

The Municipal World

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

Vol. 3. No. 6.

ST. THOMAS, ONTARIO, JUNE, 1893.

Whole No. 30

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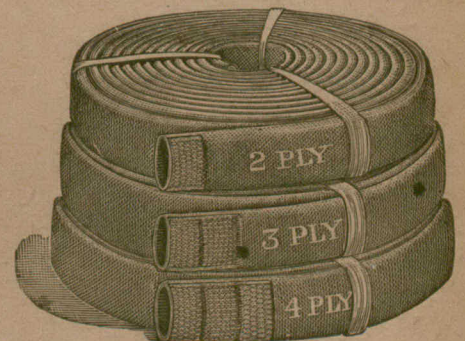
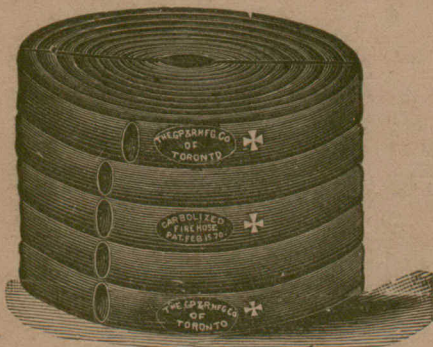
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THE MUNICIPAL WORLD

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Vol. 3. No. 6.

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Whole No. 30

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CALENDAR FOR JUNE AND JULY, 1893

Legal, Educational, Municipal and Other Appointments.

JUNE.

1. Public and Separate School Boards to appoint representatives on the High School Entrance Examination Board of Examiners.—H. S. Act, section 38 (2).
20. Earliest day upon which statute labor to be performed, in unincorporated Townships.—Assessment Act, section 113.
28. High School Entrance Examinations begin.
Public School Leaving Examinations begin.
30. High Schools close, third term.—H. S. Act, section 42.
Public and Separate Schools close.—P. S. Act, section 173 (1), section 173 (2); S. S. Act, section 79 (1).
Semi-Annual Reports of High Schools to Department, due.
Semi-Annual Reports by Public School Trustees to Inspector, due.—P. S. Act, section 40 (13).
Rural Public School Trustees to report average attendance of Pupils to Inspector.—P. S. Act, section 206.
Protestant Separate Schools to transmit to County Inspector, names and attendance, during the last preceding six months.—S. S. Act, section 12.
Semi-Annual Reports of Separate Schools to Department, due.—S. S. Act, section 28 (18); section 62.
Trustees' Report to Truant Officer, due.—Truancy Act, section 12.
Assessors to settle basis of taxation in Union School Sections.—P. S. Act, section 95 (1).
Last day for completion of duties of Court of Revision, except where Assessment taken between 1st July and 30th September.—Assessment Act, section 64.
Balance of License Fund to be paid to Treasurer of Municipality.—Liquor License Act, section 45.

JULY.

1. 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.

* 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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Harrison's Municipal Manual—5th Edition.

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

The Municipal World.

Published monthly in the interests of every department of our Municipal System—the best in the world.

\$1.00 PER ANNUM. SINGLE COPY 10c

Six copies, \$5.00. Additional copies, 75 cents each. All subscriptions to be paid in advance. The paper will be discontinued at expiration of term paid for, of which subscribers will receive notice. Prices for advertising on application.

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, JUNE 1, 1893.

As usual the legislature has had to consider a large number of bills introduced to amend the Municipal Acts. The majority of them appeared to call for such legislation as would meet the peculiar circumstances brought to the notice of the members introducing them.

Mr. Rorke's bill to raise the number of voters required for the deputy reeve in the county council from 500 to 750, was very properly withdrawn. If, under the present system, a few county councils are found to have been too large, the passage of a bill similar to the one referred to would have promoted a great injustice owing to the inequality both as a population, voters and territory between townships and villages throughout the province.

Mr. Meredith's bill in reference to the way the financial business of a municipality shall be carried on, is, we consider, a step in the right direction. The provision referring to a bank account to be opened by the treasurer of each municipality from which moneys can only be drawn by cheques signed by the treasurer and countersigned by the head of the corporation, is a good one. This does not necessarily mean that all payments for which bank cheques are given should be from this account, but it arranges matters in such a way that the council, through the reeve, can regulate the amount of money available to the treasurer, as the business of the corporation may require. This is also necessary, in order to enable municipal treasurers to obtain security from guarantee companies. If the bill went further and required each municipality to procure a guarantee bond for their treasurer in one of the authorized companies, we would heartily approve of it.

* * *

The Bell Telephone Company, assisted by the municipalities from which they have obtained special privileges for a term of years secured an important amendment to the Municipal Act, to permit corporations to give a monopoly of their streets to the company for a term of years, and to legalize all by-laws heretofore passed in their favor, but declared to be illegal by Judge Galt's decision.

An act to amend the Registry Act, introduced by Mr. Gilmour, provides that, when a map or plan of any survey or subdivision of land in any municipality, is registered, a duplicate of the plan shall be deposited with the registrar, and the registrar is required to deliver the duplicate to the treasurer or assessment commissioner of the local municipality in which the land is situated. This amendment is very necessary. At present, when property is subdivided it is the exception rather than the rule that copies of the plans are deposited with the officers of the local municipality in which the property is situated, and clerks and treasurers are often put to great trouble and inconvenience owing to their inability to provide proper descriptions of non-resident lands included in special surveys or plans, copies of which have not been deposited.

* * *

The question of high school grants, which was brought before the courts by the action taken to restrain the county of Elgin from paying over amounts granted to high schools during 1892, has not yet been settled. To meet the difficulty which he finds has arisen in this case, the minister of education introduced a bill to amend the High School Act, which will prevent similar difficulties in the future. There are three high school districts in the county of Elgin, and owing to the legal proceedings, the trustees have been unable to obtain the county grants which they had included in their estimates, and in order to carry on the schools, they have had to borrow money and have given their own personal notes for the funds required.

* * *

The return laid before the Ontario legislature showing extent of the defalcations of municipal officers during the 20 years from 1871 to 1891 is very creditable to our system and officials, but the fact, that losses have occurred through defalcations shows that there is still room for improvement. During the term mentioned, we consider that the municipal officers in the province handled about \$2,000,000,000.00 while the losses through defalcations are reported at \$219,829.00, or a little over \$11 for every \$10,000.00 handled. Taking the province as a whole, the average loss per year to each county and the municipalities composing it would be \$275.00.

The cost of audits in the average county, is at present, about \$300.00, and as most of the losses through defalcations are the result of the work of inexperienced auditors, we think that the amount of loss could be very properly added to the cost of audits. It is only in this way that we can guard against defalcations in the future,

With the passage of Mr. Meredith's bill, together with the appointment of competent auditors, a similar return at the end of the next twenty years, would, we think, show that the financial system of our municipalities is on a par with that of some of our foremost monetary institutions.

The Equalization of Assessment of Union School Sections.

Section 95 of the Public Schools' Act directs that every three years, assessors shall meet and determine what proportion of school rates shall be levied in the portions of separate school sections situated within the respective municipalities.

Whenever this is required to be done the assessor of the municipality in which the school house is situated should call a meeting of the assessors of the municipalities interested. If they cannot agree, the public school inspector is required to name an arbitrator, who, with the assessors, shall determine the matter. When the union school section is composed of portions of two adjoining counties, when on disagreement, the inspector of the county in which the school house of the union section is situated is required to name the arbitrator. The assessors, at the request of the inspector or five rate-payers may reconsider their award within one month after finding the same. The Assessors are required forthwith, after they arrive at a decision, to notify the secretary-treasurer of the union school section, and the award must be filed with the clerk of the municipality.

Where provision for the payment of the Assessor for these services has not been provided for, the council should allow them fair remuneration for the time spent in accordance with the provisions of the act.

* * *

The *Brantford Expositor* does not agree with the system of elective county officials. It says:—It is not the experience in municipal matters that the elective system secures the best class of representatives. The very reverse is the case. The fact that the officials would be compelled to go to the polls frequently would make their tenure of office uncertain, would prevent that degree of skill that comes from experience, and would introduce wire-pulling and many other evils in its train. Still public opinion seems to be running in favor of popular election, very many favoring even the selection of judges in this way. Looking at some of the occupants of the bench, it is quite certain that the people could not do worse for themselves than is done for them by the party leaders who hold the power of appointment—

* * *

We would specially direct the attention of subscribers to the fact that all questions and communications must be in our hands not later than the 20th of each month to insure insertion in next issue.

* * *

We would again draw the attention of members of the county councils who have subscribed, as a council, to the fact that the remaining members of councils of the local municipalities in the county are entitled to receive the paper at the same rate; seventy-five cents each.

Voters' Lists.

Clerks are required immediately after final revision and correction of the assessment roll to make a correct alphabetical list in three parts.

Part one should contain the names in alphabetical order of all male persons appearing by the assessment roll to be entitled to vote in municipality at both municipal elections and for members of the legislative assembly, and in addition to the number of the lot or other proper description of any parcel of real property, in respect of which each person is so qualified, the qualification should be designated in the proper column by the letters O. & M. F., meaning owner and manhood franchise, or, T. & M. F., meaning tenant and manhood franchise, or, Oc. & M. F., meaning householder or occupant and manhood franchise, or, F. S. & M. F., meaning farmer's son and manhood franchise, and when the qualification is in respect of income, the clerk is required in addition, to enter the place at which the voter resides in the municipality and in the proper column of the voters' list the letters I. & M. F., meaning income and manhood franchise.

