## The <br> PUBLISHED MONTHLY IN THE INTERESTS OF

Vol. 5. No. 8.
ST. THOMAS, ONTARIO, AUGUST, 1895
Whole No. 56

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The Tile Drainage Act.

ST. THOMAS, ONTARIO, AUGUST, 1895.
Whole No. 56

## Calendar for August and September, 1895

## Legal, Educational, Municipal and Other Appointments.

August.

1. Last day for decision by Court in complaints of Municipalities respecting equalization. -Assessment Act, section 79.
Notice by Trustees to Municipal Councils respecting indigent children due.-P. S. Act, section 40 (7) ; S. S. Act, section 28 (13).
Estimates from School Boards to Municipal Councils for assessment for school purposes due.-H. S. Act, section 14 (5) ; P. S. Act, section 40 (8) ; section 107 (10) ; S. S. Act, section $28(9)$; section $32(5)$; section 55.
High School Trustees to certify to County Treasurer the amount collected from county pupils.-H S. Act, section 14 (5).
High Sehool Trustees to petition Council for assessment for permanent improvement. H. S. Act, section 33 .
2. Last day for service of notice of appeal from Court of Revision to County Judge in Shuniah,-Assessment Act, section 68 (2).
3. Last day for County Clerk to certify to Clerks of local municipalities.-Assessment Act section 85 .
Last day for Overseer of Highways to return as defaulter, to Clerk of municipality, residents, non-residents, owners, etc., who have not performed statute labor. - Assessment Act, section 101.
4. Rural, Public and Separate Schools open.-P. S. Act, section 173 (1) ; S. S. Act, section 79 (1).
5. Applications for admission to County Model Schools to Inspectors due.
6. High Schools open, first term. - H. S. Act, section 42. Public and Separate Schools in cilies, towns and incorporated villages open.-P. S. Act, section 173 (2) ; S. S. Act, $79(2)$.
September.
7. County Model Schools open.
8. Last day for Judge to defer judgment in appeals from Court of Revision for Shuniah. -.Assessment Act, section 68.
9. County selectors of Jurors meet. -Jurors Act, section 13.

Last day for County Treasurer to return to Local Clerks amount of arrears due in respect of non resident lands which have become occupied. - Assessment Act, section 143, as amended 1895.
20. Clerk of the Peace to give notice to Municipal Clerks of number of Jurymen required from the Municipality.

```
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Form 4 Voters' Notice of Complaint ground of Disqualifica-
tion..
20 cts. per doz.
20 "

Form 5-Notice and Application
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Form 6-Voters' Notice of Complaint..30 "

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Form 12-Clerk's Notice to Parties Complained Against . . $\$ 1.00$

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PUBLISHED MONTHLY
In the interests of every department of the Municipal Institutions of Ontario.

## K. W. McKAY, Editor,

> A. W, Camprell, C, E. $\}$ Associate
> H. F. Jell, Solicitor. $\}$ Editors

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## THE MUNICIPAL WORLD,

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## ST. THOMAS, AUGUST 1, 1895.

Albert Shaw in his admirable book 'Municipal Governments of Great Britain,' referring to Glasgow and incidentally to Manchester and Birmingham, says : "Politics are unknown in municipal affairs and in no way affect either appointments or administration," The mayor of Glasgow, Lord Provost Bell, at a late public function, said :

It is a sacred charge intrusted to us, and we must neither be swayed by party nor by party feeling, looking only to what is highest and best for the general welfare of the trusts committed to us, and how we may advance through our corporate work the prosperity of the city we love so well.

The Wellington county council furnishes High School Boards with printed schedules in which to enter the names of resident and non-resident county pupils attending the schools, and also a blank form of total statement required to be presented annually by the High School Boards to the council, said statement to be certified to by the auditor of the school accounts. County councils should always insist on being furnished with correct information relating to the high schools that they are required to support. It is not advisable for counties to pay more than the cost of the attendance of county pupils, and we fear that in many places high schools are being favored at the expense of the common schools. We do not wish to suggest anything that would restrict the educational facilities of our province, but many bigh schools at present in operation should be discontinued. A standard should be fixed, and when the Education Department find the average atterdance at any high school below this, an order should be issued to close it within a reasonable time.
"It looks like ancient history," remarks the Berlin News, "to see a number of our exchanges in different counties wrestling with the poor house question. The matter was thoroughly settled in Waterloo nearly thirty years ago, and for over a quarter of a century we have had the model por $r$ house and industrial farm in Ontario- We doubt if a single ratepayer in this county could be found who would vote to do away with the institution."

In amending the Public Health Act, so that members of Boards of Health are to be appointed for a term of years and retire in rotation, the Ontario Government have recognized a principle that we have often maintained should be applied to our township council system. School trustees are kept in office three years, one being elected each year, the result being that experienced men always form the majority. In the townships, if a reeve and one councillor were elected each year, the councillors retiring in rotation, experienced men would always be found at the council board. Municipal office would then be accepted by many who object to the annual election. Road and bridge improvement, which now costs one-third of all taxes collected, would be carried on in a uniform manner. A new member with ideas would have men of experience to advise him, and an economical management of every department of the municipal service would be the result.

Most clerks find it difficult to secure the registration of all the births, deaths and marriages in the municipality, and although the assessors bring this duty directly to the attention of the people each year; the returns are far from complete in many municipalities. For the purpose of maintaining a record, we would suggest that each clerk procure a small index book in which to enter the births and deaths registered. Our experience is that many births are rcported to the assessor as registered when a reference to the returns show that such is not the case. With a list of this kind it is but a few minutes' work to check over the births and deaths reported by the assessor, whether they are marked registered or not. Blank forms for registration should be sent out for all that appear not to be registered. In checking over the assessors' returns, clerks must of necessity be guided by the family name, and by reference to returns in their possession.

The city treasurer of Toronto is in receipt of $\$ 2,966$, the city's percentage upon Bell telephone receipts for the past quarter. For the March quarter the returns were $\$ \mathrm{r}, 873$. These telephone and street railway receipts in Toronto emphasize the desirability of carefully guarding all civil franchises.

They that govern most make the least noise. -Selden.

## Debenture Instalment Tables

Showing annual payment required to discharge a debt of one dollar and its interest, also the respective amount of principal and interest annually discharged.

No. 13.
Debentures bearing $5 \frac{1}{2}$ per cent. interest, payable in five yearly instalments.

| EQUAL ANNUAL PAYMENT, |  | $\cdot 234,176$. |
| :---: | :---: | :---: |
| NO. INTEREST. | PRINOIPAL. |  |
| 1 | $-055,000$ | $-179,177$ |
| 2 | $-045,145$ | $-189,031$ |
| 3 | $-034,749$ | $-199,428$ |
| 4 | $-023,780$ | $-210,396$ |
| 5 | $-012,208$ | $-221,968$ |

No. 14.
Debentures bearing $5 \frac{1}{2}$ per cent. interest, payable in ten yearly instalments.

EQUAL ANNUAL PAYMENT, •132,668.

| NO. | INTEREST. | PRINCIPAL. |
| ---: | :---: | :---: |
| 1 | 550,00 | $\cdot 077,668$ |
| 2 | 507,28 | $\cdot 081,939$ |
| 3 | $-462,22$ | $\cdot 086,446$ |
| 4 | $\cdot 414,67$ | $\cdot 091,201$ |
| 5 | $\cdot 364,51$ | $\cdot 096,217$ |
| 6 | $-311,59$ | $\cdot 101,509$ |
| 7 | $\cdot 255,76$ | $\cdot 107,091$ |
| 8 | $\cdot 196,86$ | $\cdot 112,982$ |
| 9 | $\cdot 134,72$ | $\cdot 119,196$ |
| 10 | $\cdot 069,17$ | $\cdot 125,751$ |

No. 15.
Debentures bearing $5 \frac{1}{2}$ per cent. interest, payable in fifteen yearly instalments.


Debentures bearing $5 \frac{1}{2}$ per cent. interest, payable in twenty yearly instalments.

| EQUAL ANNUAL PAYMENT, |  |  |
| :---: | :---: | :---: |
| NO. | INTEREST. | $083,6793$. |
| PRINCIPAL. |  |  |$]$

Every difficulty slurred over will be a ghost to disturb your repose later on.Chopin.

The best education in the world is that got by struggling to get a living.-Wendell Phillips.

No. on Roll


| 1.-For County Purposes........... Mills |  |
| :---: | :---: |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
| 7. -For Dog tax |  |
| 8. -For Trustees' Rate in S. S. No |  |
| 9.-For Trustees' Rate in S. S. No. | . . . . . . . . . . . . . |

きeceiber Wayment,
Total Taxes, \$

After Fourteen Days' Notice, Unpaid Taxes are liable to be Distrained for Payment thereof.

## Complete the Collectors' Roll.

We notice in the proceedings of the council of a western municipality, a discussion showing that the collector's roll is sometimes placed in the hands of the collector before the total amount of the rates entered thereon has been ascertained. It is the duty of the clerk under section 20, Consolidated Assessment Act, to deliver the roll certified under his hand to the collector, on or before the first day of Oct sber, and when delivering the roll, he should notify the treasurer of the total amount of taxes entered thereon so that the treasurer may charge the collector with the amount.

While taxes are in the process of collection, it is often found that errors have been made, but neither the treasurer or assessor have no authority to correct them. The collector should be charged with the total amount on the roll as originally sent out, and if any corrections are necessary they should be made by the clerk alone and by him certified to the treasurer.
We see a decided objection to section ${ }^{1} 36$, which requires the collector to make his official return bef re the treasurer. We think that this return should be made before both the clerk and treasurer and a statement prepared to be signed by them and the collector, to be filed with the roll for the information of the auditors.

## Form of Collector's Notice.

At the request of an old subscriber, we publish in this issue a practical form of collectors' notice to taxpayers. This may be varied according to the circumstances in different municipalities. The first requisite in a tax slip is that it should mention the lot, acreage, and assessed value of all property. The different rates should be priuted in same order as in collectnrs' roll, and space shouid be provided for spe ial rates. The slips should be bound in books and with a stub to contain number on roll, name of ratepayer, amount of taxes and date of demand. On the back of each notice should be printed a list of the trustees rates for the various school sections in the municipality, together with such other information as the council for the year may deem expedient for the information of the ratepayers generally.

