

The Municipal World

PUBLISHED MONTHLY IN THE INTERESTS OF

THE MUNICIPAL INSTITUTIONS OF ONTARIO



Vol. 5. No. 3.

ST. THOMAS, ONTARIO, MARCH, 1895.

Whole No. 51

Copp's "STEEL CHAMPION" Reversible Road Machine ...

Great strength and durability have always been predominating features in the Steel Champion, and these two features are due entirely to the use of the best materials and workmanship, coupled with careful and consistent construction. The main frame of the Steel Champion is of three-eighths inch channel steel (not iron). The sweep circle, upon which the sweep revolves, worm gear arms, lift rods, draw-bar, semi-circle, axles, main blade and edge, are all of the best quality of steel, especially selected for the purpose, and carefully tested in our shops. Our machines are sold on trial order. Send for catalogue, prices and testimonials. All correspondence cheerfully answered. Address

Copp Bros. Co., Ltd., Hamilton, Can.

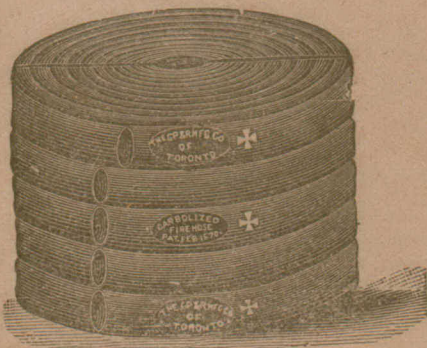
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"MALTESE CROSS" Carbolized Rubber

STANDARD EXTINGUISHERS

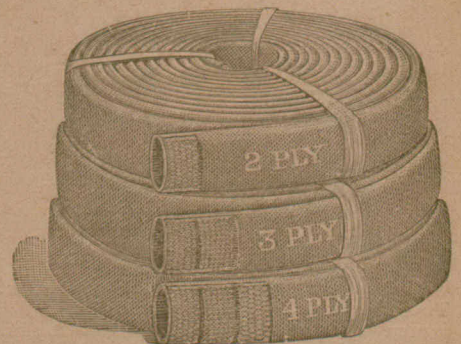
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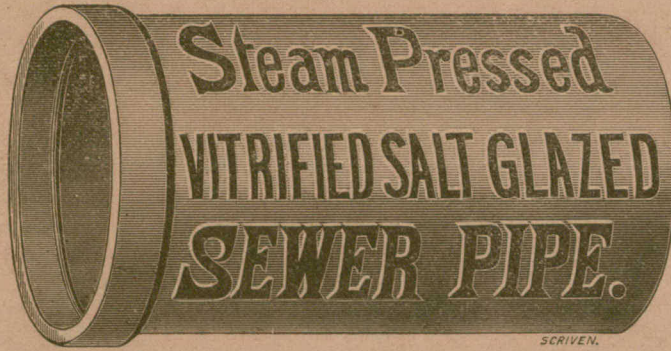


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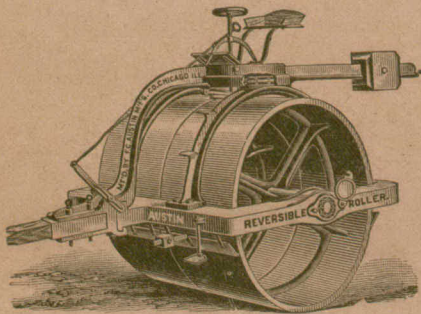
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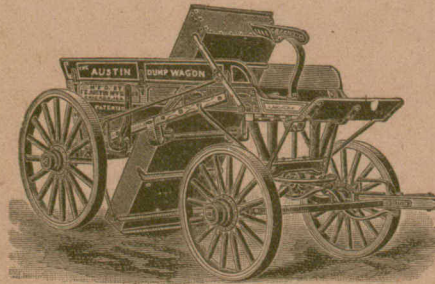
HAMILTON, ONT.

ROAD TOOLS FOR MAKING 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. Awarded first medal at the World's Fair.



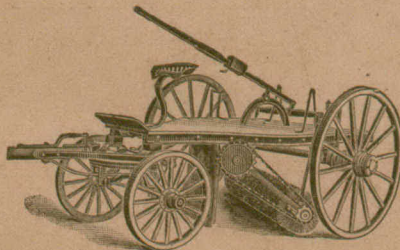
AUSTIN DUMP WAGON

Quickly and easily dumped without stopping the horses. Has steel pan and steel-lined box. Holds 1 1/2 to 2 yards. Awarded first medal at the World's Fair.



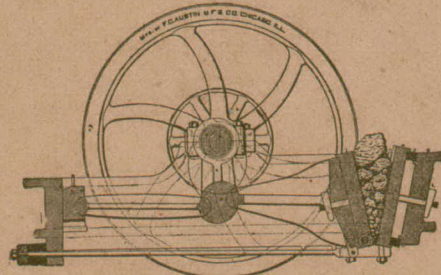
AUSTIN STEEL STREET SPRINKLER

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.



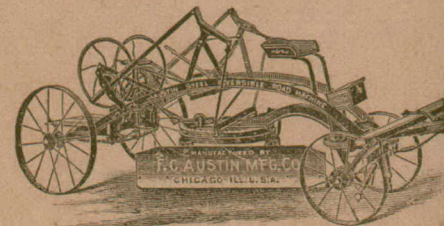
AUSTIN STEEL STREET SWEEPER

Lightest running, strongest and most efficient. Two horses only. Cleans thoroughly any kind of pavement. Awarded first medal at 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 REVERSIBLE ROAD MACHINE

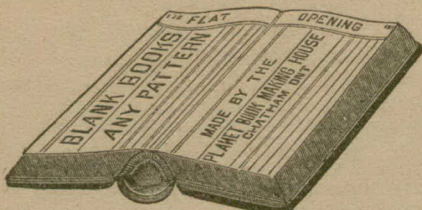
Strongest, neatest, most complete grader sold. Saves 75 per cent. in cost of work over old methods. Energetic agents wanted in unoccupied territory. Awarded first medal at the World's Fair.

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\$100,000 to Loan . .

on real estate security at 5¼ and 6 per cent. on the following terms:

\$3,000 AND OVER the borrower can have free of all expenses, legal or otherwise, and will receive the exact sum without any deduction whatever.

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DO YOU WANT to reduce your interest, renew your mortgage, or pay off an old one, or borrow at a trifling cost. Address

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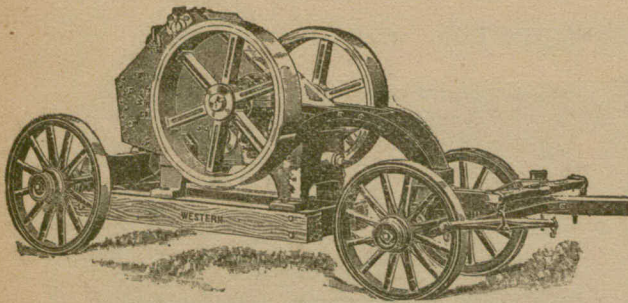
Municipal Special Audits

Have been a feature of my work. There are many municipalities whose financial affairs are in a muddled condition. I straighten them out and start them off anew.

The longer they are neglected the worse they are to untangle.

A. C. NEFF, CHARTERED ACCOUNTANT,
AUDITOR, TRUSTEE, ETC
Canada Life Building, Toronto.

Western Roadmaking Machinery



WESTERN STONE CRUSHER

visited towns and cities where other crushers were in operation, and finally 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 requiring a first-class crusher. Yours respectfully, 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.

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

LONDON, ONT., Jan. 5th, 1895.

