

The Municipal World

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

Vol. 3. No. 7.

ST. THOMAS, ONTARIO, JULY, 1893.

Whole No. 31

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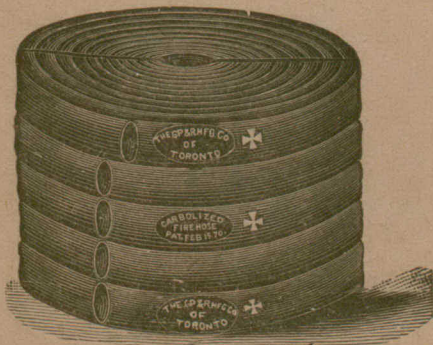
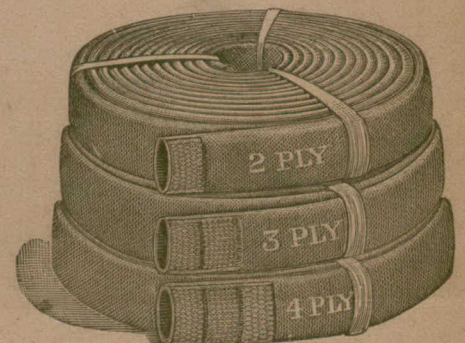
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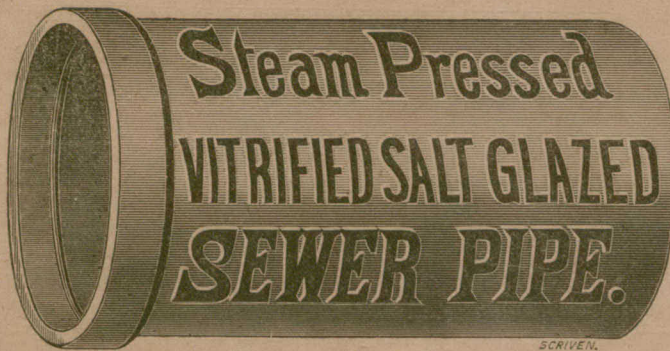
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Whole No. 31

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CALENDAR FOR JULY AND AUGUST, 1893

Legal, Educational, Municipal and Other Appointments.

JULY.

1. DOMINION DAY.
All wells to be cleaned out on or before this date.—Section 113, Public Health Act, and section 13 of By-Law, schedule "A."
Last day for County Council to pass By-Law that nominations of members of Township Councils shall be on last Monday but one in December.—Municipal Act, section 113.
Before or after this date Court of Revision may, in certain cases, remit or reduce taxes.—Assessment Act, section 67.
Last day for revision of Rolls by County Council with a view to equalization.—Assessment Act, section 78.
Last day for County Treasurers to return to Local Clerks amount of arrears due in respect of non-resident lands which have become occupied.—Assessment Act, section 143.
Last day for establishing new High Schools by County Councils.—High School Act, section 8.
Treasurer to prepare Half Yearly Statement for Council.—Section 251, Municipal Act.
Treasurer to prepare Statement of amount required to be raised for Sinking Fund to be laid before Council previous to striking Annual Rate.—Municipal Act, 1893.
5. Last day for service of notice of appeal from Court of Revision to County Judge.—Assessment Act, section 68.
14. Last day for completion of duties of Court of Revision in Shuniah.—Assessment Act, section 64, sub-section 19.
15. Public School Trustees' Semi-Annual Reports to Inspector, due.—P. S. Act, section 40 (13).
Last day for making returns of births, deaths and marriages, registered for half year ending 1st July.—R. S. O., Chap. 40, section 6.
20. Last day for performance of Statute Labor in unincorporated Townships.—Assessment Act, section 113.
31. Last day to which judgment on appeals, Court of Revision, may be deferred except in Shuniah and other districts.—Assessment Act, section 68.

AUGUST.

1. Last day for decision by Court in complaints of Municipalities complaining of equalization.—Assessment Act, section 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.

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.

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Communications and advertisements for next issue should reach the office of publication on or before the 20th of this month.

Contributions of value to the persons in whose interests this journal is published, are cordially invited. Subscribers are also requested to forward items of interest from their respective localities.

Address all communications to

K. W. MCKAY, EDITOR,
Box 749, St. Thomas, Ont.

ST. THOMAS, JULY 1, 1893.

In striking the rate of taxation for the year, councils should always see that they are raising sufficient money to pay off all liabilities accruing, due during the year. It is better to have the rate a mill higher and a small surplus at the end of the year, than a note in the bank on which interest has to be paid until the following year's taxes are collected. Many members of councils in this way practice economy.

* * *

We have to thank a correspondent for drawing our attention to a mis statement in article published in the June number, referring to appeals from the court of revision. The business of the court of revision should be completed on the 30th June, and any appeals from the court of revision should be filed not later than the 5th day of July. Our article stated that appeals should be handed in within five days from the first of July. This would admit of appeals being received on the 6th of the month which is wrong.

* * *

It is astonishing to notice the effect that a little experience in council business has on some of the people's worthy representatives. It is often found necessary to procure legal advice in reference to work of the council, and a solicitor is employed to consider the matter and lay his opinion before the council. While these opinions are being considered, it is not an unusual thing for the council to question their correctness, and, in some instances, they have been known to act directly opposite to what they were advised to do.

The same may be said of engineers employed to make reports on sewage, drainage and waterworks systems. As soon as their reports are read to the council it is frequently ascertained that the council were extravagant in employing an engineer, as they found members of their own board in a position to question and dictate changes from their own personal information.

Councils desiring legal advice and special reports should always procure them from those who, in their opinion, are best qualified, or at least whose opinion would

be accepted by the members of the board. It must be rather humiliating for a man who has spent years in acquiring the knowledge necessary to qualify for any of the learned professions, to find that, after being consulted, and giving the question his best consideration, that some member of the council (usually those with the least experience) are inclined to argue the matter with him, and question the correctness of his work.

* * *

The Ontario government with a desire to procure the opinions of councils, public officers, etc., in reference to drainage laws, ditches and watercourses, and amendments to the Assessment Act, have sent out copies of proposed bills to officials and others requesting them to consider the same and report any changes they may desire. As time and space will permit we will endeavor to discuss the more important sections of these acts, and will be pleased to publish suggestions of others in reference thereto with a view to having the bills thoroughly ventilated and understood before the next session of the legislature.

* * *

After statute labor and road repairs have been completed in a municipality, complaint is very often made to the council that approaches to houses and farm gates have been removed. These complaints are generally accompanied by an application for a new approach which generally takes the form of a culvert or tile. Municipal councils are not liable for building approaches to private property over ditches which are necessary to drain the highway. A man is no more entitled to a small box culvert if his property fronts on a highway with ordinary ditches than a man who has a spring creek running along the highway in front of his farm, is entitled to a bridge.

* * *

A pleasant meeting of the city council at Kingston was held recently to signalize city clerk Flanigan's jubilee, he having completed the fiftieth year of his official connection with that corporation. A continuous service by a municipal officer for so long a period is, we believe, without a parallel in the history of Ontario. The council were unanimous in granting their venerable clerk six months leave of absence accompanied by a purse of \$500, which amount was largely supplemented by the citizens generally, who desired to express their appreciation of his valuable service. We join with others in tendering our congratulations.

* * *

The welfare of residents of towns and cities is considered in an act to prevent fraud in the sale of milk, which is only to be in force in municipalities where the council by by-law so declares. A penalty for selling adulterated or deteriorated milk is provided.

Statutory Amendments, 1893.

The Public Health Act has been amended by the addition of sub-section 2 of section 76, which provides that the local board of health of any township may, by resolution, require a physician attending patients suffering from any contagious disease dangerous to the public health, to affix or cause to be affixed near the front entrance to the house, a placard to be supplied by the local board of health, similar to that described in section 17, rule 4, schedule A. The placard to be affixed within twenty-four hours of the discovery of the case.

Sub-section 3 of section 106 is also amended by inserting after the words "boards of health" in the second line thereof, the words "or of any local board of health." This is a most important amendment as it empowers local boards of health to enforce any regulations they may make the same as if they were regulations of the provincial board.

Before proceeding against any one for the violation of regulations, the local board should see that they are published either in a newspaper or by posters distributed throughout the municipality.

The Act respecting Pounds is amended by adding thereto section No. 26, which provides that pound-keepers and every other person who distrains any animal shall, on or before the 15th day of January in every year, file with the clerk of the Municipality, a statement for the year ending on the 31st December prior to that in which the statement is filed, showing: 1st, The number of animals impounded or distrained as the case may be. 2nd, The number of animals sold and the amounts received. 3rd, the sum received as poundage fees and cost of keep by pound-keeper or person distraining. 4th, the amount of damages paid by any party. 5th, all disbursements and to whom paid. 6th, any other receipts and expenditures in connection therewith. The penalty for neglect or refusing to file this statement is an amount not exceeding \$10.

The High Schools Act, 1891, has been amended by adding the following words to sub-section 6 of section 2: "or whose parents or guardians are assessed for an amount equal to the average amount of the resident ratepayers of the district." Section 31 is amended by the addition of sub-sections 7 and 8, which make provision for the maintenance of county pupils by a municipality outside of the high school district. Section 35 is amended by striking out the word "municipality," in the first line, and inserting in lieu thereof, the word "county." Section 37 is amended by the addition of sub-section 4, which provides that the council of any municipality, not included in the high school district, may provide by assessment for the payment of any fees imposed by the county council on county pupils or paid the board of trustees on non-resident pupils who reside in the said municipality.

