PUBLISHED MONTHLY IN THE INTERESTS OF


We are offering special value in Wheelers ${ }^{\text {ªt }}$ present. All sizes kept in stock

LIGHT STEEL CHAMPION
We claim for the Champion Road Machines the best Tools of their class in the market.

Write us for special circulars.

## Copp Bros. Co., Ltd., Hamilton, Ont.

THE GUTTA PERCEA \& RUBBER MFG. CO., OF TORONTO, LTD.


Catalogues, Samples, Estimates and Information Cheerfully Given.
Head Offices and Warerooms-61 and 63 Front Street West, Torohto, Ont.

# HAMILTON AND TORONTO SEWER - - PIPE COMPANY 

MANUFACTURERS OF

. Our St. Thomas .
. . agents
Ellison \& Lewis

- keep a
- full supply of

Sewer, Culvert and
. Flue Pipes.

- at lowest prices


## CULVERETEIPES

FOR LIBERAL DISCOUNT APPLY AT HEAD OFFICE.
HATMILTON. ONT.

## ROAD TOOLS ${ }^{\text {for }}$ mikm GOOD ROADS


austin reversible roller
Has anti-friction roller bearings. No weight on horses' necks. Is reversed or brake applied by driver without leaving his seat. Lightest draught and most easily handled., $1 / 1 / 2$ to 8 tons. 4 warded first medal at the World's Fair.


AUSTIN STEEL STREET SWEEPER
Lightest running, strongest and most efficienta Two horses only. Cleans thoroughly any kind of pavement. Awarded first meaial at World's Fair.


AUSTIN DUMP WAGON
Quickly and easily dumped without stopping the horses. Has steel pan and steel-lined box. Holds $11 / 2$ to 2 yards. Aw rded first medal at the World's Fair.


AUSTIN ROCK CRUSHER
The jaws having compound oscillating movement, the crushing of the rock is continuous, Embodies an entirely new principle whereby weight is reduced, capacity increased, less power required and life of crusher prolonged. Awarded first medal at the World's Fair.


AUSTIN STEEL STREET SPRINKLER
All-steel sprinkler, on four-spring platform truck, with best grade of Sarven wheels. Driver can shut off one side or both, and regulate the discharge of water.


AUSTIN STEEL REVERSIBLE ROAD MACHINE Strongest, neatest, most complete grader sold, Saves 75 per cent. in cos! of work over old methods. Energetic agents wanted in unoccupied territory. Awarded first medal at the World's Fair.

## Blank Books . <br> CITY, TOWN AND COUNTY OFFICES:

Special attention given to this class of work. Blank books of any description iuled and bound to any pattern. Direct importers of Engliih, Scotch and American Ledger and writing papers. Bookmakers for the counties of Kent, Elgin,


Oxf ru, Lambton and Essex. Our books are in every agency of the Merchants Bank, and in use in the Standard Bank, Bank of Montreal and Bank of Commerce, private banking houses and loan companies.
Write for Samples of Paper and Prices. Every bo k is perfectly flat opening. 1000 Page Letter Books with Blotters and Index $\$ 1.60$

Est mates promptly furnished.

## PLIANET BOOXMKKNIIVG INUSE,

CHATHATM, ONT.

# THE ONTARIO SEWER PIPE CO. 

 $=$ T®RONTO, ©NT.Manufactuers of


Double Strength - Railway or Road Culvert Pipes a Specialty.
A large stock always on hand. Write for price list to

## THE ONTARIO SEWER PIPE CO., <br> $601 / 2$ Adelaide Street East,

## FACTORY AT MIMICO.

Agent at St. Thomas-F, M. Griffin.

Toronto, Ont.

Robinson, Lennox \& McLeod baralitr, ec<br>Solicitors for the County of York and other Municipalities.

Mr. C. C. Robinson gives special attention to litigation and legislation affecti. g municipalities and electric railway corporations.

OFFICE-

## Room 77 : <br> Canada life Buillifing

(Telephone 2284) TORONTO,
-and at Aurora.

## The Improved Iron Truss Bridge. .

BEST BRIDGE FOR THE PRICE IN EXISTENCE
Bears an enormous strain and will last for ages. Every bridge warranted.
PRICE-Five to Seven Dollars per Foot up to 100 Feet.
Best of references, and full information promptly furnishec̉.

## ROYAL GRAFTON,

Mount Charles P. O., Ont.

William Newman, C. E .

## $\simeq$

Asso. Mem. Can. Soc. C. E. Mem. Am, Water Works Ass'n. Ontario Land Surveyor. Civil and Municipal Engineer.

## 玉

Special attention given to preparing plans and estimates for, and superintending the construction of Water-works, Sewers, Paving, Drainage and reclamation of marsh lands.

OFFICES: WINDSOR, ONTARIO

# Western Roadmaking Machinery 



..MUNICIPAL OFFICERS in Ontario will consult their best interests by examining the Western Rock Crusher before diciding on the purchase of machinery for the preparation of roadmaking material. With reference to the crusher purchased by the City of lundon last year, the C ty Engineer says

## London, Ont., Jan. 5th, 1895.

11. A. Brownell, Esq., General Manager Western Wheel Scraper Co.

Dear Sir, - The No. 10 Western Rock Crusher, bought of you last se ason has proved entirely satisfactory and fulfils alt claimed for it in every sense of the word. As it crushes to any size required, the product is especially adapted for the making of good roads. Since the Western has been in operation here, some seven months, it bas not cost the city one cent for repairs, which speaks volumes for its first-class construction; nor have the plates or jaws, that are sulject to so much wear and tear, been found necessary to replace. The committce who visited towns and cities where other crushers were in operation, and fi ally selected the Western, not because it was the cheapest in price, but because they thought it was the best crusher tendered for, have had their judgment confirmed, and join with me in recommending the Western to any municipality or others requiining a first-class crusher, Yours respecifully, Ormsby Graydon, City Engineer.
P. S - The other crushers in competition were the Champion, Blake, Chicago and others.

Crushers can be furnished with or without screens, trucks or elevators.

In the preparation of rcadbeds for gravelling, the construction and maintenance of eath roads, and the repair of gravel roads, the Western Reversible Road Machine will do the work in the best possible manner.

All machines sold on tial.


That these macbines are the best is the opin$i$ in of those who bave been using them. That they are economical is shown by the following testimonials from municipal officers. The Western Reversible is an all-steel machine.

All machines sold on trial.

TESTITKONIFLS:
H. A. Brownell, General Manager, London, Ont.

Burlord, Ont., Nov. 26th, 1894.
Dear Sir, - We, the ur dersiered memilers of the municipal council of the Township of Burford, having witnessed the operation of your machine, the Western Reversible, on trial with the American Road Machine in this tounship, on the 22nd of last May, have no hesitation in saying that we consider the Western Reversible a superior machine in many respects. Although the price of your machine was considerably more, we had no hesitation in placing our order with you, and, after using it all summer, have no cause to regret it. We consider it a finst-class machine, far superior to any method hereto employed by us, both as a labor-saving and economical system of building or repairing our streets or roads, and can recommend it to aty city, town or rural municipality. Philip Kelley, Reeve, Warden of Brant county; Chas. Vanhorn, Deputy Reeve; John McClellan, ddam Ckozier, Councillors.

## Kingsville, January 25th, 1895.

H. A. Brownell, Esq., Gen. Mgr., London, Ont.:

Dear Sir, - After using the Western Reversible Machine last season, we can truthfully say that the machine has paid for itself three times over. We can further say that other road machines have beeu used in this township, but, in our opinion, they will not bear comparison with the Reversible Road Machine. In fact, the Western Reversible is worth more than any two machines of other n a ces that we have seen in Essex county. We consider that the work done by the Reversible machine was worth at least $\$ \mathrm{I}, 000$, ofdinary expenditure, to the roads in the township of Gosfield South last year. Wie recommend all the municipalities to examine into the merits of the Western Road Machine before placing their orders. As already stated, we have used other machines but do not hesitate to say that they are not as good as the Western, which, in our opinion, has no equal, and is the best all-round road machine in the market.

Yours truly, C. G. Fox, Reeve ; Bo IV. Shanks, Dep.-Reeve.


Ciushers, Rollers, Western Road Machines, Wheel and Drag Scıapers kept in stock at London. Any of these, or repairs for same, can be furnished at shortest notice. Correspondence solicited. Write for catalogue.

Vol. 5. No. 7.

## CONTENTS.

Children not to be kept in Poor Houses... Abolition of Grand Jury ....................... Council
The Good Roads Association.
Prison Labor on Roads.
A good Investment.
The Key to Prosperity
Drainage.

Macadam Streets in Toronto
How Australian Roads are Maintained..
Storage of Rain Water from Roofs.... ...
Our Roads.
Road Material.
Stone Roads .
...
......
$\qquad$
$\qquad$
Drainage Act, 1894.
................ . . . 133
Cost of Arbitrations.
Legal Decisions.
Dixon vs. Crowland............................ . . . . . . . 133
Rokafski vs. Berlin.
$134,135,136$
Question Drawer....
Unpaid Taxes.
Fishing for Bonuses.
Toll Roads Commission ........................................... dustry.

## ADVERTISEMENTS.

Copp Bros. Co., Limited, Hamilton-Champion Road Machines.... ................
Gutta Percha \& Rubber M'f'g Co., Toronto, Hose and Fire Department Supplies, ..
Hamilton and Toronto Sewer Pipe Co., Hamilton, Sewer, Culvert, and Water Pipe.
F. C. Austin M'f'g Co., Chicago, Ill.-Road making Machinery
Munn \& Co., New York-Patents.
W. Newman, C. E., Windsor.

Robinson, Lennox \& McLeod, Barristers, Toronto...................................... Toronto-Sewer
Ontario Sewer Pipe Co., Coronto-Sewer and Culvert Pipe......................... Books, etc.
Western Roadmaking Machinery - $H$. A. Brownell, general agent, London. Books

$$
122
$$123123

Blanks Required for July
A. J. Clark, St. Thomas, Money to Loan. .
B. Baer \& Co., Doon, Ont., Highway Bridges-Iron and Wood.

$$
\begin{aligned}
& \text { Bridges-Iron and } \\
& \text { W. Campbell, C. E., St. Thomas }
\end{aligned}
$$

$$
\cdots \cdot{ }_{12}^{13}
$$

G. A. Stimson, Toronto, Municipal Debentures wanted.
Ebenezer North London andSt. Thomas,Con crete Culvert, Tile and Drainage Pipe. .
Dominion Bridge Co., Montreal, Highway Bridges-Iron and Steel..
Hamilton and Tcronto Sewer Pipe Co.

# Calendar for July and August, 1895 

## SPECIAL FOR JULY.

School trustees' requisition with clerks. Notice of valuation, etc., attached. Per doz. 20c. Collectors' Rolls.
Collectors' Receipt Books.
Tile Drainage Act forms.

## Drainage Laws.

Consolidated in one book, neatly bound in cloth, complete index.
The Drainage Act, 1894 ......... The Ditches \& Watercourses Act PRICE 80 OTS. $\left.\begin{array}{l}\text { The Ditches \& Watercourses Act } \\ \text { The Tile Drainage Act.......... }\end{array}\right\}$

## Legal, Educational, Municipal and Other Appointments.

July.

1. Dominion Day.

All wells to be cleaned out on or before this date. -Section 113, Public Health Act, and section 13 of By-law, schedule "A."
Last day for County Council to pass by-law that nominations of members of Township Councils shall be on last Monday but one in December.-Municipal Act, section 113.
Before or after this date, Court of Revision, may, in certain cases, remit or reduce taxes.-Assessment Act, section 67.
Last day for revision of rolls by County Council with a view to equalization.-Assessment Act, section 78.
Last day for establishing new High Schools by County Councils.-High School Áct, section 8 .
Treasurer to prepare half-yearly statement for Council.-Section 251, Municipal Act.
Treasurer to prepare statement of amount required to be raised for Sinking Fund to be laid before Council previous to striking annual rate.-Municipal Act, 1893.
5. Last-day for service of notice of appeal from Court of Revision to County Judge. Assessment Act, section 68.
14. Last day for completion of duties of Court of Revision in Shuniah.-Assessment Act, section 64, sub-section 19.
15. Public School Trustees' semi-annual reports to Inspector due.-P. S. Act, section 40 (13).