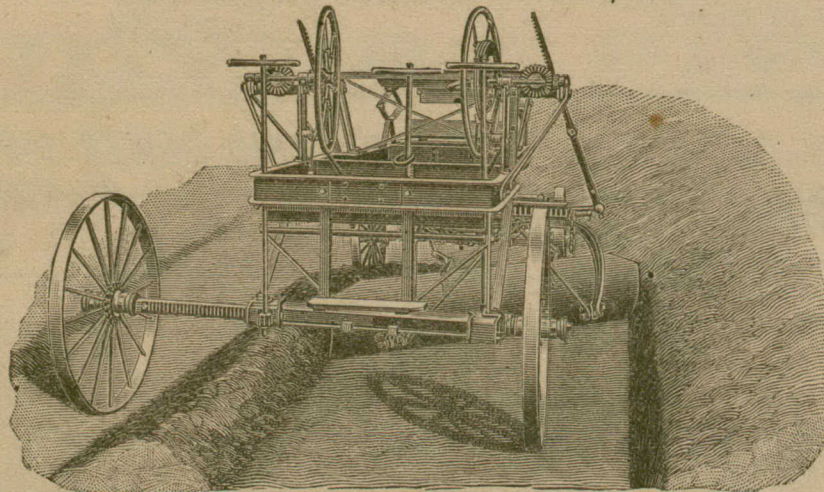
H. A. BROWNELL, Esq., General Manager Western Wheel Scraper Co. :

DEAR SIR,—The No. 10 Western Rock Crusher, bought of you last season, has proved entirely satisfactory and fulfils all 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 has not cost the city one cent for repairs, which speaks volumes for its first-class construction; nor have the plates or jaws, that are subject to so much wear and tear, been found necessary to replace. The committee who

The Western Reversible Leads in all Competitions

In the preparation of roadbeds for gravelling, the construction and maintenance of earth 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 trial.



THE WESTERN REVERSIBLE ROAD MACHINE

That these machines are the best is the opinion of those who have 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.

TESTIMONIALS :

H. A. BROWNELL, General Manager, London, Ont. :

Burford, Ont., Nov. 26th, 1894.

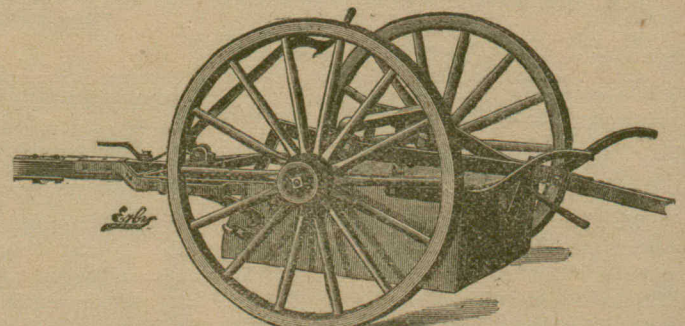
DEAR SIR,—We, the undersigned members of the municipal council of the Township of Burford, having witnessed the operation of your machine, the Western Reversible, on trial with the American Road Machine in this township, on the 22nd of last May, have no hesitation in saying that we consider the Western 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 first-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 any city, town or rural municipality. PHILIP KELLEY, Reeve, Warden of Brant county; CHAS. VANHORN, Deputy Reeve; JOHN MCCLELLAN, ADAM CROZIER, 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 been 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 makes that we have seen in Essex county. We consider that the work done by the Reversible machine was worth at least \$1,000, ordinary expenditure, to the roads in the township of Gosfield South last year. We 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; R. W. SHANKS, Dep.-Reeve.



WESTERN WHEEL SCRAPER

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

For Catalogue, Price List and Terms, address

H. A. BROWNELL, General Manager for Ontario LONDON, ONT.

THE MUNICIPAL WORLD

Published Monthly in the Interests of Every Department of the Municipal Institutions of Ontario

Vol. 5. No. 3.

ST. THOMAS, ONTARIO, MARCH, 1895.

Whole No. 51

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"I am very much pleased with the general appearance of THE WORLD."

C. C. R., Barrister, Toronto.

"I think it ought to be in the hand, not only of councillors and officers, but of every ratepayer interested in the well-being of his neighborhood."

M. E., Exeter.

"I enclose subscription for THE WORLD for 1895, as I could not for the world do without it."

C. P., Port Dalhousie.

Calendar for March and April, 1895.

Legal, Educational, Municipal and Other Appointments.

MARCH.

1. County Clerks to transmit Minutes of County Council to the Minister of Education, also report of Auditors.—Public Schools Act, Section 114.
Auditors' Reports on the accounts of High School Boards and the Boards of cities, towns and villages should be mailed to Education Department.
Separate School Supporters to notify Municipal Clerk.—S. S. Act, Section 40.
31. Last day for Councils of cities, town, villages and townships to pass by-laws limiting number of shop licenses therein for ensuing year —Liquor License Act, Section 32.
Night Schools close (session 1894-5).

APRIL.

1. Return by Clerks of counties, cities, etc., of population to Department, due.—P. S. Act, Section 129.
Clerks of counties, cities and towns separated from counties to make return of population to Educational Department.—Public Schools Act, Section 129.
Last day for Free Library Board to report estimates to the Council.—Free Library Act, Section 6.
Last day for petitions for Tavern and Shop Licenses to be presented.—License Act, Sections 11 and 31.
Last day for removal of snow fences erected by Councils of townships, cities, towns or villages.—Snow Fences Act, Section 3.
From this date no person compelled to remain on markets to sell after 9 a. m.—Municipal Act, Section 497 (6).
Last day for Boards of Park Management to report their estimates to the Council.—Public Parks Act, Section 17.
Reports on Night Schools, due to Education Department (session 1894-5).
7. Last day for Treasurers of Local Municipalities to furnish County Treasurer with statement of all unpaid taxes and school rates.—Assessment Act, Section 145.
8. Last day for Collector to return to Treasurer the names of persons in arrears for water rates in Municipalities.—Municipal Waterworks Act, Section 21.
12. Good Friday.

✽ 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.

Chattel Mortgage Forms.

Under the Act, 57 Vic., chapter 34, which came into force on the 1st day of January, 1895, important changes were made in the law relating to Chattel Mortgages. We have in stock a supply of the following forms, prepared in accordance with the provisions of the new Act:

Chattel Mortgages, per 100	-	-	\$3.00
Renewals, per 100	-	-	\$1.00

The Municipal World

PUBLISHED MONTHLY \$1.00 PER ANNUM
PUBLISHED MONTHLY

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

K. W. MCKAY, EDITOR,

A. W. CAMPBELL, C. E. } Associate
H. F. JELL, Solicitor. } Editors

TERMS. \$1.00 per annum. Single copy, 10c.; Six copies, \$5.00, payable in advance.

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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, MARCH 1, 1895.

Owing to the form of assessment roll published by us being slightly different from that supplied by other publishers, we wish to explain that the assessor is only required to enter in the roll the census of children between the ages of five and twenty-one. See section 2 Assessment Amendment Act, 1893. In addition to this the Compulsory Education Act requires the use of a separate school census book, in which the assessor is to enter the names of all children between the ages of eight and fourteen, together with the names of their parents or guardians and residence. See section 14 Consolidated Assessment Act, 1892, and chapter 56 Ontario statutes, 1891.

There is a great diversity of opinion amongst municipal men in reference to the necessity for publication of more than an abstract statement of receipts and expenditures, assets and liabilities, on the 15th December of each year. The treasurers' books are open to inspection by ratepayers, and we think that councils throughout the province should petition for the change and show that a detailed statement is unnecessary.

In the clerks' record of awards filed under the Ditches and Watercourses Act; in inspectors' reports under the Tile Drainage Debenture Act, and in by-laws passed in accordance with the Drainage Act, care should be taken to specify the particular portion of land on which the special tax is to be levied. There is sometimes a difficulty in ascertaining this when property is sub-divided and assessed to different owners.

We notice that in some counties by-laws have been passed to determine the period of residence necessary to render an applicant eligible for admission to the house of industry.

It is the general belief that these institutions are established to relieve the local municipalities of the expense of the care of the poor. If a tramp is disabled, or for other cause requires assistance as soon as he arrives in a municipality, the local authorities are supposed to do what is necessary. If he can be better cared for in the house of industry, he should be sent there and discharged as soon as he has recovered, or the circumstances will permit. To decide by by-laws that persons should not be sent to a house of industry until they have resided in the county for three or twelve months is to impose on these municipalities having to care for unfortunate wanderers, common humanity compels us to care for the poor. Houses of industries are established to assist in this work, and all municipalities contributing to the expense of one these institutions should benefit thereby to the fullest extent.

County councils can do a good work by placing a sum of money at the disposal of the gaoler to aid destitute prisoners in getting to their homes when discharged. To turn a man out in the middle of winter many miles from home with no means of getting there will not assist in reforming him. Many cases are reported, where discharged prisoners have secured their return to gaol by committing another offence, as they were without the necessities of life and unable to reach home.