The second part should contain the names in alphabetical order of all other male persons, widows and unmarried women of full age appearing on the assessment roll, to be entitled to vote at municipal elections only, and in addition to the proper description of the real property in respect of which each person is so qualified he shall enter after their names in the proper column the letter F., T. Oc. or I.

The third part should contain the names in alphabetical order of all other male persons of full age appearing by the assessment roll entitled to vote in a municipality for members of the legislative assembly only, and in addition the place or lot at which the voter resides in the municipality and the letters M. F. to be entered after the name in the proper column. In addition to the above, the clerk, in making out the voters' list, should insert a schedule containing the names numbered consecutively, of the post offices which by the assessment roll appear to be, or within the belief of the clerk are, the proper post office address of the persons entered in the list, and shall according to the form and in the proper column therefore enter opposite the name the number which, according to the schedule, is that of the proper post office address of the person.

In order to facilitate the selection of jurors the clerk is also required, in making out the voters' list, to write or mark the letter J. opposite the name of every male person over twenty-one and under sixty years of age, who by the roll appears to possess as owner or tenant real or personal property in his own right or in that of his wife to the value of not less than \$600 in

cities, and \$400 in towns, incorporated villages and townships, and shall show at or near the end of the voters' list the aggregate number of names of such qualified to serve on juries, and in the case of cities and towns the said list shall give the same information for each ward.

We do not think it is necessary for the clerk to take notice of the exemptions mentioned in the Jurors Act, but every one of proper age who appears to possess the property qualifications should be marked as eligible to act as jurors.

Where a ward is divided into polling sub-divisions, a person assessed in more than one of the said sub-divisions for a sufficient property to entitle him to vote at the municipal elections, his name should be entered on the list of voters in the sub-division in which he resides, and the words "and other premises" are required to be inserted opposite his name, and when it appears that a person is assessed for property within a municipality sufficient to entitle him to vote, or that such property lies partly within one sub-division and partly within another, the clerk shall enter his name on the list of voters in one of the sub-divisions only in which the property is situated with the following words added: "Partly qualified in sub-division No. —."

We think that in case of persons assessed in more than one polling sub-division for property sufficient to entitle them to vote, that he should only be entered in one of the polling sub-divisions in each ward, and that the words "and other premises" need not be inserted opposite the name unless the voter is qualified to vote in more than one ward. This is not exactly as enacted in sub-section 10 of section 3 of the Voters' List Act, but is, we believe, the correct way to make the entries required.

It is made clear by the Election Act of 1892, section 85, that persons are only to vote at legislative elections in the division in which they reside, if entitled to vote in such division. A person should only be entered in the list for a legislative vote in the sub-division in which he resides, and if qualified in polling sub-divisions in other wards he should be placed in part two.

In preparing the voters' list the easiest way for the clerk to do is to revise a list for the previous year. By so doing he is less liable to make mistakes, has only the necessary changes to make, in number on assessment roll, the addition of new names, striking off all names of persons not appearing on this year's roll and any other alterations that are shown by the roll to be necessary.

No voters' list of a municipality in which appeals have been entered against the assessment, should be placed in the printer's hands until the expiration of the time of appeal to the judge, and within forty days in cities, and within other municipalities within thirty after the final

revision and correction of the assessment roll, the clerk is required to have at least 200 copies of the list printed in pamphlet form.

Appeals from the Court of Revision.

Within five days from the first day of July, notice of appeal against the omission, neglect or refusal of the court of revision, an appeal may be filed with the clerk. The grounds of appeal need not be stated in the notice, but should in some manner show that the party is dissatisfied with the decision appealed against. After the fifth day of July the clerk is required to forward a list of all appeals received, to the county judge, who then notifies him of the day and place appointed for the hearing. The clerk is required to notify all parties appealed against at least six days before the sitting of the Court. If this duty is neglected the court may be adjourned in order to have the notices served properly. The clerk of the municipality is required to act as clerk of the court, and all appeals are required to be determined before the first day of August. Exception is made where cities, towns, and villages have passed by-laws for taking assessment between the 30th July and 30th September. Where rolls are to be returned on the first day of October, the court of revision closes on the 15th November, and all appeals against the decision of the court of revision must be determined by the 31st December.

In the municipality of Shuniah notice of appeal from the court of revision is required to be given within ten days from the first of August. The judge is required to decide the appeal before the 15th day of September. In counties where by-laws have been passed providing for taking assessments in townships, towns, and villages between the first day of February and the first July, the time for closing the court of revision is extended to six weeks from the day fixed in said by-law for the return of the roll, and for final return in case of appeal, twelve weeks from that date. Every decision of the judge is final and conclusive and the clerk is required to amend the roll accordingly.

Fire Protection.

The Port Perry council recently passed a by-law, stipulating that all chimneys hereafter erected in the corporation shall be of brick, shall project at least three feet above the roof, and shall have the soot cleared out of them at least twice each year. Also that all ashes removed from stoves shall at once be carried from the building, and shall not be deposited less than twenty feet from any building or fence, unless emptied into a fire-proof depository. The penalty for violating this by-law may be made as high as \$10 and costs.

CORRESPONDENCE.

This paper is not responsible for opinions expressed by correspondents. All communications must be accompanied by the name of the writer, not necessarily for publication but so that the publishers will know from whom they are received.

Drainage Debentures and Assessments.

To the Editor of THE MUNICIPAL WORLD:

Dear Sir,—The debenture statement given last month will doubtless be appreciated by clerks and other municipal officers.

I often see drainage by-laws published where the interest is not properly calculated making the annual assessments less than they should be, and, I think the by-laws are liable to be quashed. They sum and calculate thus:

Divide \$1,000 into five equal parts or debentures, \$200; interest 1st year, \$50; 2nd, \$40; 3rd, \$30; 4th, \$20, and last, \$10. Total \$150. Which added to the principal, \$1150; divide by 5, making the annual assessment, \$230.00.

As some clerks may not know how to make the proper calculations I send you the following example which may be of some use.

The annual instalment \$ 230.98
 230.98 × by 5 = 1,154.90, principal and interest.
 1,154.90 - 1000 = 154.90 interest on \$1000.
 Interest on \$1 = .1549.

Now suppose that lot 1 is assessed \$50; lot 2, \$175; lot 3, \$200; lot 4, \$225, and lot 5, \$350. The interest on \$350 = .1549 × 350 = \$54.22
 “ “ \$225 = .1549 × 225 = 34.85, and so on.

Lot.	Assessment.	To cover int.	Total rate.	Annual Ass't.
1	\$ 50	\$ 7.75	\$ 57.75	\$11.55
2	175	27.11	202.11	40.42
3	200	30.98	230.98	46.20
4	225	34.85	259.85	41.97
5	350	54.22	404.22	80.84

\$1,000 \$154.91 \$1,154.91 \$230.98
 To calculate amounts of debentures—

Instalment.	Int.	Debenture.
Interest on \$1000 = 50	\$230.98	\$50 = \$180.98
1000 - 180.98	819.02	
Int. on \$819.02 = 40.95	230.98	40.95 = 190.03
819.02 - 190.03	628.99	
Int. on 628.99 = 31.45	230.98	31.45 = 199.53
628.99 - 199.54	429.46	
Int. on 429.46 = 21.47	230.98	21.47 = 209.51
429.46 - 209.51	219.95	
Int. on 219.95 = 11.00	balance due	219.95

\$1,000.00

The coupon on 1st Debenture = \$180.98 × 5 = \$ 9.05
 2nd 190.03 × 5 = 9.50
 3rd 199.53 × 5 = 9.98
 4th 209.51 × 5 = 10.48
 5th 219.95 × 5 = 11.00

Interest paid 1st year \$ 50.01
 2nd 40.96
 3rd 31.46
 4th 21.48
 5th 11.00

\$154.91

In the preparation of voters' lists, if A. H. K. will change the numbers, and add the new names with red ink; look over his list when he receives it from the printer, and write in any name left off his method will be like mine
 Yours truly,
 G. S. BQT.

Another Method.

To the Editor of THE MUNICIPAL WORLD:

Dear Sir,—In a recent number of THE MUNICIPAL WORLD, a clerk writes asking for a good method of preparing a voter's list.

We should adopt a plan of work, first, which will insure correctness and second, speed.

When ready to write the voters' list, we should first consult the map of the municipality, where each polling division is marked, and note carefully the boundaries of each division.

We may commence to write the list of voters for any division we wish. Suppose we begin with division No. 1, the object is to arrange alphabetically all the names of persons on the roll, who are entitled to vote in this division. Prepare a sheet of fools cap, and arrange as below, leaving considerable space between the letters vertically, the names in the assessment roll are numbered consecutively as is usually the case.

PREPARING LIST FOR DIVISION NO. 1.

A B C D E F G H I J K L M
 159 158 157 156
 N O P Q R S T U V W X Y Z
 160

Commence with the first name in sub-division No. 1, John Kelly, No. on roll 156, with this number only in the sheet prepared under the letter K; Richard Johnston, No. 157. with this number under the letter J; Thomas Dickson, No. 158 with under D; James Anderson, No. 159; William Wilson, No. 169, and so on until you have entered the number only of every voter in sub-division No. 1. Now we are ready to enter numbers, names, etc., in the proper list.

On referring to the sheet of numbers we begin with these numbers in the letter A, and find first No. 159, open the roll at this number, and we find the name of James Anderson, make all necessary entries on the list of voters, and check off the name in a conspicuous place to show that the name has been entered. Follow on and enter all the names in the roll, which correspond in number with the numbers under the letter A; count the entries in number sheet and names entered in list. Follow the same course in writing in names commencing with B, and so on to the end of list.