Last day for making returns of births, deaths and marriages, registered for half-year ending 1st July.-R. S. O., chap. 40 , section 6.
20. Last day for performance of Statute Labor in unincorporated townships.- Assessment Act, section 113.
31. Last day to which judgment on appeals, Court of Revision, may be deferred, except in AUCUT. Shuniah and other districts. - Assessment Act, section 68.

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 $23(9)$; section $32(5)$; section 55.
High School Trustees to certify to County Treasurer the amount collected from county pupils. - H S. Act, section 14 (5).
High School Trustees to petition Council for assessment for permanent improvement. H. S. Act, section 33 .

NOTICE.-The publisher desires to ensure the regular and prompt delivery of THE World to every subscriber, and requests that any cause of complaint in this particular be reported at once to the office of publication. Subscribers who may change their address should also give prompt notice of same, and in doing so, should give both the old and new address.

## Waterman's Ideal Fountain Pen.

A reliable fountain pen is now regarded everywhere by progressive people as the most practical and convenient writing instrument - a grateful relief from the drudgery of "dip"pens and untidy inkstands. The very best fountain pen is "Waterman's Ideal."

It consists of :
A gold pen, the best that can be made.
A hard rubber holder of the best shape and the finest finish, containing an ink eservoir; and

A feed that conducts the ink from the reservoir to the pen point with absolute uniformity and certainty.

Its simple construction, the excellent materials used and the superior workmanship, make it, of all the fountain pens in the market, the one least likely to get out of order.

Price List.-Gold Pen and Plain Holder-Nio. 2, holds ink for 75 pages, $\$ 2.50$; No.
holds ink for 90 pages, $\$ 3.50$; No. 4 , holds ink for 100 pages, $\$ 4.00$.
State whether you want a long or short nib pen. Address all orders, with price enclosed, to

# Othe athmatil edorid 

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

## K. W. McKAY, Editor,

A. W. Campbell, C, E.
H. F. Jell, Solicitor.
TERMS. $\$$ r.oo per annum. Single $\begin{gathered}\text { Associate } \\ \text { Editors } \\ \text { copies, } \$ 5.00 \text {, payable in advance. }\end{gathered}$
$\begin{aligned} & \text { cop. }\end{aligned}$
Six

EXPIRATION OF SUBSCRIPTION. This paper will
be discontinued at expiration of term paid for, of we discontinued at expiration of ter
CHANGE OF ADDRESS. Subscribers, who may change their address, should give prompt notice of same, and in doing so, give both old and new address.
COMMUNICATIONS, Contributions of interest to municipal officers are cordially invited.
HOW TO REMIT Cash should be sent by registered letter. Draft, express or money orders may be sent at our risk.

## Address all communications to

THE MUNICIPAL WORLD,
Box 1252 ,
St. Thomas, Ont.

## ST. THOMAS, JULY 1, 1895.

A solicitor's opinion should only be acted upon as such, in matters of law. When there is a question as to the course to be followed, the members of a council should suit themselves. In tendering advice outside of points of law, it seems to us that solicitors often usurp the functions of the council.

The printing of London's assessment has just been completed. The job was a big one, and cost something like $\$ \mathbf{r}, 400$. In many municipalities the investment would almost certainiy be a profitable one. Nothing is more conducive to securing an equitable assessment than publicity.

In this issue we publish report presented to the Lambton County Council by special committee on House of Industry. The committee considered the question in a most proctical manner, and as a result a by-law to raise $\$ 16,000$ for a House of Industry was read a second time. This will be finally passed at a special meeting to be held on 2nd October. Other counties should profit by this report and do likewise.

The Frontenac County Council will petition for legislation regarding actions for damages arising from accidents on streets and highways which are often entered by irresponsible parties, and, when investigated, found to be without grounds. They are of opinion that such actions should be settled in future by arbitration, an arbitrator to be appointed by eaclif party and the third by the other two. The experience of some councils is, that arbitrators are the most expensive.

In commencing all proceedings under the Ditches and Watercourses Act, it is necessary that a declaration of ownership should be filed. Although not mentioned in section 28, a declaration of ownership should be required by every engineer before inspecting work on notice of noncompletion ; and under section 35 , when enforeing maintenance of drain, the owner party to the award should file a declaration of ownership with notice to engineer. A case has recently been brought to our attention where a man mentioned in the award as owner, but whose wife owned the property, notified the engineer under section 35 . The engineer let the job, and proccedings were taken to restrain him from proceeding further, as the man who gave the notice was not owner, although a party to the award.

In the discussion of the House of Industry question at the last session of the Perth County Council, a curious point arose. It is proposed to construct a House of Industry in the county of Perth. The town of St. Mary's, separated from the county, is not agreeable to contributing to the institution, bat would continue to keep their indigents, if any, in the county gaol as at present. This at first appears to be an injustice. Counties and separated towns always have agreements whereby the payment of administration of justice and other expenses is provided for, and if, in cases similar to that of St. Mary's, indigents are sent to the gaol, the matter can be so regulated when making a new agreement, that the separated town pays the full cost of the maintenance of its indigents. This, in most gaols, is more than the average cost in Houses of Industry.

The pamphlet recently issued by the Prisoners' Aid Association, giving particulars in reference to Houses of Industry, is a most valuable one, and in many cases will save counties the cost of sending out deputations to procure the information to be found there in a most convenient form. These pamphlets are distributed free of charge by the association, who desire to secure the erection of proper institutions for the care of indigents, thereby relieving the county gaols, which are in many places overcrowded, owing to this class of inmates. The association is maintained wholly by voluntary contributions and a small Government grant. The work they are doing is beneficial to every county. We hope that councils will appreciate this by making a small grant to assist in the good work. Those who are interested, and have not been able to secure one of the pamphlets, should write to A. M. Rosebrugh, M.D., secretary of the Prisoners' Aid Association, 223 Church street, Toronto, Ont.

The standing of Ontario municipalities is such that they are able to make the most favorable terms with the banks for funds to meet current expenses. More than one council has recently made arrangements so that they pay 5 per cent. on loans and are allowed 4 per cent. on deposits.

Under section 37 of chapter 245 of the Revised Statutes of Ontario, being the Act respecting the custody of insane persons, it is enacted that the expenses of inquiries directed to be made shall be paid by the county. In some of the counties where by-laws have been passed to regulate these expenses, the following fees are paid:

## TO SHERIFF.

Notice to Judge with commitment papers,
and notice to each medical examiner. $\$$
Every necessary letter to Provincial Secretary, Inspector or Warden.
Copy of schedule of enquiries..
Service of summons and other services same as in civil actions in county court.

TO COUNTY ATTORNEY.
Original summonses to witnesses . . ....... $\$ 40$
Сору . . . . . . . . . . ....... ......... to witnesses.
Same fee as in civil actions in County Court to be paid by treasurer upon order of Judge.

TO MEDICAL EXAMINER.
Fee
CIUCL EAAMINER.

TO JUDGE.
Same fee as medical examiner. ..... $\$ 500$

## Webster's Boy Daniel.

"Fame!" echoed Mr. Watterson, "I never hear the word that I do not think of Daniel Webster's story of the time he met an old gentleman in a railway car, and, learning that he was from New Hampshire, thought he would draw him out a little about the old home State. A little more conversation showed that the stranger came from Webster's native town. Here was an opportunity not to be lost.
". Did you ever hear of the Webster family there?' asked the statesman.
"'Oh, yes; I knew them very well. The old man and I were great friends.'
"'Ah! then you can probably tell me what became of the boys?
"' 'Well, Ezekiel became a big lawyer -the biggest lawyer, I guess, in all New Hampshire. The girls, too, turned out well!'
'، 'You don't say' so ; and wasn't there a boy named Daniel?
"The old man pondered a minute before he answered.
"'Now, I come to think, there was a boy named Dan'l, but he went down to Boston years ago, and no one ain't heard of him since.' "

## Children Not to be Sent to Poor Houses.

An important amendment to the Ontario Childrens' Act was passed at last session of the Legislature.
"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 dependant adults." This section takes effect on and after the ist July, 1895 .

We agree with the object of this amendment, but consider that children should be received and boarded at houses of industry until homes can be procured for them, either through the efforts of the Children's Aid Society or county authorities. It is economy to advertise for homes for children admitted to houses of industry, and where the authorities are unable to avail themselves of the services of an active aid society, they should make every effort to secure suitable homes, where the dependent children will be brought up under proper influences.
The following facts about child saving work in Ontario are furnished by J. J. Kelso, Superintendent of Neglected and Dependent Children of Ontario. Office, Parliament Buildings, Toronto.
Any person sendıng children begging maybe sent to gaol for three months or fined $\$ 100$.

Any saloon-keeper who gives or sells liquior to a boy under eighteen years of age, is liable on conviction to a penalty of \$20.

Any person found guilty by a justice of the peace of giving or selling tobacco to a boy under eighteen years, must be fined $\$ 10$ and the sum may be increased to $\$ 50$.

The keeper of a licensed pool or billiard room who allows boys under sixteen years to frequent his premises, may be fined $\$ \mathrm{ro}$ by any justice of the peace, half the fine to go to the informant.

Every child between the ages of eight and fourteen years must attend school, unless excused for some good reason.

No boy under twelve years and no girl under fourteen years can be employed in any factory.

Any municipal council may pass a bylaw preventing the posting of any indecent placards or pictures on the walls, fences, streets or in public places.

Any municipal council may pass a bylaw prohibiting boys and girls loitering in the streets after nine p. m.
Any person found guilty by two justices of the peace of committing any indecent act, may be fined $\$ 50$ and sent to gaol for six months.
Any person who leads a girl from the paths of virtue, is liable on conviction, to two years imprisonment.
Any person who criminally assaults a girl under fourteen years of age, is liable to imprisonment for life and to be whipped.

Any person who sells or gives a pistol or air-gun or sells ammunition therefore, to a boy under sixteen years of age, is liable on conviction to a penalty of $\$ 20$.

## HOMES FOR CHILDREN.

Charitable institutions or societies wishing to place children in good family homes will be assisted on application to Mr. Kelso.

Christian men and women willing to give a home to a homeless child, are urgently requested to send in their names.

## Abolishing Grand Jurors.

The Grand Jury in their presentment at the recent York Assizes. After concurring in the statement of Chancellor Boyd respecting the reduction of the number of Grand Jurors as a desired change, make this timely observation :- "It was not well that persons accused of any felony should come before so many forums before knowing their fate; and for that reason the abolition of the body could not be very seriously objected to." This avernment is important, and clearly indicates the trend of public sentiment. It does seem an absurd thing that a person arrested on a charge of felony must first be brought before a Justice of the Peace for preliminary examination to ascertain if sufficient evidence of guilt can be produced to justify a committal for trial: then, that the accused must again be brought before a Grand Jury to see if they concur in the finding of the Justice, before he is actually placed on trial for the offence charged. By abolishing this second examination the legal fees of arraigning before the Grand Jury would be saved, and also the cost of the Grand Jury service for attendance. Every County has its Crown Attorney ; and after perusing the evidence taken at a preliminary examination, and examining the witnesses for the Crown, he ought to be able to judge whether the accused should be placed on trial or otherwise. Both time and taxes would thus be saved, and substantial justice done, without the redtapeism now in vogue. The Provincial Government made a move in the right direction when they reduced the Grand Jury panel last session ; but their form did not go far enough. We quite agree with the presentment above alluded to - "the abolition of the body could not be very seriously objected to." A little change in the machinery of the courts and the transfer of greater responsibility on paid County Crown Attorneys is all that is necessary.

Under the present system, the best men qualified for Petit Jurors are selected tor service on Grand Juries while the law places the larger responsibility of determining the actual innocence or guilt of the accused on the less qualified class of the community. According to our jury law Justices of the Peace, members of the Municipal Council, etc., are exempt from Pitit Jury service,-whereas, these men,
from their larger and more varied experience, shou ${ }^{\circ}$ d be better qualified to perform the functions now devolving upon Petit Jurors than the average men taken from the assessment roll of rural districts. We trust, therefore, the remarks of the Grand Jury in regard to this matter, will receive attention next session of the Legislature. It is important, not only in relation to criminal but also to clvil actions in our courts of justice.-New Market Era.