## A Municipal Arbitrator.

The township council of York have petitioned the lieutenant-governor in accordance with the Municipal Arbitrations Act, passed at last session of the legislature for a proclamation declaring the same to be in furce in the township. This act provides tor an official arbitrator who has all the powers of an official referee, under the Judicature Act, and also all the powers of an arbitrator under the Municipal Act.
The Municipal Arbitrations Act was passed to apply to cities containing a population of 100,000 or over, exception was made
in the case of the township of York only.
As soon as the proclamation is issued, all damages claimed by the owners or occupiers of, or other persons interested in real property entered upon, taken or used by the corporation in the exercise of any of its powers or injuriously effected by the exercise of its powers, shall hereafter be heard and determined by the official arbitrator. The appointment of a referee to settle disputes arising out of proceedings under the Drainage Act, has met with the approval of all. The ap. pointment of an official arbitrator is a step in the right direction, and one that might be extended with considerable benefit to many municipalities in different parts of the province, an extension of their authority to all actions for damages entered against municipalities would be advisable.

The county council of Peterborongh has petitioned the other counties for a change in the law so that claims against municipalities for damages amounting to $\$ 200$ may be considered by the division courts. County councils will do well to co-operate with Peterborough in securing this necessary amendment to the Division Courts Act, and we believe that after rea-onable consideration, the county councils generaily will see the advisability of petitioning the legislature so that the Municipal Arbitrations Act of 1895 may be extended to all municipalities in the province, and that the official arbitrator be empowered to decide, on request, all disputes in which municipalities are interested.

## Street Sanitation.

PACIFIC MEDICAL JOURNAL,
Street sanitation is a subject of vast importance to the people whose lives are spent in cities and towns. The subject of sewerage or the best sewer system for cities need not be discussed in this connection. To maintain a healthy body and a sound mind for a series of years in one of our great American cities is no easy task. City life has many adversities, the active man pursues his occupation under many adverse conditions while children are beset with dangers on every hand. The insanitary condition of our streets is a constant menace to health; they are never clean, filth of many kinds is allowed to accumulate on them. The air we breathe is loaded with poisonous materials and noxious gases; while the noises and jars of heavy teams on stone streets tell very severely on the nervous system.
No street made of poor material, badly laid, can be kept in a sanitary condition. A properly made street implies engineering knowledge on the part of the constructor and an appreciation of the fact that durability is not the only, or even the chief, quality of a good street, its smooth, even surface is absolutely necessary for cleanliness and an even smooth surface necessitates a thoroughly made street bed. A hollow in a street surface is a trap for rubbish and moisture, a generator of noxious gasses and destructive germs. A street surface should not only ne smooth, but slightly convexed in the center, just sufficient to let the water find its way to the gutters. If on level ground there should be a slight fall from the middle of the block each way. Water cannot remain on a street so constructed. The fire-plugs in these level blocks, instead of being placed at the street corners, as is invariaby the case, should be in the center of the block. Thus situated they answer equally well in cases of fires and are available for washing the properly constructed street. Street washing is an absolute sanitary necessity, and the water answers the double essential purpose of flushing the sewer. The sewer traps at the street corners should be carefully and effectually screened to prevent, as far as possible, decomposable material from entering the sewers. Very much of the decomposition that takes place in the sewers is preventable by well fittingscreens to the traps.

Streets made with stone blocks, the spaces between which are filled with sand, are necessarily insinitary ; it is impossible to keep them clean. Decaying rubbish, manure from horses which contains a tetanus bacillus, glanderous discharges from animals, sputa from consumptives, typhoid and cholera bacilli, etc., accumulate in the sand between the blocks and are constantly carried about by the wind. The parbage and refuse materials from back jards and stables, which contain the
discharges from typhoid and cholera patients, or the poisonous bacilli of scarlet fever, diphtheria, consumption, glanders, etc,, are carted through our stretts in open, leaky wagons, leaving a trail of filth and poison. Nothing can be more criminally careless and disgusting than the manner of carting dead animals through our streets on open carts. Many of them ton, having died of the most contagious diseases, their poisonous secretions deposited on our crowded thoroughfares.

In hundreds of cases of the contagious diseases, who e source is considered so mysterious, the contagion is intaled with the street air. The poisonous material becomes desiccated and mixed with the sand and dust of the street and is whirled about by the wind.

Another source of street contagion is nur street cars and public carriages. Hundreds of people with contagious diseases ride in these public conveyances. Children with diphtheria, or while the scarlet fever desquamation is in process, scatter the poisonous germs in profusion about the cars and carriages ; consumptives deposit their bacilli-loaded sputa, and syphilitic patients leave the germs of their loathsome disease. It should be the duty of the health department of a city to reduce this source of contagion to its maximum. The usual washing of cars with cold water is extremely inefficient. Every car and carriage should be carefully cleansed and fumigated at least once a week.

We have as yet but one known material with which to construct an ideal street, a street that is capable of being kept in a sanitary condition, viz., bitumen.

Macadam is the best country road, but cannot be kept washed and made entirely aseptic for a city. Yet a macadam street by being kept in good condition and well moistened can be made a comparatively healthy thoroughfare, and on very steep grades is the only material that makes a street that can be used. Wood and biick are too porous for street material, they absorb the numberless poisonous street filths, and pollute the atmosphere with noxious vapors and life-destroying germs. It is possible to keep a stone street clean by filling in between the blocks with asphalt, which leaves no absorbing surface. But even cleanliness, though next to godliness, does not constitute a perfect sanitary street.

## Calculation of Debenture Rates.

To the Editor of The Municipal World :
Dear Sir,- - In common, with others of your subscribers, I received your table of annuities, but, owing to the difficulty of retaining a table in memory, and the impossibility of carrying one with you all the time, I thought I would send you this communication, showing to any person who can reckon interest, a simple method by which these calculations can be made at any time and pl.ce. This method
does not require much arithmetical knowledge, and any person acquainted with calculating interests can understand it easily.

In order to ascertain the amount of principal, plus the interest payable annually so as to make principal and interest added together equal in each year, it is evident that as the interest decreases in amount the principal payable must be increased by the same amount, and as a portion of the principil is paid off in each year the interest decieases upon the amount of principal paid, and hence the amount of decrease in interest must be added to the principal in order to keep the sum of the two payable annually equal. Now, having stated this much to show the basis upon which these calculations must be made, my method of pracedure is as follows: Take any sum of money as a starting point, say $\$ 100$. Now proceed to construct your table by adding the interestcompound interest fashion-for the number of years over which your payment is to run. For example, suppose the payments are for 5 years at 5 per cent. Then the tab'e would be as follows, starting with $\$ 100$ :
ist payment, \$100.00.
2nd payment, \$105.00.
3rd payment, \$110,25.
4th payment, $\$ 115.7625$.
5th payment, \$121.5506.
And so on for any number of years you may desire.

Now, having done this much, take the number of payments, as above, over which your debentures are to run. If two then add the Ist and 2nd payment together. If three, then add the ist, 2 nd and $3^{\text {rd }}$ payments together. It four, then add the ist, ind, 3 rd and 4 th payments together, and if five, then aid the ist, and, $3 \mathrm{rd}, 4^{\text {th }}$ and 5 th payment; together, and so on for any number of years the pay ments are to run.

Now, suppose ycu want $t$, divide, say $\$ 1500$ over 5 payments at 5 per cent., then the 5 payments above added together make $\$ 55^{2} .5^{6} 3 \mathrm{I}$.
Now, we have simple questions in proportion, or as we used to say "Rule of III."
$\$ 552.5631$ : $\$ 1500:: 100: 1$ st debenture.
$552.5631: 1500:: 105:$ 2nd debenture.
$5525631: 1500:: 110.25: 3$ rd debenture. $552.5631: 1500:: 1157625: 4$ th debenture. $552.5631: 1500:: 121.5506$ : 5 th debenture.
Or having found the amount of the first debenture then continue the interest at 5 per cent., compound interest fashion, and that will give you the amount of each debenture in succession.
It is very convenient to always construct your table by beginning with $\$ 100.00$, and using any rate of interest that may be desired, and the same table will answer for any number of payments from one to the full number on the table.

I remain yours,
F. J. Craig,
Strathroy.

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

EDITJR

## Telephone and Electric Light Poles on Streets.

The question of street lighting is one which at the present time is attracting much attention. When electricity for this purpose was first introduced, municipal corporations thought that the difficulty was solved, but the question (f cost and disposition of lamps so as to utilize the full power of the light has proved a great obstacle to its universal adoption.
Between gas and electricity in the lighting of streets, the main question is one of candle power and, therefore, virtually of cost. The lighting of houses is quite different. Combustive illumination, whether of gas or oil, or even candles, involves heat, dirt, vitiated atmoshpere and tarnished decorations. The incandescent illumination of elecuicity involves none of these drawbacks, except a very moderate degree of heat. Apart from its cost it is almost an ideal mode of domestic and general indoor illumination. But all these advantages are thrown away in the open air wherethe vitiation of the atmosphere is infinitesmal, the heat is imperceptible and there are no decorations to tarnish. In street illumination the incandescent lamp cannot compete with the arc lamp. The whole question is reduced to one of economy and in the older cities and towns to give a perfect system of lighting, the use of arc lamps with the present cost of production is very expensive, and one, after careful consideration, that is not likely to be generally adopted by the older cities and towns where the streets are narrow and crooked, the blocks small and irregular in shape, requiring lights to be placed at almost every intersection, the numerous alleys and lanes should be lighted, and this can be more readily and cheaply affected by gas. Wherever such a system is adopted, it is advisable for the municipalities in making a contract with a lighting company, to see that provision is made for procuring poles of neat size, cyclindrical of six, five and four inches in diameter, decreasing from the bottom to the top on the main streets and on all other streets; the poles should be good, sound, cedar, straight, neatly dressed, and located so as to be directly in the line of the shade trees and opposite the line between lots. They should be sunk five feet into the ground and should be from thirty-five to forty-five feet in height so that the wires will be carried cver the top of shade trees. They should be neatly painted, and in this way will be almost obscured.