The voters' list for polling sub-division No. 1, is now complete; it contains all names in the division, arranged alphabetically, and each name is checked off the roll.

Checking off on roll is not absolutely necessary but it serves a purpose. Next take up the work of another division in the same manner.

This method of preparing a voters' list shows: 1. The names in each division are quickly and correctly arranged in alphabetically order 2. A person may write in the list for half an hour or half a day, and find no difficulty in taking up the work exactly at the proper place. 3. The number only is entered in the preparatory list under the proper letters, then the number's name, etc., is written in the voter's list which entails to some extent double work, but this ensures correctness, and in the end may prove a saving of time. Yours truly,

G. LANE.

Boards of Health.

In every village a house to house inspection should be made at least once a year, this may be done at less cost, by a single member of the local board.

Any reasonable amount of work and expense for public health's sake will be a good sound investment. The municipality that neglects its duty in this direction has often been called upon for an un-pitying retribution. See Hamburg of last year with her millions lost in lives and paralysis of trade. See Hamburg this season with her 4,000 laborers in relays night and day, struggling to make improvements that shall, it is hoped, bar another cholera epidemic.

Whether cholera comes to us this year or not, as it did to Bangor in 1849, and to Richmond and Lewistown in 1854, and with so deadly results, will depend in the first place, upon that rather uncertain barrier, maritime quarantine, and in the next place whether the specific germ finds a congenial soil here awaiting it. To meet the danger with a soil made sterile for it, by cleanliness is

what every town and city should do immediately. Clean up should be the word, and keep clean.

Do not fear that, if cholera does not come to us, work and expense for municipal cleanliness will be lost. Not one cent will be lost. Some years ago when cholera threatened, strenuous efforts were made all over Illinois and some of the other western States to put their cities and towns into the best possible sanitary condition. Cholera did not come to them, but there followed a very gratifying falling-off in their death rates and sickness rates. The same thing, Dr. Baker of the Michigan Board reports, has already been observed in his state as the presumable result of last fall's special cleaning up.

It pays to have the municipal health officers do their work thoroughly; banishing all sentiment, the life of one average human being saved yearly by this work is worth more to the city than the salary of the sanitary inspector. But in addition, the watchfulness of a faithful sanitary inspector saves the people from many debilitating causes, and increases their effectiveness as workers, saves them from much actual sickness and the attendant loss of time and expense, cuts down the expenses for the poor, often due to pauperizing illness or death of the head of the family. Furthermore, careful sanitary work of this kind, pays in ridding its citizens even of the discomforts of nuisances, and in giving the place a reputation for municipal cleanliness.

STREETS AND ALLEYS.

Their sanitary care is the legal duty of local boards of health, and they must not be used for the deposit of litter, manure, slops, or other offensive matters.

All complaints made to the board should receive prompt attention.

WELLS AND WELL WATER.

A surface water well is always liable to be soiled by the surface washings from house-slops, manure, and the privy vault. The same danger threatens any well from which surface water is not shut out by cemented walls, or better, by sealing the pipe in clay or stone, and bringing it up well above the surface of the ground. Artesian or driven wells, treated in this way, afford pure and good drinking water.

Sources of impurity to air and water outside the house are, in order of importance, the privy vaults, house slops, manure piles and garbage. The first should be cleaned and its contents taken away; then fill up the hole with clear earth, put an earth closet in its place and determine that never again will you permit that nuisance on your property.

The manure pile should always be placed where it will drain away from the well.

Courts of Revision in Districts and Appeals Therefrom.

Within one month from the time fixed by by-law for the return of the assessment roll, residents of districts may appeal against their assessment by giving the clerk a written notice stating the ground of complaint, and within two months after the time fixed for the return of the roll, the council is required to appoint a time and place for hearing said complaints as a court of revision. Appeals from the court of revision may be made to the stipendiary magistrate in the same manner as to the county judge in other municipalities. In Algoma and in that part of the District of Thunder Bay, not included in the Rainy River district, appeals against the decision of the court of revision, in which large amounts or questions of law are involved, shall be decided by the district judge.

ENGINEERING DEPARTMENT.

A. W. CAMPBELL,

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

EDITOR.

In nearly every work on road construction, we find the author laying down two distinct rules; first, make the lines as nearly straight as practicable and when changes of line occur, correct them by regular curves of proper radius; second, when the line is intended to be straight, do so absolutely. These rules are, we believe, considered obligatory by most engineers, for which reason the engineer may in most cases be depended upon pretty certainly to do a great deal towards spoiling the beauty of any landscape through which he may be called upon to make a road with his absolutely straight lines and regular curves of proper radius. It seems a pity that a few elementary ideas as to what constitute beauty might not be instilled as part of the training of a profession that has in its hands the making or marring of so much natural beauty.

But probably to most engineers the idea of considering the possible effect of a line of a road on the beauty of a landscape and planing the road with regard to this consideration among others seems ridiculous. We fear that a great many engineers in following rules and principles laid down to them in their training, causes them to lay aside any idea of beauty they might have by nature, and leads them to regard beauty as a thing unworthy of consideration, and so it comes about that fine trees of a century's growth are ruthlessly cut down and hill-sides marred by deep and ugly cuttings, when a slight bend in the road would not only preserve the trees but add to the beauty of the road; or when by following the contour of the hill with its natural and irregular curves, the road would be given some beauty, and expense could often be saved.

Among the various rules laid down by authors I do not find any which speaks of the necessity of considering the natural conditions which ought to be among the determining elements of a line of road, when yet the capability to seize upon and make the most of these natural conditions ought to be one point of decision between a good and an inferior engineer. The aesthetic elements in the problem of making a road are not necessarily at variance with practical considerations. On the contrary, it will often be found that a consideration for the aesthetic elements will lead to practical benefits and economies. To consider these aesthetic questions, which are involved in a large proportion of engineering undertakings, would doubtless, add to the engineer's difficulties. He would be less dependent on mere rule. It would give in each case an opportunity for the exercise of judgment and skill in the harmonizing of some apparently contradictory

requirements, but it would add greatly to the interest, individuality and value of his work.

We would like to ask engineers to consider this question, not as engineers but as individuals who may be affected by engineering operations, to free themselves for a moment from the straight-jacket of rules of their engineer's training and consider how much beauty might be preserved, nay, added to our landscape, especially in suburban communities, by even the slightest consideration or forethought for beauty for its own sake, and this often without added expense or the sacrifice of any reasonable utilitarian requirement. It is the wanton disregard of beauty without any corresponding gain against which we protest.

Roads and Road Making.

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

On a Macadam road recently built in Connecticut, it is said, that 5,000 pounds can be hauled where 1,200 to 2,000 was a good load before rebuilding, for the same team. A farmer living ten miles from market and having 100 tons annually to sell; on the unimproved roads would have to make at least 100 trips—on improved road 40, a saving of 60 day's time, which at \$2 50 per day would be \$150; probably several times his tax for the improvement.

The introduction of Macadam roads in parts of New Jersey is said to have doubled, in many cases, the value of real estate.

It is preferable to make the width of drive-way proper, which includes the gutters, some multiple of eight feet which is about the width necessary for each team.

It is better to bring good material, if necessary, from a distance rather than make use of poor material for road making.

By the improvement of our roads, every branch of our agricultural, commercial and manufacturing industries, would be materially benefited. Every article brought to market would be diminished in price, and the number of horses be so much reduced that by these and many other retrenchments, many millions of dollars would be annually saved to the public.

It is advisable for road constructors to abandon precedents and build roads which will best suit the requirements of the traffic.

The subject of the proper construction and maintenance of roads has never been considered by the people in more than a limited and superficial way. A lack of public appreciation of their true value, a mistaken idea of economy and the existence of laws that make and permit bad work, has made their condition a conspicuous blot upon the page of our general progress as a nation.

New legislation is needed, but no legislation can produce good roads until the people are willing to pay for them.

New laws should be: First, the burden of the leading lines of communication should be borne by the whole community; Second, the employment of skilled engineers to superintend the road-making and repairs; Third, the abolishment of personal labor, and the levying instead of a money tax. The money tax will be found to be not only more equitable than the labor system but even less burdensome. None of it will be wasted, and those who have the skill and strength for road work will receive back in wages more than their share of it.

Bad roads are the cause of more profanity and ill-nature than any trial to which human nature is subjected.

Nothing has lead farmer's children to dislike the country, and a desire for city life more than the monotony of the rural districts in the winter months, produced by the lack of social intercourse, for the want of good roads.

A perfectly good road should have a firm and unyielding foundation, good drainage, a hard and compact surface, free from all ruts, hollows or depressions; the surface neither too flat to allow water to stand, or too convex to be inconvenient to the traffic, and free from loose stones.

All the produce and industry which by these improvements finds for the first time a market, is, as it were, a new creation.

The road which is truly cheapest is not the one which has cost the least money, but the one which makes the most profitable returns in proportion to the amount which has been expended upon it.

The qualities required in a good stone road, are hardness, or that disposition of a solid which renders it difficult to displace its parts among themselves; toughness, or that quality by which it will endure light but rapid blows without breaking.

How to Design a Sewerage System.

When first called upon to design a system of sewerage the main question to settle is, how are we going to dispose of the sewage. The principal requirement is that the sewage cause no offence. If it can be incidentally utilized so much the better, but in no case is it right to let the utilization of the sewage be the first consideration. Decomposition by means of oxidation is slow, because it is an organic process and due to the action of bacteria. In the absence of air, sewage will not be purified. The first thing to be done is to remove the coarse matter and to hasten the process. This is done by precipitation by means of chemicals or by mechanical straining. Then the sewage gets into a better position for exposing the liquid to the agents of purification. This is done in several ways in practice.