At a municipal nomination meeting two candidates are proposed for the office of reeve. If no one demands a poll how many clerks would then take the votes of electors present and declare the candidate receiving a majority duly elected? Let us hear from clerks who have had experience in this matter.

There is an advantage in having one physician at least on every local board of health, but it is only a merited commendation to say that some of the best and most careful public health work in the province has been done by non-medical members of local boards of health.

The present indebtedness of English towns and localities for street and road improvements is \$145,000,000. It is not many years since England was a country of wretched highroads and of abominable town streets. All this has been changed, and the transformation which has been costly, has seemed to impose a heavy burden by reason of its rapidity. But it would have been a good investment at almost any price. Fortunately, the work has been done in a permanent manner. The Macadamized roads are so solidly founded that they will endure for centuries.

House of Industry—County of York.

Extracts from inspector's report for 1894:

Number in home	January 1st.....	91
“	“ December 31st.....	88
Average number for the year.....		82½
Admitted during the year.....		65
Discharged “ “.....		42
Absconded “ “.....		11
Died “ “.....		13

Received from county treasurer \$6,705, of which amount \$6,119.18 has been used for running expenses, making an average expense per week of \$1.32¼.

Abstract of financial statement:

RECEIPTS.

Balance from 1893.....	\$ 39 14
From county treasurer.....	6,705 00
For board.....	32 00
Wages earned by inmates.....	11 00
Sale of stock.....	381 50
Sale of farm produce.....	102 47

Total.....\$7,271 11

EXPENDITURES.

Food, light and fuel.....	\$3,271 37
Clothing and drugs.....	885 65
Miscellaneous.....	1,523 17
Implements.....	15 00
Seed and feed.....	118 97
Hired help.....	535 66
Salaries.....	775 00
Conveying inmates to home.....	113 00
Balance to 1895.....	33 29

Total.....\$7,271 11

Pay the Aldermen.

Mr. Goldwin Smith, writing in New York about municipal problems, holds that men who do public work must get something for it. He says:—

“If you want men to do hard work you must pay them or they must pay themselves. So it will be, at least till the Angel Gabriel is mayor with a city council of seraphims. The pay may be either money or dignity.

Perpetual vigilance is the price of immunity from fire, says the *Monetary Times*. Every town in Canada should examine its fire appliances once a month; should test the cisterns; see that the fire bell can be got at and will ring; take the engine out and set it working; inspect the hose and play through it; strengthen the chain of fire defence at its weakest link. Only by such precautions can a community be ready to fight fire when it comes—as come it will.

Judge—“Were you ever up before this court?” Everett Wrest—“Can't say, judge, What time do your honor get up?”

New policeman—“And where is your permit to peddle?” Peddler—“I have a verbal permit.” New policeman—“Show it to me.”

Municipal Insurance.

The particulars of a bill to be submitted to the legislature to make municipal insurance a possibility, have been published. The following extracts will give some idea of the thorough manner in which the matter has been considered:

"It is provided that the municipal council of any county, city, or town may adopt the provisions of the act, if so authorized by a vote of the ratepayers. The bureau is to consist of three members, to be known as fire insurance commissioners, two to be appointed by the municipal council and the third by the local board of trade. Power is given the commissioners to appoint a manager, secretary, treasurer, solicitor, inspectors, and such other officers as seem to them necessary, and to invest as trustees, the moneys of the bureau in stock, debentures or other securities. The commissioners may fix by by-law the remuneration to be paid them, which is not to exceed \$5,000 per annum for the chairman, and \$3,000 for his colleagues. All buildings and erections within the limits of the municipality, and shown on the assessment roll, except as otherwise provided for in the bill, shall be insured in the bureau to the amount of two-thirds of their assessed value, at a premium or rate to be fixed by the commissioners. Authority is given to the commissioners to pass by-laws classifying buildings, and fixing the rate of insurance and amount of premium. Business stock, merchandise, furniture, and other effects may be insured on application, but no insurance under this section is to exceed the sum of \$10,000 on any one risk. A fire insurance roll is to be prepared containing the names and addresses of owners of insurable property, the particulars of such property, the classification and rating, and the premium charged, which must be delivered to the clerk of the municipality on or before December 31st in each year. Section 29 and accompanying sub-section read as follows: "On the institution of a bureau in any municipality, all owners of property otherwise insurable under this Act which may be under insurance in a fire insurance company may furnish the bureau with a list of their properties showing the amount of insurance effected and the names of the companies carrying such insurance, with a request that such property be not then insured in the bureau. 1. On receiving such list, accompanied with such information, the commissioners shall not insure such properties until the expiration of such existing insurance, when the said properties shall forthwith become insurable hereunder; provided, however, that such list shall be given to the bureau within one month after the institution thereof, and that all properties whatever, notwithstanding anything in this section to the contrary, shall, on the expiration of two years after the institution of the bureau, be in-

surable therein as in this act provided." The appointment of members of the fire brigade is to rest with the commissioners, who are to have the control of the fire balls and fire brigade equipments. The clause dealing with losses recites: "All fire losses, so soon as the same shall be adjusted, ascertained and accepted by the district commissioners, shall be paid as follows: Fifty per cent. of such loss to be paid out of the funds of the municipality in which the loss has occurred, and the balance out of the funds of the other municipalities of the district, which balance shall be levied on such funds rateably, according to the amount of insurance the last-mentioned municipalities shall carry in the district bureau; or in such other manner as the district commissioners shall by by-law, to be approved of by the inspector of insurance, adopt." In the event of the consent of the ratepayers being obtained, the municipality shall issue debentures to an amount to be fixed by the inspector of insurance for Ontario, and in the case of cities having a population of over 10,000, to the amount of \$1,000,000, which debentures shall be transferred to the commissioners to be utilized in forming a rest fund for the bureau. No by-law for the issue of such debentures shall require to be submitted to the ratepayers before the final passing."

Incorporation of Cities.

We are often asked to state the benefit a town derives by being incorporated as a city. A reference to the Municipal Act shows that three aldermen should be elected for each ward in a city, but the number may be specified in the Act of Incorporation, and in most cases two is considered sufficient.

In cities, the qualification of aldermen is increased from \$600 to \$1,000 freehold and from \$1,200 to \$2,000 leasehold. This may be an advantage. The qualification of an elector in cities is an assessment of \$400, being \$100 more than is required in towns.

The council of a city has some special power in reference to the appointment of auditors to make monthly audits or to audit the accounts before payment.

When a city is incorporated, the judge, police magistrate and the mayor are constituted a board of police commissioners until the council, by by-law, dissolves, and puts an end to the board.

Under chapter 72 of the Revised Statutes, the salary of police magistrates in cities is \$1,400 per annum, while in towns the highest salary payable is \$1,200.

The following are the only other special privileges that cities enjoy: 1st, Under section 494, the city council may pass by-laws, offering a reward for the apprehension of horse thieves; 2nd, Under section 520 (a), a city may appropriate \$500 to pay travelling expenses incurred

in and about the business of the corporation and for the reception and entertainment of distinguished guests; 3rd, Councils of cities have special authority to grant aid by way of bonuses for the promotion of iron and smelting works within or adjacent to its limits.

There are now so many large towns that the legislature has found it necessary to extend to them the same privileges as to cities. The Act of Incorporation should include any special legislation that may be necessary. With the exception of the city of Toronto, it is the practice of the legislature to make these Acts of Incorporation as nearly uniform as possible, and not to allow any special favors, except where actually necessary.

The business interests of a town do not suffer by the Act of Incorporation. To a stranger a town may mean a population of from 2,000 to 10,000, while a city means a population of 10,000 and upwards.

Initial the Ballots.

At the recent mayoralty re-count in Toronto, His Honor Judge McDougall rejected a large number of ballots because of the failure of the deputy-returning officers to place their initials on the back of them. Each candidate suffered from the loss of these votes, Mr. Fleming being the heavier sufferer.

The Telegram subsequently called attention in its editorial column to the ruling, and contended that the irregularity opened the door for fraudulent practices at elections were deputy-returning officers disposed to be dishonest in the performance of sworn duties.