Voters' Lists.

After the clerk receives the printed voters' lists he is required to post up one copy in his own office, and deliver or transmit by post, registered, three copies to each judge of the county court of the county to which, for judicial purposes, the municipality belongs, and two copies to each of the following persons: Every member of the municipal council of the municipality, except the reeve, the treasurer thereof, the sheriff of the county, the clerk of the peace, every postmaster in the municipality, every head master or mistress of the public or separate schools in the municipality. The clerk is also required to deliver or transmit by post, registered, ten copies to each member of the house of commons and legislative assembly for the electoral district in which the municipality or a part thereof lies, every candidate for whom votes were given, at the then last election for the house of commons and for the legislative assembly, and the reeve of the municipality.

The clerk is also required to publish notice of transmission and posting up of the list in some newspaper published in the municipality, or, when no paper is published in the municipality, then in some newspaper published either in the nearest municipality in which one is published, or in the county town. The notice should be given in form 3, of the Voters' List Act; one insertion of notice is sufficient.

Owing to the time in which voters' lists are generally published, clerks will find difficulty sometimes in transmitting copies to the head master or mistress of the public schools in the municipality. The great majority of the lists are published during the holidays when the teachers are absent from the schools. In many cases where teachers have resigned, new teachers have not been appointed, and as a consequence, the clerk is unable to comply with this provision of the Act. We would suggest that where teachers are not known or are not residents, that copies be mailed, registered, addressed to the teacher in care of the secretary-treasurer.

Within thirty days after the publication and posting up of the list, notice of errors or omissions in the list may be given to clerk or left for him at his residence or place of business, in writing. If the office of the clerk is vacant from any cause, the notice may be given to the head of the council of the municipality. The proceedings thereafter by the clerk, judge or parties respectively, and their respective powers and duties shall be the same as in the case of an appeal from the court of revision.

A recent amendment to the Voters' List Act provides for sending notices by mail to parties whose qualification is Manhood Franchise, and concerning whom appeals have been entered, in respect to the Voters' List. Full information will be given in next issue.

Collectors' Rolls.

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

Owing to the difference in the rates imposed, clerks should be very careful in checking over the valuations of the different school sections in their municipality to see that the assessor has made no errors, and that the property rightly belonging to the section is assessed therein. Trustees generally like to know the valuation of their sections, and in order to obtain a requisition from them in proper time, it is advisable to send each secretary-treasurer a circular or letter giving the valuation of his school section as it appears on the assessment roll for the year, and enclose a blank form of requisition to be filled in, signed by the trustees and to be returned to the clerk on or before the first day of August. This would insure uniformity of requisitions. The circular should also direct the trustees to enter in requisition the full amount required by them, and the council in levying the school section rates can deduct the amount to be raised by the general public school rate imposed under section 109.

Amendments to Municipal Act, 1893.

The Ontario Legislature, as usual, was successful in passing several amendments to the Municipal Act, consolidated last year, and officers of municipalities will require to become acquainted with thirty-three new sections and numerous sub-sections.

Section 38 is amended by increasing the number of inhabitants required to be in a union of counties before a separation can be considered by a majority vote of the council, from 17,000 to 25,000. A two-thirds majority of the county council is required before action can be taken, when population is less than 25,000 and more than 17,000. This section further provides for the representation of towns separated from a junior county for municipal purposes in the provisional councils, and by an amendment to section 48, an exception is made in reference to those

members of a provisional council, whose office, as representative, ceases with the provisional council.

Section 77 is amended by providing that no person shall be disqualified from being a member of the council by reason only that part of his property is exempt from taxation if he is assessed for sufficient other property to qualify him for such office, and that he shall not vote on any question effecting such property exempt from taxation.

Section 250 is amended by the addition of the following as section 250a:

250a. The provisions contained in this section shall, on and after the first day of January, 1894, be in force in every county, city, town and incorporated village in this province, except in so far as they shall be altered, amended or declared not to be in force in the municipality by the council thereof.

(1) The treasurer shall keep a book to be known as the "cash book," on the left-hand page of which he shall enter, in consecutive order, all sums of money received by him, the dates of the receipt thereof, the names of the persons from whom and on what account the same were received and the amounts thereof, and on the right-hand page of which he shall in like order enter all moneys paid out by him, the dates of the payment thereof, the persons to whom and on what account the same were paid and the amounts thereof.

(2) The cash book shall at all times be open for inspection by any member of the council and by the auditors, and shall be produced and exhibited at all meetings of the council at which he shall be directed to produce it, and at the times of such meetings it shall show the balance on hand in two items—that is to say, (1) the balance deposited to the credit of the municipality; and (2) the balance in the hands of the treasurer, and the treasurer shall also produce and exhibit at every such meeting, the proper book verifying the balance so deposited.

(3) No entry other than a cash entry shall be made in the cash book, but the treasurer shall keep a book to be known as the "journal," in which he shall duly enter all debits and credits not consisting of cash.

(4) The term "cash" shall mean lawful currency of Canada, cheques and such other representatives of cash as are usually received and credited as cash by the chartered banks of Canada.

(5) The treasurer shall open an account in the name of the municipality in such of the chartered banks of Canada or at such other place of deposit as shall be approved of by the council, and shall deposit all moneys which shall be received by him to the credit of such account.

(6) The cash book and journal shall be provided at the expense and shall be the property of the municipality.

We would recommend that no council alter or amend these sections until, by experience, they find a change to be actually desirable. The reason that sections are passed in this way is, that councils often neglect the regulation of the manner in which their financial business is conducted, and in some municipalities where the treasurer has been in office for some time, such interference on the part of the council might be looked upon as a reflection on a capable man's system. The cash book called for by section 1 is a necessity, and is, we hope, already possessed by every municipal treasurer. The journal required by sub-section 3 will no doubt be new to many treasurers. In our experience with the business of township treasurer, a journal is always necessary to

a complete system of municipal book-keeping. To give an example of the debits and credits not consisting of cash, we would refer to the following:

Collector, Dr. to Municipality of Oro	
To am't Collector's Roll	\$ 13,000 - -
Municipality of Oro, Dr. to County of Simcoe	
To am't County Rate, 1893	\$ 2,000 - -

In the first instance, when the roll is handed by the clerk to the collector, he should notify the treasurer giving him a summary of the totals of the roll, and the treasurer should then enter in the journal as above, charging the collector with the amount. This should be transferred from the journal to the collector's account in the ledger, and as the cash payments are received and entered in the cash book, they should be transferred therefrom to the credit of the collector's account in the ledger. Thus, the ledger would show the actual amount due from the collector at any time. When notice is received from the county clerk and the amount required to be paid by the municipality for county purposes, an entry as above should be made in the journal and transferred to the county rate account or whatever it may be called, in the ledger, and as payments are made to the county treasurer they should be entered in the cash book and transferred from there to the ledger and in that way the account should, at any time, show the amount due the county. In accounts of town line repairs which are often made during the business of the year, and are paid for by one municipality, the treasurer in rendering account to the adjoining municipality for their share of the work, should make an entry in the journal showing amount due his municipality and open an account in the ledger to which this amount should be transferred. This account would then be balanced when the money is received. In making grants, the journal would show the amount appropriated by the council for the particular purposes, and when entries showing cash payments are made the accounts will all balance. Before this section comes into force we propose giving form of cash book which we consider would be most suitable for municipal treasurers.

Section 286a refers to the powers of municipalities as to telephone companies. The first sub-section provides for granting from time to time to any telephone company an exclusive right for a period not exceeding five years at any one time, to use streets, etc., in a municipality for the purpose of placing in, upon, etc., poles, ducts and wires for the purpose of carrying on a telephone business, said agreement to require the assent of two-thirds of the members of the council of the municipality being present to vote therefore. From

this we would infer that if a quorum of the council were present when the agreement is considered, a two-thirds vote which might be less than one-half of the whole council, would be sufficient. Sub-section 2 provides that the existing rights of any telephone company cannot be limited or prejudicially effected, and also provides that the council may grant permission to a person to erect a private telephone line for the use of his servants, clerks and agents. All by-laws and agreements confirmed and passed previous to the 17th May, granting exclusive purchase to any telephone company for a period not exceeding ten years are declared to be valid and binding.

Sub-section 4 provides that any order for payment of costs in any action or proceedings now pending shall be varied or reversed on appeal on account or by reason of the confirmation by this Act of the by-law or agreement, the validity whereof is in question in such action or proceeding.

Sub-section 2, of section 293 is amended by inserting the words, "or neighboring" for the word "adjoining" in the fourth line thereof.

Sec. 329 is also similarly amended by inserting the same words after the word "adjoining" in the eighth line thereof.

Sec. 373 is amended by adding two sub-sections. The first requires the treasurer of a municipality under a penalty of \$25, to lay before the council every year previous to striking the annual rate, a statement showing amount required to be raised toward a sinking fund. The next sub-section provides that in case the council of any municipality neglect to levy the amount required to be raised to provide a sinking fund, that every member of the council shall be disqualified from holding any municipal office for a period of two years. An exception is made as to members who show to the satisfaction of the court or judge that they made reasonable efforts to procure a levying of a rate for the sinking fund.

Section 413 of the said act is repealed, and the following substituted therefor:

413. The council of any municipality may by by-law authorize its head, or acting head, with the treasurer thereof, to borrow from any person or bank such sums as the council may deem necessary to meet the then current expenditure of the corporation, until such time as the taxes levied therefor can be collected, and the council, by such by-law, shall regulate the amounts to be so borrowed, and define the notes, cheques, covenants or agreements or other vouchers to be given in security therefor; provided always that the person or bank lending such amount shall not be bound to establish the necessity for borrowing the same.