First, by dilution in running water and thereby supplying sufficient oxygen. For this purpose we need a stream of water which will give a summer flow of at least 150 to 200 cubic feet of water per minute for each 1,000 persons. If there is not sufficient water to dilute the sewage in its original condition, partially precipitate. This must be resorted to so as to remove some of the organic matter before directing it into the stream. The clarified liquid can then be diluted with less water. The best precipitants are milk of lime or salts of aluminum or iron; milk of lime is the least expensive one, and is probably sufficiently satisfactory. It throws down from one-half to two-thirds of the organic matter as a flocculent mass, which rapidly settles to the bottom. The salts of iron, however, give the best results, and then come the salts of aluminum. When the sewage is acid, better results are obtained when the same is neutralized with lime, than when it is not.

The second method of the disposal of sewage is by an intermittent application and spreading over porous soil or sand and allowing it to filter. This is the best way to get purification when suitable soil is at hand. The method is so effective that all the impurities can be removed from 20,000 to 80,000 gallons daily by the use of one acre of ground.

After the discharge of sewage has continued for several hours the ground must be allowed to rest for a day or two so that the water is given a chance to gradually soak through and by means of the bacteria become purified. It will simply run through without purification if continuously or too thickly applied, therefore the discharges should be intermittent. Frost has no bad effect upon the purification. In Pullman, Ill., this system is used and has worked satisfactorily at a temperature of fifteen degrees below zero. It is easily to be seen that local conditions determine which method should be used. The discharge into rivers is the cheapest. Most large cities—such as New York, Boston and Chicago—deposit their sewage in this

way. At Chicago the supply of running water is very insufficient and there is in course of construction a channel 160 feet wide and 20 feet deep by which the sewage properly diluted will be carried to the Mississippi River.

The next question to be considered is how to collect the sewage. This is done by means of underground pipes, called sewers. The rain-water must also often be provided for, and the question then arises shall it be carried in the same pipes as the sewage or separately? Some object to the combined system upon the grounds that the sanitary conditions are not so good. Both systems, however, can be made good, and local conditions decide which would be the best.

Finally, the question is what are the essential requirements of good sewers? They must be so constructed, first, that the sewage is kept in motion from the time it leaves the receptacle in the house or on the street down to the outfall; secondly, that a minimum amount of suspended matter is deposited or retained within the sewer; and, thirdly, that such deposits and growths attaching to the sides of the sewer can be readily removed from time to time. These requirements can be fulfilled by giving the sewer a good alignment, a proper size, a sectional shape and slope, by giving the interior a high degree of smoothness, by preventing eddies or back flow, and by providing means for readily inspecting and cleaning every part of the system.

To adopt our design to the different conditions as they occur in practice, the first and simplest way of laying out a system of sewerage is the perpendicular system. It is a direct discharge into the river or stream along the valley lines. Where it becomes necessary to discharge the sewage below the town the intercepting system is used by which the different sewers leading to the river are intercepted by another parallel to the river which conducts the sewage to its point of discharge below the town. Another system is called the zone system. Its advantages are that it gets the rain-water away with as uniform velocity as possible without conducting it through the city, and it admits of abundant flushing. A system applicable to flat, level cities is called the radical system. It is at present in use in Berlin, where, over a tract of eight square miles there is a difference of elevation of only fifteen feet. The sewage is collected at central pumping stations and pumped out to irrigation farms of 18,000 acres, where it is purified. Local conditions, the lay out of the streets, etc., determine a few other systems than those mentioned.

It should always be observed in designing sewers that the velocities should be equalized in order that deposits may be prevented. A sewer descending with a steep grade and then abruptly going on level is very bad practice, in as much as deposits are certain to form in the level

portions of the sewer near its junction with the steeper part. It is, therefore, better to take a longer route to avoid this abruptness.

An important principle in the construction of sewers is that we should at all times be able to inspect and clean any of the sewers at any place. This makes it necessary to lay the sewers perfectly straight between points of access or manholes. Thus it will be seen that all the curvature of the sewer takes place within these manholes. By lowering a lamp into one of them and a mirror placed at an angle of forty-five degrees into the other the entire surface of the inside of the intervening sewer can be inspected.

Another principle is to have no dead ends in the system. A dead end is the highest point of the sewer into which all the foul gases necessarily rise and accumulate. These can only be cleaned by means of flush tanks at the dead ends.

The amount of rolling with a heavy roller should be about ten hours for each one thousand square yards of surface for each layer of stone, but it must be continued until all motion of the stones has ceased. After several passages of the roller, any hollows which appear must be filled up with small material and the rolling continued. Each course is to be spread and treated in the same manner. Binding should be spread dry and uniformly in small quantities over the surface and rolled into the interstices with the aid of watering and sweeping. By using binding materials in small quantities the amount of rolling is lessened, but at the expense of durability.

When the wear on a road is confined to the crushing and grinding at the surface it is the least possible, but when a road is weak from insufficient thickness or solidity, on a yielding foundation, bending and cross-breaking of the covering take place under passing loads in addition to surface wear, and the effects are aggregated by the softening action of water finding its way into the road-bed through cracks formed in the surface, and by the disintegrating action of frost. Wear is measured by the loss of thickness in the covering. It is seldom found to exceed one inch per year on the most frequented roads.

Good roads attract population, increase the value of property, decrease the cost of transportation, and thus encourage the greater exchange of products between one section and another; and being feeders for the railways, they directly bring distant places more nearly together, and promote intercourse and the development of commercial life. The writer has been compelled in looking for the results of elaborate experiments to gather them from foreign sources, that is, he has not been able to find any records of any extensive or continuous investigations upon traction, friction and kindred subjects made in this country.

The Drainage Commission

The commissioners appointed by the Ontario Government to inquire into the working of the drainage laws in the province, have completed their labors, and have reported at the present session, and a bill has been introduced, making various changes in the drainage laws in accordance with the recommendations of the said commissioners, and there is no doubt, that a great many of the difficulties, which have heretofore been experienced by municipal councils in carrying out drainage works, will be remedied.

The inquiry of the commission was devoted principally to eastern, central and western Ontario. In a few places in eastern Ontario, the commissioners found that in some cases drainage works were being constructed under the provisions of the Municipal Act; in central Ontario the only county visited was Ontario, and they found that the Ditches and Watercourses Act was the only one principally employed; in western Ontario they found the principle field for their labors, as in some of the counties, all the provisions of the drainage acts of the province have been brought into requisition in the construction of very large and other open drains.

The commissioners aimed to obtain their information from members and ex-members of municipal councils, who are in the best position to observe and find out any defects in the laws, as they are so frequently required to set them in motion with a view of accomplishing a desired result and no class of men could give more information than they as to the carrying out of the laws in all their bearings and details and who could better explain the difficulties found by them in the application of the laws. Another source of information upon certain provisions was from the clerks of the municipalities and the engineers, whose knowledge and skill are so much required under the drainage laws, also gave their experience and stated their grievance and difficulties in so far as their duties are laid down by the statute. The commission also heard parties who did not belong to any of the above classes, but who were interested in drainage, as to their views upon the law as it is and in their judgment it ought to be.

The great importance of properly draining land has become so well known to the people of Ontario that it is necessary that every means should be adopted to further the principle, and every precaution should be taken in order that individual owners may receive justice in the working of the laws. Drainage is something that farming cannot be pursued with full profit without. It seems to be no longer a question. The experience of England shows that capital may be invested more safely in under-draining than in any other way, for after the expenditure of many millions by English farmers it has been clearly proven that their increased profit arising from this cause alone is sufficient to pay the

total expense, with interest within twenty years, thus leaving their farms increased permanently to the amount of the total cost. This experience is now fully realized in our own country. In my own practice and from close observation, the result has been such to convince me as to its advantages, and it would be unwise for any man to enter into any new cultivation without thorough drainage. The report of the commissioners show that the Tile, Stone and Timber Drainage Act is the greatest boon conferred on farmers by any government. Wherever used it gives the utmost satisfaction, and it is desired that more money be set apart for use under the act. The evidence shows that if double the amount could be obtained by the municipality it would be highly appreciated.

When the drainage law was first framed it was very difficult to make them meet the various cases, but of late years the provisions of the law have been so much employed and the results of the work proven so satisfactory that it has become an important part of our municipal code, and larger amounts of money have been expended in interpreting its meaning and enforcing its provisions, and now, after all its provisions have been put in operation, municipal councillors as well as others interested in drainage have become so well acquainted with the difficulties and so capable of suggesting needed amendments that it is hoped that the present bill introduced, after the receipt of the report of the commissioners' enquiry, will make the drainage law clear to municipal authorities, just to individuals taxed for the cost of the work, easy to operate, and save a large amount of money which has heretofore been wasted to get a clear interpretation of its meaning.

Road Construction and Maintenance

Roads being the only communication between railroads and markets it follows that if a heavier load can be drawn and better time made on a good road than on a poor one, that the area benefited by railroads and made tributary to markets is increased in direct proportion to the goodness of common roads. Good roads shorten distances and save wear and tear. It will readily appear that a farm, four or five miles from market on a good road, is virtually nearer to the market than one located two or three miles, but located on a poor road. It is estimated that a saving of as much as twenty-five per cent. in animal power alone can be saved by the improvement of the road way, besides the saving in time and the wear and tear on vehicles.