Mr. W. D. Balfour, M. P. P. for South Essex, wrote to *The Telegram* as follows, after alluding to the editorial in question: "Will you kindly look at the last three lines of sub-section 8 (2) of section 163 of the Municipal Act: 'But no word or mark, written or made, or omitted to be written or made, by the deputy-returning officer on a ballot paper shall avoid the same.' This was introduced by myself and passed by the House to meet just such cases as those to which you refer."

In a recent opinion to the Wellington county council, Mr. Guthrie, the county solicitor says that the law bearing upon the subject of the expense connected with sending lunatics and insane persons to asylums from the county gaol will be found in section 37 of the same act, chapter 244, and also chapter 242, and I have to observe that where insane persons have been committed as dangerous lunatics to the county gaol, charges for medicine supplied to these persons while in gaol must be paid by the county and afterwards are to be paid to the county by the province under the provisions of R. S. O. chapter 86.

Ontario Good Roads Association

ANNUAL MEETING.

The first annual meeting of the Ontario Good Roads Association, was opened in the Y. M. C. A. hall, Yonge street, Toronto, on Thursday, the 7th of February, at 2 p. m. President Andrew Pattullo in the chair. Among those present were his honor, Lieutenant Governor Kirkpatrick, the honorable John Dryden, Minister of Agriculture, and over 115 registered delegates.

The president delivered a short opening address, outlining the work that had been carried on by the association during the past year, and expressed his pleasure at the good attendance.

Committees were appointed on resolutions, legislation and nominations.

Messrs. Judd, Dickson, Munro, Mahon, Beam, Sheppard and Campbell, good road speakers, who represented the association at Farmers' Institute meetings throughout the province, presented their reports, showing that at nearly every meeting great interest was taken in the subject of road improvement, the great majority being unanimously in favor of any change that will improve the present system of road construction and maintenance.

Addresses were delivered by the lieutenant-governor and Mr. Dryden. Both of these gentlemen have taken an active interest in the movement and suggested many important matters for the consideration of the delegates. A. W. Campbell, C. E., of St. Thomas, presented a paper on "good roads" in which every feature of the present movement for reform was considered. A most interesting discussion followed Mr. Campbell's "paper", in which Messrs. Roberts, Zavitz, Professor Robertson, Fitch, Radley and McEwing took part. This concluded the afternoon session. The evening meeting was opened by W. M. Davis, C. E. of Woodstock, who took up the subject of

Road Construction and Maintenance.

Mr. Davis referred more particularly to the class of roads best suited to the conditions which exist in the county of Oxford. There are large quantities of field stone and gravel, sufficient for the construction of permanent roadways in the county, and a knowledge of how to use the materials nature has provided, and a system under which the work can be done in a thorough manner is the principal requirement.

DRAINAGE.

In considering the question of road drainage he showed that the three prime essentials are 1st, drainage; 2nd, better drainage; 3rd, the best drainage possible;

the system should vary according to the nature of the soil, the best arrangements, where the importance of the road will justify the expense is to dispense with the deep open ditches and lay two lines of tile on each side of the road, to carry off the subsoil water. The surface water should be provided for by shallow gutters, discharging either into the natural water-courses or the subsoil drain. The roadway should be thirty feet wide between ditches. For the maintenance of earth roads a scraper and roller should be employed. Road machines are specially fitted for this class of work. On more important roads where the travel is great, a roadway eight feet wide in the centre should be constructed out of some durable material, leaving an earth road on each side for summer travel. While gravel is generally used, the cost of breaking field stone has practically never been considered as a material for the foundation, the road to be completed with broken stone and gravel. Mr. Davis dealt very ably with the question of road construction, maintenance, broad tires, machinery and the statute labor system. He is of opinion that pathmasters should be selected on account of their knowledge of the work, and should be retained as long as efficient, that in each district there should be an official whose duties would include a supervision of all the roads, and that each pathmaster should make an annual report giving a detailed account of his operations. Considerable discussion followed Mr. Davis's paper, in which Messrs Henderson, Holden, Hunter, Sheppard and others took part.

Mr. J. C. Judd, Barrister of Morton, in the county of Leeds, presented a paper outlining "The Present Highway Laws of Ontario". He was followed by A. F. Wood ex-M. P. P. for North Hastings.

Road System County of Hastings.

This county maintains 360 miles of first-class gravel road, the expenditure on which is from \$12,000 to \$15,000 annually, and on roads not yet graveled about \$6,000 in addition to cost at county bridges. Mr. Wood was a member of the county council for twenty years, during which time the greater portion of these roads were constructed. First as toll roads and afterwards a by-law was submitted to the people and carried to buy these roads and extend the county roads. This was expensive, but the county became the owner of all the county roads and toll-gates were abolished.

MAINTENANCE.

The council then considered the expense of maintaining the roads, many different plans were introduced, one suggestion to hand them over to the sev-

eral townships was strongly urged but never entertained. Several systems were tried, one was giving contracts for gravel and broken stone at so much per cubic yard, spreading included, this failed because of the cost of inspection, which was required not only as to quality and how spread, but as to the quantity, the cost was regulated by the distance the material was hauled. In addition to this, the county had to keep up the open ditches and culverts. Then the contract system per mile was tried, specifications were drawn and revised by the county solicitor with the greatest care, so much for gravel and broken stone, and so much per mile to keep ditches and culverts open or rebuilt when necessary. This system was tried in two ways in long and short lines of road and failed, being too expensive, inspection was an important factor. The county of Hastings was no exception to the general rule of the tendency of contractors to "scamp" their work. The roads began to run down and it would have required an increased expenditure to keep them up to the proper standard.

THE PRESENT SYSTEM.

The present system was then inaugurated in the face of strong opposition and has now worked successfully for twenty years. A superintendent of gravel roads was appointed at a salary of \$700, he paying his own expenses. A gravel road committee was appointed by the warden. Two or more gangs of men were engaged by the superintendent, the foremen of which received extra wages. The work was put directly under the charge of the superintendent, he reporting monthly to the gravel road committee, all details as to men, wages, work, etc., the committee having full power to regulate. These gangs were moved from place to place as required. It was a decided success, more work was performed at half the cost.

A GOOD SYSTEM.

The strong points of the system are: 1st. The whole work through the committee is directly under the control of the council. 2nd. The work is well done as there is no inducement to scamp it. 3rd. It is done where most required at the best time to do it. 4th. The ratepayers are in touch with those performing the work and any tendency of men to shirk work is soon brought to the attention of the superintendent. 5th. By the employment of good men continuously, they become experts and are capable of doing more than inexperienced hands. This is particularly true with the superintendent. The main point is you must have a competent and interested superintendent, skilled in road-making—such men are not always available. Another point is that the committee must hold a firm hand on the employees—the result of this system has been that the roads in Hastings are steadily improving and are efficient at any season of the year for the purpose required, whether for light carriages or heavy loaded draft wagons.

COST OF CONSTRUCTION.

The average cost per mile for first-class roads was at first about \$2,000, this has been reduced by experience, and a better knowledge of road building and a better system by nearly one-half. Maintaining these roads costs about \$40.00 per mile, but this means maintaining them in such a way as to have them grow better annually. This cost of maintenance is gradually lessening. The road between ditches is generally eighteen feet wide, the metal or top from eight to ten feet in width and ten inches deep, the earth is filled in at the sides and the whole rounded from the centre to take away the water and to keep it from the road-bed. Good ditches and proper culverts are the first consideration. The second general principle is not to allow the road to run down. The success attained may be attributed to the following reasons: The public men of Hastings early learned the value of cheap transit. The county is on the bay of Quinte which is a part of the St. Lawrence river and continuously before them was the object lesson of cheap freights down that water-course, they were thus reminded that it cost more to haul a load twenty miles inland than to take it to Montreal. Second, they never varied from the broad and correct principle, that all leading roads should be county roads, and maintained by the county. Third, it was early inculcated that good roads were a general benefit, and one of the most important factors in developing the country. Fourth, that the indirect losses by bad roads not only made the county poorer, but by lessening the facilities of intercommunication became a factor in perpetuating ignorance and destroying enterprise.

CLASSIFY THE ROADS.

So long as road building is left in the uncertain state that now exists in rural districts, just so long will roads fail to reach the proper standard. The sum of money represented by statute labor at \$1 per day, expended in a systematic way would within a reasonable time accomplish much. Let the counties take charge of the leading roads, and the local municipalities retain control of the local roads as at present, under some legalized statutory system, utilizing the statute labor as indicated, and wonderful results in road improvement would be achieved.