There is nothing more distasteful than to pass along the residential streets of some of our flourishing towns and cities and see a iine of huge, ugly poles planted
in the boulevards or in the gutters, presenting an appearance of a forest over-run by a fire more than a pleasant avenue. This may seem a trifling point, but one of the greatest importance to be considered in giving a company a franchise to place poles on the streets. The bottom portion of the pole should be painted a dark color, so as to correspond as nearly as possible with the color of the trees. The sodding should be carefully taken up, and after the pole is erected, neatly placed around it, and watered for a few days until the grass has recovered from the removal

The company should be obliged to immediately remove any poles which may be shattered by lightening or any other cause and have them replaced by new ones. It is always advisable to provide that the company should remove free of charge a number of lamps from one point to another, say not more than 500 feet, as it is always found necessary after the lamps are erected in order to make a better distribution of the light or for some other reason to cause such removal and companies are apt to take advantage of the corporation by making some changes which may be of advantage to themselves but not necessary to complete the removal and charge the corporation with the whole cost. In a city of ten thousand population it is advisable to fix this number at ten and to increase it accordıng to the size of the place. We might also say that it is advisable to specify that the company shall, at the cost and expense of the city, except as to the lamps before mentioned, remove any lamp or lamps and poles erected by them to any other point directed by the city council, and that the company is to charge only the actual cost of removing, and further, it should be specified that in erecting or removing poles the company must do no injury to the streets or sidewalks, and by no means be permitted to cut or trim trees without the consent of the city council. The placing and remoring of poles should always be subject to the direction of the city engineer, street commissioner or some other person in charge of the streets, who will see that a uniform system is followed, that these conditions are strictly enforced, and the universal complaint of citizens, about the placing of poles on streets, would be modfied, if not entirely removed.

## Road Commissioners.

The following is just as applicable to reads as it is to roofs :
"Josiar," said Farmer Corntossel's wife, "the roof's aleakin' agin."
"Is it?" Well, I'll investigate it termorrow."
"Josiar!"-and she spoke with something like asperity, which was not usual with her-" I don't read the newspapers fur nothin'. What thet roof wants ain't investigation. It wants 'tending to.-San Jose (Cal.) Report.

## The New Toll Roads Act.

The act provides that the maximum rate of toll in the province shall be two cents per mile up to five miles for double rigs and one and a half cents for singles.

Any person desiring to commute for a fixed-annual sum the tolls payable by him on any toll road, may give notice in writing to the company or municipality corporation owning or controlling the road, requiring them to commute the tolls payable at any gate at a gross amount per annum, and if unable to agree upon the amount to be paid, the same shall be determined by the judge sitting in the Division court or any division into which any part of the road extends, whose decision shall be final.

Any person applying shall give ten days prior written notice to the company or corp:ration by leaving the notice with the person in charge of one of the gates on the road, stating the name of the applicant in full, his place of residence, occupation, post office address, and the time and the place of the sitting of the division court at which the application will be made.

The judge, on proof of the due service of the notice, shall hear the parties and take evidence on oath, if required, and dispose of the matter in a summary way and shall give his dicision in writing to the parties applying therefor, and the disposition of the costs shall be in the discretion of the judge, who shall make such order in the premises as appears to him to be reasonable and just.

The order of the judge is to continue in force, from year to year, at the same rate, until rescinded upon the application of either party, after the expiration of a year. Care should be taken by intending applicatians to give the proper notice and to comply strictly with the provisions of the statute mentioned as now amended It may be that after notice is given the road companies may be disposed to offer a reasonable commutation, to be in harmony with, rather than fighting, the people using their roads and indeed it would seem to be the better policy to endeavor to conciliate them.-Sentinel-Review.

## Connecticut Wide Tires.

The committee on roads, rivers and bridges reported that on and after July J, 1896, all vehicles sold of a carrying (apacity of two thousand pounds or more, to be used on roads, not paved, be equipped with tires not less than three inches in width and all vehicles of a carrying capacity of three thousand pounds or more shall have tires not less than four inches in width. On and after July 1, 1899, all vehicles shall be so equipped. A fine of not less than $\$ 5$ nor more than $\$ 20$ is provided for violators of the law.-Havtford Post.

## Drainage.

The productiveness of virgin soil of the easily cultivated uplands left little inducement to the first settlers to undertake the laborous task of reclamation of swamps and whenever any attempt was made, the almost universal result was tailure-failure from lack of knowledge of the task undertaken and the proper course to be pursued to win success.

When entering upon the undertaking of reclaiming a swamp or marsh, the first thing to be considered is a proper drainage system. No rigid ru'e can be given that will fit all cases and occasions, and the engineer in charge of the work should possess cool discretion and common sense in addition to knowledge of mathematics. If the tract to be drained is floded by the overflow of a lake lying higher, then, usually, the straightening and enlarging the natural outlet of the lake, with an equalization of the fall the entire distance when practicable will be all that is necessary for the main drain. Lateral drains should be run into the main drain at not more than eighty rods apart. This distance must be varied according to the circumstances. Black ash swamp needs fewer and less expensive lateral drains than tamarack or soft open marsh.

Two things should always be borne in mind : first, drainage is for the purpose of getting rid of superfluous water ; second, irrigation of the swamp is often as important a matter as drainage.
In construction of the main drain, the banks should be cut at a slope of one to one, or forty-five degrees. A careful estimate should be made of the capacity necessary to carry the usual flood water of spring, the drain being wide rather than deep. The surface of the water in the drain should never be more than two feet below the surface of the swamp. This is an important matter for it is essential that enough water be retained in the soil to promote the growth of vegetation. When the land surrounding the swamp or marsh is springy, it is well to run a belt line ditch near the line of the up-land and marsh and extending from near the head of the marsh to the lower end with numerous laterals to the main drain. Springs occuring in the swamp should be conducted through tile to the main drain.

It often happens that obstructions are met with which forbid the construction of a drain in the usual manner. At the foot of the lake and head of the swamp the remains of ancient beaver dams are often found. These are generally filled with quick sand and can usually be overcome with planking the sides of the drain. The planks are held in place by $2 \times 4$ 's driven deep in the ground inside the plank and stayed at a cross piece of the same material on top, the cross piece extending, of course, across the drain. Sometimes it is advisable to tile across sand bars, but in that case, unless there is considerable clay mixed with the sand, it is well to lay the
tile on plank laid in the bottom of the drain.

After being thoroughly drained the next step in the process of reclamation is to remove all trees, bushes, stumps, etc. This is often best accomplished by burning over as soon as the autumnal rains have wet the ground sufficiently to prevent the muck taking fire. Having thus burned over for three successive jears but little timber will remain. If the land is needed for immediate use the above slow, but cheap, method of clearing cannot be resorted to In most cases the wood will pay the cost of clearing off. Next, the ground must be plowed. Right here is where the majority of failures are made. It is no easy task to subdue the luxuriant vegetation or the marvellous toughness of the sod growing in these low lands. Much trouble has been experienced in procuring a plow suitable for marsh lat.d. The various large plow manufacturers make a steel shear to attach to their upland steel or chilled plows, and recommend the combination for marsh work. They are very unsatisfactory, however, as they are unable to turn the furrow flat, but leave it set on edge, allowing the grass to grow between the furrows, causing a great amount of work to keep clean the crop planted.

After plowing, the harrow should be put on. It is sometimes required to go over the land ten or fifteen times with the harrow before it is thoronghly pulverized. It will be observed that the plowing and pulverizing is a costly and tedious process but it must be thoroughly done or all the previous expenditures are wasted.

The ground is now ready for planting, and if planted with a crop adapted to the lands will yield wonderful returns.

It is a mistaken idea to suppose that the drainage of a swamp includes all that is necessary in its reclamation. The process is long and laborious, passing through various stages of development, and at every step is needed a thoughtful, careful man who is not afraid of work.

## Rolling vs. Harrowing.

An Ohio correspondent sends the following clipping from a local paper: "An exchange throws out a few timely hints on roadmaking, as follows: The road grader will grade the dirt from the sides to the centre, but leaves it in ridges and uneven. A good finish is to put a few heavy harrows on the grade and harrow it even and pack it down some, then when the first rain comes it will either soak into the dirt or run off at the sides, and not lay in small pools and make chuck holes. A heavy roller, after harrowing, would make the road almost impervious to rain, but if the rollers are not at hand the harrow should be used." The suggestion that if a roller is "not at hand the harrow should be used " is interesting, to say the least, but this is not the only harrowing thing about some of the country road repairing.

The Pennsylvania legislature, by enacting what is known as the Harvey bill, has taken a radical step towards the encouragement of wide tires on the highways. By the terms of this law those who own and use only draft wagons, with tires not less than four inches in width and hauling loads of not less than two thousand pounds weight, are awarded a rebate of cne-fourth of their assessed highway tax, the rebate not to exceed five days' labor on the roads in any one year. The question of roadway improvement has been agitated by the farmers a number of years past and an appropriation has been sought for repeatedly from the legislature to inaugurate the work, but the Philadelphia Times claims that "the Harvey law is even a better beginning than an appropriation, as the terms of the act are so general in their application as to be of immediate benefit." It is rather a peculiar idea, and yet there does appear to be a sort of justice in requiring less work on the highway from men who take some pains not to injure the highway after it has been repaired. Broad tires are favorable to the highways, beyond question, and the man who uses them may well bear less of the burden of maintaining good roads than the man who does not care what effect his wheels have upon the radways. The results of the Harvey law will be watched with interest in many other States as well as in Pen-nsylvania.-Manchester (N. H.) Union.

## Comparison of Different Kinds of Paving.

A French engineer has classified the different kinds of pavement used in the large cities of Fiance.

Many favor the use of sandstone, others wood, notwithstanding the objections of the health authorities, still others favor granite and asphalt.