## Not a Good Likeness.

A good story is told of an English lawyer, who, having succeeded in making a litigant of every farmer in his county, having grown rich at their expense, and thus established a valid claim to their consideration, consented to sit for his portrait, which was to adorn the courtroom of the county town. The picture was duly painted by a London artist, and previously to being hung was submitted to a private view. "Most uncommon like, to be sure," was the general verdict. But. one old chap, regarding the canvass critically, dissented from the prevailing opinion, as follows; 'That be somewhat like his face, but it ain't the man,- this man has got his hand in his own pocket, you see ; now, I have knowned him for five and thirty years, and all that time he's had his hand in somebody else's pocket. This chap ain't him."

## When Maria Jane is Mayor.

When Maria Jane's elected to the mayoralty chair
Tere'll be many wrongs corrected that are now apparent there.
The sidewalks will be carpeted, the streets swept thrice a day,
The alleys be as fragrant as fields of new-mown hay.
What with parties and receptions and occass onally a ball,
There will be a transformation around the city hall;
And each ward in the city will be represented then
By lovely alderwomen and not horrid aldermen.
When Maria Jane is mayor, none but ladies will, of course,
Be appointed members of the city police force ; And in their bloomer uniforms they'll look so very sweet
The gang to be arrested will consider it a treat.
The stores will be compelled to have a bargain sale each day,
And for chewing gum and soda you will not be asked to pay ;
Oh, great reforms will be projected, all the wrongs will be corrected,
When Maria Jane's elected to the mayoralty chair.

Law suits are rare dishes for the gentlemen of the black robes and briefs, but the bill-of-fare they provide for the people is crow. Law suits are capital things with which to prevent a municipality reducing its rate of laxation.-Chatham Planet

## County Houses of Refuge.

Report of Special Committee to the Lambton county council.

## To the Warden and Members of the County Council of the County of Lambton:

Gentlemen.-We, the members of the committee appointed at the January session of this council to procure information relating to the establishment of a house of refuge in this county, beg leave to report that :
The houses of refuge in the following counties were visited, namely : Middlesex, Uxford, Waterloo and E gin. Data were produced relating to the establishment of each of these institutions, such as cost of land, cost of buildings, cost of furnishings and the cost of maintenance.
Also cupies of by-laws passed by the respective county councils for regulating and controlling them, from all which we are enabled to make the following report and estimates.

Some of these institu'ions are, in our opinion, a little too elaborate and more costly than to us seems necessary. Some expensive mistakes have been made in their construction which were kindly puinted out to us by those in charge.

In al of the institutions, which were visited, the inmates appeared to be comfurtable and have good reason to be contented, seeing that their condition in life is much better than they have hitherto been accustomed to.
We estimate the cost of a suitable
farm at .... \& 3,000 00
Honse, including fire escapes and
plumbing
1000000
Barn, woodsheds, etc................. 1,50000 Stoves, tables, etc .................. 34000
Crockery, tinware, etc.
6000
Farm stock and implements, includ-
ing 2 horses, 6 cows, 2 sows, wag-
gou, plow, harrow, disk harrow,
cultivator, seed drill, root cultiva-
tor, mower, horse rake, etc., etc.
Furniture, etc
70000 20000
Isolating cuttages.
Heating apparatus $1,0000 r$
Heating apparatus 2,000 00
Plans, etc 30000
$\$ 20,00000$
By conforming to certain conditions a Government grant if $\$ 4,000$ can be got which would leave $\$ 16,000$ to be raised by this council. That sum can be borrowed at four per cent. interest, payable in twenty equal annual payments of $\$ 1$, 177.22.

A suitable tarm can be bought and a house and necessary appointments for the accommodation of 75 inmates can be got for a tax of six cents per $\$ 1,000$ assessment, running for twetity years.

The county council has full control of the institution, the appoiutment of, or discharge of all officers connected with it as well as the fixing the amount of the salaries which they shall be paid.
They may also pass a by-law by which earh municipality shall be only charged a share of the maintenance of the institu-
tion in proportion to the number of inmates belonging to that municipality. Or otherwise, the inmates will be all county inmates and the cost of maintenance will be levied on each municipality according to the equalized assessment.
The cost of maintenance which includes the salaries, board and lodging of all persons who are employed in connection with the institution ; the cost of the food and clothing of the inmates, as well as the cost of heating the buildings and running the farm, varies somewhat in the instituti.ns visited, but on an average comes about $\$ 57$ per year per inmate, where there are from 60 to 70 inmates.
In some institutions the cost of maintenance may be higher than that sum, but in institutions where economy has been studied and practiced in the construction and management, that sum has been the average cost for many years. The heating of the building varies more than any other expense-one institution costing double the amount that another costs.

Some institutions are fortunate, in getting inmates who are us ful there, while others are forced to hire needed help both in the house and on the farm in summer time.
In all the institutions visited, the keeper and his wite as matron, manage the place and direct the inmates in such duties as they appear to $b=$ best fitted to perform, either indoors or outside. In three of the institutions visited, the keeper plows the farm land himself but the other work on the farm was done by the inmates without any bired help. The keeper's salary is generally about $\$ 400$ per year, his wife as matron gets $\$ 150$. The physician generally gets about $\$ 200$, and an inspector about $\$ 150$ per year.
There is also a committee appointed by the county council every year which is charged with the management of the institution much in the same manner that the building committee manage the other county buildings.
The cost of maintenance, with 70 inmates at $\$ 57$ each per year, would amount to $\$ 3,990$.
The apparent cost will therefore be about $\$ 5,164$ per year for twenty years.

By that time the cost of construction will have been met and if the burldings have been constructed in a substantial manner, the yearly tax will be reduced about 30 per cent.

Having thus given as fair an estimate of the cost of construction and the maintenance of an institution of that kind as it is possible for your committee to give, we come now to consider the present cost of maintaining the indigents belonging to this county, whether in the several muni cipalities or in the county gaol, as alleged criminals.

From copies of the auditors' reports of 1893 or 1894 , issued by the several municipalities, we find that there was paid in the municipalities in one of these years,
for the support, etc., of indigents, $\$ 4,269$.43, and after making a careful scrutiny of the books kept at the gaol, we find that there were at least two-fifths of the population there who are of the indigent class. The cost to this county of committing and maintainıng these people there amounts in a year to $\$:, 38300$.

We therefore come to the conclusion that we are paying in this county for the maintenance of our indigents, the sum of $\$ \mathrm{r}, 666.15$ per year more than it costs to maintain a house of refuge with 60 to 70 inmates in counties similar to this.

That we are paying $\$ 488.95$ more per year than the amount required to pay the estimated cost of both farm and construction of a suitable house of refuge thereon, with the total cost of maintaining the same in a similar manner to that in which similar institutions are maintained.

The selection of a site for a house of refuge in this county should be considered from a business standpoint by this council. Therefore we examined several farms in the eastern part of this county and also on the St. Clair river. We found the soil, etc., suitable on some of them.

On the River St. Clair coal can be brought by water about 95 cents per ton cheaper than it can be brought by rail.

There would therefore be a saving of about $\$ 150.00$ a year in maintaining the institution there in the matter of fuel.

The privilege of rod fishing, which can be had in that river during the spring and summer months, and which some of the inmates in such an institution who might be too infirm to work on a farm might be profitab'y employed, would also be an advantage worthy of the consideration of this council in making a selection of a site.

Your committee received very valuable information from the authorities of Strathroy, Woodstock, Berlin and St. Thomas houses of refuge, and many acts of kindness fiom the gentlemen whom your committee met at these several institutions, also from the editor of the Municipal World, from the municipal authorities in the county, and from many others, for which your committee return their hearty thanks.

## Fergus Kennedy, Chairman. <br> Wm. Young, Secretary,

The people of Toronto have rejected by a large majority, a proposal to put in a civic electric lighting plant. Brantford ratepayers did the same. What is the reason? Is it want of confidence in municipal management ? It certainly seems strange that corporations that are able to manage a water supply system with satisfactery results, cannot be trusted with the control of lighting plants.

Oxford county will have a plebiscite at the next municipal elections with regard to abolishing the statute labor system as at present constituted.

ENGINEERING DEPARTMENT.

## A. w. Campbell.

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

EDITOR

## The Good Roads Association.

The report of the Ontario Good Roads Association has been issued and distributed. It contains the best of information, and is valuable as a text book to those who desire to become thoroughly intormed on the road question.

The experience of the County of Hastings is most valuable, and if County Councillors would read the paper on Good Roads, by Mr. Wood, they would be convinced that it is possible for all Ontario counties to be progressive in the direction of radical road reform. A circular from the Good Roads Association was before many County Councils at their June session. In Oxford the Council decided to take a vote on the abolition of the statute labor at the next municipal elections. The County Council of Lennox and Addington favor the passage of legislation, tinrough vote of the people, to abolish statute labor and maintain roads through taxation. The Owen Sound Times suggests that the County of Grey take up the question in a practical manner, and be the first of Ontario counties to make the important move.

The bulletin issued by the Good Roads Association has no doubt been largely distributed. The Globe refers to this as follows:
"The great army of pathmasters will soon be at work directing in some cases, misdirecting in too many cases, their small detachments of rural roadmakers along the concessions and sideliues. In sume townships the method of work is excellent ; in others it is doubtless worse than wasted, leaving some roads in worse condition than before. Many have denounced the statute labor system without any qualification, but usually these persons have suggested nothing practicable to take its place. In any case, no matter what the system, the larger portion of the work will have to be done by the tarmers themselves. At present the most important question is as to directing this work in the best manner and in securing the best results. The Ontario Good Roads Association has been active in the matter of creating public opinion in favor of improvement. The Ontario Department of Agriculture has just distributed a fourpage bulletin on the subject, prepared by the association. It has been sent to municipal clerks to be distributed by them among the pathmasters. It is to be hoped that the clerks will second the efforts to improve our roads by placing this information in the hands of the pathmasters at once."

Circulars will be sent to Township Councils in time for their July meeting, to ascertain on behalf of the association:
ist. - In what direction can the statute
labor system of this province be improved : (a) by a revision of the laws in reference to it ; or (b) in the practical working out of the system ?

2nd.-Would you favor the passage of legislation which would permit munici ${ }_{3}^{3}$ palities, through a vote of the people, to abolish statute labor and build and maintain their roads through taxation as they provide for other corporate expenditures?

3 rd. -What other suggestions have you to make, if any, as to the best means to secure improvement in the making and maintenance of the streets of our towns and the rural highways of the province?

## Prison Labor on Roads.

One of the most serious problems before the practical prison reformers of the day, is to provide profitable employment for the men under sentence. Idleness is bad for the prisoner, mentally, morally, and physically.

The Montreal Star suggests one way to get good roads, and at the same time solve the question, in the following article :
"Now, why not empty the prisons upon the roads? Not in any way or in any place that will make the prisoners feel the sting of disgrace. Tu pillury a man is a poor way to reform him. The chief end of the modern prison systein must not be forgotten. We ought to graduate citizens and not improved criminals from our gaols. But what better way to bring out his manhood than by letting him do work which he knows to be useful in the open air in a quiet country district where he seldom will see anyone and never anyone who knows him? Care should be taken, of course, in choosing the men for this work. It will not be expedient to permit every prisoner sufficient liberty to do it as must be done here. We can have no chain-gang ignominy about it. A chance to join these road-building parties might be made a reward for good conduct; so that it would have a double beneficial effect-one in the men who go and the other in the men who stay. The publicspirited phase of the scheme would appeal to some prisoners : for did not a prisonful down in New Brunswick ask leave to save a subscription out of their rations for the Newfoundland sufferers? The party could never be larger than the gaol accommodation in the immediate neighborhood ; and the fullest care must, of course, be taken, to protect the people from so much as the fear of trouble. A careful selection of the men to go would help to render this part of the task easy. The farmers would be rewarded with better roads; no industry would be interfered with, but, on the contrary, the marketing of the farmer's produce would be facilitated; the prisoners would be hugely benefited in every way, and the greatest bar to prison reform removed. The extra cost, if anything, would be a mere bagatelle ; and as there is no money
to make roads with, no one could object that men outside of prisons ought to be given the work.

## Good Roads the Key to Prosperity.

It is the opinion of well informed Frenchmen who have made a study of economic problems, that the superb roads $n$ of France have been one of the most steady and potent contributions to the material development and marvelous financial elasticity of the country. The farreaching and splendidly maintained road system has distinctly favored the success of the small landed proprietors, and in their prosperity and the ensuing distribution of wealth lies the key to the secret of the wonderful vitality and solid prosperity of the French nation.-Selected.