Section 436 is amended by providing that the board of commissioners of the peace and the council of any city in which there is no such board, may pass by-laws defining the limits of districts in which any livery stable, sale or boarding stable shall be established or maintained. This gives the board authority to remove existing stables. And a further sub-section

provides that the same authorities may pass by-laws defining localities within the limits of which any stables shall hereafter be established in which horses are to be kept for hire or express purposes.

Section 479, sub-section 2, is amended by inserting the words "Inspector of sheep worried or killed by dogs," after the words "Game Inspectors." Sub-section 12, of section 479, is amended by adding at the end thereof, the following words:

"Where a municipal corporation advances money by way of charity or relief to a person who, although in destitute circumstances, is the owner of or interested in any land the retention whereof is necessary for a dwelling for the person receiving such relief, it shall be lawful for such corporation to take a conveyance of or security on such land to cover the amount of such charity or relief, or the surrender of said land by such person to the corporation, the corporation may sell or dispose of said land and apply the proceeds in payment of the amount so expended in charity or relief, with interest thereon at six per cent. per annum, together with the costs of realizing on said land. The balance of such proceeds, if any, shall go to the next of kin or devisee of such person."

Under the authority of this section the councils of municipalities in counties where no house of refuge has been established, can easily go into the real estate business.

Section 480 is amended by adding additional sub-section 6, which relates to the powers of municipalities having a population of 100,000 or more, as to contracting for additional water supply.

Sub-section 9a, of section 489, is amended by adding the following words: "Providing nevertheless that the license fee imposed by any by-law of any town or incorporated village situated within any of the judicial or territorial districts of the province, for towns, \$250, and for incorporated villages, \$200. Sub-section 16 of the same section is also amended by adding the words "and for seizing and impounding dogs running at large contrary to the by-laws, and for selling the dogs so impounded or any of them at such time or times and in such manner as may be directed by any by-law in that behalf. Sub-section 44a is also added to section 489, and provides for the establishing of public slaughter houses. This is not intended to apply to the slaughter of animals in towns, villages or townships which are slaughtered for the use of the person killing the thing, and his family.

Sub-section 2, of section 495, is amended by providing that an auctioneer's license shall not be required by a bailiff offering for sale goods or chattels seized as a distress for rent. Sub-section 495a has been added, as follows:

The council of any town not separated from a county for municipal purposes, may pass by-laws to carry into effect the purposes or objects of sub-section 3 of the preceding section, and may therein declare that county by-laws, passed under the said sub-section, shall not apply to or be in force in said town while the said by-law of the town remains in force, and thereafter no such county by-law shall have effect in the said town during such time.

To be Continued.

ENGINEERING DEPARTMENT.

A. W. CAMPBELL,

P.L.S., C.E., A.M.C.S., C.E.,

EDITOR.

Road Making and Maintenance.

Roadmaking cannot be learned wholly from books. Like every other mechanical art, the only way to learn how is to do it. There are, however, some questions of vital importance which continually present themselves in the practical operation of the construction and maintenance of roads, which, though they have been discussed by the most renowned experts since roadmaking began to assume the dignity of a science, cannot yet be considered settled. These can only be solved by observation and experience. There is much information needed of a local nature, such as the relative value of materials required, that they may be within the reach of a given locality, as well as the best mode of using them, and we should endeavor to confine ourselves to such questions of a practical nature upon which we have gained information from personal observation and actual experience.

DIRT ROADS.

Bad as they are, and difficult as it may be to make them much better, they will have to be for a long time, with a few exceptions, the only obtainable thoroughfare for all county districts. It is only in the immediate neighborhood of large cities that the means can be obtained for the making and maintaining of a high class of artificial roads. It is therefore of the highest importance, that whatever can be done, should be done, towards the improvement of our common roads. There is, perhaps, no subject that has more perplexed our legislators and all public spirited citizens than this. A vast amount of what has been published about roads is in relation to this branch of the subject, a large number of suggestions, many of them rather vague and indefinite, it must be confessed, have been sown broadcast, but unfortunately with no practical results. No clearly defined practical means has yet been devised to put a stop to the shameful manner in which money is squandered on our country roads. Almost every township has a different system of road laws, but in all I believe the complaint is the same. Much money has been spent and there is very little to show for it. What is wanted is more honesty. If we could have commissioners honest enough to insist on having a good day's work from every one employed on the road the same as if working for themselves, and men honest enough to do a good day's work, it would be an easy matter to remedy the evil in townships not able to make permanent improvements.

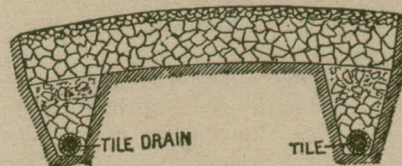
If instead of the present system of a dozen or twenty men doing what three or four could, the commissioner would keep

two or three good men who understand how, and would do a good day's work, constantly employed in going over the roads of the township, making repairs as soon as they are needed, using a road machine where necessary. The dirt roads would be kept in good condition for less money than is now spent on them. It is agreed that the working out of taxes should be abolished and that the commissioner or pathmaster should be allowed to employ whom he pleased and none but good men.

In the vicinity of large cities and in thickly populated and more wealthy townships where the amount of traffic is so great as to make a better class of roads a necessity, the case is different. Counties should be authorized to borrow money to grade and macadamize from time to time their leading and most travelled roads.

This subject of road making and maintenance is only intended to apply to country roads, and not to street paving, and when we speak of improved and artificial roads only those surfaced with broken stone need be considered.

Gravel, where it is easily obtained and for want of something better has been much used to great advantage in improving roads, and when properly put on makes cheap serviceable roads, but where the township is able to raise the money and the stone is at a reasonable distance, it is true economy to surface the roads with crushed stone. But, even in the construction of these roads, there are a few points which would seem to bear further investigation.



One of these is, whether the material used in surfacing the road should be broken small of uniform size or should have a foundation of large stones covered with those finally broken. The first of these systems, called macadamizing, has derived its name from one who has perhaps done more than any other to enlighten the world on the subject, and give an impetus to the improvement of roads. Stoned roads before the time of MacAdam with a few exceptions, were made without any pretence of scientific construction and were composed of stones thrown together promiscuously and though making a surface over which horses and vehicles could clamber without actually sticking fast in the mud, were described by writers of the times as the most horrible of inventions that could be conceived. MacAdam though not the first to discover the advantages of having the surface of roads covered evenly with stone broken small and of uniform size was

the first to bring this system into prominent notice and being very energetic and persevering he succeeded in creating a complete revolution in road making, not only in Great Britain, but in the civilized world. The peculiar system of MacAdam consisted of having all the stone on the roads he constructed, broken quite small, six ounces in weight, being the largest limit, and after the road was properly graded so as to ensure proper drainage and a slight convexity of surface, these were spread over the ground evenly at a depth of from ten to five inches without laying on any admixture of earth or gravel on pretence of binding and never with stone or any special foundation. He persistently insisted that clean broken stone will combine by its own angles into a smooth solid surface that cannot be affected by vicissitudes of weather or displaced by the action of frost. MacAdam always contended that stones laid in this manner, would, with the travel over them, become bound together so firmly and compactly as to become entirely impervious to water. And this he contended was the whole secret of road-making, the great object being to keep the earth dry the only use of the stones being to form a roof for this purpose. He continued that the ground is the road, and must bear the weight of the stones as well as the vehicles passing over it. And he says that nothing can make as good a road as dry earth, and that the thickness of the coating should only be regulated by the quantity of the material necessary to form such impervious covering and never by reference to its own power of carrying weight. And he further contends that the wear of the road from the travel over it is very much greater where the surface coating is underlaid with an unyielding substance, as on a rock, than when on a slightly elastic foundation, such as dry earth, and for this reason he always objected to a stone foundation of any kind and insisted that these tended to let in water to the earth below, which was the destruction of the road. He always considered such a foundation as a useless and unnecessary expense, but experience has proven it to be positively injurious. For the same reason he never allowed any clay or other substance mixed with the stones as he said it tended to make the coating more pervious to water. Mr. MacAdam goes so far as to assert, and he proves it too by the strongest testimony, that he has constructed miles of road on this principle, over bogs and marshes without any foundation whatever, and that they not only maintained the travel and lasted well, but that the wear was much less than on the same road where it passes over hilly and rocky ground.

In the next issue of this paper we will deal with the system of the foundation made of large stones covered with those finely broken and discuss fully the two systems.

Drainage.

Of late years it has been absolutely necessary in order to enable the proper cultivation and use of farm lands that tile for drainage of lands should be extensively used, and, in doing this, the matter of determining the size of the tile to be used is of much importance whether we regard the efficiency or durability of our work or economy in completing it. The cost of tile increases rapidly with their size and it is therefore well to use the smallest that will effect the object in view. Tile should be large enough as a first proposition to carry off in a reasonable time all the surplus water that may fall upon the land.

The rules laid down in various works to show the size of tile which should be employed are generally taken from English works, but these rules are not safe for us, for, although England has many more rainy days than we have, yet, we have, in general, a greater fall of rain, more inches of water from the clouds each year. Instead of their drizzle we have thunder showers in summer and in spring and fall, heavy rains, then we have the winter snow which suddenly dissolves under heavy showers of rain and disappears, leaving only a few days before the land is required for seeding. It is desirable that all the snow and rain water should pass through the soil into the drains instead of overflowing the surface so as to save the elements of fertility with which such water abounds, and also to prevent the washing of the soil which is very detrimental, and for these reasons we require a greater capacity of drainage.

