in the municipality when notified of his taxes, though since moved outside, but in the county?

1. Without full information regarding the circumstances under which the road was used, we cannot say whether the purchaser can close the road. If it has not by dedication or otherwise become a public highway, the purchaser has the right to close it.
2. No. Unless there is really no other means of egress from their lands. The fact, that there is no other direct way to town than the road now in use, is not enough. It must be shown that they cannot get out at all, before they can call on the council.

## 3. Yes.

Eight of Telophone Foles on Boad-Zedivision of School
293.-J. M.-In rural township where public road is only 40 feet wide can a telephone
company claim three feet to plant their posts? 2. In same township there are three school sections demanding a revision from towhship council? Can council do so? If they can, what would be the legal steps necessary to be taken?

1. The Bell Telephone Company of Canada, has the right to erect poles on any public highway, and consequently may use so much of the highway as may be necessary for that purpose. Ste chapter 67,43 Vic., Canada, and also chapter 7x, 55 Vic., Ontario.
2. The council may pass a by-law, not later than first of June in any year. 1 . To alter the boundaries of a sehool section. 2. To divide an existing section into two or more sections ; or 3 , to unite portions of an existing section with another section, or with any new section, provided all persons to be affected by the proposed alteration, have been duly notified in such manner as the council may deem expedient, of the propose proceeding for the purpose, or of any application to the council to do so. See sub-section 2, of section 38, Public School Act, 1896.

## Deepening Collar Drain.

294.-T. J. C.-A number of ratepayers petitioned township council to deepen a drain to a depth sufficient to drain a cellar in course of construction. The council refused on the ground that the old drain was sufticient to carry off surface water. The owner of the cellar threatens to take legal proceedings against the municipality. Can he compel the council to deepen the drain ?

No.

## Gravel Fit Uader Lino Fenoo-Tiability of Townahip.

295.-L. K.-The municipal council bought the right of half an acre of ground for a gravel pit for eight years from $A$, and it passes B's farm. How near can they take the gravel from B's fence, the half-acre being measured from the line between $A$ and $B$ ?
The council must leave sufficient land to suyport B's fence, the rule of law being that one must so use his own right of property as not to injure his neighbor.

The only highway bridge exhibit at the Toronto Fair, was that of the Baer Patent Bridge Co., of Doon, Ontario. This enterprising firm erected an imposing sixty feet span, such as they have been introducing to township councils, with great success during the past few years.

The Farmers' Central Mutual Fire Insurance Company of Waterloo, Ontario, just a little better than two years in existence, has now property insured amounting to $\$ 2,000,000$, which is a record well worth knowing, and shows the success that can be reached by mutual companies.

Little Denmark is admirably provided with roads, having 2000 miles of public highway.

According to Mulhall, there are in the United States, 260,100 miles of public higbway.

## Books and Forms for October

## Public Health Acts ancluonga amenoments, nags)

Members of Local Boards of Health should all be supplied with copies of the Act defining their duties and liabilities. Paper cover, Price 20 cents each, six for $\$ 1.00$.

## Collectors' Guides iwith amenoments of 1898

Containing all legal decisions affecting the sections of the Assessment and other Acts relating in any way to the duties of these officials. Bound in cloth-I volume. Pruce \$1.25.

## Ontario Statutes, 1896

Place your orders with THE MUNICIPAL WORLD. Pride, Reduced rates to councils ordering more than one copy. $\$ 160$.

\section*{. Order Now <br> Blank Books <br> FOR

## COLLECTORS' SUPPLIES

Collectors' Receipts, bound in books of 100,50c. Warrant to Distrain for Taxes, per doz., 200. Collectors' Bonds, per doz., 25 c .
Collector's Guide, paper, 50c.; cloth, 75c.
Collector's Account to Treasurer and Clerk, per doz., 25c. (Under sections 135. 136.)
Forms for Voters' List,-Appeals to Judge. Orders on Treasurer in Books of 100 and 200. Forms required under the County Councils Act, 1896.

No Samples-Blanks may be returned if not satisfactory. Address all orders to

## The Clunicipal World

## CITX

## CITX

TOMLN OUNNTY
alass of worls.
Special attention given to this class and bolil Blank books of any description inters of Wriung to any pattern. Direct import and
Scotch and American Ledger Scotch and American Bookmakers for the counties Esex. Papers, Bookmakers for
Elgin, Oxford, Lambton and Essex.
 books are in every agency of the Merchand Bank $\mathrm{Ban}^{\mathrm{n}}$, Bank, and in use in the Standard By private ba Montreal, and Bank of Comme
ing houses and loan c mpranies. WRITE FOR SAMPLES OF PAPER AND PAIC $C^{\text {S }}$ EVERY BOOK $S$ PERFECTLY FLAT OP ENNQ 1,000 PAGE LETTER B00KS, WTTH $\$ 1,60$ BLOTTERS AND INDEX.
Estimates Promptly Furnighed.
PLINIET BOOKMAKKIIGG HOUSE, om

## PAGES

MISSING


[^0]:    The Ingersoll Chronicle, referring to municipal defalcations and the inefficiency of the present audit system, refers to the Guelph and Dufferin cases as follows :
    "In consideration of these and other in-
    stances which might be stances which might be ese anted other in.
    proverbial stable door has been there tho proverbial stable door he has been lockere tho
    hhe horse was stolen, it after the provincial government shall necessary atter that to ways and means for preventing the attention of such Tosses. Might not a a system recurrence vincial auditing be Might not a a systed ? The or ofence
    the pothe various ing be adopted? The salaries proauditors would meet the extra expeir annual gent upou the government's sexpening contin.

[^1]:    Court of Revision-Decision not to be Ohanged.
    281.-M. F. S.-A's assessment is appealed against as being too low. Court of revision consider it, and find some of the real estate assessed
    higher than adjoining lots, and reduced the higher than adjoining lots, and reduced the assessment so reduced. A then leaves the court, in his absence the court reconsiders the case and then adds the seventy dollars. Has the court the power to do so in the absence of the
    party assessed? Is it legal?