## A Good Investment.

It should not escape consideration that, while buggies, carpets, organs and pictures are not money-makers, not even the bitterest opponent of good roads has been able to make it appear that good highways will not pay a fair income on tl investment. The capital put into the will not be dead capital. It will 1 productive. Good roads will at the lea help to pay for themselves. In fact, they will pay back all their cost and more.

> Worla Proverbs.

Where money makes the man it useer pot-metal.

How often we pay a ruinous price fo the regretful recollection of a fleetin pleasure.

Had Napoleon acted wisely before Mo cow he need not of sought consolation i talking wisdom atter Waterloo.

Debt is the devil's deputy.
It always seems easy for others to d right.

Difference of opinion is the motiv power of progress.

Few have the time to both do and say much.
The average after dinner speech will explain to you the meaning of the phrase, "Too full for utterance."

## Electrical Sparks.

The trolley has invaded the land of th Pharaohs. Cairo is to have a system.

All harm from the trolley railroads h : been prevented in Budapest, Hungar There the roads are in cuts below if street surface, where pedestrains never $g$

The first electrict light was produre by Humphrey Davy, in 1808 . The fir practical dynamo was built in 1857 , ar was first used to run an electric light the lighthouse of South Foreland, Englar December 8, 1858

## Drainage.

If we listen to the answers of farmers when asked as to the success of their labors we shall be surprised to observe how much of their want of success is attributed to "accidents," and how uniformly these "accidents" result from causes which thorough drainage would remove. The wheat crop of one would have been abundant, had it not been badly frozen out in the fall; while another has lost nearly the whole of his by a season too wet for his land. One farmer has planted his corn so early that late rains have rotted the seed in the ground; while another has been compelled, by the same rains, to wait too long before planting that the season has been too short; white still another has worked his clayey farm too wet because he had not time to wait for it to dry. And so their crops have wholly or partially failed, and all because of too much cold water in the soil. It would seem by these remarks as if there was never a season just right. The potatoes are rotted by the summer rains, or cut off by drought; and when they are neither diseased or dried up, we find at harvest time that the promise has belied the fulfilment; that after all the fine show above ground, the season has been too wet and the crop is light. We sometimes hear complaint that the season was too cold for corn, and that the ear did not fill. We hear no man say that he lacked skill to cultivate his crop. Seldom does a farmer attribute his failure to the poverty of his soil. He has planted and cultivated in such a way that in a favorable season he would have had a fair harvest, but the season has been too wet or too dry; and with full faith that farming will pay in the long run, he resolves to plant the same lind in the same manner, hoping in future for better luck.

Cold water is at the bottom of most of these complaints, as well as most of the soils; and it is in our power to remove the cause of these complaints.

Capital may be invested in underdraining more safely than in any other way, for it has been clearly pioved that the increased profit arising from this cause alone is sufficient to pay the expense in full, with interest, within twenty years, thus leaving farms increased permanently to the amount of the total cost, while the income is augmented in a still greater ratio. We are well satisfied, from careful examination, that tiles are far preferable to any other material for this purpose.

It is a common expression that clay is impervious to water, and that therefore a clay soil cannot be drained, especially by deep under-drains. Such land is wet in spring at any depth, and in the latter part of the summer we find it comparatively dry. How comes it wet at any time if water cannot go through it? And how comes it dry at any time if water does not come out of it?

The facts, however, that clay may be wet and may be dried, and that it readily absorbs large quantities of water, though they prove conclusively that it is not impervious to water, yet do not prove that water will pass through it with sufficient rapidity to answer the practical purposes of drainage for agriculture. We see that on clay fields water stands upon the surface, especially in the ruts of wheels and on headlands much trodden, late in the season, when in other places it has disappeared. This is due to puddling.

Puddling is merely the working of wet clay or other soil by beating, treading, or stirring, until its particles are so finely divided that water has an exceedingly slow passage between them. We see the effects of this operation on common roads, where water often stands for many days in puddles, because the surface has been ground so fine and rendered so compact by wheels and horses that the water cannot find passage. This, however, is not the natural condition of any clay ; nor can clay be kept in this condition without being constanily wet. If once dried or subjected to the action of frust, the soil resumes its natural condition of porosity.

In drying under the influence of the sun, soils shrink in, and thu: diminish in bulk in proportion to the quantity of clay or of peaty matter they contain. Sand scarcely diminishes at all in bulk by drying. By laying drains in land, we take from it that portion of the water that will run out at the buttom. The sun by evaporation then takes out a p rtion at the top. The soil is thus contracted, and as the ends of the field cannot approach each other, both soil and subsoil is torn apart and divided by a net work of cracks and fissures. Everyone who is familiar with clay land, or who has observed the bottom of a ditch or frog-pond by the roadside, must have observed these cracks caused by the contraction of the soil in drying. These cracks are found by observation to commence at the drain and extend further and further in almost straight lines into the subsoil, forming so many minor drains, all leading to the tiles. These main fissures have numerous smaller ones diverging from them, so that the whole mass is divided and sub-divided into the most minute portions. The main fissures gradually enlarge as the dryness increases, and at the same time lengthen out, so that in a very dry season they may be traced the whole way between the drains.

You can't be sure that 2 man is lazy simply because he gets another man to do his work for him. He may be only shrewd-Som reville Journal.

It never occurs to a boy that he will some day know as little as his father.West Union Gazette.

If a man is big and fat, and keeps his mouth shut, he can bluff nearly anybody. -Atchison Globe.

## Macadam Streets in Toronto.

by alan macdougall, m. Can. soc. c. e.
The report of the city engineer of Toronto on the reconstruction of several cedar block paved streets which are now worn out, was adopted by the City Cou :cil, and in it are given many estimates of the cost of renewals in the several materials now finding favor as permanent surface-materials, and a recommendation is made in favor of renewals wih cer'ar block paving. The comparatively low cust of this class of roadway, and the stringency of the times, has apparenilv induced the engineer to consider the pockets of the ratepayers. The poliry adopted by the City Council in making no repairs on the streets improved unde $r$ the local improvement system has bern tatal to all prospects of a good surfac - ; no street left to itself can be expected to be decently passable after being laid for two or three years ; the cedar block roadways having had no repairs made on them, the suiface did not take long to become well nigh impassable, while the condition of the roadway was sometimes worse than a mud road. The experience of the cuizen as ratepayer and traveller over these suifaces, enables him to form a just estimate of this policy, and should induce him to call for some system if maintenance in the future. There is in the city a considerable mileage of a clas; of roadway which can be maintained with a small yearly out'ay, which has the advantage of improving under proper maintenance, and forming a firmer and finer surface the more it is cared for. There are at present about 36 miles of macadam roadwass in the city. This class of roadway has fallen from public favor during the cedar block era. Many miles of streets have been torn up and replaced by cedar block, which would have been in splendid form to day, if the cost of the cedar block paving had been expended in maintenance, during the period appointed under the by laws for payment of the cedar block improvement. Every city engineer, during the past twelve to fourteen years, has urged the council to maıntain in efficient condition the macadım roads; each in turn has again and again pointed out the advantages to be obtained by proper methods of maintenance, and has urged the council to purchase a steam road roller; as yet their efforts have not met with much success. We notice an advertisement calling for tenders for a steam road roller, and trust, now that the council has gone so far, it will act on the engineer's advice and purchase a serviceable roller.

The macadam road suffered from its rival, the cedar block, for many years. One ground of objection taken was the dusty and unhealthy condition of this class of roadway. The experience gained from cedar block streets should set ratepayers thinking and make them look into the wear and conditions of macadam sur-
faces, before they condemn more of this class of roadway. With examples of wellrolled metalled (or macadam) surfaces on the streets of Montreal and Ottawa, and the exte rence of bath cities directly favorable to the use of a steam road roller, and also opportunities of seeing the same class of work in many places cloce by us on the other side of the border, there should be no hesitation now in following the advice of the engineer. Under existing circumstince:, the metalled streets are necessa ily dirty, ill-conditioned, and fair samples of the "awful example." Under the treatment of a good st am road roller, and a goxd clean, hard wearing material on the surface, these streets will rapidly rise in favor. Every year's maintenance will improve them, the material placed on them will compact the body of the surface ; tach year they will make a hetter return for the care bestowed upon them, whilst the lessened cost for repairs and renewa's will make g'ad the heart and lighten the pocket of the ratepayer. Canadian Engineer.

## How Australian Roads are Maintained.

The maintenance of the Australian state roads is carried on after the system of the sicalled recovering. After numerous experiments with other systems of keeping the roads, which have always failed, the method stated has ever proved the best. According to this m=thod, the smaller defects of the road are continually repaired by the regular roadkeepers by removing the dust and mud from the ruts and hollows and filling them with gravel. It is then, as a rule, left for the passing wagons to pack these stones and roll them in. After certain longer periods of time, when the ballast of the ruadbed has been thoroughly worn out, certain lengths of the road are again completely covered with ballast up to their nominal height. This work is carried out in wet weather, as a rule, or during the fall and spring of the year. The rolling of the new layers of ballast as formerlv practiced is now omitred.-St. Lcuis Republic.

## An Independent Lawyer.

A lawyer, with his client, called one day at the office of a gentleman who is considered to be one of the leading men of the Philadelphia bar. The lawyer had an important case and he wanted to tike the legal big gun in as adviser. He explained his business and said he and the client would be back in the afternoon. "I won't be here then,"ssid the legal giant. "I have an engagement at 3 o'clock and I won't be here after that hour." "But there is a $\$ 5,000$ fee in this for you," explained the younger lawyer. "Can't help it. I won't be here. You will have to come tomorrow."
"But my client can't come to-morrow."
"Well, I can't break my engagement," said the senior. After some further talk
it was agreed that a meeting be held that night. That afternoon, having nothing else to du, the young lawyer and his client went to a ball game. The first man they saw inside the grounds was the great lawyer, who was hurrahing for the "Phillies" with all the vigor of his lungs. That was his important engagement. Needless to say the lawyers practice nets him enough money each year to make him independeit.

## Storage of Rain-Water From Roofs.

The rain-water falling upon the rocfs of most houses of considerable size is caught and stored for use, thereby avoiding to some extent dampness of the foundations and other inconveniences.

An average rainfall of 30 inches per annum is not unusual, and if we reduce this to 24 inches we could probably collect most of that in tanks, for upon to sleep a surface nearly all would run off; but allowing six inches in depth for evaporation, there would be left eighteen inches in depth available for storage, which would amount to 540 cubic feet or 3,375 gallons in the year, which would yield a darly average supply of nine gallons to the house. If all the rain-water is to be stored and used gradually day by day, the capacity of the tank should be from one to two thousand gallons, but the rules applicible to waterworks reservoirs do not apply in this case, because in small houses it is impossible to limit the quantity daily drawn out of the tank, and if the proper average daily be exceeded it throws out any calculation which might be made on the basis of a daily quantity to be used. Perhaps the cheapest tank that can be made is a well. A circular well may be sunk, 5 feet in diameter, to a depth of 15 feet and if the ground be a stiff retentive clay to that depth, a trial hole should be dug in the bottom to a depth of a toot or eighteen inches to ascertain that the clay continues to a sufficient depth below the bottom of the well, the hole being carefully filled in again with puddled clay. The well may then be lined with halfbrick in hydraulic lime mortar, leaving a clear diameter of four feet three inches. If the bricks be laid in dry, the water will pass through the joints to the clay at the back and dissolve it, and part of it will be washed into the well as the water surtace lowers, and if the mortar be made of other than hydraulic lime, it will be dissolved. Where the ground is prous this lining could not be depended upon to be sufficiently water-tight. In that case the brick lining should be of radiating bricks with close joints and backed with puddled clay.

Another method is to use no bricks at all, but to cover the sides of the excava tion with Portland cement in three coats, the full thickness of the cement being not less than one inch. In this case it is very necessary that the sides be trimmed down to an exact circle. This method has been objected to on the ground that
water may rise outside the tank above the level of the water within it, and by its pressure burst off the cement lining. This would probably be so, if care were not taken to make the excavation circular, but that being done, and there being necessarily an equal external pressure all round the well, the cement ring would $b$ r put under a compression not greater, in all probability, than it could withstand. If it is desired to have a brick lining, and to coat the face of that with cement, the bricks should be laid drv, to prevent settlement of mortar joints.