There are several other considerations that should be noticed before we attempt to define the particular size for any location. Several small drains are usually discharged into one main drain. This main should have sufficient capacity to conduct all the water that may be expected to enter it and more; if the small drain overflow it, the main will be liable to be burst or the land about it filled with water gushing from it at the joints, especially if the small drains come down a hill side so as to give a great pressure or head of water. On the other hand, if the main be larger than is necessary, there is the useless expense of larger tile than are required. The capacity of pipes to convey water depends on, other things being equal upon their size; but here, the word size has a meaning which should be kept clearly in mind.

The capacity of round water pipes is in proportion to the squares of their diameters.

A one-inch pipe carries one inch, (circular not square) of water, but a two inch pipe carries not two inches only, but twice two, or four inches of water; a three-inch pipe carries three times three or nine inches; and a four inch pipe sixteen inches. Thus, we see that under the same condition as to fall, directness, smoothness and

the like, a four inch pipe carries, just four times as much water as a two-inch pipe. In fact it will carry more than this proportion because friction, which is an important element in all such calculations is greater in proportion to the smaller size of the pipe.

Velocity is another essential element to be noticed in determining the amount of water which may be discharged through a pipe of given diameter. Velocity again depends on several conditions. Water runs faster down a steep hill than down a gentle declivity. This is due to the weight of the water or in other words to gravitation, and operates whether the water be at large on the ground or confined in a pipe, and it operates alike whether the water in a pipe fill its bore or not.

But again, the velocity of water in a pipe depends on the pressure or head of water behind it, and there is perhaps no definite limit to the quantity of water that may be forced through a given orifice. More water, for instance, is often forced through the pipe of a fire engine in full play in ten minutes, than would pass through a pipe of the same diameter lying nearly level in the ground in ten hours. In ordinary aqueducts for supplying water and not for drainage, it is desirable to have a high pressure upon the pipes to insure a rapid flow, but in drainage a careful distinction must be made between velocity induced by gravitation and velocity induced by pressure. If induced by the former, merely, the pipe through which the water is swiftly running, if not quite full, may still receive water at every joint, while, if the velocity be induced by pressure the pipe must be already full. It can then receive no more and must loose water at the joints, and wet the land through which it passes instead of draining it. So that although we should find that the mains might carry a vast quantity of water admitted by minor drains from high elevations, yet we should bear in mind that drains when full can perform no ordinary office of drainage. If there is more than the pressure of four feet head of water behind, the pipes, if they pass through a pond of water at four feet deep, must loose and not receive water at the joints. The capacity of a pipe to convey water depends then, not only on its size, but on its inclination or fall of pipe running down a considerable descent having much greater capacity than one of the same size lying nearly level. This should be borne in mind even in laying single drains for it is obvious that if the drain lie along a sandy plain, for instance extending down a spongy hillside, and then, as is usually the case along a lower plain again to its outlet, at some stream it may collect as much water as will fill it before it reaches the lower level. Its stream rushes swiftly down the descent and when it reaches the plain, there is not sufficient fall to carry it away by its natural gravitation, it will still rush onward to

its outlet urged from the pressure from behind; but with such pressure it will, as we have seen, instead of draining the land, suffuse it with water.

Waterworks Notes.

Lead should not be used either in service pipes or in house cisterns. Wrought iron tubes with screw joints may be used for house services. All house taps should have screw joints and be of the description known as screw down, so as to admit of easy repair. In joining and fixing wrought iron service pipes care should be taken to insert double screw joints at convenient points, to allow the removal of a length of pipe for alterations or repairs. Upbends should be avoided, or a tap should be inserted to allow any accumulation of air to escape.

Wrought iron service pipes are cheaper, stronger, and more easily fitted than service pipes of lead. Certain sorts of made ground in towns, act rapidly and injuriously on both lead and iron pipes, furnace ashes, waste gas, and chemical refuse, old building refuse containing lime and other such material. Pipes should not be laid in such material without a lining of sand or puddle or other special protection.

Earthenware pipes may be used for water conduits, provided the joints are not placed under pressure.

A public supply of water should not be less in volume than twenty gallons daily per head of the population. This, in towns below 20,000 population will include water for public purposes and for trade requirements.

High pressure and constant service should be secured wherever practicable.

Water at, and below six degrees of hardness, is soft water, above this range, water is hard. Hardness in water implies one grain bicarbonate or sulphate of lime in each gallon of water.

A Great Economic Problem.

Time and again the advantage of good roads to the farmers has been shown, and it is now in order to make the point, that with a fine system of public highways our farming districts would soon be thickly settled, and the drift from the country to the city would be checked. Railway transportation is only one of our needs, and our wants in that respect, are fairly well supplied. The great bulk of travel and traffic after all is conducted on our country roads, and their condition exercises a controlling influence upon the settlement, and the civilization of the rural districts. The best investment that counties and states can make, is in this direction, and future results will amply compensate the people for a slight increase in their taxes. A satisfactory highway system is one of our greatest economic problems, and it is worth all the attention that our statesmen and thoughtful citizens can devote to it.—*Atlanta Constitution.*

Water Supply.

A water supply is usually reckoned on point of quantity on the number of gallons per head of the population per day. At this rate the quantity actually supplied to towns varies from twenty in some, to forty gallons in others, and in the majority of cases inclines towards the smaller number. There are exceptional cases where the supply is greater than the higher number and others where it is smaller than the lesser number, but in most cases the quantity is between twenty and forty, and the average of all is probably not far from twenty-five. These differences in the requirements of different places seem to be attributable, for the most part, to the condition of the distributing pipes and the house-fittings. Where these are of bad construction the quantity of water unavoidably wasted is very great, and, as the quantity is reckoned upon that supplied rather than upon that used, the waste is included and swells the amount to something beyond all reasonable limits, when the quantities actually used for the separate purposes of a household are reckoned.

But, besides this cause of difference, resulting from the condition of the distributing pipes and house-fittings, there is a difference in the requirements between a purely agricultural district and a mining and manufacturing district. In the former a smaller quantity of water is required for personal washing, and especially for clothes washing, and less also is required for the general cleanliness of houses in an atmosphere free from smoke and dust than when the air is loaded with both. There are many places in which a large quantity of water is required for these purposes.

It is not so much the question how little people can do with or what quantity they use when they have to fetch it from long distances, but what quantities they legitimately use when the houses and premises and the clothes and persons of households enjoy a condition of cleanliness. The actual quantity used is in an inverse ratio with the quantity of dirt about a household.

Where the supply is deficient experience proves that neither persons, clothes or houses are kept in a state of cleanliness, and where circumstances make personal cleanliness impossible there must be misery. When a workman, whose occupation is a dirty one, comes home, if he could plunge into water and get the dirt off him he would be set up for the evening and be more inclined to stay at home than he is where all is dirt around him.

One must consider that there are two kinds of dirt—the one mineral and inoffensive, the other is refuse organic matter. We do not feel defiled by contact with the one, but contact with the other is abhorrent, and there ought to be in every household a sufficient quantity of

water to wash it off frequently. Those who suffer the dirt which is caused by the perspiration of the body to linger underneath the clothes, out of sight, are essentially dirty. We cannot all be rich but we can all be clean.

The whole daily quantity of water-supply is divided into three portions, viz: 1. For domestic use. 2. For public sanitary purposes. 3. For trades purposes. The first two are everywhere required and may be taken together as follows: Where the distributing pipes and house-fittings are of good construction and their condition properly attended to; where the occupation of the bulk of the people is not a dirty one, fifteen gallons per head of the population per day; where the occupation of the bulk of the population is a dirty one, as in mining or manufacturing districts, twenty gallons per day per head. For trades' purposes the quantity varies greatly in different places. In some it is half as much as the quantity used for domestic and public sanitary purposes put together, but it so completely depends upon the necessities of the locality that nothing definite can be stated for it. Whatever it may be in any locality it is to be added to the quantities given before. For trades' purposes, water is mostly supplied by meter and charged for at a price per thousand gallons. Supposing the quantity required for trades' purposes to be one-third of the quantity required for domestic and public sanitary purposes together, the total quantity would be from twenty gallons to twenty-seven gallons per head of the population per day, according as the occupation of the bulk of the population of the people is not or is a dirty one. And these would be the quantities where the house-fittings are of good construction and where proper precautions are taken to prevent waste. They are far less than the actual quantities supplied to many towns but the surplus is wasted.

The quantity taken for other than domestic purposes is about one-fifth of the domestic supply; but it is to be remembered that the quantity set down as for domestic purposes is not a measured quantity but is the result of deducting the trade supplies from the total known quantity, and therefore includes the waste, which, in some towns, where the house-fittings are of old construction, is very great; and when waste is prevented the fixed quantity required for trades' purposes bears a greater ratio to the domestic supply.

Brooks and small streams in valleys are not desirable sources of water supply; the quantity of organic matter they contain in comparison with the quantity of water flowing in them, is greater than that contained in the water of other sources.

Which are (1) Rivers, (2) Springs and (3) Deep Wells.

As to rivers, running water contains

free oxygen, absorbed from the atmosphere, and the more so where it has a quick motion over a rough bed which causes its surface to be broken up, and exposes a greater number of particles of water to the atmosphere than where the motion is slower, over a smoother bed. Organic matter, in a state of decay, which is called "effete organic matter," is, as it were, seized upon by the oxygen in the water and mechanically changed into harmless substances, after the action has continued for a sufficient length of time.