A hearty vote of thanks was tendered to Mr. Wood for his very able and instructive paper. Those present were unanimous in expressing their appreciation of the many valuable suggestions contained therein.

In the discussion that followed it was stated that the cost of maintaining roads at \$40 per mile in Hastings, includes payment for bridges costing less than \$10,000.

The following resolutions were passed:

VOTE OF THANKS.

Moved by Wm. Dickson, seconded by James Beattie,

Resolved, that the Ontario Good Roads Association in annual convention assembled desire to thank Hon. Mr. Dryden, Minister of Agriculture, for the great service he has rendered the association in having printed by his department for distribution 20,000 copies of the report of the proceedings of our first meeting last year; and we hereby request Mr. Dryden to have an increased number of copies of the report of this meeting published by arrangement with the directors of this association.

Moved by J. S. Hunter, seconded by T. S. Henderson.

Resolved, that the thanks of the Ontario Good Roads Association be extended to the Canadian press for the interest which it has taken during the past few years in the subject of road reform, an interest which has done very much to popularize the movement and advance the objects aimed at by this association. In this connection we beg to urge rural publishers especially, to avail themselves of the use of the excellent matter on the subject which is being provided by the two stereotype plate agencies in this city, which we believe will prove not only interesting to the general reader, but a great aid in the cause of road reform and the work of this association.

FOR PRACTICAL WORK.

Moved by P. Mahon, seconded by J. F. Beam;

Resolved, that the first and immediate work of the Good Roads Association for the coming year shall be the continuation of the work of collecting information on the subject of road-making and road maintenance from all available sources, and in regard to the laws of other countries on the question; the continuation of the agitation for reform; the dissemination of practical information in printed form and through addresses and discussions throughout the country, the formation of local associations in every county in the province, and in towns, villages and township municipalities so far as practicable.

Members of the board, all delegates and friends of road reform were requested to act for themselves in forming local associations, wherever desirable or necessary.

EDUCATING ROAD MAKERS.

Moved by W. S. Campbell and seconded by W. G. Baldwin, and resolved that we record our satisfaction at the interest taken by principal Mills of the Ontario Agricultural College in the subject of roadmaking and improvement, as shown by the fact that, at the suggestion of the president of this association, he has arranged to have a series of lectures on the subject, to be delivered before the students of the college during the present term. We anticipate important results from this wise action on the part of Dr. Mills, believing as we do that it will lead to new avenues for usefulness for the sons of farmers who are attend-

ing the college, and who will thus, through special training and qualification, be able to serve the country among the road-makers of the future. And we beg to express the hope that the subject of road building and road maintenance be added to the regular curriculum of studies at the Agricultural College.

AFTER DELINQUENTS.

The following resolution was passed with the understanding that the legislation sought would necessarily have regard to the existing rights of companies under their statutes.

Moved by A. W. Campbell, seconded by Peter Mahon, and resolved, that we the members of the Ontario Good Roads Association, do petition the legislature of Ontario to improve the law relating to toll roads. The object aimed at being such legislation as will compel road companies to maintain their roads at a much higher standard than at present; that no company shall be allowed to charge tolls where the road is not kept up to such a standard as the legislature may fix; and that greater facilities than at present exist be provided for the enforcement of such legislation in order that the burden of legal action may fall on the community rather than on those individuals who may desire road companies to comply with the provisions of the law.

THANKS TO MR. HODSON.

Moved by Jas. H. Wooley, seconded by M. Pettit, and resolved that this association desire to thank Mr. F. W. Hodson, superintendent of the Farmers' Institutes, for the assistance rendered us in placing the subject of roadmaking and maintenance among those which have been discussed at the recent meeting of the Farmers' Institutes throughout the province, and in the selection of a number of speakers recommended by our board, who have thus been able to bring practical phases of the subject and the aims of the association before the farmers.

And we hereby request Mr. Hodson to include in his list next year, a number of good roads speakers for those districts which have not been covered in the arrangements for meetings held during the past month.

The meeting adjourned until Friday morning when a report from the secretary was received, showing that statistics had been collected from seventy-eight per cent. of the townships not including new districts, showing: 1. Population; 2. Acres; 3. Assessed value; 4. Number of days statute labor; 5. Commutation rate; 6. Road and bridge expenditure; 7. Road mileage; 8. Whether stone or gravel exists in the township in sufficient quantity to make improved roads. The total number of days statute labor is 966,000, and the road and bridge expenditure is \$750,000. The number of miles of road in the province not including new districts is about 50,000.

Mr. J. C. Judd, chairman of the sub-committee of the executive formerly appointed to revise the constitution, presented his report and the following constitution was adopted:

CONSTITUTION.

ARTICLE 1.—NAME.

The name of this organization shall be The Ontario Good Roads Association.

ARTICLE 2.—OBJECTS.

The object of the organization shall be to awaken general interest in the improvement of public roads; determine the best methods of building and maintaining them; secure the legislation that may be necessary for their establishment and support, and to conduct and foster such publications as may serve these purposes.

ARTICLE 3.—MEMBERSHIP.

The association shall be open to all citizens. There shall be no initiation fee nor membership dues.

ARTICLE 4.—OFFICERS.

The officers of the association shall be a president, first and second vice-presidents, secretary-treasurer.

ARTICLE 5.—EXECUTIVE COMMITTEE.

The executive committee shall consist of the general executive officers and ten other members. Five members of the committee, including a majority of the general executive officers, shall constitute a quorum.

ARTICLE 6.—HEADQUARTERS.

The headquarters of the association shall be in Toronto for general meetings only; the office of the secretary to be where he resides.

OFFICERS FOR 1895.

Mr. Sheppard chairman of the nominating committee presented his report and the following officers and executive were appointed for the ensuing year:

A. Pattullo, president; J. F. Beam, 1st vice-president; A. W. Campbell, 2nd vice-president; K. W. McKay, secretary-treasurer; Executive committee; P. Mahon, Aberfoyle; J. Sheppard, Queens-ton; J. Beattie, Cambellton; A. Mac-Dougall, C. E. Toronto; J. C. Judd, Morton; M. Kennedy, mayor, of Owen Sound; W. S. Campbell, Brantford; J. H. Wolley, Simcoe; Robert Jelly, Jellyby; E. Kidd, N. Gower, president Eastern Dairy-men's Association.

RESOLUTIONS.

The report of the committee on resolutions elicited a great deal of discussion; the following resolutions contained in the report were carried:

1. Resolved, that this association hereby request the directors for the coming year to send out circulars to the various municipal councils of the province, to the agricultural associations of various kinds, the boards of trade and other representative bodies, to local Good Roads Association and to be submitted to meetings of ratepayers, to ascertain what public

opinion is on the subject of road improvement and the laws relating thereto. That such circulars request replies to such questions as the following:

A. In what direction can the statute labor system of this province be improved: 1. by the revision of the laws in reference to it, or 2. in the practical working out of the system?

B. Would you favor the passage of legislation which would permit municipalities, 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?

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

THE DIRECTION TO MOVE.

2. Resolved, that there be a legislative committee of this association to whom shall be referred all questions as to the improvement of our laws relating to road making and maintenance; that this committee shall consider during the coming year, after a thorough study of the question, the direction in which the statute labor system can be improved, where there is a desire to retain it, with the following suggestions from this meeting.

A. That the number of pathmasters be decreased by the increase of the beats over which they have jurisdiction.

B. That provision be made for the selection of pathmasters through merit and for special knowledge of road making and repairing; that they be given power to call out statute labor at any season of the year when needed; and that they be paid some remuneration for the time, in excess of the labor for which they themselves are liable, during which they are actually engaged by direction of the municipal council, at work on the roads or in superintending work that is going on.

C. That a member of each municipal council, or some other competent person be appointed by the council or the people as road overseer, who shall have the supervision of all work done by the pathmasters, and who shall report each year on the work done by them; that the remuneration of such overseers, if any, be fixed by the municipality.

And that this committee investigate the subject of legislation through which the use of broad tires can be encouraged and narrow ones discouraged.

That they also consider the whole question of optional legislation for such municipalities as may desire by vote of the people, to abolish the statute labor system. That among other things, they report on a plan by which the roads of each county can be divided into county and township roads, the former to be under control of the county council and the latter of the various township councils.