The following table shows the relative advantages of the leading kinds of pavement, arranged in the order of merit as viewed from eight different standpoints :

$$
\text { 1st } 2 \mathrm{nd} 3 \mathrm{nd}
$$ For health - Ashpalt Granite Wood

Least noise - Wood Asphalt Granite Least noise - Wood Asphalt Granite
Safety for horses Wood Asphalt Granite Safety for horses Wood Asphalt Granite
Cleanliness - A phalt Granite Wood Lastingqualities Granite Asphalt Wood Economy - - Granite Asphalt Wood Ease of repairs Asphalt Wood Granite For laying street
car rails - Granite Wood Asphalt

Money is only thus far a stardard of value; that which it can measure is perishable; that which it cannot is immortal. - Bovee.

Without labor there would be no gov. ernment, and no leading class, and nothing to preserve.-U. S. Grant.

## Cast Iron and Steel.

Cast iron, wrought iron and steel are now extensively used in the construction of highway bridges, and it may be of interest to municipal councillors to know the true difference between these materials. In order that they may be in a position to judge between them when the merits of the different bridg $s$ are being urged by manufacturers and contractors. They differ from one another by reason of the amount of carbon contained in them. The proportion of this ingredient may range from perhaps five per cent. to zero.

Cast iron contains the largest percentage of carbon, say from two to five per cent., which carbon it gets from the fuel. The ore, mixed with coal or charcoal, and with limestone as a flux for the earthy constituents of the ore, is melted in a blast furnace. The ore, fuel and flux are charged in at the top, and the molten iron is drawn off at the bottom, the process being continuous. Although the slag flcats on the melted carbon, the cast pig, which has taken up all the carbon it has an affinity for, contains also some s'ag and other impurities. When broken it is seen to be crystalline in appearance, and it differs in grade from white to grey cast iron, according to the temperature of the furnace and abundance of fuel.
Direct process for making wrought iron or steel from the ore may be employed, but they have generrally been wasteful of iron. White pig iron is commonly been melted in a cupalo furnace and then run into a bessimer furnace for manipulation which consists principally in its exposure to currents of air to burn out the excess of carbon. Other impurities may at the same time and by the same means be reduced in amount or burned out.

To explain why iron bars are fibrous: in the old-fashioned puddling furnace the surface of the melted pig iron is exposed to a blast rich in oxygen, and is stirred by the puddler to hasten the burning out of the carbon. As the carbon is thus removed the melting point rises and the iron becomes thick or pasty. Cast iron does not take on this intermediate state between fluid and solid, but wrought iron does, and hence can be welded. The semi-fluid iron is collected into a lump by the puddler and withdrawn from the furnace. It is then like a sponge, the particles of wrought iron have adhered to one another, but each particle of iron is more or less coated with a little film of slag and oxide as water is in the pores of a partly dry sponge. The lump of iron is put into a squeezer and the fluid slag and oxide drip out as water dces out of a squeezed sponge. But as it is impracticable to squeeze a sponge perfectly dry so it is impracticable to squeeze all the impurities out from among the particles of metallic iron. In the subsequent processes of rolling and rerolling, each globule of iron is elongated but sull coated with this film of slag and oxide; so that the
rolled bar consists of a collection of threads of iron. That wrought iron is fibrous is then an accident of the process of manufacture and not a property which is particularly beneficial. If these impuritiss had not been in the iron when it was rolled it would have been more homogen. eous and stronger.

The appearance of fibre in the fracture of a bar which is nicked and bent is not especially indicative of toughness. Soft steal is tough and ductile without being fibrous. If the surface of an iron bar is planed smoo:h and then etched with acid the metal is dissolved from the surface, and the black lines of oxide are left plainly visible. If the iron is twice cut up into pieces, piled and reheated and rolled, it makes double refined iron, the grade used for good iron bridges, and superior to single refined iron. The tensile strength of the former is about 50,000 pounds, varying with the size of the bars ; that is, the more work done in rolling, the stronger the iron. The compressive strength, owing to its ductility, is rather low, from 36,000 pounds to 40,000 pounds.

Latterly the manufacture of what is known as soft steel or homogeneous metal, has been brought to such perfection that steel competes in price with wrought iron. Steel is made from pig iron by several processes-the Bessimer, open hearth and others, all of which have for their main object the burning out of the carbon, either completely or nearly so. Some other substances, which may be classed as impurities, may also be reduced in amount at the same time. The process is a comparatively rapid one, several tons often being acted upon at once, and the heat generated by the union of the carbon with the oxygen of the air is sufficient to keep the mass fluid, although the melting point rises.

If the product, when practically free from carbon, is run into moulds and the resulting ingots are rolled, the material is known as soft or mild steel, ingut iron or homogeneous metal, but it is only iron freed from carbon, purer and stronger than wrought iron.

The common soft steel which is used for tension members of bridges and for pieces exposed to violent use, shocks and vibrations, does not probably contain more than . 10 to . 12 of one per cent. of carbon. Steel, properly so-called, will harden and temper, and it will not weld, but as the percentage of carbon falls off it lo,es the property of hardening and tem. pering and takes on the property of welding.

As to the effect of climate and temperature on soft steel, we might say that hard steels are thought to be effected by cold more than soft steels, but we do not think there is any sensible difference in the resistance of soft steels from change of temperature. Of course the question has been discussed as to the breakage of steel rails in cold weather. We think such
breakages are as much to be ascribed to the rigidity of the frozen ground roadbed as to the action of cold on the steel.

## Wide Tires.-They Should Appeal to the Farmer's Selfishness as Well as His Patriotism.

While the movement for improved highways has not yet accomplished what was expecied of it in some sections of the country, the agitation of the question has served to educate the people not only in relation to the value of good roads but also as to the means of preserving serviceable highways wnen once secured. It is now generally recognized that the use of wagons with wide tires is one of the indispensible aids to the maintenance of permanently good roads, and the near future will undoubtedly witness the practical desertion of the narrow tire for all heavy wagons.

The extent to which the value of wide tires has come to be recognized is shown by the fact that the State of New Jersey has already adopted a law providing for their compulsory adoption and is reaping the benefit in the possession of the best roads in the States. With wide tires in general use, even the present country roads will improve, for wide tires serve as rollers to make the roadbed more compact instead of cutting deep ruts as do heavily-loaded wagons on narrow tires.

One of the strongest objections raised against the proposed change is the loss which it would impose on farmers in compelling them to sacrifice their present narrow tires. Different suggestions have been advanced for the purpose of lightening this burden. In some places it is proposed to have the wide tire law take effect a few years hence, while others are considering the project of allowing to those who use draft wagons with tires not less than three inches in width, a rebate of one-fourth of their highway tax.

While the laws proposed are in some instances commendable as to some of their features, the chances are that this problem will be left to work out its own solution. It is a significant fact that farmers in Vermont are generally buying wide-tire wagons, because they are convinced of the many advantages of the increased width of tire for themselves as well as for the public highways.-Good Roads.

Five things are requisite to a good offi-cer-ability, clean hands, dispatch, patience and impartiality:-Penn.

## Wide Tires In Demand.

The discussion of wide tires for country roads has created demand for such tires, not only for roads but also for farm use and many manufacturers have set about supplying the demand. Owners of lawns in Montrose would be glad of the opportunity to employ a cartman who used a wide tired wagon.- Montrose (Pd.) Democrat.

## Our Roads. <br> (Continued from last month.) <br> EXISTING GRAVEL ROADS.

On a number of roads throughout the country, municipal councils have expended considerable sums of money in reducing grades and putting on gravel, but in the majority of these cases gravel has been put on wuhout any attention being paid to the reduction of grades or the proper formation of the roadbed. It has been found that these roads rut deeply in the wet season and consequently are rough and unpleasant to drive on during the remainder of the year.
A remedy for such roads is :

1. Have the road properly drained according to the specifications herein given for the construction of new roads.
2. With the use of a road machine and a gang of men commence at the edge of the gravel and work to the gutters as hereinbefore described leaving the road crown as if building a new one. See that the gutters have proper and uniform fall for the surface water, and that the trenches are made leading to the side ditches.
3. Put on a sufficient quantity of gravel of the best quality obtainable to complete the crown of the road and carefully watch it with a rake until it has become perfectly consolidated by the travel.
4. Never neglect to see that the rake is sufficiently usedto prevent the formation of ruts and maintain a proper crown to the road so as to secure the sheding of the water.
5. Where grades are steep and irregular and can be reducd at reasonable cost, it is advisable to make such reduction before expending any further time or money in grading, in which case the present gravel should be taken up and laid to one side so that it may be relaid, but generally, where there are slight changes, it is not advisable to break up the old foundation in order to secure perfect uniformity of grade.

MAINTENANCE.
Earth roads should be kept smooth, hard, up to grade and cross section by the addition of suitable material; at frequent intervals and in small quantities at a time on all places out of grade, securing a surface as shall quickly convey the water to the side ditches. The latter should be kept open, of uniform and sufficient slope, free from rocks, ridges, depressions, and continuous to one natural or artificial outlet. As regards the maintenance of a road of this class it seems hardly necessary to say that the way to keep it good is never to let it get bad. In nothing is the old adage more applicable. Every improved road should be watched over by a careful superintendent with material always at hand to level up and smooth over all inequalities as they appear. This is not only the best but it is by far the most economical method of keeping a road in repair, for there is nothing more deeply
demonstrated than that the wear of a road increases in a geometrical ratio as its condition deteriorates. It will, however, sometimes happen where the travel is very heavy and continous that the road will become so worn as to require a complete resurfacing. The surface of the old bed should be slightly loosened up with a pick before the new material is spread on so that the whole will combine better and form a solid mass. There are now machines for doing this in the shape of a steam roller with a pick attachment which are said to do the work better at a great saving of labor. The advantages of compacting a road with the roller before it is used for traffic is so obvious as to need nothing more to be said on it. If not done with the roller it must be done. with travel, which is bad for the road, as it wears away rapidly in the process, and bad for those who use the road to be compelled to do at their own cost what should be done by those having charge of the construction." The friction of resistance to draught on a road with deep ruts and thick mud is four times as great as on one in good order. This shows the importance over a perfectly kept road. An incidental advantage is that the prompt removal of the mud after every shower will prevent the annoyance of dust so generally an objection to roads but not at all their necessary concomitant. A road kept up by daily attention needs no repairs, but if it is put in order only at intervals the injuries to it would have been increased in geometrical progression which render very serious repairs necessary. It will be found cut into luts, deep holes, and regular depressions, and often lower at the middle than it is at the sides. It must be put into shape and restored to its proper cross section by cutting down the sides and filling up the middle parts. Only a single thin coat of stone should be applied at one time not more than a cubic yard to a rod superficial. The surface of the old roadway may be lightly picked or lifted with strong short picks, merely burying the point one or two inches deep, so that the new materials may be more easily united to the old ones. This is especially necessary on declivities to prevent the stones rolling down the slopes. When the road to be repaired is one which has been originally formed of large stones and of superfluous thickness no new material should be brought into it, but the old stones should be loosened with picks, gathered with strong rakes, to the sides of the road and there broken into the proper size. The surface of the road having been put into proper shape, the broken stones are to be returned to it, being scattered uniformly and thinly over the surface of it. Only a small pitce of road should be thus broken up at once, but the whole width. The old plan of repairing would be to fill up the holes - with an additional supply of the same large materials. But the methods here recommended make more work for men
and less for horses, and produce a great saving of expense. The best season for repairing a broken stone road is in the spring or early summer, when the weather is neither very wet or dry, for either of these extremes prevent the material from consolidating, and therefore produce either a heavy or a dusty road. If made at this season the roads are left in a good state for the summer and become consolidated and hard, so as to be in a condition to resist the work of the ensuing winter. If several depressions are found very near the surface each other, cover the first, and attend to the rest after the first has become solid. The ruts which are formed should not be filled with loose stones for this would make longitudinal ridges of harder material, but the laborer should work the rake backward and forward on each side of the rut and across it ; and if he does it with his eyes shut he will do more good than by taking pains to gather all the stones he can find to place in it.