It is a matter of common observation that the discoloration of rivers by the polluting matters poured into them from populous places gradually fades away, and that at some considerable number of miles below, if no other pollution takes place on the way, the water is clear, and in some cases fit to drink; and if the waters of rivers could flow far enough away from one town before it was taken for the supply of the next one, the organic impurities would probably become wholly changed into harmless substances; the difficulty is to ascertain in what distance or in what time this effect takes place; either distance or time will vary with the relative quantities of polluting matter and of water, and there is nothing but supposition to go by in estimating at what distance from the polluting source water may safely be taken for domestic use lower down the river. It cannot very well be proved that they are wrong who advocate a river source of supply of water even when it is well known that the water is daily contaminated higher up the stream. The strongest argument in support of such a course is found in the want of proof that the water is injurious to the health of those who constantly use it. There is but negative evidence in its favor and even this is only true in some cases.

On the other hand, as the disappearance of color by long-continued flow, it is proved positively that water may be quite bright and yet contain matter in solution which disqualifies it for domestic use. Springs are more copious and constant in their flow from some of the geological formations than from others. From the chalk, the oolite, the new red sandstone (Bunter division), and the millstone grit, springs are more copious and constant than from other formations, except the mountain limestone, which has many fissures and caverns; and some of the springs from this formation yield large quantities of water perennially, varying but little throughout the year, while others, though tolerably constant during years of average rain fall, almost cease to flow after a long drought. This seems to be owing to the comparatively small extent of ground upon which the rain falls, combined with its great porosity; while the ground from which the more perennial springs issue, is of greater extent and comparatively of more general compactness.

Amendments to Drainage Laws.

The bill, an act respecting ditches and watercourses, prepared after receipt of the report of the drainage commissioners for the province of Ontario and sent out to councils, engineers, public officers, etc., with a view to getting an expression of opinion thereof of councils and others interested in the subject, or familiar therewith, before the next session of the legislature, is one which should receive earnest attention, and those interested should not fail to express their opinion of the bill or any part thereof.

The Ditches and Watercourses Act is one which has done a great deal within the last few years towards the advancement of the drainage of agricultural lands, and has also done away with considerable difficulty between neighbors in assisting them to get proper outlets for their drains.

Some individuals and municipal councils expressed their dissatisfaction with the act in evidence before the board of commissioners, but the trouble appears to have arisen on account of the act being employed in performing work for which it was not intended. Large drains have been constructed under its provisions which should have been constructed under the drainage provisions of the Municipal Act. The intention of the legislature in framing the law, no doubt, was that the main outlets or larger drains, the straightening of creeks, etc., should be constructed under the drainage provisions of the Municipal Act, and that such drains should be constructed of sufficient capacity to accommodate all waters from the lands in the water shed in which the said drains were situated, and that all of such lands should be assessed for their fair portion of the cost of constructing the said outlet, their elevation and distance from the drain being considered. After such drains were made the lands lying away from them, but assessed, should have some means by which they could avail themselves, when they desired, of the outlet for which they were paying.

There are also lands lying probably a mile from a well-defined stream or outlet which require small drains constructed through depressions or watercourses of very small extent. Again, there is a small depression or sink hole on Jim Smith's farm and it is necessary to cross a portion of the land of Thomas Brown—Smith's neighbor—to reach an outlet. Smith and Brown quarrelled some years ago about a line fence and the best of relationship does not now exist between them, and for this reason no agreement can be arrived at as to the construction of the required outlet drain. It is for such matters as this, where the cost is too great to put the whole machinery of the drainage provisions of the Municipal Act in operation on account of the extent of the work that

the Ditches and Watercourses Act was framed, and if it was employed only as intended a great deal of the opposition to it would be removed. Many of its particulars are, of course, conflicting and obscure, and, in some cases, cumbersome, and it certainly requires amending, but the intention of the act is good, and now that the legislature has re-written the act with a great many of these particulars changed, and have given those interested a year in which to consider its provisions and submit proposals, it is their duty to discuss the matter to its fullest extent, to enable the legislature, before passing the bill, to make it as just as possible.

Under the present act, where the parties have been notified to meet to try, if possible, to agree on the portions of the drain to be made, and a road belonging to the municipality happens to be interested, it should be made compulsory on the municipal council to appoint one of its members to attend all such meetings, and provision should be made for granting authority to such person to sign, on behalf of the council, any agreement which may be come to, and said signature should be binding on the corporation. Such appointment should be made by by-law.

As at present, it very often happens that the person appointed to represent the council at preliminary meetings is not clothed with the authority to sign agreements which will bind the municipality. It is very troublesome and expensive to call the council together within three days after the meeting in order that they may authorize the signing of the agreement.

Section 4, of the act, provides that the ditch or drain shall be kept and maintained; so opened, deepened or widened by the owners respectively and their successors in such ownership in such proportions as they have been so opened, deepened or widened. This provision, as to maintenance, is certainly wrong. Liberty should be given the engineer to vary in his award the maintenance, so that it should not be necessary to follow the basis of construction. The work of repairs should be as much as possible confined to the work on the owners' own land. In order to make the work equitable in this respect, some owners should be given more work of construction in consideration of lightening his obligation for maintenance or vice versa, adjusting the construction and repairs by making the owner of the land through which the drain runs, liable for the maintenance on his land. In this way more attention will be paid to keeping the drain in good repair.

As at present the owner's work of construction is given in whole or in part on his neighbor's land, and the drain will be allowed, through the carelessness of that neighbor to get out of repair more readily than it otherwise would, he knowing that he could call upon the other man, at any

time to make the repairs. The provisions for construction and maintenance should be separate considerations, and after the drain is constructed it would be better to make every man keep the drain on his own land in repair.

The circumstances in connection with drains are so varied that the commissioners have taken a proper view when they recommend that both the construction and maintenance be left to be regulated by the engineer, who being on the ground has all the facts before him, and should be left free to exercise his judgment as to maintenance and construction, in order that the award may be just and equitable.

The People will Have to Pay.

Roadmaking is easy enough for any-body to comprehend from the road which is made by one wagon following the track of another till the grass is worn away by hoofs and wheels, to the road that is laid with care and regularity, and presents a hard and even surface, that is neither very dusty in dry weather, nor very muddy in wet.

That we have not as many of the kind of roads last described as we ought to have, is due to the fact that the country is new, and sparsely settled, in comparison with its extent, and also to the fact that we have not paid as much attention to the subject of good roads as we should have done. We are beginning, however, to make up for lost time in this respect—that is, we have advanced to the point of discussing the subject, and that prepares the public mind for the next step, which we may assume will be the counting of the cost. The people will have to pay that, and so it is possible to interest, even those who have no idea what bad roads there are in the vicinity of great cities in the matter.—

Exchange

India Rubber Roads.

New ideas in paving have lately attracted attention, says Siftings. Among these is the paving of a bridge by a German engineer with india rubber, the result having been so satisfactory as to induce its application on a much larger scale, a point in its favor being that it is much more durable than asphalt and not slippery.

In London a section of the roadway under the gate leading to the departure platform of the St Pancras terminus has for some time past been paved with this material, with the effect of deadening the sound made when being passed over on wheels, besides the comfortable elasticity afforded to foot passengers.

Another material which is being satisfactorily introduced for this purpose is composed of granulated cork and bitumen pressed into blocks, which are laid like bricks or wood paving, the special advantage secured in this case being that of elasticity.

LEGAL DEPARTMENT.

H. F. JELL, SOLICITOR,
EDITOR.

Municipal Councils—Their Powers and Jurisdiction.

The importance of the statutory provisions relating to the control and jurisdiction of municipalities over roads and bridges, lying within their limits, cannot be over estimated. The liability imposed by law on councils of keeping in repair and maintaining the highways and bridges in their respective jurisdictions is worthy of the most direct attention and consideration, as the consequence of wilful or negligent non-repair, is, as a general rule, the recovery of heavy damages against the offending corporation by the person or persons injured. Probably one-half of the business transacted by councils, generally has to do with roads and bridges, and in no other way do they run a greater risk of encroaching upon or clashing with the rights and privileges of the individual, than by inconsiderately or carelessly dealing with questions of this kind. It might be well at the outset, to premise a few words as to the definition of a highway. Section 524 of the Municipal Act, provides, that all allowances made for roads by the crown surveyors in any town, township, or plan, already laid out, or hereafter laid out, and also all roads laid out by virtue of any statute, or any roads whereon the public moneys have been expended for opening the same, or whereon the statute labor has been usually performed, or any roads passing through Indian lands, shall be deemed common and public highways. It would seem that if once a road acquires the legal character of a highway, by reason of the original survey, or otherwise, it is out of the power of the crown, by grant of the soil and freehold thereof, to a private person, to deprive the public of their right to use the road. A road must have a defined course or definite boundaries, otherwise it will not be deemed a common and public highway. A road closed at one end may be deemed a highway, but not one closed at both ends. The public money referred to in the section quoted, may mean either the money of the government, or the money of the local municipal corporation. It would seem that either would be public money within the meaning of the section. It must be shown, however, that the money was lawfully expended, and expended for the purpose of opening the road. Where an attempt is being made to show that a road is a public highway by reason of statute labor being performed on the same, it must be shown that statute labor was usually performed on the road. In a case decided, a witness stated, that, being path-master for two years, some years since, he directed statute labor to be performed on the road, besides expending money of his own in improving it; it was held that the proof came very far short of what the statute requires. Section 525 vests the soil

and freehold of every highway or road, altered, amended, or laid out in Her Majesty. Section 526 gives to every municipal council, subject to certain provisions and exceptions, jurisdiction over the original allowances for roads and highways and bridges, within the municipality, and section 527 vests every public road, street, bridge, or other highway, in a city, town, township, or incorporated village in the municipality, subject to the rights and exceptions in the said section mentioned. There seems to be some inconsistency between the sections 525 and 527, but they may probably be reconciled by reading section 525 as applicable to roads laid out by public authority of some kind, and section 527 to roads laid out by private individuals over their own lands. The right of the public in either case is simply to use the road for the purpose of a highway, and using it for different purposes, such as excavating soil, or would subject the person so using the road to an action at the suit of the owner of the freehold. Every individual has an equal right to use a public road, street or bridge. The municipal corporations cannot be deemed proprietors, and as such entitled to control the possession any more than any other corporation, or person interested in the streets, roads or highways. Municipal corporations have only a qualified property vested in them to be held and exercised for the benefit of the whole body of the corporation as trustees for the public.