It is advantageous to catch the roof water before it descends to the ground, 50 that from an elevated tank a pipe may be laid into the house. This also affords facility for filtering the water. The ordinary sand filter, such as is in use on a large scale, cannot be adapted to filteration on a small scale of the necessities of one small house. The purification of water passing through any filter-bed takes place by reason of two separate actions upon it first by straining out of it the solid matte i) suspension, and secondly, by bringin the oxygen of the atmosphere to act upon it so as to change any decaying organic matter which it may contain in solution into organic and harmless substances. The best filtering medium, therefore, is that which at once excludes from its ports suspended solid particles and exposes the dissolved organic matter to the large $t$ possible amount of atmospheric air. Fine sand, by reason of its heaviness, lies too compactly, while in its surface it is to.) porous to exclude all suspender matter. On the large scale this is $n$ practical inconvenience, because, though the solid matter may $n, t$ a'together arrested on the surface, $t$ may penetrate the sind to the depth an inch or two, it is easily removed regular attention, but in the case of small household filter, it is quite differe here no such attention could practic: be given to remove the so id material : replace it from time to time with fre miterial. Some substance, therefor must be used which is closer in its textur, on the surface, and more open in its bod than a s ind-bed is.

Charcoal is a very porous substance but the difficulty is to make the wate pass through the pores, for when th charcoal is in the form of lumps, how smail, the water passes thruugh among interstices of the lump; or granules, a $\mathrm{n} \cdot \mathrm{t}$ through their pores, thus coating t surface of each lump with the impurit of the water, and for a time, therefc depriving the water of them, but af wards allowing it to pass through unpt fied, and even after further use, giving to it part of the accumulated impurities the water which lad previously pass through.

I would rather have newspapers withou government than government without ne papers-Thomas Jefferson.

## THE MUNICIPAL WORLD

## Our Roads.

## road material.

The material empluyed for stone roads should be both hard and tough. Hardness is that disposition of a solid which renders it difficult to displace its parts among themselves, thus steel is harder than iron and the diam ond almost infinitely harder than any other substance in nature. The toughness of a solid, or that quality by which it will endure heavy blows without breaking, is again distinct from hardness, though often confounded with it. It consists in a certain yielding of parts with a powerful general cohesion, and is compatible with various degrees of elasticity. Tbe virtue of broken stone on roads lies not so much in the support it offers to vehicles as it does the protection it affords to the natural soil by shielding it from the effects of moisture. The weight must really be borne by the natural soil, which does, in fact, carry the stune road itself as well as the carriage.

Some geological knowledge is required to make a proper selection of materials. The most useful are those that are the most difficult to break up. Such are the basaltic and trap rocks, particularly those in which the horn blend predominates. The green stones vary in quality. Flint or quartz rocks and all pure silicious materials are improper for use since, though hard, they are brittle and deficient in toughness. Granite is generally bad, being composed of three hetrogeneous materials -quaitz, felspar, and mica the first of which is brittle, the second liable o decomposition, and the third laminat3d. The scientific granites, however, which contain hornblend in the place of elspar are good and better in proportion to their darkness in color. Gneiss is still nferior to granite, and mica slate is wholly nadmissible. The argillace us slates make a smooth road, but one which decays very rapidly when wet. The sand stones are too soft. The limestones of the carboniferous and transition formations are very good, but other limestones, though they will make a smooth road very quickly, having a pecultar readiness in binding, are too weak for heavy roads, and wear out very readily. In wet weather they are liable to be slippery. It is better to bring good material from a distance than to employ an inferior article Sbta nable close at hand. No large stones shoul the employed.

Whenever a carriage-wheel or horsehoof falls eccentrically on a large stone it is loosened from its place and disturbs the smaller ones for a considerable distance round it, thus preventing their consolidation. If too small, the stones crush easily; but, on the other hand, the less the size of the fragment the smaller the interstices exposed to be filled with water and mud, and the sooner they will make a hard road. For roads little travelled, and uver which only light weights pass, the stones may be reduced to one inch in thickness Small angular stones are the
cardinal requisites. When of the suitable material of proper size and rightly applied to a well-drained sub-grade, they will unite and consolidate into one mass and almost as solid as the original stone with a smooth, hard and unelastic surface. The stones should be as nearly cubical as possible, the largest of which in its longest dimensions can pass through a ring three ioches in diameter In reducing them to this size there will, of cuurse, be smaller ones in the mass. Twelve inches of well consolidated materials in good condition will be sufficient tor roads for the largest travel and will resist all usual weights and frosts. Macadam considers from seven to ten inches sufficient, the latter depth of well consolidated materials being equal to carry anything. In the climate of France ten inches has been shown to be quite enough for the most frequented roads, and six and eight inches enough for others. The thickness should vary with the soils, the nature of the materials, and the char acter of the travel. It should be such that the greatest load will not effect more than the surface of the shell, and it is for this purpose chiefly that thickness is required in order that the weight which comes on a small part only of the road may be spread over a large portion of the forndation.

STONE ROADS,
Earth roads as main thoroughfares will soon be a thing of the past, and the time will soon come when such roads will give way to stone. They cost more in the first outlay, but are much cheaper in the end. In order to obtain material in municipaltties where rock is to be found, they should have in their possession one or more rock crushers. These machines should be simple in construction and light in weight, yet possessing the important qualities of strength, durability and efficiency. For the last fifteen years manufacturers have been making improvements on these machines, so that to-day those manufactured cannot fail to give results which will prove their value. The amount of product obtainable from any crusher is governed by the fineness to which the stone is crushed, the speed at which the machine is run, the diligence with which it is fed, and the character or quality of the stone used, varying from ten to twenty tons per hour. They are usually mounted on trucks for portable use, and are moved and operated along rivers where boulders are abundant. A suitable attachment to these crushers is an elevator which carries the material to the top of the bins roughly constructed to hold the product which passes through a screen, dividing the materials into three grades, depositing each in a separate bin. These bins are provided with chutes, which are constructed at sufficient elevation above the ground to permit of a wagon passing underneath to receive its load. The chute is opened and the wagon filled without any cost. These machines cost from six hundred to one thousand dollars. In
the construction of these roads there are a few points which would seem to bear investigation. One of these is whether the material used in surfacing the road should be broken small, of uniform size, or shou'd have a foundation of large stones, covered with those finely broken. The first of these systems, called macadamizing, has derived its name from one who has, perhaps, done more than any other to enlighten the world on the subject, and gave an impetus to the improvement of roads. Stone roads before the time of Macadam, with a few exceptions, were made without any pretentions of scientific construction, and were composed of stone laid promiscuously, and thrcugh which horses and vehicles could clamber without actually sticking fast. These were described by writers of the times as the most horrible invention that could be conceived. Macadam, though not first to discover the advantages of having the surface of the roads covered evenly with stones, broken small and of un'form size, was the first to bring this system into prominent notice, and being very energetic and persevering, he succeeded in creating a complete revolution in roadmaking, not only in Great Brit_in, but in the civilized world.

In building stone roads in St. Thomas, the stones were supplied from the quarrits in three grades of coarseness: (1) screenings consisting of stone dust and small particles of stone nut over five-eighths of an inch in thickness ; (2) egg, cousisting of what passes over the five-eightbs screen and will pass through a one and one-half inch screen; (3) tailings, or what is too large for the one and one-half inch screen, averaging from one and one-half to three inches in size. A small coating of the largest size six inches thick at the sides is laid on a prepared sub grade and rolled untıl it is well consolidated. If possible, it is well watered, or advantage taken of wet weather to facilitate the binding of the material. This is coated over with stone of the second size to a depth of three inches in thickness, and the road is thoroughly rolled. Ou this is placed a layer of screenings sufficient to fill the surface of interstices between the stones and to cover them. This last coat, like the preceding one, is watered and well rolled. In place of screenings, tine gravel or very coarse river sand may be used, but on no account fine or dirty pit gravel is admissible. Coarse pit sand may be allowed after laving been thuroughly washed so as to remove all earthly matter and the finer particles of sand which could work down between the stones and prevent them from binding, and thereby convert the macadam into a mass of rounded stone little better than ordinary stone. The great object is to cause the stone to consolidate under traffic into a fine, compact and smooth roadway. If any ioose earthly or other fine material be mixed with the stones, they cannot become consolidated.

## LEGAL DEPARTMENT

H. F. JELL, SOLICITOR, EDITOR.

## The Drainage Act, 1894.

Sictions 57 and 58 of this act contain special provisions in reference to drains constructed thereunder in one municipa'ity and $n \cdot t$ extending into another. The parent section is 576 of the Municipal Act, which was repealed by the Consolidated Municipal Art, 1892 and section 576 of the last mentioned act, substituted therefor. It is a condition precedent to the acquisition of one municipality over lanc's situate in another, that a petition signed by a majority of the owners of the property to be benefited situate in the municipalty undertaking the work should first be presented. The enginecr or surveyor is, in the first instance made the judge of the amount to be prid. It may be any sum that he may deem just. Subsection 2 , of section 57 , seems to be a new provision. It enacts that a drainage work shall not be deemed to be continued into a municipality other than the initiating municipality merely by reason of such drainage work or some part thereof being constructed on a road allowance, forming the bc undary lines between two or more munic palities. Section 58 conters authority in the engineer to continue the drainage work, if necessary for the purpose of an outlet for the same, across the boundary line between the initiatory municipality and an adjuining municipality, and in such cases to assess and charge regard'ess of municipal boundaries, all lands and roads to be affected by benefit, outlet, or relief, with such proportion of the cost as to him may seem just. In his report, the engineer is to estimate separately the cost of the work within each municipality and upon the road allowance or other boundaries. No municipality and no officer of any municipality has any power, in the interest of the public, to drain water on to the land of any proprietor, and lodge it there against the will of such proprietor. Section 60 authorizes the engineer to assess and charge lands and roads in or under the jurisdiction of any adjoining or neighboring municipality, other than the municipalities into or through which the drainage work passes, benefited by the drainage work or provided with an improved outlet or relieved from liability for causing water to flow upon and injure lands or roads, with their proportionate cost of the drainage work. Section 61 et seq. prevides for the mode of settling as-essment, etc. between municipalties. The council of the initiating municipality is to serve the head of the municipality or municipalities into or through which the work is to be continued, r $r$ whose lands or roads are assessed without the drainage works being continued into it, with a copy of the report, plans, specifications, assessments and estimates of the engineer or surveyor on
the proposed work, and unless the same are appealed fiom in the manner provided in the said act, they shall be binding on each corporation duly served with the same. The service is to be of a copy of the report, plans and specifications and estimates of the engineer or survejor, so far as they affect the adjoining municipality, and must be on the head of the municipality. It is not like the service of the notice under section 21 , subSection r, which must be upon the reeve or other head offictr and the clerk of the manicipality. The council of the municipility served in the manner before mentioned, unless an appeal is taken, in the manner provided by section 63 of the act, shall pass a by-law or by-laws to raise and shall raise and pay over to the treasurer of the initiating municipality within four months of the date of such service, the sum that may be named in the report as its proportion of the cost of the drainage work, or in the event of an appeal, the sum that may be determined by the referee or court of appeal. The council of the municipality so served is required to hold a court of revision for the adjustment of assessments upon its own ratepayers in the manner provided in the foregoing sections of the said act.

> To be continued.

## Cost of Arbitrations.

The case of Christie $v$. the corporation of Toronto Junction was argued before the Supreme court recently. Accord ing to The Ottawa Journal the case was submitted to arbitration. The arbitrators awarded Christie $\$ 200$, and the costs wire $\$ 2.000$. Christie appealed to Judge Rose, who increased the compensation to $\$ 1,000$. Then the corpcration went to the court of appeal in Toronto. Chief Justice Hagarty and Mr . Justice McLellan were in favor of restoring the award of $\$ 200$, but Justices Osler and Burton thought Judge Rose's figure should be sustained. The court being equally divided the appeal of the corporation was dismissed. The corporation carried the case tn the Supreme court, where it is stated that the costs now amount to at least $\$ 5,000$.