The number of men required by this system of constant watchtulness may at first seem an objection, but the expenses will be amply repaid by the advantages obtained. Each laborer should have a certain length of road assigned to his special care, and the most intelligent and trustworthy among them should be made inspector over the others for a certain distance. At times unfavorable for working on the work they should be employed in breaking stones. With a reversible road machine, properly managed, five miles of well graded and well drained earth road can be repaired. This operation should be repeated once a month for eight months in the year, and in the case of a properly made and properly drained gravel road ten miles can be repaired in one day. With a stone road, however, the repairs should be made by manual labor, one man being able to rake and keep in proper repair twenty miles of road by working six months in the year.

## Why They Moved.

As the result of the adoption of the new county road system, settlers have already begun toflock fromiCanada and elsewhere. The first to arrive was a party of four families, numbering twenty four people, on the steamer Cambria, Tuesday morning. They came from the county of Grey, and have taken farms in Pickford township. The newcomers had twelve horses, ten cows, and farming implements of all descriptions.

When asked why they picked out this particular section, their answer was: "On account of the excellent farming facilities which we have found on investigation that this counly possesses. We were deferred from coming before by the poor condition of the roads. We learned a short time ago that the county would soon have a good system of roads, and made up our minds to emigrate at once. Many others will follow us."-Sault Ste. Marie (Mich.) News.

## LEGAL DEPARTMENT.

H. F. JELL, Solicitor, EDITOR.

## The Drainage Act, 1894

Section 63 of this act makes provision for an appeal by the council of the municipality served, as provided in section 6 to the referee, from the reports, plans, specifications, assessments and estimates of the engineer or surveyor. In the event of such appeal, a written notice thereof must be served on the head of the council effecting the service, pursuant to section 61, within thirty days from the receipt of the copy from the last-mentioned council. In this written notice shall be set furth the reasons of the appeal. The general rule as to the computation of time fixed by a statute is - unless there be something in the statute to the contrary -:o hold the first day excluded and the last day included. It was judicially decided, in a case where a $s$ atute required an annuity deed to be enrolled within twenty days of the execution thereof, that the words excluded the day of the execution, the presiding judge remarking that "it would be straining the words to const ue the twenty days all inclusively. Suppose the directi $n$ of the act had been to enroll the memorial within one day after the granting of the aunuity, could it be pretended that it meant the same as if it were said that it should be done on the same day on which the act was done? If not, neither can it be construed inclusively where a greater number of days is allowed." The appeal can be had only within the time and in the manner directed in the act. The right of appeal is given, as it wcre, only on certain conditions - the right can only be exercised wihhin thirty days from the day on which the report was served on the head of the municipality. Tne mode of its exercise is by service within that time of a written notice of appeal. The appeal is limited to the report of the engineer. The sufficiency of the by-law and the petition on which it is bastd can be left to the action of the courts on a proper application. It is to be observed that there is a difference between the time allowed in this act for service of the notice of appeal, and that allowed in section 58 r of the Consulidated Municipal Act, 1892 . By the latter section the time was limited to twenty days, and sub-section 2 of the said section conferred power on the judge of the county court of the county to grant such further time as he might deem just to the municipal ty served with the report of the engineer, etc., in case the latter, through misapprehension or mistake, omitted to appeal within the twenty days, upon such terms as to costs or otherwise as to the said judge might seem just and reasonab'e. The sub-section referred to is not apparently re-enacted or incorporated in the $n \cdot w$ act. Sub-section 2 of the section of this act under discussion contains new provisions and gives the reasons
of appeal, which shall be set out in the written notice of appeal served, It would be well for parties framirg notices of appeal to follow closely the language of this sub-section in stating the reason of the appeal, as the case may be. Sub-section 3 of section 64 is worthy of notice. It provides that the council of the initiating municipality may, by resolution, $t$, be passed within thirty days after the decision of the referee on the appeal to him, or in case of an appeal therefrom to the court of appeal, abandon the proposed drainage work, subject to such terms as to costs or otherwise, as to the ref.rte or court of appeal may seem just. Section 66 and sub-sections deals with the same subject as sertion 573 of the Consolidated Municipal Act 1892. It provides for the amending of the by-law passed for the construction of drainage works, for which sufficient funds have not been raised by assessment on the lands and roads benefited to pay the cost of the work and for the issue of further debentures under the amending by-law in order to fully cariy out the intention of the original by-law. In connection with this subject in was a short time ago decided that where drainage works were constructed under a contract, and certain work not provided for by the contrict was done without which the drain would have been useless, although there was no formal resolution of the cuncil authorizing the additional work, nor any contract thereof under the corporate seal, that the corporation was liable. Sub section 2 and three of the last mentiuned section provide for the refund pro rata to the parties assessed of the surplus of any moneys that may be raised under the act for the construction of drainage works, and may remain in the hands of the councll after the completion of such work.

## LEGAL DECISIONS.

## Gosfield South vs. Mersea.

JUDGMENT IN AN IMPORTANT DRAINAGE DISPUTE
Referee Britton has rendered his decision in the drainage case of Gosfield vs. Mersea, which was tried on February 6th and 7 th, and reserved. This was an appeal from the assessment of Alex. Baird, engineer for the towuship of Mersea, whereby he assessed lands in Gosfield South for injuring liability in respect of certain proposed drainage works at the mouth of Sturgeon Creek. This is the first case in which the question of injuring liability has come up for decision.

The cost of proposed work was estimated at $\$ 1,026$, which was assessed against lands and ruads in Mersea at an estimate of $\$ 890$ and against lands and roads in Gosfield Suth at \$r36. The total assessment for benefit was $\$ 30$, outlet liability $\$ 15$, and injuring liability, \$981.

The intention of the scheme was to reclaim about 35 acres of land in flats at the mouth of the creek, the value of which, when reclaimed, would be considerably less than the cost of the proposed work.

The referee decides that there must be some relation between injury and benefit -that land cannot be injured to a greater amount estimated in money than the entire value of such land and the injuring liability in the same way cannot exceed that. Whenever a case occurs where a work to benefit the petitioners cannot be done, except at a cost far in excess of the benefit, such work ought not to be proceeded with merely for the sake of such benefir.

The referee holds that, although the council may appıove of work, he still has jurisdiction on application by another municipaiity to prevent the work going on at the expense of the municipality assessed.

The referee also deals with the question of the mode of assessing for injuing liability and duties of engineer in respect thereto. Objection was taken to the engineer's report on the ground that lands assessed were not sufficiently described, and this the referee sustained holding that lands must be described fully enough to enable any one to know what lands are intended. This is a matter which, however, may be amended. The appeal was allowed with costs.
THE CORPORATION OF THE VILLAGE OF LONDON WEST VS. BARTRAM.
Municipal Corporation-Removal of Clerk-Resolutions theret.-Sufficiency of Seal.

This was an action of replevin brought to obtain possession of the books, papers, and seal of the plaintiffs, which had been in the custody of the defendant as their clerk.

The defendant had been removed from his office by resolution of the council, and a by-law was subsequently passed confirming his removal and appointing another person to be clerk in his stead.

The defendant having refused to deliver up the books, papess and seal after demand made upon bim by the authority of the council, this action was brought.

The case was tried without a jury and judgment given for the plaintiffs.

The plaintiff moved on notice to set aside the judgment entered for the plaintiffs, and to enter the judgment in his favor.

It was held that the removal of a clerk of a municipal corporation may be by a resolution, it not being essential that a by-law be passed for such purpose.

When the seal of a municipal corporation is wrongfully detained by the clerk of the council a by-law removing him from office may be sealed with another seal pro hac vice.

BETHUNE VS, COUNTY OF WELLAND.
This was an action brought agains? the county by John Bethune for an account of $\$ 5$ for taking the census of Bridgeburg. The council refused to pay the account on the ground that Bridgeburg should pay it, as the by-law states that Bridgeburg shall pay all expenses incurred in securing the passage of the bylaw.

Mr. Cowper claimed that Mr. Bethune was working under the direction of the county council, and should get his pay from them, and they recover the amount from Bridgeburg. But the judge thought differently, and declared a non-suit.
CANADIAN PACIFIC RAILWAY CO. VS. TOWNSHIP OF CHATHAM.
In this case the court of appeal for Ontario recently decided that where drainage works for the benefit of lands in two townships prove, as originally initiated and constru :ted, insufficient, an addition thereto costing more than $\$ 200$ must be authorized by petition and by-law under the act, and a contract entered into under seal by one township binding itself to pay the cost of the additional work cannot, even afier complition and acception of the work, be enforced.