Legal Decisions.

SKLITZSKY VS. CROUSTON.

In this case it was decided that a street, or road laid out upon a registered plan of a township lot, where, although houses are clustered around, there is not any incorporated village, continues to be as private street or road, although the owner shall sell a lot fronting on it, until the township council adopted it as a public highway or until the public by travelling upon it, has accepted the dedication offered by the proprietor. It was also held that section 62 of chap. 152 R. S. O., applies only to cities, towns or incorporated villages. It would seem also from this case that a person who purchases lots according to such a plan, abutting upon streets laid out thereon, acquires as against the person who laid out the plan, and sold him the land, a private right to use those streets, subject to the right of the public to make into highways, in which case the private right becomes extinguished, and also that the right to use a private road does not necessarily mean a right over every part of the roadway, but only to such a width as may be necessary for the reasonable enjoyment of it.

CLOSE ET AL VS. THE CORPORATION OF THE TOWN OF WOODSTOCK.

This was an action brought to recover damages by reason of noxious matter being brought down and deposited on the plaintiffs' lands by means of a drain construct-

ed through such lands by the defendants. The trial judge directed a reference to ascertain the damages sustained by the plaintiffs, and reserved costs and further directions. The defendants moved to have this judgment set aside, and judgment entered in their favor. It was held that a municipal corporation having constructed a drain without a by-law for the particular portion passing through private property, whereby noxious matter was brought down and deposited thereon, was liable for damages, sustained thereby. Notwithstanding that there were excavations on the land, but for which the noxious matter might have passed off. The owner not being bound to have his land in a state of nature, nor was it any answer that the drain was used for similar purposes by others as well as the corporation.

IN THE MATTER OF CLARK AND THE CORPORATION OF THE TOWNSHIP OF HOWARD.

This was an appeal from a judgment, quashing a by-law of the township of Howard. On the 21st September, 1868, the municipal council of the said township, under the authority of the statute, 29 and 30, Vic., chap. 51, sections 281 and 282, passed a by-law for the construction of certain drains in different parts of the township. One of the drains was known as the McGregor Creek drain. The lands to be benefited by each of the proposed drains were mentioned and set forth in separate schedules and estimates were prepared, and the assessments for construction properly fixed. On the 11th December, 1883, the municipal council passed another by-law to provide for the repairing and cleaning out of the McGregor Creek drain, and assessed the costs of the work upon the lots assessed for the original construction of the drain, and in the same proportion as in the first by-law. Subsequently however, the council, thinking the assessment inequitable, instructed an engineer to make a report in the matter, and the engineer in his report pointed out that different portions of the land not assessed for the original construction of the McGregor Creek drain, were now benefited by it, and also that certain portions of the township assessed for the original construction of the drain were now being benefited between themselves in the same proportions as had been the case when the original construction took place, and that the assessments should be altered in both respects. The engineer in accordance with his instructions made a new assessment of the amount required for cleaning and repairing, but, by direction of the council against those portions of the township only that were assessed for the original construction of the drain. On the 21st September, 1886, the council passed the by-law in question, adopting the new assessment, as far as any payments yet to be made were concerned. It was held that the provisions of the act of 1869, 30 Vic. chap. 43, section 17, as to maintenance and repair, now section 583 of

chap. 184, R. S. O., are not retroactive, and do not apply to drains constructed before the date of that enactment, and that therefore the township council had no power to pass the by-law in question. It was also remarked that the by law was also bad because the assessment for repairs was limited to the lots assessed for the original construction of the drain, and did not embrace the lots subsequently benefited.

HISLOP VS. TOWNSHIP OF M'GILLVRAV.

This case decides that municipal councils cannot be compelled by mandamus to open for travel an original road allowance. Whether they will do so or not, is a matter which rests entirely in the discretion of the council. The general duty to repair, imposed by section 531 of the Municipal Act, exists only in regard to travelled roads which have never been opened. Such duty can only be enforced by indictment.

RE ROSBACH AND CARLYLE.

This was an application for a mandamus to compel the court of revision of the city of Toronto to hear counsel in support of an appeal by the plaintiff against assessment of his property under 55 Vic., chap. 48, (O)—[Consolidated Municipal Act, (1892)]. It was admitted that the court of revision refused to hear counsel, and both plaintiff and defendants desired an opinion as to the rights of parties appealing to the court of revision to be represented by counsel for the purpose of addressing the court as such, and cross-examining witnesses. It was held that the courts of revision created under the Consolidated Assessment Act, 1892, are not obliged to hear counsel in support of an appeal against an assessment of property under that Act, and the granting of a mandamus for such purpose was refused.

FERGUSON VS. ELGIN.

In 1892 the county council passed a by-law making grants to high schools. The by-laws were passed under the authority of the High Schools Act. These grants were in excess of the equivalent to the government grant, and an injunction was issued to restrain the county treasurer from paying over the amounts mentioned in the by-laws. Justice Robertson, in his judgment which was given a few days ago, says: "The defendants have no authority, under either the High School Act or the Municipal Act, to grant any sum in aid of the maintenance of any high school exceeding an amount equal to the amount apportioned by the Minister of Education for each of such schools. I think section 30 of the High School Act, 1891, supercedes all previous legislation on the subject, and that section declares in unmistakable language what the municipal council of every county shall do for the maintenance of every high school in any town or incorporated village or township, within the county, and the amount is limited to a sum equal to the aforesaid apportionment. It does not say in any amount "not less" than the amount of

such apportionment, but in "an amount equal to the amount," etc., no more and no less. The by-laws were quashed and the injunction made perpetual. The county council have decided to appeal from this decision.

Steam Whistles.

A case of considerable interest to municipalities owning public works, requiring the use of steam in their operation, was recently decided in the county court, of the county of Huron. The corporation of the village of Lucknow, erected an engine house on their own lands in immediate proximity to a highway, to operate a system of waterworks. A steam whistle was placed on the roof about twenty feet from the roadway. The plaintiff, one Roe, was the owner of a stallion, and on the occasion complained of, his servant was driving the stallion out of the village, and when about 120 feet from the defendants' engine house their engineer blew the whistle, and the noise frightened the stallion, caused it to turn around, upset the buggy, and run away. In this way the damages complained of by the plaintiff, was sustained. The engine house appears to have been built in a depression relating to the highway, and the whistle was placed in the portion of the roof nearest the road. It was held that the defendants were liable for the damages suffered without proof of negligence. The trial judge remarking, it is without regret I find myself enabled to decline to assume the responsibility of approving of, and thus continuing a state of affairs to fraught with danger to the public as the use by the defendants of this whistle in its present position.

A writer in the *Forum* discussing the science of municipal corruption, states that municipal government in America (United States) is corrupt simply because corrupt and corruptable men are elected to office; and that corrupt men are elected to office because office "pays." If municipal governments had no profitable contracts to award, the writer believes that we should have no "municipal problems." "The typical legislature, or city council or (elected) board of education," says the writer, "consists of members of whom one-third will vote as they think, or at least as they prefer to vote, regardless of possible advantages or disadvantages to themselves. The votes of another third are merchandise pure and simple. The remaining third consist of debatable men, usually respectable in private life, and with honest intentions to do their public duties, but often rather weak in character, and likely to owe money that they cannot pay. Whether men of this class serve out their terms honestly depends on the temptation, they happen to encounter. If repeatedly called on to vote on questions affecting large competing private interests, their chances of remaining honest are very small."

QUESTION DRAWER.

SUBSCRIBERS only are entitled to opinions through the paper on all questions submitted if they pertain to municipal matters. Write each question on a separate paper on one side only. When submitting questions state as briefly as possible all the facts, as many received do not contain sufficient information to enable us to give a satisfactory answer.—Ed.

W. A. G.—I am requested to submit to you the following questions *re* personal property assessment, under statutes 1892, page 564, sub-section 21. A person borrowed \$1,000, several years ago, when going into business, he has withdrawn from the business two or three thousand dollars, and invested in real estate, on which he is now assessed, but has not paid back the borrowed money. Can he claim exemption on his stock for the \$1000 borrowed?

2. A man borrows money from Mr. A, and buys a span of horses from Mr. B, and pays for them with the money borrowed for that purpose. Can he claim exemption from paying taxes on the horses under statutes?

3. Is a man who manufactures his own goods liable to be assessed for the increased value of his own labor provided the stock was paid for?