Though the expense here is largely due to the system of appeals, there is another feature, the extensive cost of arbitration proceedings. The plaintiff clained a compensation as owner of two dwelling houses claimed to be injuriously affected by the action of the defendant corperation in raising the grade of the street. Chief Justice Hagarty in commenting upon it said:-"Arbitration was introduced into our municipil legislation with a view of providing an easier and cheaper way of arranging disputes, instead of leaving the parties to the cost of a regular law suit. Case after case has been before us of late when it is evident that the costs of the arbitration have been
double or treble that of any ordinary suit tried in court. I think I may sately say that this case tried in the ordinary way, with or without a jury, would have been disposed of in onethird of the time and at a fourth of the cost of this arbitration." In this case the claimant called an engineer, who was asked 250 questions. Detendant called an engineer and asked him 653, the claimant recalled his engineer and asked him 290 more. A thild engineer had to answer 808 questions. - Exchange.

## Legal Decisions.

## DIXON VS CROWLAND.

Joseph Dixon, of Thorold township, brought an action against the township of Crowland to recover $\$ 35$ damages to repair his hay press, which was damaged last winter by running off a bridge across a ditch and being upset. Several witnesses were examined, the evidence of which showed that the bridge was not in the middle of the road, and the ground being covered with snow so that its position could not be ascertained, any person driving in the middle of the road was liable to get upset. Reere Hill, of Crowland, explained that the bridge had originally been built in the centre of the road, but owing to farmers moving their fences out on one side it was nearer one fence than the other, and was not in the centre of the travelled road; it had been this way for eight or ten years. German for plair tiff, Ray mond for defence.

The judge held that the bridge should have been built in the middle of travelled road, and gave judgment for plaintiff.

## ROKOFSKI VS. TOWN OF BERLIN, ET AL.

This was an action to recover damages, on behalf of the p'aintiff, a lad, for injuries received through the failing of a open trap door, which door was partly on the property of the corporation and partly on the Walper Hotel property. The injury, which consisted of an injured foot which necessitated the amputation of a portion of plaintiff's big toe, occurred on roth August, 1894. The plaintiff was sitting near the open trap door, or standing $n_{i}$ ar it, when from some unexplained reason it suddenly closed, catching his foot and causing the injuries above noted. Associated with the corporation were Walper, the proprietor of the house, and Gilkinson, the tenant.

The evidence was very conflicting as to the liability of any one of the defendants for damages, more particularly as there seemed to have been grave negligence in serving the deferdants with notice that damages were to be claimed, and then as to whether the plaintiff, by his own carelessness, had not actually contributed to the accident. The judge heard the plaintiff's evidence and decided to withdraw it from the jury and tiy it himself, and on subsequently hearing the evidence for the defence and argument of counsel, gave judgment dismissing action as against all defendants.

## QUESTION DRAWER

Subscribers only are entitled to opinions through the paper on all questions subinitted if they pertain to municipal matters. W'rite 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 sufficient information to enable us to give a satisfactory answer.-Ed.

Tax Sale.-Please give in detail all the proceedings in connection with sale of land for taxes in a township municipality where there is no county organization.

Ans.- It is provided by section 33, chap. 185 , R. S. O., that the arrears of taxes due to any municip lity, except those mentioned in sec. 5 of chap. 17 of 52 vic., in any of the districts, shall be collected and managed in the same way as like arrears due to municipalities in counties, and the Treasurer and Reeve are required to perform like duties in the collection and management of the arreas of taxes as in counties has to be performed by the Treasurer and Warden thereof.

Where a portion of the taxes on any land has been due for three years, or for more than three jears preceding the current year, the Treasurer of the municipality shall, unless otherwise directed by bylaw, submit to the Reeve a list in duplicate of the lands liable to be sold for taxes, with the amount of arrears against each lot set opposite the same, and the Reeve shall issue a warrant under his hand and the seal of the municipality, commanding the Treasurer to levy upon the land for the arrears due thereon, with costs. One of said lists shall be deposited with the Clerk, and the other shall be returned to the Treasurer. This is the foundation of subsequent proceedings.

The Treasurer must be particular that the taxes on the lands proposed to be sold are in arrears for three jears. A sale for arrears for a less period is the same as a sale where no taxes are in arrcar. All of the proceedings in such case are void

Before preparing this list the Treasurer must comply with the provisions of sections of 140 to 144 of the Assessment Act, which requires that the fact of the lands being in arrear and liable to be sold shall be communicated by the Treasurer to the Clerk, who shall give a copy of the list to the Assessor, and he shall ascertain if any of the lands named are oecupied and notify the occupants and owners, if known, that the land is liable to be sold for arrears of taxes When the assessment roll is returned to the Clerk he shall ascertain if any lot in the list is entered as occupied, and shall notify the Treasurer. The statute is prohibitory, and the Treasurer shall not sell any lands which have not been included in these lists.

Having prepared the lists in the proper manner, the Treasurer's next duty is to advertise the sale in the "Ontario Gazette" and in a local newspaper, and in such newspaper published in the city of Toron to as the Lieutenant-Governor-in-Council may designate. The advertisement should contain notification that unless the arrears and costs are paid the Treasurer will pro-
ceed to sell the lands for the taxes on the day and at the place named. The day of sale shall be more than 91 days alter the first publication, and is required to be held during the months of July, August, September and October. In addition to the advertisement, the Treasurer is required to post a notice similar to the advertisemsnt in some convenient and public place at the Town Hall of the municipality at least three weeks befure the time of sale. The Treasurer is entitled to add to the arrears of taxes published his commission, which is two and one-balf per cent., except where the taxes against any parcel of land are le-s than $\$ 10$, when he shall be entitled to charge, in lieu of his commission, twenty-five cents. He should also add pro rata the costs of publication. This is necessary so that a person intending to pay the arrears of his taxes may, by iuspection of the advertisement, ascestain how much he must pay to prevent the sale. The amount of taxes stated in the Treasurer's advertisement is in all cases held to be the correct amount due. If the taxes have not been paid previous to the time appointed for the sale, the Treasurer is required to sell by public auction so much of the land as is sufficient to dis. charge the taxes. In doing this, the Treasu er first offers the land for the taxes and costs ; he is not to collect more than the amount due. If there is competition, the successful bidder is the one who will take the smallest quantity of land for the amount due. If the purchaser of any parcel of land fails immediately to pay the amount of the purchase money, the Treasurer shall forthwith again put up the property for sale. When the Treasurer fails to sell any land for the full amount of the arrears, he shall adjourn the sale until a date then to be publicly named by him no earlier than one week nor later than three months thereafter. Notice of the adjourned sale shall be given by public advertisement in the local newspap. $r$ in which the original sale was advertised, and on such date he shall sell such land, unless otherwise directed by the local municipality, for any sum he can realize, and shall accept such sum as full payment of such arrears, but the owner of any land so sold shall not be at liberty to redeem the same unless he pays the full amount of the taxes, together with the expense of the sale. The Treasurer, after selling lands for taxes, shall give a certificate under his hand to the purchaser. The certificate shall contain a proper description of the land sold. The certificate confers a qualified ownership on the purchaser, but he must not permit any person to cut timber, nor can he himself cut timber or otherwise injure the land, but may use the land without deteriorating its value. The purchaser is entitled to a deed of the property at the expiration of one year from the date of the certificate, if the land is not previously redeemed. The rights of the purchaser cease from the time of the tender to the Treasurer of
the full amount of the redemption money.
At any time within a year from date of sale the owner of any lands sold, or his representative may redeem the same by tendering to the Treasurer for the benefit of the purchaser or his representative the sum paid, together with ic per cent. thereot. The Treasurer's receipt is evidence of the redemption. The receipt must state, first, the sum paid ; second, the object of payment. On demand and on the payment of $\$ \mathrm{I}$ it is incumbent on the Treasurer to prepare and execute with the Reeve and deliver a deed in duplicate of the land sold.
C. H. R. -1 . An American citizen residing in Walkerville, earning his income in Detroit. Is he liable for income tax in Canada?
2. Britisn subject, earning income in Detroit, residing in Walkerville. Is he liable for income tax in Canada?
We are of opinion that neither the American citizen nor the British subject could be assessed for income tax in Walkerville (Canadd) under the circums'ances mentioned.
J. W.-Is a non-resident ratepayer of a municipality disqualified for the position of Reeve or Councillor by reason of his not residing within the municipality for which he is elected?

Section 73, sub-section 1 , of the Consolidated Municipal Act, 1892, enacts that no person shall be qualified to be elected a Reeve or Couucillor unless such person resides within the municipa'ity or within two miles thereof, \&c.
Enquirer.-Can a pathmaster legally hold the position of councillor?

No. Under section 479 of the Municipal Act a member of a Councit is allowed to act as commissioner, superintendent or overseer over any road or work undertaken and carried on in part or in whole at the expense of the municipality. We do not think that this refers to an appointment as pathmaster.
S. M.-A farmer ouning land wishes to put in a culvert for his own convenience, to run the water down the road instead of the natural watercourse, which runs through his field ; wishes to put in said culvert at his own expense.

1. If the council grant him permission to put in the culvert (it being no benefit to the township), will the township have to keep it in repair ?
2. The culvert is at four corner roads, and persons turning the corner short might upset. If so, would township be liable for auy damages ?
3. If said person signs an agreement to the council to keep said culvert in repair, and be responsible for any damages, would said agree. ment hold good in law?
4. In case an adjoining township does not open a watercourse, and said watercourse is opened by this township up to the boundary and build a culvert, the said township not continuing said watercourse and water is damned back on this township, who should open said watercourse-the council or the parties owning the land where the natural watercourse comes in?
5. No ; unless its want or lack of $r$ epair should be dangerous to persons using the highway.
6. Yes.
7. As between the township and the party constructing the culvert it mignt ; but as between the township and a third person sustaining injury or damage from the construction of the culvert, or its being out of repair, it would not.
8. The party desiring an outlet should take proceedings under the provisions of the Ditches and Watercourses Act, 1894 , to obtain the same.

Note-We would not advise any council to consent to water being taken out of its natural course.
X. Y. Z.-In answer to J. W., at page 88, I understand you to say the elerk in preparing voters' list should not place the names on part one of the township of Chapman, and yer I further understand the names were so placed on appeal.

We do not understand how such a change could be made in the voters' list, as the persons referred to by J. W. were certainly non-residents, and not entitled to vote in the township of Chapman for legislative purposes, but in the municipality where they reside.

See section 14 B of the Assessment Act, and section 3 of chapter 4 of the Ontario Statutes, 1888.
C. S. W.-If milk-stands are erected on highways, and milk-cans or pails, etc., are standing thereon, and an accident should happen through them by horses shying at them in driving past, who is responsible for dam-ages, if any-the party who erects the milkstands, or the municipality?

The municipality would be liable in the first instance, but would most likely be given judgment over for the amount recovered against the party erecting the milk-stand.

Ratepayer, Muskoka District.-A number of ratepayers in rural school section want to withdraw and form a new section. After the annual meeting they announce for a public meeting to discuss the matter, at which a motion to divide the section was passed. This motion was laid before the council of the township, which passed a by-law complying with the request, dividing the section and forming a new one. On hearing the result, the trustees called a meeting of the ratepayers of the whole section, and after discussing the matter passed a motion condemning the action of the council as being illegal. Was the first proceeding as being Shat Should the council rescind by-law?

It would seem that the first proceedings referred to by our correspondent were not as required by sub-sec. 2 of sec. 81 of the Public Schools Act, 1891 , the council not having given the notice required by said sub-sec. In view of this, we are of opinion that the council should rescind the former by-law, and at the proper time next year pass a new one after the proper proceedings have been taken. See subsection 3 of said section.
Town Clerk.-Our council have passed a by-law under sub section 2 of section 53 of the Assessment Act, imposing a percentage on the taxes of non-residerts not paid on or before the taxes of non-residerts not pald in or sub-section 4. Citizen who represents non-resident land owner tendered the taxes for said owner to the Treasurer on the 2nd November, immediately after he received the roll from the clerk, as under section 121. The Treasurer refused to accept the taxes without the additional percentage. Was he right?

It would seem under the terms of the by-law the Treasurer was right.
Z. R. -1. What is the height of a line fence according to law?
2. Is there any difference in height of lawful fence ?
3. Are poundkeepers obliged to make pound fences higher than the common lawful fence for all sorts of beasts, or will it be allowable to put wild beast in stable?