IN RE CUDDY.
This is a case recently decided in the Court of Queen's Bench of Manitoba, and was an application for a mandamus to compel the clerk of the municipality of Macdonald to allow the applicant to inspect the minutes of the meetings of the council, and to furnish the applicant with certified copies of the resolutions he asked for on payment of the proper fee. The defendant excused himself for refusing the demand made upon him on the ground that the reeve of the municipality had taken the books away to Winnipeg for use in certain litigation, and that he could not get the papers or books, so as to comply with the demand.

It was held that it is the duty of the clerk, under the Municipal Act, to keep the books and records of the municipality and of the council in his office, or in the place appointed by the council, and neither the reeve nor any other person has any authority to take any of these books or papers out of the custody of the clerk. The mandamus was accordingly granted by the court.
SMITH VS, THE CORPORATION OF THE COUNTY OF WENTWORTH.
Section 87 of R. S. O., chapter 159 , as extended by section 157 of that act, and by 52 Vic., chapter 27 (O), applies not only to toll roads owned or held hy private companies or municipal councils, but also to all toll roads purchased from the late province of Canada, so that where one of such roads is intersected by another of them, a person travelling on the fatter road shall not be charged for the distance travclled from such intersection to either of the termini of the intersected road, any higher rate of toll than the rate per mile charged by the company for travelling
along the entire length of its road, from such intersection, but subject to the production of a ticket which he is entitled to receive from the last toll-gate on the intersecting road, as evidence of his having travelied only from such intersection. A mandımus was granted to compel the is ue ot such tickets.
IN RE-HODGINS AND THE CITY OF TORONTO.
Municipal Corporation-Construction of sidewalk - "Desirable in the public interest" - Consolidated Municipal Act, 1892 , section 623 (b).

In this case it was held, that, to consider and determine whether a sidewalk is desirable in the public interest within the meaning of section 623 (b) of the Consolidated Municipal Act, 1892, is a judicial act, and before a municipal corporation reach a conclusion upon the point the purson to be affected should have notice and be permitted to show, if they can, that the proposed sidewalk is not desirable in the public interest, and where such notice had not been given, except by advertisement in the newspaper, which had not come to the attention of the applicant, who had been called upon to pay the assessment for such sidewalk, the bylaw for the construction of it was quashed so far as it purported to affect the property of the applicant.

## NOTES.

In the case of Sweeney vs. Smith's Falls, the Ontario Court of Appeal recently decided that even after registration, under section $35^{2}$ of the Municipal Act, R. S. O., chapter 184 , of a local improvement by-law, a ratepayer may show that the by-law is invalid, and successfully resist payment of a local improvement tax.

In Fitzgerald vs. City of Ottawa, it was held that where a municipality makes alterations in and thus adopts as part of its own drainage system, a drain existing in territory acquired from another mun:cipality, it is liable for damages caused by subsequent neglect to keep the drain in repair.

Love vs. Webster was an action to set aside a sa'e of land for tax $s$ on the ground of irregulariiies. It was held that the provisions of section 121 of the Ass: essment Act of 1892 are imperative, and that a roll made and transmitted thereunder and not complying therewith is a nullity, and also that the non-complianre with the provisiuns of sections 141 and 142 before the sale was also a fatal objection to its validity, and the sale was set aside.

In the case of McIlcy vs. Smith it was decided that the effect of sections $2,3,6$, 20 and 21 of the act respecting pounds, R. S. O., chapter 195 , is to give a right to imp und cattle trespassing and doing damage, but with a condition that if it be found that the fence br. ken is not a lawful fence, then no damage can be obtained by the impounding; whatever may
be done in an action of trespiss, and that cattle feeding in the owner's enclosure, or shut up in his stables cannot be held to be running at large within the the meaning of the usage and the law, when they may happen to escape from such stable or enclosure into the neighboring grounds.

In the matter of Milton A. Thomas' license, decides that the granting of a license by a board of license commissioners, imposes no duty or obligation upon any individual, and a writ of prohibition prohibiting them from entertaining or hearing applications for same was refused, and it would seem from this case that an application under the latter part of section 2 i, R. S. O., chapter 194 , for an additional tavern license in a locality largely resorted to the summer by visitors, may be made at any time, so long as the license does not extend beyond the prescribed period of six months from the first of May.

## The Poetry of Drainage.

The north branch of the River Sydenham (alias Bear Creek,) turns and winds in listless apathy through the southeast corner of the Township of Moore, in the County of Lambton, as if it had no other object but the gratifica. tion of ennui and caprice. In times of fl ods, however, it seems roused from its lethergy, overflows its ordinary water marks, and covers the valley from bank to brae, removing fences and injuring crops along its flats-hence the following appeals reported in a recent issue of the "Sarnia Canadian:

## The Bear Creek Flats Cases Settled.

The appeals from the Township Court of Revision on the assessment of what are known as the lunds on the flats of Bear Creek, in the township of Moore, were heard before Judge Mackenzie, on Wednesday, in Hayne's hall, Brigden.
A great deal of interest had been aroused in regard to these appeals, and there was a large attendance of interested parties at the court.

These lands were at one time considered among the best and most fertile in the township and were formerly assessed at a high figure. For some years past their agricultural value has been decreasing, owing mainly to the clearing up of the surrounding lands and the extension of drainage works, which have had the effect of sending down large volumes of water during freshets, on the flats, and washing away the crops.

The assessor took this into consideration this year and reduced the assessment to $\$ 17$ an acre, which was still considered too high ly the owners, who appealed to the Court of Revision. The court made a further reduction to $\$ 15$, but this did not satisfy the owners, who appealed to the County Judge against the decision of the Court.
After hearing evidence on both sides, His Honor reduced the assessment to $\$ 12$ an acre, greatly to the satisfaction of the appellants.
Taxpayer-That's a vary firm and solid prece of paving you're doing there, Patrick.
City Empluye-Indade ; an' it's a fine piece of worruk ; and mighty glad am Oi to see it.
"Why, does it make any difference with you, Patrick?"
Indade and it does; it will give us double the $\mathrm{j} \cdot \mathrm{b}$ of pullin' it up."-Tex is Siftings.

## QUESTION DRAWER

Subscribers only are entitled to opinions through the paper on all questions submitted if they pertain to municipal matters. Write ench 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 safficient info
answer.-ED.
T. I.-1. Are telephone companies only as sessable for their net annual income ?
2. If answer to 1 is "yes," what section of Assessment Act so favors them?

The weight of authority formerly published in these columns is against the assessment of telephone companies, other than for their netannual income. Since the publication of the foregoing Chancellor Boyd has given a decision holding that the mains of gas companies are liable to assessment. As this is a higher authority it will most likely have its effect on the assessment of the poles of telephone companies. The full text of the latter judgment has not yet come to hand, but will be published in these columns in due time.
Enquirer.-Can a postmaster hold the position of councillor legally ?

Yes. He need not run for the office, however, unless he chooses to do so. See section 78 , Consolidated Municipal Act 1892.
H. F.- Has a married woman any right to have her name put on the voters' lists and vote av a municipal election, the propery being assessed to her, when her husband is living, and votes on the same property?
No.
J. D.-1. Ia our township by law, respecting pounds, section 4 , it reads, 'That it shall not be lawful for any horse, breachy cattle, swine, sheep, etc, to run at large in the said township, and the owners of any such animal be liable for damages committed by such animal, although the fence enclosing the premises be not of lawful height or proper construction.
Do the words "to run at large" mean running on the highway, or on a man's farm, or both ?
2. Is the township compelled by law, to provide crossings over ditches on sides of roads tor convenience of ratepayers in having egress and ingress to their farms?

1. The words "to run at large" mean running on the highway. An owner is liable for any damages occasioned by an animal belonging to him, whether the properiy is enclosed or not. You evidently refer to road fences. An owner is not required to enclose his property except for the control of his own stock. The Line Fences Act refers to division fences between owners, and where the fence is a lawful one, that is, in accordance with the township by-law, the fenceviewers have authority to decide, in case of dispute, the amount of damages committed by any animal. Where the fence is not a lawful one the fenceviewers have no authority, and any claiming damages in case of dispute, may recover the same by an action at law.
2. A township council is not compelled to provide crossings over ditches on the sides of roads for the convenience of ratepajers.
J. N. R. -1. Is the first day of July a legal holiday, and is a by-law passed by the council on that day legal?
3. Can a council sell tags for cattle to pasture on the highway, without any risk, if there is damage done or accident by such cattle?
I. The first day of July is a legal holiday, but a by-law passed on that day would be legal.
4. The council has the power to pass by-laws regulating the running at large of cattle, and may provide tags for the same, as they are allowed to do in the case of dogs. The owner of the cattle would be liable for all damages occasioned by them.
C. D.-Can a municipal council legally make a grant of, say $\$ 100.00$, to advertise the town in the Toronto Globe? Our town voted a grant of this kind and are threatened with legal proceedings to restrain them from paying over rhe money. Can they be restrained?

We are of opinion that the advertising of the town is an enterprise of a private nature and could not be paid for out of the general funds of the town, unless authorized by a vote of the penple.
W.B. -1 . Is the mayor of the council a member of all the committees appointed by the council such as public works, finance, indigent, by virtue of his office?
2. If so, should he not be notified to attend committee meetings, and for the want of notice is the work done at the meetings legal?

1. Not unless so constituted by resulution or rules and regulations governing proceedings of the council.

2 If a member, he should be notified of his committee's meetings.

To give opinion as to legality of work done we would require to have further particulars as to appointment and work of committee.
O. B.-I have lot No. 1, Township of Balfour, consequently I am on the boundary line four, consequently and Rayside. I have paid for my lot and I got my patent for it. I have about 11 acres clear, and a good fence on the boundary. The councils of Rayside and Balfoar want to open a side road in the boundary foar
line.
line. Can they take my cleared land, 33 feet,

1. and order me to move my fence at my own expense ?
2. There is a sideroad at 19 acres from that boundary line in Balfour. Can Rayside force Balfour to furnish 33 feet for that road in the boundary line? That road would be of very little use only to accomodate 2 or 3 in. very little use only habitants, to shorten the way to the government road.