That such legislative committee shall

report on this and other matters as it may deem fit at the next convention of this association.

INFORMATION WANTED.

3. Resolved that we petition the hon. minister of agriculture to secure through the agency of the bureau of industries complete and accurate information as to the amount of statute labor on the rolls of every municipality of the Province during the past ten years; the amount of such labor actually done and the amount which those who ought to have done it have failed to do; also the value of such labor, based on the estimates of municipal officers and representatives who are best able to judge; and the amount expended in money in municipalities in addition to statute labor in the building and maintenance of the public highways, such amount to be exclusive of the building of bridges over running streams. We would also suggest that as complete information as possible collected by the same agency as to the extent and character of public roads in each municipality and the distribution of road making material.

SPECIAL COMMITTEE.

4. Resolved that a special committee of this association consisting of his honor Judge Woods of Chatham, Messrs. A. P. Macdougall, A. W. Campbell and the president and secretary of this association be requested to draft legislation which will carry the principles of our drainage laws into the work of road building, and enable municipalities or sections of them to build and maintain permanent highways for themselves when they desire to do so, the money for which shall be raised through the issue of municipal debentures, to be repaid by taxation on the municipalities or sections effected. The said committee to petition the Ontario legislature to pass such legislation as it may agree upon in this direction.

The following resolutions were then adopted:

LOCAL ASSOCIATIONS.

Moved by J. F. Beam, seconded by James Sheppard,

That members of this association should use their influence towards forming local county and township Good Roads Associations and aid the road reform movement, and that they are requested to take such action on their own account.

Moved by James Sheppard, seconded by P. Mahon;

That the thanks of this meeting be tendered to Mr. A. H. Pettit, secretary of the Central Farmers' Institute for his attendance, thereby enabling the delegates to take advantage of special railway rates when they were in a position to do so.

Moved by Wm. Munro, seconded by Jas. Beattie;

That a committee consisting of the president, A. F. Wood and Mr. P. Mahon are hereby appointed to petition the Ontario government and legislature for

grant toward the necessary working expense of this association, and in event of any member of the committee being unable to act, the executive be empowered to appoint a substitute.

All matters pertaining to legislation were referred to the executive committee, and after passing a hearty vote of thanks to the president and other officers, a most successful meeting was adjourned *sine die*.

NOTES.

Owing to the short time at the disposal of the meeting, a most valuable paper by Judge Woods on "The Lesson of the Drainage Laws, as Applied to Good Roads," was held over, as were also papers by Mr. P. K. Hyndman, C. E., of Sarnia, and Allan Macdougall, C. E., Toronto.

* * *

The brevity of Mr. Campbell's remarks both at the Central Farmers' Institute and Road Association meeting were quite noticeable.

* * *

Mr. Copp, manufacturer of the American Champion Road Machine was in attendance, as was also Messrs. H. A. Brownell and Wilson, representing the Western Reversible Machine. These gentlemen had a model of the machine on exhibition and were kept busy explaining its many good points to inquiring delegates.

* * *

It is said that no former public agitation has been as well received as that for the improvement of our public roads. The reports of the good-roads speakers who have been before the people in different parts of the province was a surprise to all.

* * *

At the next annual meeting of the Good Roads Association there should be an exhibit of culvert pipe, road-making material, road-machines, rollers, etc. Many delegates came to the convention this year expecting to get some special information in this direction.

A petition asking for local option in taxation has been sent for signature to all the municipalities in Ontario. It sets out that widely divergent views are entertained on the subject of municipal taxation; that the best method of settling the question is by giving to municipalities the power of raising their revenues on any basis of taxation that each municipality may choose; and that the principle of local option in taxation has been adopted to a greater or less extent in the Province of British Columbia and in the Northwest Territories, besides having been passed by the popular Chambers of the Parliaments of New Zealand and South Australia.

DRAINAGE.

Hints on Tile Draining by W. F. VanBuskirk, C. E.

(Stratford Herald.)

Under the present conditions one of the most prominent defects in the prevailing system of farm management is a want of attention to thorough drainage as a means of decreasing the cost of production, and insuring uniform as well as paying crops by increasing the fertility of the soil and avoiding losses from unfavorable seasons. Much of the tile drainage done in this district is of little use, and a large amount of money is wasted through want of knowledge in regard to the true action of water and soils in promoting plant growth.

A soil drained properly by an efficient system of deep tile drains becomes to a certain extent porous, permits the air and bacteria of nitrification, etc., to permeate to great depths and thus increases the available supply of plant food.

Further, a soil properly drained is capable of storing larger amounts of water for use of plants in time of drought, than one which has not been properly drained. An efficient drainage system will therefore not only improve and permit growth in a wet season, but will prevent to a large extent the evil effects of a dry period.

A few hints on the proper method of laying tile drains according to the best modern authorities, may be of some interest and profit.

The manner in which drainage or surplus water reaches and enters the tiles and the manner in which it flows in the mains must be understood before we can intelligently lay down any system of drainage.

When water falls from the clouds upon underdrained land it percolates through the soil vertically from the surface to the level of the water table or upper surface of ground water which will, of course, be at or near the same elevation as the bottom of the tile drains. As the rain continues, the water table will gradually rise until it is above the bottom of the tiles, when the water will begin to run in at the lower part of the joints between pipes, and will not run in at all parts of the joints until the water table rises above the top of the tile. As soon as the water begins to run into the pipes there will be a horizontal movement or flow of water towards the tile to replace that discharged, and the drains will continue to run until the water table is again lowered to the bottom of tiles.

The flow of water in the pipes is retarded by the friction of the interior surface, and this surface is greater in proportion to the volume of flow in small pipes than in large. Therefore, it follows that the main drains do not require to be so large in proportion to the volume of water delivered to them, as the branch drains.

Now it has been established beyond question that the tile drains should be put into a depth of at least four feet. And it may be taken for granted that any unfavorable results with drains at this depth, are due to faulty workmanship, material or design, and not to the depth.

If drains be put in four feet deep it will seldom be necessary to have a less distance between laterals than twenty-five feet, and in many cases a distance of fifty or sixty feet may give good results.

Lateral drains should be laid out on the ground to run directly down or at right angles to the slopes and in the line of the steepest descent, in order to secure the greatest efficiency in discharging water, as they will then remove water from one-half of the space between adjacent lines of pipe. Whereas, if they are laid parallel to the slopes, they can receive no water from the space immediately below, and must receive water from the whole space above.

The mains or outlet drains for the carrying of water from the small laterals should be laid in the lowest ground and with a uniform gradient from outlet to upper ends and should be laid in perfectly straight lines with easy curves at all necessary angles, and should be about their own diameter below the lower ends of all laterals. Where the width of the valley or low ground is considerable, it is advisable to lay subsidiary mains parallel to, and near the foot of slopes to take the water from the laterals on them, since it is not good practice to decrease the fall of such laterals at their lower ends without largely increasing their capacity.

An eight inch tile drain, laid properly with a fall of three inches in one hundred feet, will be large enough carry the drainage water of one hundred acres provided that no surface water be allowed to enter the tiles, and that the whole area be underdrained to a depth of four feet or more.

In order to make a good permanent drain, tiles must be laid to a uniform grade, without bends, either horizontally or vertically, since such bends obstruct the flow; they must have close fitting joints to prevent earth or sand entering, and must be covered with earth or clay well packed and the ditch filled without in any way interfering alignment.

The pipes should be laid upon the undisturbed earth, cut to exactly fit the lower half of pipe, and immediately after the ground has been so cut, care being taken to prevent any clay or sand entering the completed portion of the drain. Sods, straw, stones, etc., should not be put immediately over the pipes, as their use is based upon an erroneous idea of the manner in which water enters the drains, and they seriously interfere with the proper drainage of the soil. On the other hand, should it be impossible, owing to badly formed pipes, to make the top of joints between pipes perfectly tight, strips of tarred paper or other material should be placed over them.

Good Roads.

BY A. W. CAMPBELL, C. E.

Existing Gravel Roads.

On a number of roads throughout the country, municipal councils have expended considerable money in reducing grades and putting on gravel, but in the majority of these cases gravel has been put on without any attention being paid to the reduction of grades or the proper formation of the road-bed. It has been found that these roads rut deeply in the wet season and consequently are rough and unpleasant to drive on during the remainder of the year.