The city of St. Thomas has submitted a by-law to the freeholders to raise \$15,000 for the purpose of building an outlet for sewerage for the eastern portion of the city, and the plan of the city engineer also provides for an additional outlay of \$26,000 for the sewerage of the same, by frontage.

Tax Reform in Winnipeg.

The following extract from a letter of Ex-Mayor McDonald, of Winnipeg, published in an exchange, gives the details of the important measure of Tax Reform which passed the Winnipeg city council last year. He says:

"That portion of the revenue which is raised by taxation is to be collected from incomes, from land values, and from a 12½ per cent. tax on the rental value of business property.

"The 12½ per cent. tax on the rental value of business property includes buildings as well as land, and is intended to be in lieu of a tax on stock and personal property. For instance, a store, renting for \$1,200 per annum, pays \$150 per annum, but is not taxed on its stock of goods at all. The amount collected will probably be about the same as was collected under the personalty tax, but it will fall much more equitably, and will be paid proportionately by lawyers, insurance and other agents, banks, etc., heretofore exempt.

"In addition to this special rental tax, business property pays the ordinary tax on land values along with all other real estate in the city. This tax on land values is on the land only, regardless of what buildings or other improvements may be upon it.

"The council of 1892 has now nothing more to do with the matter, but our successors have to take it up, put it into proper legal form, pass it through the council, and ask the legislative assembly to pass the necessary legislation to carry it out, which no doubt the assembly will do.

"Although not quite what I would like, still I think this measure is a long step in the right direction. It reduces taxation on all buildings about one-half, taxation is taken off all stocks of goods, machinery, etc., and lawyers, insurance agents, loan companies, banks, etc., will have to pay in proportion to the position they occupy. They always opposed any tax reform. Now that they have to pay with the rest, we think their opposition to a further step in the right direction will not be so strong.

THE BEST ROADS.—The best roads in the world to-day are those of England, France and Germany, and their excellence is largely due to the fact that in each country they came under national supervision, and the resulting highways the finest in existence, and the cheapest to maintain, and in every way the most satisfactory to those who use them.

The Peterborough Water Company is about to make important changes in their plant. They are inviting tenders for one waterworks power pump of two-and-one-quarter million (imperial) gallons capacity for twenty-four hours, to be driven by water power. The sum of \$50,000 is also to be expended in extending the local sewerage system

Highway Bridges.

There are a variety of ways in which piers and abutments may be made. Those for common bridges are usually either built of masonry on the solid foundation of the ground or on a platform constructed upon piles driven into the earth, or they are built of timber framed together in the form of a crib, or of one or more rows of piles driven into the ground in line and extending to the required height of the pier or abutment, and braced diagonally to secure stability, and capped at the top to receive the structure. It is usual in forming the aforesaid foundation to drive the piles about three feet apart from centre to centre and saw them off to the required level, then bolt capping pieces to the top of such piles and plank the same in, and either fill up the space with broken stone laid dry or grouted with mortar. On this the masonry should be placed, or timber framing if desired. In selecting the timber for piles, care should be taken to select that which is straight grained and free from large knots and ring shakes. Rock elm, red beech, blue oak and cedar are the timbers mostly used. In my opinion piles squared are more lasting than round timber, as removing the sap wood renders it less liable to decay. In general practice the timber is left round and the bark removed. In this way they dry easier and are less liable to split. They should be from eight to ten inches in diameter at the small end. In driving the piles a hammer properly concaved and of not less weight than two thousand pounds, with an average fall of from twenty to twenty-four feet, should be used. The advantage derived from using a heavy hammer with a moderate fall is that the piles are driven with much less injury or liability to splitting. Every one who has had the management of pile driving is fully alive to the anxiety, delay and expense attendant on replacing injured piles.

Piles which have to be driven through hard ground should be ringed before being raised into the leaders, that is, they should have an iron hoop tightly fixed on their heads to prevent splitting, and also be shod with iron shoes; these shoes may be of wrought iron or cast iron. The shoe should be placed truly in the centre of the pile. Great care is required in shoeing a pile to ensure that the shoe is driven perfectly home. The advantage of a cast iron shoe is that the inside can be formed with a square butment on which the pile rests, whilst a wrought iron shoe has to be driven up until the toe of the pile is wedged tight; and as the force with which the pile is driven into the ground greatly exceeds that with which the shoe is driven on the pile, it will often happen that the shoe will burst open and allow the point of the pile to be crushed before it is down to the required depth. When driving a pile into the earth it very often happens that before it is to the required depth a

hard strata is reached in which the pile pierces it very slowly. In such case, after about half-a-dozen repeated blows from such a hammer and fall as described above the pile moves almost imperceptibly, the driving of such pile should be abandoned, as further pounding only shatters the pile and loosens the hold it already has in the earth. When driving piles for submerged foundations they should be cut off so as to leave the timber platform about two feet below the low water mark to prevent decay.

Bad Air in Houses.

Those persons who go much into small houses, whether in town or country, find a fetid odor and a close and stuffy condition of atmosphere prevalent in all parts of the house. This fetid odor is distinct from that of sewers and drains, and prevails also where there are none of these. It is the exhalations from animal bodies, human, canine, feline, and others, and from dirty clothes brought into the house damp and there left to dry; from dirty bed clothes, which have absorbed the perspiration of persons during the night and give it off in vapor during the day; and the general dust of the house.

When we consider the chemical composition of atmospheric air in different places, it is surprising how much the difference is in figures. Atmospheric air consists, in the main, of two gases, viz., nitrogen and oxygen (the nitrogen being inert and the oxygen the life-sustaining portion), with a small quantity of a third, viz., carbonic acid.

Calculations and facts show the quantity of fresh air required to be admitted into rooms in order to prevent the quantity of carbonic acid gas increasing beyond a given standard; but as soon as we begin to apply the rule in practice the question of the capacity of the room comes in with its many difficulties and also the means of admitting the fresh air, for although we might cause the required quantity of fresh air to pass through the room yet its velocity through small places would probably produce such draughts as would be intolerable. We find it to be so in practice. When the only means of admitting fresh air is through the doors and windows, a person in a small room is exposed to draughts of air in almost any possible position, and we commonly find holes in the wall stopped up to prevent these draughts and not merely to keep the house warmer. It is the same whether the hole be under the door, a broken window-pane, or whether it be a purposely-fixed ventilator; people will not leave them open. They would be glad enough to have fresh air if they could have it without draughts; and I have known holes knocked through the back walls of houses by the tenants themselves, but stopped up again because of draught. To make the air of dwelling houses fit to live in is one of the most important ob-

jects of sanitary authority. Persons who are tolerably wealthy may accomplish this for themselves, but it is the necessities of the multitude that engage the attention of sanitary authority. The ventilation of houses is as difficult as ever the sewerage question was, and will require for its solution as much research as has been given to that question, and which must be accomplished by legislation as efficient as that now in force and that which may follow on the sewage difficulty.

Bad air is aerial sewage and must be cleansed by oxidation before we can safely breathe it, as foul water must be before we drink it.

Don't Forget the Drainage.

It is essential that the roadway should be properly constructed with reference to grading and ditching or drainage. This is accomplished by excavating deep ditches at each side of the roadway, where the road passes through level land, and the construction at intervals of wooden or stone culverts or sluiceways, in order that the surplus water may be turned aside or conducted away from the road-bed. When broken stone or cobblestone is used as a foundation, an excavation is made in the centre of the roadway between the two ditches to the depth of several inches, and as wide as may be required to build the road. This excavation is filled with broken stone or cobblestone, with the addition of sand and gravel, and when the roadbed is completed it shows gradually sloping sides from the centre each way to the ditches on the margin of the road.—*St. Louis Republic.*

The city council, of Hamilton, have decided to proceed at once with the construction of the west end sewer extension.

* * *
An eminent writer says,—The road is that physical sign or symbol by which you will best understand any age of people. If they have no roads they are savages, for the road is the creation of man and a type of civilized society.

* * *
Commenting on the decision of Justice Galt in the St. Thomas telephone case, *The Toronto News* says,—If the interpretation of the law is to stand, then the law itself should be changed ere the present session of the legislature ends. There are certain enterprises which, in the public interest, should be monopolies. Among these are, telephone, gas, light, ferry and street railway services, and it should be in the power of municipal councils to grant exclusive privileges of those carrying on such undertakings, the municipalities receiving in return a percentage of the receipts and the power to a certain control over the prices charged for the services rendered. This is what has been done by the city of Toronto in the case of its street railway, with the approval of the legislature, and the experiment works admirably.

LEGAL DEPARTMENT.

H. F. JELL, SOLICITOR,
EDITOR.

Municipal Councils—Their Powers and Jurisdiction—By-Laws.