1. We should judge from the way this question is put, that the stock dealt with in the business was all paid for, when the person referred to went into business, partly with the \$1,000 borrowed, and that there was not then, nor has there been since, any just debt owed on account of such stock to the parties from whom it was purchased. The only debt there was then, and is now, was, and is for borrowed money. In view of this and of sub-section 21, of section 7, of the Consolidated Assessment Act, 1892, the person you mention cannot claim the exemption on his stock to the extent of the \$1,000 borrowed.

2. If the horses referred to do not come within the exemption mentioned in sub-section 14 of said section, the owner cannot claim exemption from assessment, simply because the money paid for same was borrowed.

3. Yes.

ENQUIRER.—A town council passed a by-law, No. 10, governing the proceedings of the council. Clause 18 of said by-law reads, "notice shall be given at a previous regular meeting by a member of council, respecting any and every by-law which it is his intention to introduce." This by-law is still in existence.

The same council lately passed a by-law, No. 211, at one sitting of the council without any previous notice, and without any reference to said by-law No. 10.

Does the passing of by-law No. 211 without following the procedure as mentioned in said clause 18, invalidate said by-law?

It would seem that the object of the council in passing by-law No. 10, was simply for guidance and to promote order and regularity in the transaction of its business, and the omission to give the notice previous to the passing of by-law No. 211 would not have the effect of invalidating said by-law, unless there was some particular statutory provision rendering the giving of such notice a condition precedent to the passing of the by-law.

T. B. C.—In our village there is at present a drain on one of our streets which requires repairing deepening and improving. The drain was dug by private parties at their sole expense, and now the question is, is the village corporation bound, at its own expense, and out of the general funds of the corporation to make this improvement, or should

any part, and if so, what part of the expense be paid by parties whose lands are specially benefited, having their cellars drained by this drain?

We are of opinion that the village corporation is not bound to take action in this matter. The party or parties interested should proceed under the drainage clauses of the Municipal Act, or under the Ditches and Watercourses Act, and then probably an obligation or liability in respect of the drain in question would be imposed by the engineer on the village corporation, proportionate to the amount of benefit derived by them from the construction of the drain.

E. W.—Separated from township and incorporated as village. 1st election January, 1892, employes of railway present themselves at poll and vote on income, most of them making declaration that they are in receipt of \$400.00 or over per year income, or from some trade or profession, or calling, etc. These voters assessed following year at \$400.00 each; Assessment reduced by council to \$200.00; no appeals against assessment. They now refuse to pay tax. Can we collect it? Was it justice to assess them?

2. Citizens' fence encloses part of road allowance, what proceedings should be taken to have fence put back? Citizen notified to do so by council, but did not.

1. We assume that the income assessment was reduced from \$400 to \$200 on appeal by the parties assessed to the court of revision and that there were no appeals from the court of revision to the county judge. If this be the case we see no reason why the parties assessed should refuse to pay the income tax or why the council cannot collect it, nor can we see that there was any injustice in the assessment.

2. If the road allowance is well defined and the citizen's fence is without doubt enclosing part of the road allowance, and the citizen refuses or neglects to remove same, pursuant to notice given him to that effect, by the council, it seems in order for the council to compel the removal of same by mandamus or to place the same on the proper line at the expense of the citizen offending.

T. B.—Public road crosses a farmer's two lots of land with a fence on each side of road 42 feet wide. Said fence being up for more than 10 years, and made by the land owner. No statute labor done nor money expended on said road, nor by-law establishing same. Can owner move in the fences on each side to the wagon track as he threatens to do? Road has been travelled more than 20 years. What steps should be taken to prevent him closing the road?

The sole question here seems to be as to whether the road referred to answers the definition of a highway. We think it does. It would seem that the opening of the passage through his lands by the owner and his allowing the public to use and travel it as a road for the length of time mentioned would amount to a sufficient dedication of the same to the public for use as a public highway. It was stated in an English case that "an owner who opens a passage through his land and neither marks by any visible destination, nor excludes persons from passing through his land by positive prohibition, shall be presumed to have

dedicated it to the public." The proceedings to be taken in case of an attempt to close the road would be the same as those to be taken against any person obstructing a well-defined and known highway.

SUBSCRIBER.—A merchant built a store on side of a government road, and the water comes in his cellar, he dug a drain across the road, and through another man's lot for the water to go through, and covered it up, and now it is filled up, and there is water in his cellar, at the present time; now he wants the council to put in a pipe drain at the expense of the township, to clear his cellar of water. What I want to know is whether he can compel the township to drain his cellar, or has he to do it himself at his own expense and across the other man's lot? He claims the township should do it at their expense.

We do not consider the township under any obligation whatever to construct the drain referred to by our correspondent.

T. U.—1. A is appointed pathmaster, but refuses to take his list unless the council will sustain him in removing all fences that encroach on road. Can the council compel him to act, or pay a fine! If they do not sustain him?

2. In a free grant district where colonization roads were built through the bush, and only cut 40 feet wide, and the road very often crooked, how shall the proper width of a road be determined after it becomes cleared on either or both sides?

3. On a road so laid out and built, can a municipality claim the full road width of 4 rods, and if so how shall it be determined about the lines when it was built so crooked?

1. If the council has passed a by-law pursuant to the provisions of sub-section 17a of section 479 of the Consolidated Municipal Act, 1892, they can have the pathmaster fined for refusing to accept and perform the duties of his office, unless he can show good cause for such refusal. If there are fences encroaching on the highway in the pathmaster's road-division, the council is responsible. It seems to us the compelling of removal would be a question between the council and party or parties complaining, and the excuse that the council would not sustain him in removing such fences, would not be "good cause" for the pathmaster to refuse to accept and perform the duties of the office.

2. We assume that this road was originally surveyed or laid out to the statutory width of sixty-six feet, and the width of the road and location of its limits would be determined from the notes of the engineer or surveyor who laid out the road, and from stakes planted on the ground.

3. On the above assumption that the road as originally surveyed was sixty-six feet in width, this extent of road can be claimed by the council, and the limits ascertained, as stated in our answer to question No. 2.

A VILLAGE CLERK.—Mr. A living in the incorporated village of W. owns \$25,000 worth of stock in an incorporated Loan and Savings Company, situated in the town of H, upon which a dividend of 7 per cent. per annum is paid him. Is Mr. A liable to be assessed for his income from this source, and if so, where? in the village in which he lives or in the town of H?

We are of opinion that A is not liable to be assessed for the income he derives

from the source referred to by our correspondent. Mr. Harrison, in a note to sub-section 19 of section 7 of the Assessment Act, says: "It is presumed that as the interest and dividends of building societies and real estate loan companies are liable to assessment in the municipality where they are situated [see sections 34 (1) and 35 (2)], that when this assessment has been paid by the companies the stockholders will be exempt from any further assessment on account of such dividends should they reside in another municipality;" and this seems sound logic.

G. E.—There is a doubtful case of typhoid. The father refuses to send for a doctor. The board of health sends for one in order to find out whether it is a contagious or infectious disease. Who pays for the doctor, the father or the board? The former is quite able to pay.

There is no doubt that the board under the circumstances, are the parties directly responsible to the doctor, for his charge. As to whether the board can recover the amount so paid the doctor, from the head of the family afflicted is doubtful, especially since in their case the provisions of section 68 of the Public Health Act, do not appear to have been strictly complied with. And we would not advise the attempt.

TOWN CLERK.—Kindly give me your interpretation of sub-section 4 of section 616 of the Municipal Act, respecting as in our case the ditching and cleaning of lands by special assessments on the property benefited.

1. Is the notice of court of revision referred to therein to be given before or after the work is done, or does the notice require to be given in full? Does not the notice required to be given under sub-section 4 of 618 seem to conflict with sub-section 4 of 616?

2. Does section 623 b of the Municipal Act imply that a court of revision shall be held and notices given of assessments for the cost of the said work?

1. We are of opinion that the notice should be given before the work is done. We do not see that there is any conflict between the two sub-sections mentioned. Sub-section 4 of section 616 seems to require the giving of that part of the notice mentioned in sub-section 4 of section 618 which relates to the court of revision.

2. We think the inference to be drawn from the wording of this section is that the giving of notice of assessment and the holding of a court of revision are not necessary.

CITIZEN.—Our town council has not made any assessment for 1893, between the 15th of February and 30th of April, but wishing to introduce the system of collecting taxes by instalments, quarterly, or otherwise according to the provisions of section 53 of the Assessment Act, and for that purpose have passed a by-law requiring the assessment to be taken under the provisions of section 52 of the Assessment Act, which, when completed, on the 31st of December, 1893, the council of 1894 might adopt if the council of that year thought fit, as the basis of a levy to be made for 1894.

But no assessment has been taken between the 15th of February and 30th of April for the year of 1893, whereby taxes for the year of 1893 can be levied under the provisions of sections Nos. 357, 359, 360, 364 and 413, of the Consolidated Municipal Act. Under these circumstances how are

the uncontrollable and current expenditures of the town to be met, when no assessment is made, can any levy be made, and if no assessment nor levy is made, how is the town to raise funds to meet its obligations for 1893. If an assessment and levy had been properly made, the mayor, and treasurer by by-law could borrow a sufficient amount of money under the provisions of section 413 of the Municipal Act till the taxes levied could be collected. Councils, it appears must assess, levy, and collect, a sufficient sum each year to pay all the valid debts of the corporation falling due within the municipal year, that is between the 1st of January and the 31st of December each year.

If there is no assessment there can be no voters, nor jury list, neither can the clerk and treasurer, make the sworn returns to the government required by law. Now, as the time for making an assessment for 1893 is past, is there any legal way to make an assessment within the year of 1893, that will be binding upon the taxpayers, and that in case of default of payment for arrears of taxes, that their lands could be legally sold for such arrears of taxes.