A remedy for such roads is :

1st. Have the road properly drained, according to the specifications herein given for the construction of new roads.

2nd. By the use of a road-machine and a gang of men, commence at the edge of the gravel and work to the gutters as hereinbefore described, leaving the road crown as if building a new one. See that the gutters have proper and uniform fall for the surface water, and that the trenches are made leading to the side ditches.

3rd. Put on a sufficient quantity of the best gravel obtainable to complete the crown of the road, and carefully watch it with a rake until it has become perfectly consolidated by the travel.

4th. Never neglect to see that the rake is sufficiently used to prevent the formation of ruts and maintain a proper crown to the road so as to secure the shedding of the water.

5th. Where grades are steep and irregular and can be reduced at reasonable cost, it is advisable to make such reductions before expending any further money in material or grading, in which case the present gravel should be taken up and laid to one side, so that it may be relaid, but generally where there are slight changes it is not advisable to break up the old foundation in order to secure perfect uniformity in grade.

GRAVEL FOR ROADS.

There are two kinds of gravel—one that will pack under travel, and clean, rounded gravel which will not. This is due to a small proportion of clayey or earthy matter contained in the former which unites and combines the material together. Seaside and riverside gravel consisting almost entirely of water-worn and rounded pebbles of all sizes, which easily move and slide upon each other, is unsuitable for road covering unless other materials be mixed with it, while pit gravel usually contains too much earthy matter. The gravel for the top layer at least must be hard and tough so that the wear will not pulverize it and convert it into dust and mud. It

should be coarse, varying in size from one-half to one and one-half inches in diameter; it should not be water-worn and should contain enough sandy or clayey loam to bind it together firmly. Pit gravel usually contains so much earthy material that it should be screened to render it entirely suitable for the surface layer. For this purpose two wire screens will be necessary—one with the wires from one and one-half to one and three-quarters inches apart. The pebbles which do not pass the large screen are to be rejected, or it should be broken up into smaller fragments, while the earth, small gravel and sand that pass the smaller one, although not suitable for the road surface, will answer for a bed for the road material to rest on. If the bed of the road is rock, a layer of earth should be interspersed to prevent the too rapid wear of the latter. In ordinary soils an excavation to the depth of six or eight inches, and of the required width, is made for the reception of the gravel. The surface of this excavation, called the subgrade, may be made level, or preferably it may be arranged parallel to the finished road surface by sloping it from the centre to the sides. A layer four inches thick of good unscreened gravel in its natural state should be first spread upon the roadbed which is then thrown open to travel until it becomes tolerably well consolidated.

The remainder of the material should then be put on and kept properly in shape with a rake until thoroughly compacted, which can be hastened by the use of a five ton roller. On ordinary country roads gravel eight feet wide and nine inches deep is sufficient.

Maintenance.

Earth roads should be kept smooth, hard, up to grade and cross sections by the addition of suitable materials at frequent intervals and in small quantities at a time, on all places out of grade securing a surface as shall quickly convey the water to the side ditches. The latter should be kept open of uniform and sufficient slope, free from rocks, ridges, depressions and continuous to some natural or artificial outlet. As regards the maintenance of a road of this class it seems hardly necessary to say that the way to keep it good is never to let it get bad. In nothing is the old adage "stitch in time" more applicable. Every improved road should be watched over by a careful superintendent, with material always at hand to level up and smooth over all inequalities as they appear. This is not only the best, but it is by far the most economical method of keeping a road in repair, for there is nothing more deeply demonstrated than that the wear of

a road increases in a geometrical ratio as its condition deteriorates. It will, however, sometimes happen, where the travel is very heavy and continuous, that the road will become so worn as to require a complete resurfacing. The surface of the old bed should be slightly loosened up with a pick before the new material is spread on, so that the whole will combine better and form a solid mass. There are now machines for doing this in the shape of a steam roller with a pick attachment, which are said to do the work better at a great saving of labor. The advantage of compacting a road with the roller before it is used for traffic is so obvious as to require nothing more to be said on it. If not done with the roller it must be done with the travel, which is bad for the road, as it wears away rapidly in the process—and bad for those who use the road to be compelled to do at their own cost what should be done by those having charge of construction.

The friction or resistance to draught on a road with deep ruts and thick mud is four times as great as on one in good order. This shows the importance over a perfectly kept road. An incidental advantage is that the prompt removal of the mud after every shower will prevent the annoyance of dust so generally an objection to roads, but not at all their necessary concomitant.

A road kept up by daily attention needs no repairs; but if it be put in order only at intervals the injuries to it would have been increased in geometrical progression which render very serious repairs necessary. It will be found cut into ruts, deep holes and irregular projection and often lower in the middle than it is at the sides. It must be put into shape and restored to its proper cross-section by cutting down the sides and filling up the middle parts. Only a single thin coat of stone should be applied at one time, not more than a cubic yard to a rod superficial. The surface of the old road may be lightly picked or lifted with strong short picks, merely burying the point one or two inches deep so that the new materials may be more easily united to the old ones. This is especially necessary on declivities to prevent the stones rolling down the slopes. When the road to be repaired is one which has been originally formed of large stones and of superfluous thickness no new material should be brought upon it, but the old stones should be loosened with picks, gathered with strong rakes to the side of the road and there broken to the proper size. The surface of the road having been put in proper shape, the broken stones are to be returned to it, being scattered uniformly and thinly over the surface. Only a small piece of road should be thus broken up at once, but the whole width. The old plan of repairing would be to fill up the holes with an additional supply of the same large materials. But the methods here recommended make more work for men and less for horses and produced a great saving of expense.

The best season for repairing broken stone roads is in the spring or early summer, when the weather is neither very wet or dry, for either of these extremes prevents the material from consolidating and therefore produces either a heavy or dusty road. If made at this season the roads are left in a good state for the summer and become consolidated and hard so as to be in a condition to resist the work of the ensuing winter.

If several depressions are found very near each other, cover the worst and attend to the next after the first has become solid. The ruts which are formed should not be filled with loose stones for this would make longitudinal ridges of harder material, but the laborer should work the rake backward and forward on each side of the rut and across it; and if he does it with his eyes shut he will do more good than by taking pains to gather all the stones he can find to place in it.

The number of men required by this system of constant watchfulness may at first seem an objection, but the expenses will be amply repaid by the advantages obtained. Each laborer should have a certain length of road assigned to his special care and the most intelligent and trustworthy among them should be made inspectors over the others for a certain distance. At times unfavorable for on the road they should be employed in breaking stone.

With a reversible road machine, properly managed, five miles of well graded and well drained earth road can be repaired. This operation should be repeated once a month for eight months in the year, and in the case of a properly made and properly drained gravel road ten miles can be repaired in one day. With a stone road, however, the repairs should be made by manual labor, one man being able to rake, and keep in proper repair twenty miles of road by working six months in the year. The cost of repairs for the different kinds of roads would then be fairly estimated as follows:

Earth Roads (five-mile sections.)

Two teams on machine at \$3 per day for eight days	\$48 00
One man to operate at \$1.50 per day	12 00
One man cleaning drains, etc., for sixteen days at \$1.25	20 00
	\$80 00

or \$16.00 per mile.

Gravel Roads (ten mile sections.)

Two teams on Machine for eight days at \$3.00	\$48 00
One man to operate at \$1.50 per day	12 00
One man cleaning drains, etc., for thirty-two days at \$1.25	40 00
New material for repairs	200 00
	\$300 00

or \$30.00 per mile.

Stone Roads (twenty mile sections.)

Service of one man for 8 months at \$25.00	\$200 00
Material for repairs	100 00
One man cleaning drains, etc., for	80 00
	\$380 00

or \$19.00 per mile.

Broad Tires.