In a few more words we will finish our discussion of by-laws passed by municipal councils, pursuant to authority to do so, conferred on them by the drainage clauses of the Municipal Act. After a drain has been constructed by one municipality, and in order to obtain an outlet, continued into an adjoining municipality or municipalities, it shall be preserved, maintained and kept in repair by each municipality interested, in the proportion determined by the engineer or arbitrators, as the case may be, or until otherwise lawfully determined by the engineer or arbitrators under the formalities prescribed by the act. The duty to repair, under the section 583, is not confined to drains running from one municipality as another, but applies as well to drains constructed by a municipality wholly within its own limits. Any municipality, neglecting or refusing to preserve, maintain or keep in repair such ditch or drain, when liable to do so, upon reasonable notice in writing being given by any person interested, can be compelled by mandamus to perform its duty, and shall be liable to pay damages to any person whose property is injured by reason of such neglect or refusal. If in order to enable it to carry off the water it was originally intended to carry off, it is found necessary to deepen, widen or extend such ditch or drain, the work shall be deemed a work of preservation, maintenance or keeping in repair, provided the cost of the extension does not exceed the sum of \$200, and where the expense exceeds this sum, proceedings shall be taken, under the provisions of section 585. In the case of *Begg vs. the township of Southwold*, a by-law had been passed, providing for the raising of the unpaid portion of the expense of cleaning out and repairing a drain, and being otherwise good on its face, was objected to on the ground that the resolution and by-law authorized the cleaning and repairing only of the drain, but that in performing the work the drain had actually been deepened, which, it was contended, could only be done by petition, under section 569. It appeared that the deepening, if done at all, which was doubtful, was done accidentally and not by design, under these circumstances an application to quash the by-law was refused, and it was questioned whether the municipality had not power to do such work without petition, including the deepening, as might be incidental to maintaining the drain in an efficient state. Section 585 of the act is worthy of notice, as indicating under what circumstances the petition, mentioned in section 569, can be dispensed with before the passage by the council of a drainage

by-law. The council might pass such a by-law without such petition, and undertake and complete the alterations and improvements or extension specified in the report of an engineer appointed by the council of the municipality or of any of the municipalities whose duty it is to maintain and preserve the drain, in any case where such council shall deem it expedient to do so, when the drain has been constructed under the authority mentioned in the said section 585, in order to better maintain the drain or to prevent damage to adjacent lands.

A similar duty to maintain and keep in repair a drain not continued into any other municipality is imposed on the municipality, by which the drain has been constructed by section 586, at the expense of the lots, parts of lots and roads agreed upon and shown in the by-law, when finally passed. This duty on the part of the municipality is an absolute one, and and its neglect will expose the municipality to a liability in damages at the suit of any party aggrieved.

Section 588 makes provision for the removal of obstructions from ditches or drains and for the appointment of an officer to attend to the work. Every municipal council having drains under its jurisdiction should by by-law appoint an officer of this kind, as the continuance of obstructions in a ditch or drain frequently gives rise to the necessity of cleaning out the whole drain.

Legal Decisions.

RE ROBINSON AND CITY OF ST. THOMAS.

Judgment on motion by J. A. Robinson, a ratepayer of the city of St. Thomas, to quash by-law 653 of the city, on the ground that it is illegal as being in contravention of section 286 of the Municipal Act, 55 Vic. ch. 42, which is as follows:—No council shall have the power to give any person an exclusive right of exercising within the municipality any trade or calling, etc. The by-law in question recited that the Bell Telephone Company were desirous of preventing, as far as possible, for the term of five years, the erection by any other company of other lines in the city for the purpose of carrying on any telephone business. In accordance with the application of the company an agreement was entered into between the company and the council, which was ratified by the by-law, and the first section of which was as follows:—The city, as far as it has power to do so, covenant and agree that they will not, for a period of five years from date hereof, give to any person, firm or company other than the Bell Telephone Company of Canada (limited), any license or permission to use any of the public streets, lanes or alleys of the city for the purpose of building in, upon or under such streets, lanes or alleys, any poles, ducts or wires for the purpose of carrying on any telephone business. It was contended that this by-law gave the company an exclusive right. The learned chief justice, after adverting to the absence of authorities in this province, referred to the cases of *Norwich Gas Light Co. vs. Norwich City Gas Co.* 25 Conn. 18, and a case in 18 Ohio St. 262, both of which related to gas companies, and both of which decided against such a by-law as the present, and concluded his opinion as follows:—What then are the statutory powers conferred upon a municipality as respects telephones? Section 496, sub-section 39, of the Municipal Act is as follows: A municipality may pass by-laws for regulating the erection and maintenance of electric light,

telegraph and telephone poles and wires within their limits. Then to use the language of the learned judge in the case to which I now made reference (18 Ohio st. 262). If, under the general power here given, a single city council may bind its successors not to make or permit any further use of the streets for a similar purpose for a period of twenty-five years, why not for 100 years or in perpetuity? If so, we fail to discover it, either in express terms of the statute or as arising from a clear and necessary implication. By the very terms of the by law which was passed for the ratification of the agreement, it is expressly stated, as I have mentioned, that the company are also desirous of preventing as far as possible for the term of five years the erection by any other company of any other lines in the city for the purpose of carrying on any telephone business. It is manifest that, so far as the agreement was concerned, it was the object and intention of both parties that the Bell Telephone Company should have a monopoly for the next five years of the telephone business in the city of St. Thomas, and therefore it is entirely beyond the power of the municipality to enter into such an agreement. Order made quashing the by-law with costs.

VIVIAN VS. TOWNSHIP OF M'KIM.

Judgment on appeal by the plaintiff from the judgment of Robinson, J., the trial judge, dismissing the action, which was brought to recover a sum paid to the defendant for taxes under protest. The plaintiff appealed from his assessment to the court of revision, but did not receive from the clerk of the municipality any notice of the hearing of the appeal, and the appeal was heard in his absence and dismissed. The plaintiff contends that the court of revision acted without jurisdiction, the notice not having been given. The trial judge held that under sub-section 9 of section 64 of R. S. O., ch. 193, the Assessment Act, the clerk shall prepare a notice in the form following for each person with respect to whom a complaint has been made; a notice to a person complaining of his own assessment was not necessary. The chancellor on this point agreed with the trial judge. Meredith J., agreed in this with some doubt. The court held also that the plaintiff's only remedy was by appeal to the county judge. Appeal dismissed with costs.

ED.—The attention of municipal clerks is particularly drawn to this case, as for the time being, it settles a question which has hitherto been attended with much doubt and trouble.

A CELEBRATED BRIDGE CASE.

The case of the village of New Hamburg vs. the county of Waterloo, reported in February (page 27), in which the contest was as to the liability to maintain a bridge over the river Nith, which passes through the village of New Hamburg, was recently argued in the Supreme Court. The statute obliges the county to maintain bridges over streams more than 100 feet in width, and the sole question is whether or not said river is over that width. The trial judge found that it was; the Court of Queen's Bench reversed that judgment, and the Court of Appeal was equally divided. After counsel for respondent had concluded his arguments the court expressed the opinion that the appellant's counsel need not reply, but as one of their lordships wished to examine the authorities referred to on behalf of respondents, judgment was reserved. From this it would appear that the decision of the Court of Appeal would be sustained.

* * *

Questions are often asked concerning the rights of public highway in towns and cities, and answers to some of them: "The streets belong to teams and vehicles, and pedestrians have no more business upon them than the teams would have on the sidewalks. The crossings at the street corners belong to pedestrians, who have the right of way there, by law, as against teams. Many drivers ignore the law and go dashing over sidewalks, endangering lives and limbs of pedestrians, without thinking they are violating the law. No vehicle or horse can, within the law, be driven rapidly over a crossing, nor can the driver obstruct the crossing.—*Ex.*"

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.

SUBSCRIBER.—1. Has a collector full power to go on and seize for all taxes for 1893 before the 14th of December, without consulting a lawyer or employing a bailiff?

2. Has he the same power after the 14th, if he gets no extension of time from the council?

3. If he gets extension, does it give him full power to do so.

1. The collector has full power to collect all taxes mentioned, and to enforce payment by seizure at any time after he has received his roll from the clerk, and after the expiration of fourteen days from the time he has made the demand or served the notice on the ratepayer mentioned in section 123, Consolidated Assessment Act, 1892. Under the circumstances mentioned in sub-section 2 of section 124 of said act, the collector can seize for taxes before the expiration of the fourteen days from the date of the service of such notice or making of such demand.

2 and 3. Although the sections of the act are not perfectly clear as to this point it seems quite settled that the collector can perform all the duties pertaining to his office, including the right to distrain for unpaid taxes, so long as he holds the office, and his roll is not returned, whether the time for returning the roll has been extended or not.

J. N. R.—We have one by-law on all gravel pits. An owner of one pit is going to stop us from going in his pit. Is there a by-law necessary for each pit, and what steps have we to take to get on same?

It is difficult to answer this question without a perusal of the by-law referred to by our correspondent. However, we do not see that it makes any difference to the council's rights whether there be one by-law relating to all gravel pits or a by-law relating to each pit in particular, so long as the general by-law accurately describes each pit. Before we can answer the last part of our correspondent's question, we must know whether the right of entry of the council upon the lands of the party objecting, and the price or damage to be paid to him by the council, have been agreed on between the parties concerned or settled by arbitration under the Municipal Act.

E. G.—1. I own lots 5 and 6 in township; lot 5 is in S. S. 5, lot 6 in S. S. 4. A by-law was passed in April changing lot 5 to S. S. 4. A by-law was passed in June to issue debentures for building a school house. Said by-law was not satisfactory hence no loan was secured. This by-law was repealed the following January and a new one passed to issue new debentures. In the meantime school house was built, and the trustees borrowed money, some of which was paid for building and some used for other purposes. This money was borrowed before December last. Q.—Is lot 5 still liable to pay taxes to S. S. 5?

2. When the roads are all blocked with snow in Algoma, is the council compelled to open them on demand of the mail carrier, or on the demand of any other person or persons?

1. Assuming that the by-law, changing lot 5 from S. S. No. 4, was passed on the 30th April, 1892, and is a valid by-law, lot 5 is no longer liable to pay its portion of the general school levy in S. S. No. 5.

2. We do not think so.

A. C.—A bridge was built across a river in our municipality by the government and kept in repair by the government, and never assumed or a dollar spent on it by the municipality. Last spring it was in a very bad state of repair, and in the month of June fell down. Although I understand a person had at the time a grant of money from the government to repair the same, but did not commence to rebuild until the 1st August, and was not completed until the first of October. During the time there was no bridge, the travelling public had to pay a person who lived right there—in fact I may say, the person who had the contract to build the bridge, to take them across in a boat.