3. In case this road is necessary for the convenience of the settlers, the councils would have the right to open it up, after taking the proceedings set forth in the Consolidated Municipal Act, 1892 , section 546 , and on paying the owner a fair compensation for the land taken, and the trouble he has been put to.
4. If the opening of the road is necessary, Balfour should furnish its thirty-three feet of the road.
Coundilior.-Can you inform me whether a municipal council can pass a by-law to prevent the acceptance of a nomination by a candidate for Municipal honors who has failed to have paid his municipal taxes for the year due previous to nomination day?

There does not appear to be any statutory proviston prohibiting such a person as is mentioned by our correspondent running for municipal office, so long as he is possessed of the rating or qualitication mentioned in section 73 of the Consoli. dated Municipal Act, 1892.
R. W. -1 . Does the absence from council for three successive meetings declare the seat of such councillor so abstaining vacant? If not, how many will do it?
2. If town council purchase two lots at tax sale and turns the same into street, puts on surveyor, compels the owner next street (lots) to move his fence. Is the council liable for one half cost of fence, street not being registered, but is still on the town plan as lots ?
3. If town separates from county, what proportion of a refund can town claim, they having paid the one-fifty-second part of all the county's liabilities, a large proportion of which consists of bridges and other county property?

1. Absence from the meetings of the council for three months without the authority of the council by resolution entered in its minutes, vacates a member's seat in the council.-Section 177, Consolidated Municipal Act, 1892.
2. If the council has passed a by-law assuming and establishing the lots as a street, as provided in the Consolidated Municipal Act, 1892 , if the owner's fence is on the councl's land, the council can compel the owner to move it at his own expense.

3, The amount of refund the town would be entitled to should be determined by agreement or arbitration, in the manner set forth in section 25 of the Consolidated Municipal Act, 1892.
T. D. R. - When the government survey was made in our Township a number of jogs were made in the sidelines. In most cases these jogs are in the centre of the concessions, and persons who are losers of lands thereby are cansing a great deal of trouble. Some, indeed, have closed up the roads.
I. Can the corporation legally hold these roads?
2. Does it require a by law of the township or an act of parliament to establish said jogs?

## I. Yes.

2. If the roads are as they were originally laid out, the owners of adjoining property bave no right to close them up unless the council passes a by-law for that purpose.

Algoma Settler.--In the case of settle taking up a farm in an unorganized township of Algoma, for which he has to pay to the government fifty cents per acre and do a certain amount of improvements, extending over a period of four or five years, before he can get his title deeds, there being no herd law, can his title deeds, there being that he has cleared, but not yet fenced his land that he has cleared, out not yet legally assessed as improved lands, for school purposes, the remainder being assessed as wild lands?

We are of opinron that the lands mentioned can be legally assessed to the extent of the settler's interest therein.
J. B. -
K. Bros., owners, assessed on lands... $\$ 5,000$
M. B., their tenant on another farnı, duly described.

1,800
K. Bros. paid taxes and did 24 days' $\frac{1}{s 6,800}$
statute labor on the total. ....... $\$ 6,800$
M. B., the tenant above-named, as put on assessment roll for one day's statute labor, when, according to lease, the landlord agreed to pay all lawful taxes, etc., and did so. The point of this question is, When an owner agrees to pay all taxes legally assessed on property and does so, is a tenant liable for one day's statute labor under the act as not otherwise assessed?

No.
S. E.M.-I observe in your May issue a question by "W.D.McL.", "'2. Can the owner of the land adjoining a highway, when the road is blocked with snow, refuse to allow a road to be opened through his fields, and ....." To this you answer "Yes.'
I am somewhat interested in the accuracy of this reply, and take time to give you some quotations from "Angell on Highways," 3rd edition, 1886, Boston, Little, Brown \& Co., a recognized authority on the subject,
Section 353, Page 478.
"The right to go upon adjoining lands where the highway is impassable. In England the rule of law is well settled, that where a highway becomes obstructed and impassable from temporary causes, a traveller has a right to go upon adjoining lands without being guilty of trespass. In this country (U. S.) the same principle has often been incidentally recognized and treated as well settled law, and in the case of Campbell vs. Race has been directly affirmed. Highways being established for the use and benefit of the whole community, a due regard for the welfare of all, requires that when temporarily obstructed the right of travel should not be interrupted, and this right therefore rests upon the maxim of the common law, that where public convenience and necessity come in conflict with private right, the latter must yield to the former. Its exercise may also be justified upon the familiar doctrine that inevitable necessity or accident may be shown in excuse for an alleged trespass. If a traveller in a highway, by unexpected and unforseen occurrences, such as a sudden flood, heavy drifts of snow, or the falling of a tree, is shut out from the travelled paths, so that he cannot reach his destination without passing upon adjacent lands; he is under a necessity so to do; that is to say, the act to be done can only be accomplished in that way. Such a temporary and avoidable use of private property must be regarded as one of those incidental burdens to which all property in a civilized community is subject."

## And Section 355 says :

"Having its origin in necessity, this right, it has been said, must be limited by that necessity ; cessante ratione, cessat, ipsa lex. Such a right is not to be exercised from convenience merely, nor when, by the exercise of due care, after notice of obstructions, other ways may be selected and the obstruetions avoided. But it is to be confined to those cases of inevitable necessity or unavoidable accident, arising from sudden and recent causes which have occasioned temporary and impassable obstructions in the highway. What shall constitute such inevitable necessity or unavoidable accident must depend upon the various circumstances attending each particular case. The nature of the obstruction in the road, the length of time during which it has existed, the vicinity or distance of other public ways, the exigencies of the traveller, are some of the many considerations which. would enter into the enquiry, and upon which it is the exclusive province of the jury to pass, in order to determine whether any necessity really existed which would justify or excuse the traveller.'

In a local case, a charge brought by A against B for that he, the said B, did unlawfully use violence to prevent the said A from doing what he had a lawful right to do, to wit, to pass over the land of the said B at a place where the highway was blocked with snow. It was decided that A had the right, and convicted B accordingly.

As your reply to your correspondent conflicts with my view of the case I shall be glad if you will look fully into the matter again, and if you agree with me, revise your previous reply.
The law, as quoted by our correspondent, is founded on Duncombe's case (Cro.Car. 366 ), in which it was shown that the public had been from time immemorial accustomed to deviate.

The case of Arnold vs. Holbrook, L.R. 8, Q. B. 96 , appears to be an authority ag inst the proposition that there is the right to $g$ ) upon adjoining lands when a highway is impassable. Burns, in his work on "Justices of the Peace," in volume 3, pages 509 and 510 , says : "And it is clear law, established by a number of cases, particuiarly that of Absor vs. French, ${ }_{2}$ Show, 21, and Henn's case, that where a common highway is out of repair by the overflowing of a river or any other cause, passengers have a right to go upon the adjacent ground, but in the argument in the case of Arnold vs. Holbrook, Blackburn. J., on Henn's case being cited, said : "That is not an authority, the AttorneyGeneral merely mentions that case in his argument," and upon Absor vs. French being cited, he said: "There the owner of the soil had obstructed the was." But even if the law would justify a person in going upon the adjoining lands, upon the ground of inevitable necessity, we do not think that we could, in answer to the question submitted by "W. O. McL," say
That the owner of land adjoining a highway which is blocked with snow has not the right to refuse to allow a road to be opened through bis fields, because this would give the impression that a road could be forced through his land for the use of the public generally. The rights of each person are not the same. In each case of alleged trespass it would be necessary to consider, among other things, the exigencies of the traveller, to deternine whether it was absolutely necessary for him to go upon the adjoining landis.
R. McL.-Please give calculations for issue of debentures $\$ 1,500$, seven years, at four and one-half per cent. ?

Equal annual payment, $\$ 254.55$.
J. B. F.-Is a person otherwise entitled to pay poll tax in the municipality where he resides exempt if he pays more than $\$ 2$ municipal taxes in another municipality in the proviuce?

Yes, subject to provisions of section 90 of the Consolidated Assessment Act, which requires the production of certificate of having performed statute labor or paid the tax elsewhere.
T. W. T.-1. Has a municipal council power to use the public money raised by the general taxation for building sidewalks in a village within the boundaries of said municipality?
2. Has a municipal council power to pass a by-law to impose a frontage tax on village property within the boundaries of said municipality for the purpose of building sidewalks in said village ?
3. Has a municipal council power to pass a by-law appropriating money received from hotel licenses for any special purpose they deem proper ?

1. Yes.
2. Yes. See section 6i2, Municipal Act.
3. Yes, if authorized to spend money for the purpose.
W. E. D.-1. A municipal council instruct the assessor to value property according to certain rules, so much an acre for cleared land, so much for uncleared; and so much for "broken" or unworkable land. Has the council any authority to give such instructions?
4. A school board levies a certain sum upon the section, and send requisition for such amount to the council, but a certain proporportion of the taxes of the section prove to be uncollectable. Is that proportion deducted from the amount received by the section, or do the trustees get the full amount that they apply for?
5. Section 13 of the Consolidated Assessment Act, 1892 , gives to councils power $t$ ) prescribe regulations for governing assessors in the performance of their duties, but it would seem best to leave the valuing of the land to the judgment of a competent assessor.
6. The trustees should get the full amount applied for. See section 203, Assessment Act.
J. W. C.-Public road crosses farmer's lot between fifth and sixth concession, said road was built along river bank and has been used for over twenty years as a public road. About ten years ago the river washed in side of road, and said road was moved back on lot about twenty feet, also bridge built by municipal council. The owner raising no objections to moving of road at the time. The farm has since been sold and the present owner now wants pay from council for the road. In the expending of public money by local government on road, the owner refused to let them take land from side for filling in bridge, the fence is almost on road now, allowing only space for wagon track.
7. Can owner compel council to pay for the road.
8. Can pathmaster compel farmer to move fence back and give the road its proper width, if so, what steps would he take.
9. Is road established for every purpose as a public highway.
10. Can municipal council give right of lot redeemed at land sale in the name of municipality to one of its own members, said lot being redeemed for $\$ 5.00$ when amount of taxes against lot was $\$ 50$.