1. Such a height as is fixed by by-law of the municipality passed pursuant to the provisions of sec. 489 of the Consolidated Municipal Act, 1892 , sub-secs. 17 and 18.
2. No doubt there are differences in the height of lawful fences, as the different municipalities passing by-laws pursuant to the above authority would regulate the height of the fences according to the circumstances of each particular case.
3. If poundkeepers undertake the performance of the duties of the office they should provide themselves with such an enclosure as would be reasonably fit to keep in animals impounded. We see no reason why a fractious beast should nct be confined in a stable, if such confinement were necessary.
Enquirer.-Our corporation is interested in the Consolidated Loan Act, and having spoken to councillors and others concerning it, they are unable to give any particular information, and as many municipalities are taking advantage of this act to consolidate their debenture debt, you would confer a favor on many subscribers by publishing this act or such portion as is of practical importance.

There is no Consolidated Loan Act. A municipality desiring to consolidate its indebtedness must secure a special act of the Legislature for that purpose. A reference to almost any yearly volume of the Ontario Statutes will give the form in which these acts are passed.
F. J. C.-Our court of revision held its session in this town on the 28 th inst, and adjourned for the purposes of sub-section 18, section 64, Assessment Act.

1. Now what we want to know is whether or not the court can consider any ordinary appeals which have not as yet been made to the court? Some claim that the court can now receive any appeals from any person for any cause whatever and consider and act upon them. Others hold that the court has no right to consider any appeals unless the same come strictly within the meaning of sub-section 18, section 64, Assessment Act. Will you kindly settle this question for us in your June issue?
2. Does sub section 18, section 64, Assessment Act, 1892, justify the court in considering ordinary appeals?
3. Yes.
4. Yes.
H. J. L.-In what pant of the voters' list would you enter a non-resident tenant? I am inclined to the view that he has no right to appear on the list at all.

A non-resident tenant should be entered in part 2 of the voters' list. A tenant's qualification to vote at a municipal election is a residence in the municipaiity for one month next before the election. A tenant who is now a non-resident would have no opportunity of swearing in his vote if he moved into the municipality after the list was revised if he was not so entered.

Cluicus.-1. In your last issue jou say that a municipal (township) clerk cannot legally hold the office of townshio treasurer. Why? Please quote section of act regarding it.
2. Can the expenses incurred by a board of health be charged to responsible parties and collected as taxes? Such expense being incurred on account of contageous diseases. If so, please quote section of act authorizing the same.

1. Section 271 of the Consolidated Municipal Act, 1892 , requires these officers to make separate declaration of office. Our correspondent will find this question fully discussed in the and column of page 36 of the World for 1893 .
2. Section 53 of the Public Health Act gives a general authority to local boards of health to collect the expense of doing any work, under the authority of the act from any person in default, by action or distress, and in case of non-payment, the same shall be recovered in like manner as municipal taxes.
H. M. - In your May number in answer to C. B. re personal property, you state that anything over and above one hundred dollars is assessable, but your experience is that it is not customary for rural municipalities to assess personal property except stocks in store. The members of our council put various constructions on your answer. Will you please answer the following questions?
I. Can an assessor legally omit assessing personal property over one hundred dollars ?
3. Could he legally omit assessing steam threshers value $\$ 1,000$ ?
4. Would an assessor refusing or neglecting to assess personal property be liable for fraudulent assessment ?
5. Can a council at the court of revision, strike off the assessment roll, all personal property except stocks in store?
6. If a council strike off the assessment roll, the personal property of farmers retaining other personal, can a collector legally seize and sell property for taxes of said parties, where property was retained should they refuse to pay?
I. It is the assessor's duty to assess all property liable to assessment under the Assessment Act.
7. This property should be assessed subject to sub-section 21 of section 7 , of the Consolidated Assessment Act, 1892.
8. Yes. If the property was assessable under the act, and the refusal or neglect wilful and intentional.
9. Not rightfully, if the property was assessable under the act.
10. Yes. If the property was assessable under $t^{1}$ ie act.
A. H.-A Dominion Government official's salary is say $\$ \mathrm{t}, 400$ per year, besides this he earns another $\$ \mathbf{I}$, Ico in his practice. How much is he liable for assessment on income ?
\$I,100.
H. F. M.-I. What is the interest and principal payable yearly covering 2I years on $\$ 4,000$ debenture, 5 per cent ?

Can you insert form of by law necessary to put this before the people?
2. Can municipalities by by-law appropriate public monies for sidewalks or other purposes ? 3. Or can municipalities by by-law vote that the license fund shall be set aside for sidewalks ?

1. \$3II.28. Our correspondent will find a form of the by-law on pages 254 and 255 of Harrison's Manual, 5 th edition. Note V to section 340.
2. Yes.
3. Yes.
J. H.-Is it legal to assess manse or parsonage residences in which the ministers in charge of their respective churches reside, when the said properties belong to and are deeded to the church?
Yes.
A. G. S.-1. An owner who is one of the assessed parties to a ditch constructed in the year 1884, under the Drainage Act, now finds that said ditch does not give him proper outlet to drain in certain portion of his lands; but by going across about 70 rods of next farm below can obtain sufticient fall.
$a$ What would be the proper steps for him to pursue in order to obtain said fall?
b Can he proceed under section 33 of the Ditches and Watercourses Act ?
4. Through a clerical error, $\$ 5$ commuted statute labor was not placed on the colleetor's roll in the year 1894. Can it be placed on the next roll and be thus collected?
a Take proceedings as in the case of a new drain to be constructed under the Ditches and Watercourses Act.
$b$ No.
5. We see no objection to placing the amount on this year's roll, providing the owner of the property is the same as in 1894.

## Unpaid Taxes.

The town of Port Hope during the past ten years, has lost over one thousand dollars in unpaid taxes. It does not appear very clearly why these taxes were rot collected. We had been under the impression that the powers given the municipality under the Municipal and Assessment Acts were quite sufficient to enable it to collect the dues it imposed. If so then these powers have not been exercised properly, as witness the above mentioned large amount of arrears.

Councillor Quinlan a few weeks ago introduced a by-law to disqualify electors from voting at municipal elections who had not paid their taxes for the preceding year. It was voted down by the council for the reason given by some of those voting against it, that they had not had time to consider the matter. At the last meeting of the council, Mr, Quinlan stated that he intended to again introduce the by-law at the next meeting, so that the cautious warders of the town's welfare will have time to give the subject their serious consideration. The proposed bylaw has our hearty approval. It will without doubt be a great factor in the prompt payment of taxes. It is not fair to the great body of honest ratepayers that men who do not pay their taxes should enjoy equal privileges with those who do. It is not fair because those who do pay in reality pay the taxes of those who do not. If a man will not pay his taxes he should not have a vote in municipal matters. Times.

The York County Cauncil have decided to abolish toll-gates on all county roads. They also decided to petition the Legislative Assembly for an act to compel the plaintiffs in all actions against the county to give security for costs.

Fishing for Bonuses.
A trade journal gives its opinion on a CHEEKY PROPOSAL.
Under the heading "Ridiculous Bonuses," the Monetary Times thus refers to a concern which has recently addressed all the city and town councils in the province:
"Municipal financiering is seldom brilliant, and perhaps the source of least remunerative investment to which town council apply the funds of ratepayers is in bonuses. The fallacy of the bonus system has so often been exposed, that the subject has become hackneyed; municipalities have been deceived so often, that one would expect the question of granting a bonus to be discussed in a common sense way, and business-like stipulations made. And yet the regularity with which industrial corporations seek bonuses is only equalled by the regularity with which Canadian towns grant them. The credulity of town councillors on this side the line has apparently become a by-word in the United States, and American firms of every description "seeking a new site" or "wishing to extend their business by establishing a Canadian branch," have only to make public their designs and be inuncated by letters from Canadian municipal authorities. Some of the propositions made are utterly absurd. A company purporting to hail from a Michigan town has been tempting several Canadian municipalities with an offer to establish a branch of their works upon condition that they be loaned $\$ 13,300$, given free site and power, and exemption from taxes for twenty years. The estimated cost of the company's plant is $\$ 16,000$. It is probable that these enterprising makers of novelty wares will never see Canada, for there are more attractive bids on the market. A company a little more guarded in describing their wants and less honest in describing their dimensions would succeed where this concern will, let us hope, fail. Bankruptcy is the ultimate end of most concerns established in this way, while a heavy debt and oppressive taxation linger to mark the absurd policy which called them into being."

## Toll Roads Commission.

The Ontario Cabinet have appointed the following gentlemen as members of the Toll Roads Commission : J. J. Mason, Hamilton, chairman ; T. H. A. Begue, barrister, Dundas; Archibald W. Campbell, C. E, St. Thomas ; W. S. Campbell, Brant County. The commission is formed in accordance with legislation on the subject at the recent session of the legislature.

The county council of the county of Ontario has passed a by-law to put in force the Torrens Land Tiiles Act in this county. They also passed unanimously a resolution recommending to the local government the appointment of his Honour Judge Dartnell as the first Local Master of Titles under that act.

Committing Inmates to Houses of Industry.
"The council may pass by-laws for committing to and detaining at such houses of industry for a period of not more than twelve months indigent nersons, and the warrant of the warden or head of the council passing such by-law, under the seal of the corporation, shall be sufficient authority to the keeper of, such house of industry to detain the person therein mentioned for a period stated in such warrant not to exceed twelve months, but this shall not effect the powers of committal by law conferred on any other person or officer."

This is the amendment of 1895 to sub section 460 of the Municipal Act. It gives the warden of a county authority in a very impoitant matter, a power that we believe has heretofore bsen exercised indiscriminately by members of county councils, that is, committing persons to Houses of Industry before they express their willingness to go.

Under section 462 of the Municipal Act, town and city councils have had authority to pass by laws committing to Houses of Industry, vagrants, indigents, and other persons, but until this amendment there was no authority to force anyone to become an inmate of a county House of Industry, nor have county councils power to pass by-laws authorizing their member; to commit inmates.

It is a serious matter to deprive persons, although poor, of their liberty, but when they make application for admis sion to a House of Industry it is the duty of the councillor or other authority to decide whether they are entitled to assistance at the institution, and if so, to issue the necessary order for admission. It is also possible that by a little persuasion many people who should be in Houses of Industry can be induced to go, but to use force in taking any person to a House of Industry without their consent, renders the person using such force liable to action at law.

Under section 460 , councils have authority to pass by laws for the government of employees and inmates. Councils of counties in which Houses of Industry are established should pass bylaws for committing to or detaining at these institutions indigent persons. These by laws should be in accordance with the amendment above referred to.

In nuy judgment, all the machinery of the press used in communicating information to the public is not of really more importance to the community at large than the power of the people to communicate by advertisement and bring the buyer and seller together and give them the machinery for commumicating their wishes to one another.-Right Hon. A. J. Balfour.

I never take up a newspaper without finding something I should have deemed it a loss not to have seen ; never without deriving from it instruction and amuse-ment.-Dr. Johnson.