The mail contractor who had occasion to cross this stream three times a week each way, in making his trips between offices, had to pay the fee to get across, from the time the bridge went down until the new one was built. He did not ask any advice of the council in the matter until about the middle of February, when he presented the council of the municipality in which the bridge is situated with a bill for damages for the amount he had to pay. Has the council a right to pay the bill?

2. Has the municipal council power to abolish the dog tax in the month of June, after assessment is made? The ratepayers neglected to petition council at March meeting.

1. We do not see that the council is in any way liable to the mail carrier.

2. We see no reason why the council should not pass a by-law in the month of June, providing that dog tax should not be levied in the municipality in the current year and on the presentation of the necessary petition, but since the assessment is made, it might be as well to defer the coming in force of the by-law until the 1st January, 1894.

LARES.—1. Should a tax collector fail to make his final return by the date specified by by-law of council, what action should be taken in the matter and who is the proper person or persons to take such action?

2. What can be claimed as being exempt from seizure for taxes, providing the party is the proper person to pay such taxes?

3. Kindly give name and address of reeve of the township of Flos in your next issue?

1. Unless the council see fit to extend the collector's time or to authorize him to proceed further with the collection of the taxes, they may, by resolution, authorize some other person in his stead to continue the levy and collection of the unpaid taxes, in the same manner and with the same powers provided by law for the general levy and collection of taxes (Consolidated Assessment Act, section 133, sub-section 1), and such resolution or authority shall not alter or affect the duty of the collector to return his roll, and shall not, in any manner, invalidate or otherwise affect the liability of the collector or his sureties. (Sub-section 2 of said section.)

2. If the person who is the proper party to pay the taxes, is actually assessed for the premises, in respect of which they are payable, and his name also appears upon the collector's roll for the year as liable therefor, none of his goods and chattels are exempt from seizure other-

wise the goods enumerated in sec. 2 of Chap. 64, R. S. O., 1887, are exempt.

3. W. A. Sneathe, Elmvale.

CLERK.—Can a bondsman for the collector or treasurer qualify as councillor?

No.

J. M.—There is a road on the 11 blank concession running between lots 14 and 15 on the 10th, and lots 14 and 15 on the 11th. The 10th being the open concession, but impossible for the township to make on account of swamp. The man living on lot 13, about 15 years ago bought 40 feet on a road from the man that owned lot 15 on the 11th concession and gave him his price, and also bought his own cedar and fenced the road across the whole end of lot 15 according to agreement, and has an old agreement to that effect. The man living on lot 13 having no other road the men on lots 14 on 11 and 14 on 10 and lot 13 on the 11th all want the road, that is four in number. The council about 15 years ago accepted that the road be made gave those men their road labor on it ever since, when it was needed. Now the son of the man that signed the agreement giving the road through lot 15 on 11 drew away a part of the fence that those men put up and told them to look for another road and put a fence across the road with a gate. Now can the council compel him to clear the road? or is he entitled to anything? or could he be fined for so doing? if he can how much for each offence after he is notified by the council? The men using the road notified him in writing to open the road, and he told them no, and he would make them close the gate. The land is of no value for farming use.

Provided there are no reservations in favor of the grantee of the road or his heirs in the agreement referred to by our correspondent. This seems to be the case of a distinct grant and dedication of land to the public for the purposes of a public road. And since the road has been assumed by the municipality and public money and statute labor spent and performed thereon, we do not think any one has the right to build a fence across it, or otherwise deprive the public of its use. It seems to us that the party offending could be proceeded against as a trespasser, or if he persists in his line of conduct indicated for placing and maintaining a nuisance in the road.

F. C.—We have a by-law that reads as follows:—Every person who is within the town, the owner, possessor or harbinger of a dog, shall pay an annual tax of two dollars for every such dog. This does not apply to kennels of pure bred dogs, but only to the general run of dogs. There seems to be some doubt about the council having power to charge two dollars per dog, but under section 489 sub section 15 of the Municipal Act, 1892, the council claim the right to tax a dog two dollars or any other sum as they may see fit.

If this position of the council is correct, then what about section No. 1, chapter 62, statutes of 1890?

We think the better opinion to be, considering the enactments referred to by our correspondent, together, that the former confers the authority on councils to pass by-laws for the imposition of a tax on dogs, and that the latter fixes the amount of such tax at \$1 per dog, but it might be held, in view of the fact that the latter section does not in express terms limit the tax to \$1 per dog, that the tax must be at least \$1 and as much more as the council saw fit to by by-law to impose.

H. M.—1. A farmer has land in two townships, his sons living with him, have they votes as farmers' sons in both townships or only in the one in which they reside?

2. A man owns a farm in a township and his house on same lot is in a village corporation, have his sons votes as farmers' sons in the township?

1. If the sons are assessed as "farmer's sons" they have a right to vote only in the township in which they reside with their father.

2. No.

TP. CLERK.—A owns a number of lots in different parts of the township and consequently in different road divisions. Should his statute labor be based on his whole property, in the aggregate, or separately in respect of the road division?

The statute labor should be based and calculated on each two hundred acres, and if the owner is a resident of the township he shall have the right to perform all his statute labor in the road division in which his residence is situated unless otherwise ordered by the council. (See sec. 100, sub-sec. 2, Consolidated Assessment Act, 1892.

A. M.—1. Can a reeve move or second a motion when council is in session? Answer no. What is the authority for that answer?

The question quoted by our correspondent was sent in by the reeve of a township, and the answer thereto does not apply to a member of a county council, or to the reeve of a town when the mayor fills the chair.

T. L.—1. Should a male non-resident freeholder of a township be placed on part one of the voter's list, or has he only a municipal vote, he not having the initials M. F. on the assessment roll?

2. Trustees of S. S. have bought school site adjoining my garden line fence being only 30 feet from my house, can I compel trustees to put close board fence on the dividing line? if so what height can I make them put it?

3. Am I liable for half-dividing fence? if so and I put close fence 6 feet high can I make trustees do the other half the same?

4. If trustees refuse to put close fence can I object to have the school site so near my house, there being sufficient land to move the site 60 feet from my garden fence, and also other sites equally as good in the centre of the section?

5. Trustees of S. S. have borrowed \$550.00 for ten years through the township council and corporation have issued debentures for the same at five per cent to be paid annually by a special rate over the section. Can trustees demand interest on the sinking fund created to pay off the debt, are trustees liable for the whole interest of debentures for the ten years?

1. If the person referred to was not in good faith at the time fixed for beginning to make the assessment roll, or for making the complaint to the county judge under the Voters' Lists or Manhood Suffrage Acts, a resident of and domiciled in the municipality he is qualified to a municipal vote only.

2. No.

3. No. We think the trustees should enclose the school site with a sufficient fence, or if in a township and a by-law has been passed regulating the height of fences, such a fence as the by-law requires.

4. If in a township, sec. 73 of the Public School Act, 1891, enacts that a school site shall not be selected within 100 yards of the garden, orchard, pleasure ground or dwelling house of the owner of the site without his consent.

5. The annual payments provided for in the by-law ought to have been, and most likely were calculated on the basis of allowing interest to the school section on the amount of the principal paid in. The trustees on behalf of their school-section are liable for the whole interest at the rate mentioned each year during the ten years.

T. P.—1. A is owner of lot in township of Bosanquet. B who is a non-resident pretends to have a five years' lease of A's lot. C. who is a resident of the township is working A's lot on shares. To whom should the lot be assessed?

2. Before the assessor returned his roll he was notified that A owned a certain lot in the township and that B who was a non-resident was seeking to be put down on the assessment roll as tenant under a five years' lease, for the purpose of obtaining a vote. That C who is a resident of the township was working A's lot on shares, and should be put down as tenant. The assessor returned the roll having assessed the lot to A as owner, and B as tenant. Has he left himself liable to prosecution for fraudulent assessment?

1. If B had a written lease purporting to be *bona fide* on its face, and shows it to the assessor, asking to be assessed as tenant of the property described in the lease, the assessor would be justified in assessing him as tenant of the property. We do not think the assessor is bound to enquire into the sufficiency of the lease, as this is a question which should be decided by the court of revision.

2. If the assessor arranged, with full knowledge of the facts, to assess B for the land instead of C, with the intention of giving B a vote to which he was not in good faith entitled, he would be responsible for the fraudulent assessment, or placing of B's name on the roll instead of C's.

F. J. G.—In considering sections 48 and 49, Public Health Act, I would like to know the legal rights of the board of health.

1. Must the board ask the council to set apart a certain sum for the use of the board before the board can issue its orders on the treasury?

2. If the council should refuse to set apart any sum for the use of the board, then would the board have the power to issue its orders on the treasurer under section 49?

3. Suppose the council sets apart a certain sum for the use of the board, and after the board had exhausted the amount, an emergency arises requiring immediate funds, could the board then issue its orders on the treasurer without first going to the council for a further appropriation?

4. Has the council any legal authority to issue its own cheques for payment of work done by direction and under the authority of the board?

5. Is the board required to send its bills for work done under its authority to the council for payment?

6. Generally speaking, what authority has the council over the expenditure of the board for work done or material supplied that properly comes under the jurisdiction of the board?

1. Sec. 48 of the Public Health Act, enacts that the municipal council or councils may vote such sums as are deemed necessary by the local or district board for the carrying on of its work; and section 49 that the treasurer of the municipality shall forthwith upon demand, pay out of any money of the municipality, etc. We therefore think the board can issue its order on the treasurer before the council shall have made an appropriation for its use.