11. No.
12. No.
13. Yes.
14. Yes, but member purchasing same would be disqualified from bolding his seat in council.

Enquirer-A rented a farm to B. A was assessed as owner and $B$ as tenant, when the clerk of the township made out the list he charged the owner with the statute labor and charged $B$ with two days as though he had not been assessed for the farm. B put in eight days work for the farm and two extra days for himself as per road list.

1. Was it right for the clerk to put the two extra days on?
2. If not how shall he proceed to get righted?
3. No.
4. He should apply to and be allowed by the council remuneration for the said work.

Clerk - 1 (a) Can aholder of a hotel license be clerk of a municipality, (b) if so would a small breach of the License Act disqualify him from holding the office?
2. If a council establishes a certain road by by-law and an appropriation from Ontario Government is given to open up the said road, can the Government Road Commissioner change the proposed route of said road as mentioned in the by-law providing the route described in the said by law is favorable to the majority of the ratepayers?

1. (a) Yes, (b) No, see section 279 , Municipal Act.

2 Without further information on the ubject ; we think not.

SubsCriber-1. Debentures were sold for constructing a drain under the Municipal Drainage Act to run for three years, from lst of January 1892. The drain was not completed until the fall of 1893. Are the ratepayers entitled to a rebate of interest for those two years or for any part of the time?
2. I am assessed on drain No. 1 which runs through my place, I am also assessed for benefit on another drain No. 2 which gives me better drainage than No, 1, for part of my land. Can the ratepayers on drain No. 2 prevent me from draining down the road into this drain?

1. No.
2. If our correspondent pays his proportionate part of the costs of the construction of drain No. 2 he cannot be prevented from using it, provided, in getting his outlet into same he follows a natural water course and if other parties are interested he takes the necessary proceedings under the Ditches and Water Courses Act, 1894.

Points to be Remembered in Preparing Collectors Rolls.
I. That section 109 of the Public Schools Act, 1891 as amended by the act of 1892 , does not refer to union school sections which include part of a township and a village or town, or to separate scho 1 supporters.
2. That it is necesspry to ascertain in how many schools of the township more than one teacher is employed.
3. That all statute labor lists should be returned before the collectors rull is finally added up.
4. That by the use of rate tables, taxes can be entered in the roll more correctly and in a shorter time than by any other method.
5. That section 119 of the Assessment Act requires all rates to be entered separately, so that ratepayers will know under what authority the taxes are levied. This is also very useful tor intormation.
6. That under the au hority of sections 27 and 30 of the Ditches and Watercourses $\mathrm{Ac}^{+}, 1894$, all expenses connected with an award and costs of enforcing the same are to be charged against the lands of persons awarded or adjudged to pay the same, and that the amount, with seven per cent. added thereto, is required to be placed on the collecter's roll.
7. That special rates under the Drainage, Tile, Stone and Timber Drainage and Line Fences Act must not be overluoked.

Section 40 , sub-section, of the Public Schools Act, authorizes trustees to exempt in their discretion from the payment of school rates, wholly or in part, indigent persons. The clerk of the municipality must be notified on or before the first of August. When this notice is received the trustees' rate should be fixed, so that the r.mainder of the section will pay the whole amount. The exemption would a'so apply to the general public school rate.

Changes in Children's Laws made by the Ontario Legislature, 1895.

## CHILDREN'S PROTECTION ACT.

The Ontario Children's Act, known as 56 Vict, chapter 45 , was amended as follows :

Section I was amended by adding as judges before whom children's cases could be bruught, "two justices of the peace acting together." The necessity of this legislation was illustrated during the past year by the fact that in Orillia and other important towns, cases requiring to be adjudicated upon had to be brought to the county town, a distance of 10 to 30 and 40 miles.

Section 6, sub-section 3, was amended so that it now reads as follows :
"The Lieuten int-Governor in Councll or the Minister may at any time discharge a child from the custody of any person to whom it is committed under this Act, either absolutely or on such cond tions as may be approved of, and may from time to time make, alter ir revoke rules in relation to the procedure of societies operating under the provisions of this act."

Section 9 is amended by the granting of executive powers to the provincial superintendent, in these words: "To have and exercise, by virtue of his office, the power; conferred upon Children's Aid Societies in municipali ies where no such society exists, with power from time to time to appoint, subject to the approval of the minister, any person or committee to act for him as occasion may require."

This is an important enactment since it facilitates the appointment of honorary town and county agents to take up the the work of child protection in rural and sparsely-settled districts. Applications fur such honorary appointments will be received, and they should be accompanied by recommendations from the officials of the county or well known citizens.

Section ro, dealing with Children's Shelters, is amended by striking out the age limit, and also the requirement that the Shelter should be one-half mile distant from any penal or pauper institution, the words "entirely distinct and separate" being substituted. The first change enable; societies to deal with any child from infancy to sixteen years, at their discretion. The reason for the second change was that in the smaller towns it would be difficult to locate a Shelter half a mile distant from the institutions named and yet have it within easy access.
Section II, dealing wih Visiting Comsmittees, is amended by making it possible to appoint a larger committee than six in any district.
Section 13 is amended by bringing girls under sixteen within the provisions of this section. This amendment will enable socisties to take action in the case of young girls of from fourteen to sixteen who are getting into loose company or are
breaking away from home restraints, and whom it might be desirable to have committed for a short time to some Industrial School or Refuge.

Section 14 is amended by requiring that when any child is apprehended without warrant it must be brought before a legal tribunal within one week after such apprehension.

Section 16 is repealed and the following substituted:
"Every Society or Institution receiving the care or control of a child under the provisions of this act shall make enquiries into the condition of health of the child so recelved, and if it be found to be suffering from any disease or bodily infirmity, due provision shall be made for the temporary care or disposal of such child, with a view to guarding against its continued ill-health or the spread of any infectious or contagious malady."

Section ${ }_{17}$, sub-section 2, is amended by adding after the word "Judge," in the first line, the words "or the Superintendent with the Minister's approval.

## REFUGE FOR GIRLS.

A change made in the law governing this Institution is an extension of the age of admission to sixteen and limiting it to those over thirteen.

## CHILDREN IN POORHOUSES.

An important enactment is the following clause p:ohibiting retention of children in poorhouses:
"No child between the ages of two and sixteen years shall be received or boarded in any house or institution established for the reception and care of paupers or other dependent adults. This sub-section shall take effect from and aiter the first day of July, 1895."

Nearly all local councils will be fixing their rates this month. They are require 1 to levy on the whole rateable property within their jurisdiction a sufficient sum in each year to pay all the valid debts of the corporation, whether principal or interest, falling due within the year. Each year's debts should be paid by that year's estimates, unless in expressly authorized cases a deviation is made by statute. It is better to give the ratepayers the benefit of the interest that is often paid to banks, Taxes can be paid as well one year as another, and it is false economy to carry over a flouting debt from year to year waiting for a time when people will be in a position to pay an increased rate of taxation.

## Legal Interest.

The law defining the legal rate of interest was passed to protect unfortunate debtors. A man may agree to pay more than six per cent. per annum and he may give his note accordingly, but he cannot be compelled to pay more on an account or to sign a note exacting a greateramount than six per cent.

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Water-trap Catch or Slop Basin, suitable for Hotels and Private Houses. Automatic Valve and Grate for Street Gullies

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## Bridge Commissioner, County Middlesex

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## Patent Concrete Stone Gullies and Catch Basins. <br> Extract from report of T. V. Hutchinson, Esq., Medical Health Officer, to the



Description of No. 1.
A-Is a Concrete Stone Catch Basin. C-Is an Iron Grate. which prevents bulky matter from getting into the Catch Basin, A. O-Is an opening in the Catch Basin, A, which communicates with the sewer or drain. D-Is a Pocket, in which is collected all sand, gravel, or other heavy refuse, which passes through the grate, C. Standard size. Length 5 ft . Diam'r $14 \frac{1}{2}$ ins.

London Board of Health, on the North Catch Basin and Sewer Trap.
"I have made a careful examination of North's Catch Basin and Sewer Trap. It is made of Concrete, which becomes harder the longer it is in use. It has an automatic valve of iron, which is closed at all times to prevent the escape of sewer gas, except when water is flowing into the sewer. Three of these sewer traps have been in use in the city for some months, and so far no fault can be been in use in the city for some months, and so far no North's is
found with them. Of the sewer traps tried in this city, Northe the better one ; it is less apt to get clogged or out of order ; it is made of Concrete, which does not corrode, but on the contrary becomes harder with age. The valve can at any time be lifted out, without disturbing the basin, or a new valve placed in, by merely lifting the top off. Taking everything into consideration, I believe North's are the best, and besides being cheaper, will stand the test of time better than those made of iron."
The Board of Health, by resolution, unanimously recommended the City Council to adopt the Norme Trap, for the City of London, for the reason, that it was cheaper than any other apparatus of a similar nature, and it was much more efficient.
The manufacturer begs to call the attention of Sanitary Engineers, Health Inspectors, Boards of Health, and the public generally, to this Improved completely prevent the escape of this foul which will obviate and completell be impossible for said foul air or air or gas at this point, as it will be impose forth in the patent for
gas to escape through the water trap, as set this invention. This trap is inclined towards the pocket, and is cleansed by the agitation of the falling water, which agitates and carries into the pocket any sand, stones or other refuse which may temporarily lodge thereon. If the pocket should become filled with heavy refuse, by rernoving the grate, said pocket can be readily cleaned. It is claimed for these Improved Concrete Stone Gullies, or Catch Basins, that they are superior to iron, because they will not corrode ; that they are superior to wood, because they will not rot; that they are superior to bricks and mortar, because they w ll not be affected by frost and water passing through them. But, on the other hand, the action of the water will tend to petrify and harden these Improved Conerete Stone Gullies, or to petrify and harden these improve them, and this petrification goCatch Basins, and therebars makes these (atch Basins as hard as ing on for a number of years makes these (atard size is 7 ft .6 in . stone. In regard this gives 5 ft .10 in , above the water line. If the drain long. This gives or depth, then the automatic valve would assist did not admit of this der in the trap from freezing.

SPECIAL SIZES FOR SPECIAL WORK MADE TO ORDER.


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