Then as to the position of the council and taxpayers, what action would you advise on the part of the tax-payers, to correct the errors of the council, for the present year.

Can the council of 1893, under the circumstance, pledge the credit of the corporation to the bank for temporary loans, required to meet uncontrollable, and current expenses, when the council have not made an assessment for 1893. It appears to me that the council have got the affairs of the town in such a muddle that there is now, no legal way to get out, for the present year, and if, you can point out any legal way out of the difficulty you will confer a favor.

From the facts stated by our correspondent, the council appear to have made a grave omission. However, it seems to us the difficulty can still be got over although it means considerable delay and inconvenience. The machinery of municipal government, assumes that, certain things are done by certain days in the municipal year, so that other things may follow in their order, and municipal officers should regard the statutory provisions as to time with the utmost strictness. As regards the officers whose duty it is made to do the things within a limited time, the provisions as to time may be construed as imperative, but so far as the public interests are concerned, the act may be looked upon as directory. It was stated in an English case, that where an act is required to be done for the public road, and there has been a wrongful omission to do it, and serious inconvenience will arise from its not being done, it may be ordered to be done by prerogative writ of mandamus. We therefore think the council should at once proceed with the assessment of the town.

COUNCILLOR.—In your May number in answer to township clerk re union school, you state that the taxes are properly payable to separate school board for union school purposes. The Public School Act states that there shall be three trustees, that they shall not cease to exist, and that they shall apply to the council to levy and collect school rates.

1. Can the separate school board apply to the council to levy, and collect school rates for union public schools.

2. And would the council be acting legally to make said levy?

3. And if the ratepayer objects to pay, can the collector seize and collect his chattles?

4. Re the cleaning of streams, you state that you know of no authority to a council to pass such

a by-law, will you please explain the meaning of section 521 s. s. 16, 17, 18 of chap. 184, R. S. O. also the meaning of section 522 if the council has no authority to clear the stream? I send you a copy of our by-law drawn up by a lawyer who evidently thinks we have that power. What we really wish to know is, can we make the land owners clear the stream? If not can we do it ourselves without trespassing? And having our stream clear in our municipality, can we prevent another municipality from damming the water back on us by allowing the dumping in of logs in the winter when they form a dam?

1. The separate school board cannot apply to the council to levy and collect school rates for the union public school.

2. No. 3. No.

4. In answering the former question the writer overlooked the sections referred to by our correspondent. These sections clearly give the council authority to pass the by-law in question, and your by-law seems prepared in accordance therewith. We hope our readers have not been misled by the former answer.

CLERK.—A is assessed on road division

1	\$ 950	5 days road work
2	1,150	6 days road work
3	125	2 days road work

\$2,225 13 days work.
total assessment.

\$2,225 would be 9 days work in all. Which is right way to make out road list?

Sub-section 2. of section 100, Consolidated Assessment Act, regulates this question. When the property does not exceed 200 acres, it is required to be rated and charged for statute labor as if the same were one lot, and the statute labor shall be rated and charged against any excess of said parts in like manner. In the above, if the number of acres assessed is 200 or less, nine days would be the correct number.

Publications Received.

Auditors' Report, Meaford and St. Vincent, G. G. Albury, Clerk.

Financial Statement and Reports of the Council, of the City of New Westminster, B. C., D. Robson, Clerk.

In addition to a complete financial statement, reports of the waterworks, fire, library, health, police, lighting and public works departments, are included.

By-Laws and Auditors' Report, Town of Raleigh, J. G. Stewart, Clerk.

Proceedings, By-Laws, and Auditors' Reports, Township of West Flamborough I. N. Binkley, Clerk.

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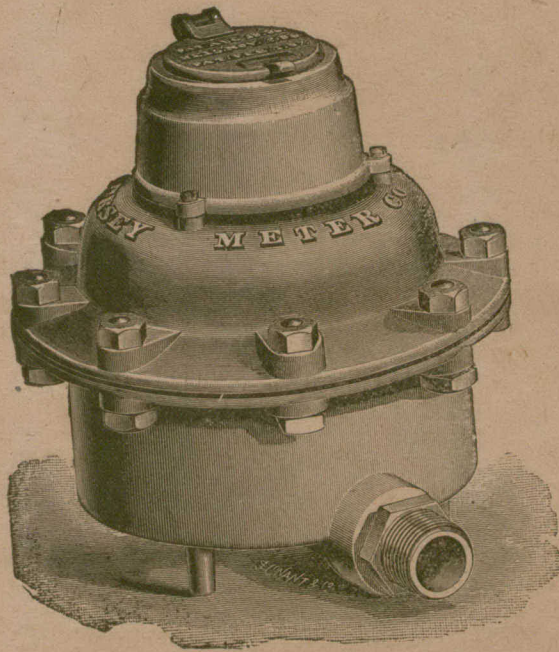
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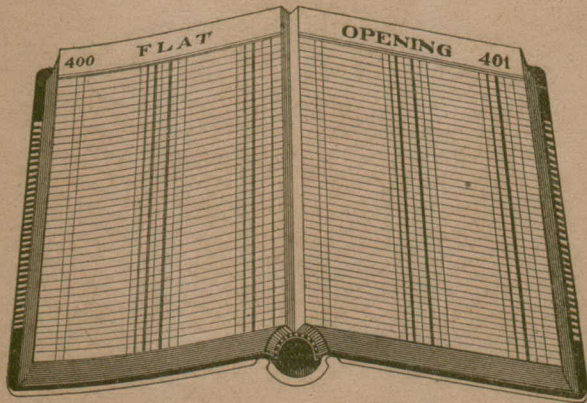
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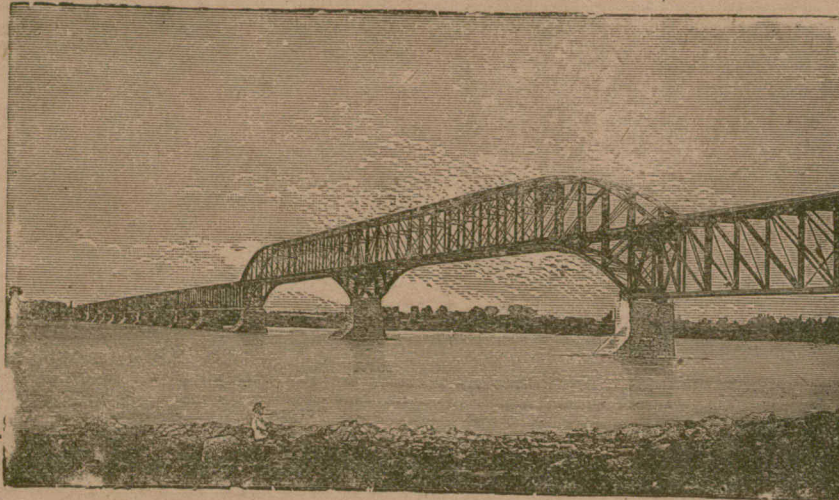
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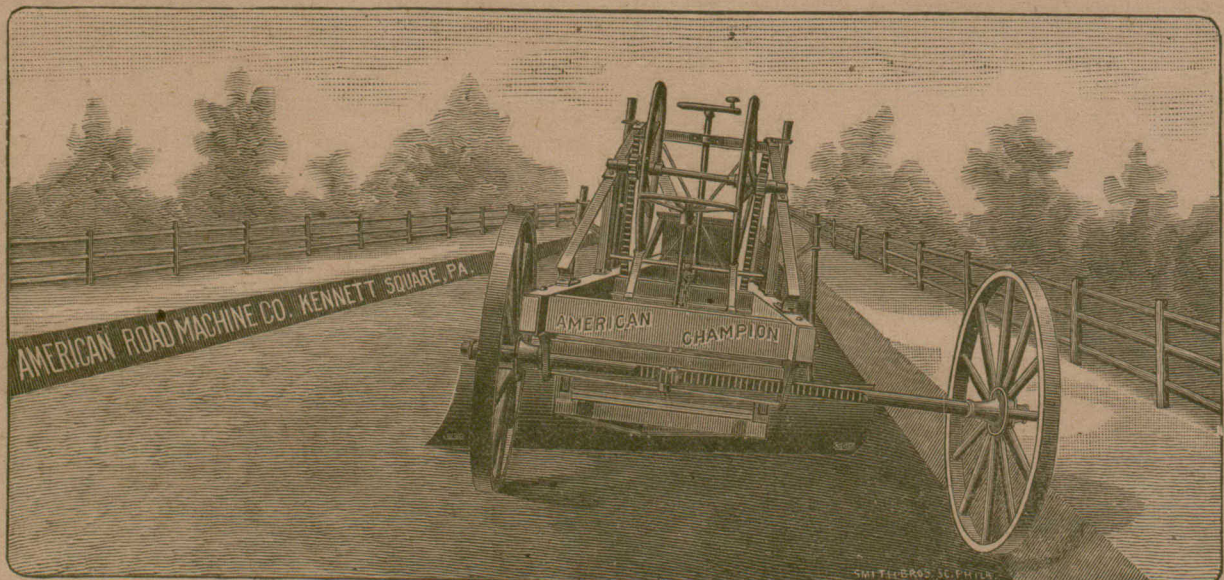
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The American Road Machine Company have a world-wide reputation, which is a guarantee that any machine built by them is the best that skill and money can produce.

Address all communications to American Road Machine Co., F. L. Wright, Manager, 124 York Street, Hamilton, Ont.