2. Yes.

3. We think so.

4. No.

5. No.

6. We consider the board of health the sole judges as to what expenditure is necessary in carrying on their work, and as to what materials they require to enable them to do so.

P. C.—I cannot find in the statutes anything that fully explains the duties of the oath of office of officials of municipalities such as reeves, etc. The words of the declaration taken by reeves are, I. A. B., solemnly promise and declare that I will truly, faithfully and impartially, to the best of my knowledge and ability, execute the office, etc.

1. Is this declaration of reeves and deputies equally binding when occupying a seat at the county council, that is, should members of the county council when in council assembled, look after the interests of their representative minor municipalities to the prejudice of the whole county or should they look after the interest of the county irrespective of the interest of the minor portion of the municipalities composing the county?

2. Does the declaration of reeve, etc., require them to vote on measure before county council according to their own judgment or according to the opinion of their constituents?

The foregoing questions do appear to me to be very simple, and may so appear to you, nevertheless, many members of county councils hold views on these two questions quite antagonistic to mine. The cause of these is in consequence of the views many members of the county council take in the matter of a poor-house. Some reeves justify themselves for voting against a poor-house for the reason that, though they admit that a poor-house would be greatly to the interests of the county, but not beneficial to their municipality. Others again contend that, individually, they are in favor of a poor-house as a matter of economy to both their township as well as the county, but they voted against the poor-house because that was the feeling of their ratepayers. In both of the above class of voters, they admit that they did not vote for the interests of the county, then for what interest did they vote if not to please the majority of the rate-payers in their respective municipalities, having an eye to the next municipal elections. And the feelings the rate-payers generally entertain on the poor house question is what they receive from their reeves and deputies.

1. Generally speaking the acceptance of a municipal office and the making of the necessary statutory declaration imposes upon the person making the declaration the duty of performing all the duties pertaining to the office he has been elected or appointed to fill, faithfully and impartially and to the best of his knowledge and ability. He should vote for and support such measures and perform all the public duties incident to his office in such a way as will best promote the welfare of the many. He should advocate and lend a helping hand to whatever he considers would advance the interests of the community whose business he is assisting to transact, whether in the township as reeve or in the county council as one of its members.

2. A reeve should vote on questions arising in the county council, as a member of such council, in such a way as he thinks would be most to the advantage of his constituents, having a due regard for the welfare and right of the other portions of the county.

B. G.—1. A party wishing to leave a public school and join a separate school, is it sufficient to notify the clerk of the township he not notifying the council?

2. What action ought the council take if trustees of a public school object, there being no separate school in the municipality?

3. The party who wishes to leave the school, the same being built on his property, there being a doubt as to distance from separate school?

1. Sec. 40 of the Separate Schools' Act enacts that the simple notice in writing given to the clerk of the municipality that the party giving the notice is a Roman Catholic and a supporter of a separate school situated in the municipality or in a municipality contiguous thereto, is sufficient to exempt such from the payment of all rates imposed for the support of the public schools, as mentioned in said section. Sec. 44 enacts, subject to the exception therein mentioned, that no person shall be deemed a supporter of a separate school unless he resides within three miles (in a direct line) of the site of the school house.

2. We do not see that the council is called on to take any action in the matter. If there is a separate school outside the municipality within the limit prescribed by the Act, if the party has taken the necessary steps he can become a supporter of such separate school.

3. This question we do not understand, will our correspondent please express himself more clearly in a future issue.

CLERK.—A clerk has no appeals to the court of revision, so there cannot be any to the judge. Can he therefore, at once get out his voters' list, or must he wait until after July 5th?

On the day appointed for holding a court of revision, although the clerk has received no appeals, a court must be held. The court has the authority to extend the time for entering an appeal if palpable errors are discovered in the roll. If the court at the first meeting pass the roll as finally revised, the clerk is justified in at once placing the voters' lists in the printer's hands.

Publications Received.

The Educational System of Ontario, by J. Millar, B. A., Deputy Minister of Education.

This is a very complete description of our educational institutions, illustrated with full page engravings of the universities, collegiate institutes and high schools and other educational institutions throughout the Province.

The Report of the Ontario Drainage Commission

It contains the substance of a very large amount of evidence taken by this commission under instructions from the local government, together with recommendations for the improvements of our drainage laws, which we believe have already been considered and made the subject of a bill introduced by Mr. Hardy to consolidate the drainage laws, and amend the Drainage and Watercourses Act.

Minutes, By-Laws and Auditors' Report, Township of Beverley, W. McDonald Clerk.

In addition to being one of the few local municipalities to publish copies of the minutes, reports of committees and by-laws, this progressive township has the accounts of its treasurer audited every six months at a cost of \$24.

Auditors' Reports.

Village of Streetsville, W. J. Pinney, Treasurer.

Village of Tilbury Centre, A. A. Wilson, Treasurer.

Township of Charlotteville, H. W. Mabee, Treasurer.

Township of Gordon, J. Cain, Treasurer.

Municipal By-Laws, Statutory References and Forms, by A. L. Wilson, M. A., 96 pp. \$2.00.

This is a neatly printed pamphlet, containing forms of by-laws most frequently required to be passed by municipal councils, together with a few forms provided for in the Municipal Act. Although published some time ago, the work will be found useful to many clerks, who, when called upon to prepare by-laws, are often at a loss to word them correctly, and sometimes overlook important particulars that the by-laws in this book might suggest.

Another way of Looking at It.

Though it has been decided that neither the city of St. Thomas nor any other municipal corporation in Ontario has a right to give any particular Telephone Company an exclusive right to carry on business within its limits, the powers of the municipalities are not thereby much restricted. Any city or town can authorize one Telephone Company to erect poles and strong wires, and can refuse such a privilege to any other company.—*Ottawa Free Press.*

R. COAD

J. ROBERTSON

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The Municipal Index

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By ALLAN MALCOLM DYMOND,

Barrister-at-Law,

Law Secretary to the Department of the Attorney-General of Ontario, and Law Clerk to the Legislative Assembly

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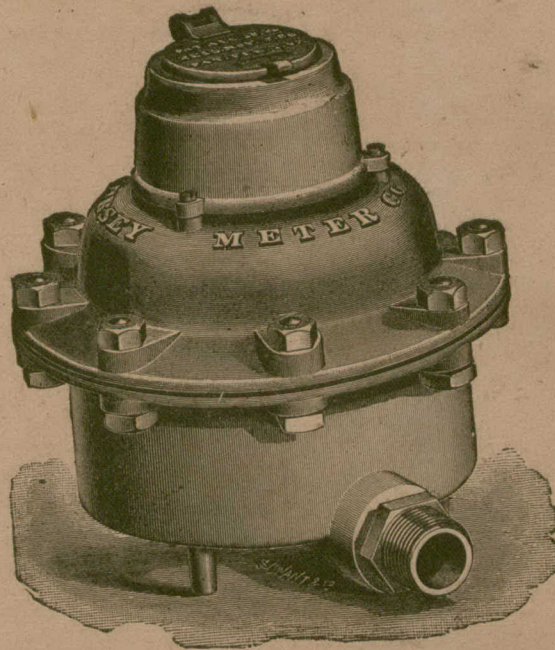
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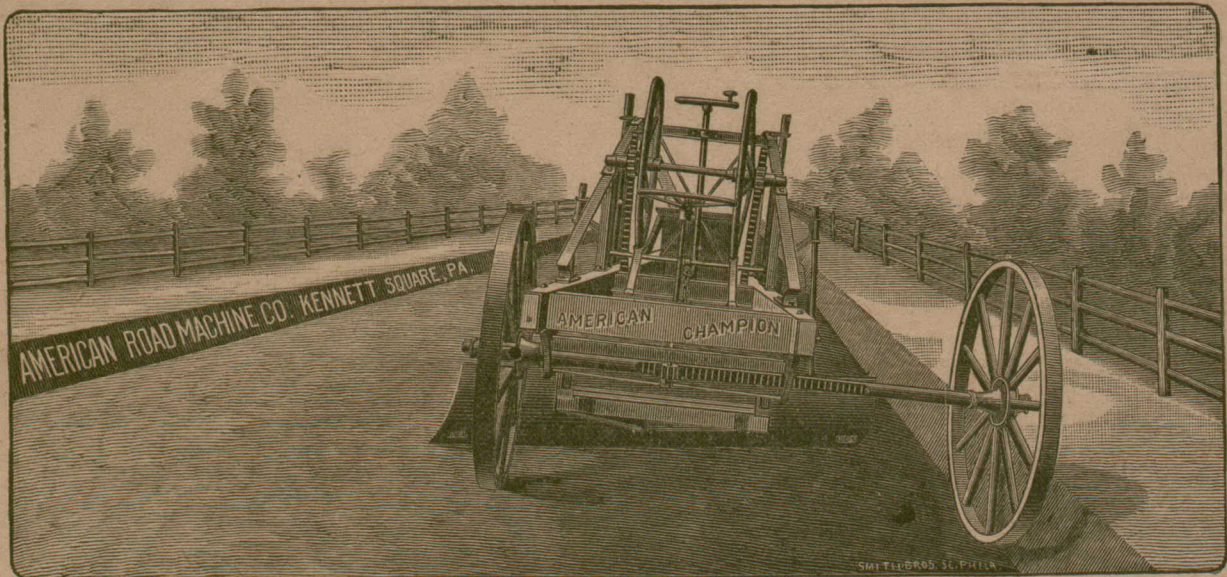
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