William Newman, C. E, has been appointed city engineer of Windsor, Ont

# INPORTANT BOOKS ANB FORMS 

Mayors，Reeves，Councillors，and Municipal Officers

Tones＇County Constables＇Manual

OR HANDY BOOK．
Compiled from the Criminal Code，1892－3，with schedules of fees，crimes，and punishments ．the court and jurisdiction，all in such a compact form that it can easily be carried in the pocket． The book is excellently printed，and bound in red and gold．Jeast the book required by a con－ stable；and very useful to a magistrate．The work is correctly compiled from the Criminal Code．Price 75 cents．

## Harrison＇s Municipal Manual 5 TH edition．

This book should be on the Council table in every municipality in the proviace．The notes and explanations in reference to all important sec tions of the Municipal Acts make it a valuable assistant to Councillors，who desire to discharge with the true intent and meaning of the various Acts，with which they have to deal．The numbers of the sections of the Municipal and Assessment Acts are the same as in the Consol－ idated Acts of 1892 ．Price，$\$ 7.00$ ．

## Municipal Election and By－Law Ballot

## Act Blanks．

Our special Poll Books and Voters＇Lists are the best．When holding a municipal election or vote on a by－law，send us your order，stating number and size of polling sub－divisions．We supply everything re quired．Satisfaction guaranteed．
Tile，Stone and Timber Drainage Act．
In addition to form of owner＇s application for loan，and by．law imposing special rate， we have placed in stock Form of Statutory Declaration，required by the Act of 1895，to be made by applicants lefore loans are granted．Price per dozen， 25 cents．

## Line Fences Act

We keep form of notice to opposite party； notice to fence owners and fence owners＇ awards ；also The Line Fences Act．Price， 10 cents．

Collectors＇Rolls．
Good Paper，Good Ruling，Good Binding． Collectors＇roll paper per quire， 75 c ．
Binding，leather back， 50 c ．
Collectors＇reeeipts in books of $100,50 \mathrm{c}$ ．
For Collector＇s Rolls－Lytle＇s Rate Tables．
This valuable little work is intended to assist clerks in entering taxes in the col－ lector＇s roll．It gives rates by tenths of a mill from one to nine and nine－tenths mills． The author，a clerk of considerable experi－ ence，knowing what was wanted，issued the work，which should be in the office of every clerk．Price，$\$ 2.00$ ．

Jurors＇Act Forms．
Oath to be taken by Selectors and report of Selectors，1st，2nd，3rd and 4 th Divisions，per quire，assorted， 75 ets．

Trustees＇Requisitions．
Clerk＇s notice to School Board，to which is attached blank requisition of school monies required to be raised

Just what you require to secure uniform requisitions from all the school sections in your township．Price per dozen， 20 c ．

## The New Conveyancer

BY H．A．O＇BRIEN，BARRISTER．
Has been prepared with great care and research， and embodies important changes not made in any other Conveyancer published．The forms are concise，but complete，useless verbiage be－ ing omitted．Full explanations are given，so as to make each form adaptable to varying circum－ stances．It can safely be used by students and others unfamiliar with legal terms．Bound in half calf，price $\$ 3.75$ ．

## Clark＇s Magistrates＇Manual ．．．

## 3RD EDITION

REVISED，ENLARGED AND IMPROVED．
In the preparation of this edition of the Manual， the English and Canadian Cases decided since the publication of the last edition are all noted， together with the numerous changes of the Sta－ tute Law and Criminal Code of 1892.
To Justices of the Peace，Mayors，and Reeves who find it necessary to act as a Magistrate in their municipalities，this book will be found very useful and save them the trouble of looking up and interpreting the Statutes in complicated cases．Price，$\$ 5$ ，leather．

潾溇漛

## The Ontario Statutes，

## Every Municipal Corporation

 will require to purchase one or more copies．We have made special arrangements with the Queen＇s printer，and will be prepared to supply any quantity．

## Special terms to counties

 ordering twenty or more copies．
## The Canadian Lawyer．．． 2nd edition．

It contains just what you want to know．It is reliable，being compiled by a Lawyer in active practice．It is practical，and contains thuse points arising most frequently in every－day life． It contains over 225 forms，which alone are worth more than the price of the book．Price， in cloth，\＄1 50.

## The School Laze of Ontario ．．．

Comprising the Education Department Act， I891；The Public Schools Act，1891；The Act respecting Truancy and Compulsory Schoul Attendance；The High Schools Act， 1891 ；and the amending Acts of 1892 and 1893；with Notes of Cases bearing thereon；the Regulations of the Education Department ；forms，etc．
Price，bound in half calf，$\$ 5.50$ ，price，bound in English cloth，$\$ 4.50$ ．

## Drainage Laws

Consolidated in one book，neatly bound in cloth，complete index．

The Drainage Act， 1894
The Ditches and Watercoures Act
The Tile Drainage Act． The Tile Drainage Act．

## Drainage Act Forms．

Petition of owners，section 4.
Oath of engineer，section 5 ．
Notice to party assessed，section 16 ． Oath of member of court of revision． Summons，court of revision．
Notice of complaint，section 34 or 44.
List of appeals，section 37.

## Forms Required by the Ditches and Watercourses Act， 1894.

＂1t shall be the duty of the municipslity to keen printed copies of all the forms re－ quired by this Act．＂－Section 7，sub－sec－ tion 2.
B－Declaration of ownership．
C－Notice to owners．
D－Agreement by owners．
E－Requisition for examination by en－ gineer．
F－Notice of appointment for examina tion by engineer．

Notice of filing award，section 18.
H－Engineer＇s certificates．
summous，appeal to judge，section 26.

## Miscellaneous．

Treasurer＇s bouds．
Collectors＇bonds．
Poundkeepers＇statements．
Assessment rolls and notices．
Orders on Treasurer in books of 100 ，con－ venient for carrying in the pocket， 50 cts．

Where necessary to insure correctness， explanatory notes are printed on all forms supplied by us．All our forms are practical and in accordance with the latest statutes．

Complete catalogue and price list on application．

## Municipal Debentures Wanted

THE UNDERSIGNED IS DESIROUS OF PURCHASING ALL

## D円BHINTU卫BS <br> OF <br> Towns, Villages, Townships and Counties

As they are issued (no matter for what purpose), and will pay the very highest prices for them. MUNICIPAL OFFICERS will kindly bear this in mind and write, sending particulars and copy of By-laws, \&c., at any time they are issuing debentures for sale. Money to loan on first mortgage at very lowest rates of interest. Any assistance required in making the necessary calculations for insertion in by-laws in connection with the sinking fund, etc., will be gladly given.

# F®R JULY * <br> Collectors' Rolls and Cullectors' Receipt Books. <br> Books-100 Orders on Treasurir, suitable to carry in the pocket, 50 c. each. 

## We Keep in $\mathrm{St}_{\mathrm{o}_{\mathrm{ck}}}$

MUNicipal Election Blanks
BLANKS REQUIRED AT FIRSTMEETING of Munioipal Councils Tile, Stone and Timber Drainage ACT FORMS
Line Fences act Forms
POUNDKEEPER'S STATEMENTS
BY-LAW BALLOT AGT FORMS
Assessment rolls
Collector's Rolls
DITCHES AND WATERCOURSES ACT FORMS
Jurors Aot Forms
DRAINAGE ACT FORMS

Tile Drainage Act forms and form of Statutory Declaration required to be used, with all applications for loans, after ist July, 1895 .
Ditches ar.d IVatercourses Act forms
Drainage Act forms
Forms for printers' copy of voters' list.
Collectors' Bonds
Collectors' Rolls
Declaratious of Office
Blarik Rooks and Stationery Sundries to order.

MONEY TO LOAN.

## \$100,000 to Loan.

on real estate security at $53 / 4$ and 6 per cent. on the following terms:
$\$ 3,000$ AND OVR the borrower can have free of all expenses, legal or otherwise, and will receive the exact sum without any deduction whatever.
UNDER $\$ 3,000$ the undersigned pays half of all costs in connection with the loan and the borrower the remaining one-half only,
DO YOU WANT to reduce your interest, renew your mortgage, or pay off an old one, or borrow at a trifling cost. Address

## ANDREW J. CL.ARK,

"Clark's Mercantile Agcncy," ST. THOMAS, ONT. N. B. - These terms apply to all parts of the Province of Ontario.

Farm and city properties for sale. Property sold on commission and a general agency business transacted.

Titles to land searched. Abstracts compiled. Insurance and Conveyancing.

## MUNICIPAL MEN

## Look Here !

Do you know the merits of the BAER Patent Bridge? If you do not you are standing in your own light, because you could save money for your municipality. Our Bridges will last forty years if taken care of. Common sense convinces the most sceptical. The sun shines on them the year round, and happy are the ratepayers who have them. Correspondence s. licited.
B. BHER \& C®.,

## Builders

## A. W. CAMPBELL

O.I.S., C.E., A.M.C.S., CE.

Exameations, surveys, desigrs, specifications, estimates for waterworks, sewerage systems, sewage disposal, municipal drainage, reclamation, expert tests.

Reports made on all classes of municipal work Electric light, electric street railways.

## Improvement of Highways and Streets

Clarification of turbid water for public supply by chemico-mechanical filtration.

## CGLIVERT PIPE

North's Patent
P ain Street Gully Water-trap Street Gully Double-trap Street Gully

North's Patent<br>Water-trap Catch or Slop Basin, suitable for Hotels and Private Houses. Automatic Valve and Grate for Street Gullies

# Portland Cement, Concrete, Stone, Culvert and Sewer Well-curbs, Manholes, Cold Air Pipes for Furnaces 

These Pipes filled with Concrete are suitable for posts, for frame houses, verandah posts and for barns. Large size pipe will take the place of small bridges or large culverts and are suitable for chimneys in frame houses.

## To Municipal Councillors and the Public Generally:

PORTLAND CEMENT, CONCRETE, STUNE, CULVERT AND SEWER PIPE ARE WANTED IN EVERY CITY, TOWN AND TOWNSHIP AND IN EVERV PART OF THE DOMINION OF CANADA, WHEREVER SEWERS, CULYERTS, GULLEYS AND DRAINS ARE NEEDED.
When properly-made and set, they will resist the action of the frost. The longer they are in the ground the harder they get, and the very conditions w. hich they undergo as a sewage carrier are the best possible, both for their present and ultimate hardening. The concrete from which these pipes are made is a chemical composition, which is certain to increase in hardness by its laws of continuous crystalization. Frost has no effect whatever on concrete sewer pipe. This is positive and we can refer to hundreds of parties who will testify that frost has not in the slightest injured cement pipe that has been laid under their immediate observation for years and in the most trying places. We make and sell large quantities of culvert pipe for use under railroads and wagon roads. A road culvert is the severest test a pipe can be put to, as it being open at both ends, there is always a strong draft through it, the dampness of the ground lowers the temperature, and in cold weather freezes harder than any other point. We have furnished pipe for hundreds of culverts and the testimony of road authorities is unanimous in favor of our pipe. Any sewer pipe that will not resist frost siould be at once condemned, as in irregular ground, the pipe in some points of its length will be near the surface, where the severe frost of our northern winters will, in time, destroy it, unless it is the very strongest and most compact.

## PATENT RIGHTS FOR SALE

Concrete Culvert an $\boldsymbol{l}$ Sewer Pipe con be manufactured in any part of the Dominion of Canada wherever the raw materials are suitable in the locality. Patent rights for sale, apply to E. NORTH, London, Ontario.

IVe, the undersigned, have seen the "PORTLAND CEMENT CONCRETE STONE SEWER PIPE," manufactured by E North, London, Ont., and have had some experience of their use, and would recommend them to municipal councils ard the fublic generally, as suitable for sewers and culverts, where strength, durability and economy is desired :


## $\approx$ PRICES at Factories in London and St. Thomas $\approx$

$\qquad$
AT THE WESTERN FAIR, 1892, THE CONCRETE, CULVERT AND SEWER PIPE EXHIBIT WAS AWARDED SILVER MEDAL.

# Ebenezer North, Manufacturer <br> LONDON 

Works corner Mt. Pleasant and Talbot Sts. Telephone:
Works 849.

Works, Ełm Streat, on Port Stanley Railroad near Fair Grounds

Telaphone 228.

## DOMINION BRIDGE CO., LTD.

(SUCCESSORS TO TORONTO BRIDGE CO.)

MANUFACTURERS OF

## Iron and

## Streel Bridges



Railways and Highways
Iron Bridges, Turntables Iron Piers and Trestles

Bradge Rods
Right and Left Hand Sleeve Nuts and all kinds of tructural Iron Wark.




 bridge site from station. Depth of water at ordravel over the bridge ; whether on a country road, a well-ballasted turnpike, or located in a village or city, and subject to heavy loads.

WORKS: LACHINE LOCKS, P.Q. OFFICE: 20 St. Alexis Street, MONTREAL, P.Q. Address Inquiries in Response to this Advertisement, to

> DOMINION BRIDGE COMPANY, LTiD., Montreal, Que.


> Waterwork's Office
> Hamilton, Ont., January 17th, 1895.

To His Worship, the Mayor, Owen Sound, Ont.:
Dear Sir, - Ihave the honor of informing you that the Vitrified Sewage Pipes manufactured in this city by "THE HAMILTON \& TORONTO SE WER PIPE CO." are the only ones that have been used by ou City Corporation for over 20 years, during which time many miles nave been laid. The pipes now manufactured by that Company are not second to any that I know of, a vast improvement having been made since the factory was established, over thirty years since. I have no hesitation in recommending these pipes for the sewerage of your town, feeling that they will give you entire satisfaction, as they do here. I am, dear sir, yours truly,

WM. HA SKINS.