It will be some years before all or even a majority of our country roads will be improved by gravelling or macadamizing, but in the meantime it is necessary to urge the adoption of some means to keep the ordinary earth roads from becoming impassable for a few months during the wet season of the year. One important move in this direction would be the use of broad tires on all vehicles used for hauling heavy loads. The only difficulty in the way of this is to get farmers and teamsters to make the change. Michigan law-makers realized this and have made a law which provides, that a man using on his wagon, tires of a certain width shall have a rebate of one-half of his road tax. In buying a new wagon the difference in cost is slight as the wider tires may be thinner and the added strength in the wider rim makes a stronger wheel. To take from a wagon already in use, the narrow rims and tires and replace them with wider ones only costs about \$15. Farmers who have had experience in broad tires assert that in a corn field where thirty bushels was considered a good load on narrow tires, they can haul fifty bushels with greater ease on broad tires. When hauling stuff to market, the load with wide tires can be increased from twenty-five to fifty per cent. In localities where a considerable portion of the inhabitants use broad tires, the road is kept in better condition than when narrow tires prevail. The advice of men who are in a position to know is that when broad tires are universally used on highways of all kind, from city pavement to the poorest earth roads, they may be kept in better repair than at present at one-fourth the cost. The greatest improvement for the least outlay is what the present generation is most likely to consider.

Legislation looking forward to the general adoption of wheel tires proportioned in width to the maximum load to be carried is something that should be taken hold of at once. Such a law made universal would greatly improve our roads, and as fast as they are made better, would tend to keep them so. The great objection to the adoption of broad tires, by degrees and the use of them as at present, is that wagons fitted with them run hard over a road where the narrow tires are mostly used, but when all wheels are what they should be, ruts will not be found cut deep in our roads as with a sharp instrument. Team-

sters say that they would be glad to use broad tires and would willingly go to the expense of making the change if every one was compelled to do so. Make wrong doing in this direction illegal and at the same time show to the wagon owner, who is not already convinced in this matter, that it is directly profitable to him to comply with the law. A man willingly becomes a law abiding citizen when he can make money out of it. The money now expended for roads would be twice as effectual if it were not for the constant abuse inflicted by narrow tires, and this will continue until the question is settled by the legislature. Upon a hard and well-made road, such as broken stone, there is not so much difference in the effect of broad and narrow tires, but on a common road, narrow wheels supporting heavy weights exercise a very destructive cutting and plowing action. This diminishes as the width of the felloe increases which in many cases is done to such an extent that the wheels act as a roller in improving instead of injuring the surface. For this reason the New York turnpike laws enact that carriages having wheels of which the tire or track is six inches wide will pay only half the usual tolls; those with wheels nine inches wide only one-quarter; and those with wheels twelve inches wide shall pay none at all.

The imperfect surface of an earth road makes it doubly important to take every precaution to lessen the friction of vehicles upon it. The resistance decreases as the breadth of the tire increases on compressible roads as earth, sand, gravel, etc., while on paved and broken stone roads the resistance is nearly independent of the breadth of the tire. Cylindrical wheels also cause less friction than conical ones. The larger the wheel the less friction they have, and the greater loss of leverage in overcoming obstacles. The fore wheels should be as large as the hind ones, were it not for the inconvenience of turning. The axles should be straight and not bent downward at the end which increases the friction though it has the advantage of throwing the mud away from the carriage. The load should be placed on the hind wheels rather than the fore ones.

The felloe should have a flat bearing surface and not a rounded one. The benefits of broad wheels are sometimes destroyed by overloading them. Narrow wheels are particularly injurious when in rapid motion for having less resistance and greater velocity than others. They revolve less perfectly and drag more, thus producing the worst effect. Conical wheels of which the inner is greater than the outer in circumference tend to move in a curve and being forced to proceed in a right line exert a peculiarly destructive grinding action on the roads. If a law of this kind were adopted to take effect, say two years after its passage, the people would at once agreeable commence to make the change and by that time no hardship would be felt.

QUESTION DRAWER

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

S. D.—Is it necessary for councillors to take the oath of allegiance when making their declarations before taking their seats at the beginning of the year?

No. See declaration of property qualification in which councillors declare that they are natural born or naturalized subjects of Her Majesty.

CLERK.—When is first day after nomination supposed to begin and end; contested by some to begin day of nomination at 1 o'clock?

Commences at midnight after nomination meeting and ends twenty-four hours thereafter.

F. H.—Have townships the right to pass and enforce by-law for preventing skating and sleigh-riding on side walks, and for compelling owners of property and others to shovel the snow off the side walks in front of their property in unincorporated villages in townships?

No.

H. G. T.—Should one or more of the councillors of a village be disqualified by reason of not possessing the proper or legal qualification to sit in the council, is the business transacted or by-laws passed by such legal or not?

The general rule is that the business transacted under such circumstances is legal.

ROCKY.—A owns land in adjoining township, in case A. does not pay the taxes on the land can the tax collector of adjoining township go into another township which is also another county and seize for taxes before returning the amount of taxes against the land, or can he seize at all in another township or county for taxes due in adjoining township?

Can seize any place within the county only.

A. D. C.—Can a township council legally exempt from special rate, school tax, or refund the same to ratepayers who are out of school reach and are formed into a section by themselves, but unable to build or support a school, some of whom are sending children to another municipality?

Yes. See section 40, sub-section 7 and section 42 of Public School Act.

J. W.—B. is assessed as tenant on the assessment roll, but on being challenged at the polls declines the oath as tenant, but is willing to take the oath on income under section 105 A., R. S. O., 1893. Can he vote as such? He is not assessed for income and pays no taxes on any property.

Yes.

J. F.—1. At meeting of council A moves a motion which was seconded by B. C moves an amendment which he could not get a seconder to. Can C demand to have his amendment (so called) recorded in the proceedings of the council?

2. A motion is put before the council for a vote; the yeas and nays are called for. C votes nay. Can he demand to have his objections to the motion placed on the minutes of the council?

1. No.

2. No.

J. H.—Is it contrary to law for the treasurer of a municipality to accept an order from a person to whom money is due, or accruing, in favor of another? For instance, the assessor A B gives to C D an order on the treasurer against his (the assessor's) salary.

2. Would such an order, if the transaction is so far legal, be secure against any subsequent one that A B might give to a second person, say E F?

Not a municipal question.

B. G.—A burying ground is formed under chapter 177, R. S. O. A certain denomination wishes to build a church therein. Would it be legal for the trustees to allow them to do so, seeing that the burial ground is undenominational? If legal, could it be possible if a minority of the trustees or inhabitants protested against it?

It would not be legal for the trustees to allow the ground to be used for the purpose mentioned.

TRUSTEE.—The school board of an incorporated village proposes to build an addition to their school house, and have had plans and specifications drawn for the same, said addition to cost two thousand dollars and more. Is it lawful for them to apply to the council to have issued debentures for the amount required without first having submitted the same to a special meeting of the ratepayers and obtained their sanction? See Vic. 54, chapter 55, section 115.

Yes. See section 116, Public School Act.

N. I. L.—A municipal council passed a by-law to compel parties owning or occupying certain premises in the business part of the village to clear away daily the snow accumulated on the sidewalk in the front of their respective premises, and limiting said by-laws to certain blocks, other blocks adjoining on the same street not being included in said by-law. Can the council legally enforce the provisions of this by-law when others on the same street are not required to take any action in the matter?

Yes.

OFFICE SEEKER.—In your issue of February, 1895, you say, in answer to Office Seeker, "No," and refer him to

section 271 of the Consolidated Municipal Act. Now, I would ask, 1st, Does not the above-mentioned declaration bar the township clerk from being township treasurer of the same township as that of which he is clerk? 2nd, How is it that quite a number of township clerks are treasurers as well of their respective townships? 3rd, Have they been illegally appointed to one or other of the said offices? Does an appointment to a certain township office, at a stipulated salary, and an acceptance by the appointee, constitute a contract with township?

Yes. The acceptance of an office constitutes a contract. The offices of clerk and treasurer are incompatible, and cannot legally be held by the same person.

S. O. U.—57 Victoria, chapter 50, sub-section 3 of section 5.

All moneys raised by the municipal council for the current expenditure of public or high schools shall be paid to the treasurer of the school corporation entitled to receive the same in monthly instalments, on the requisition of the school corporation concerned.

A dispute has arisen between the municipal corporation and the public school board as to the true meaning of the said Amendment Act.

The corporation raised the full amount of the school requisition and deposited the same in the bank at interest intending to pay it out to the school treasurer monthly as they interpreted the said clause of the act. The school board contended that they are entitled to receive the whole amount of requisition on demand, and contending that said clause only applies to money borrowed for school purposes. Please state the true interpretation and oblige.

The whole amount of school trustees annual requisition should be paid to the treasurer of the school board. Sub-section 3 of section 5 of chapter 50, 57 Vic., refers only to the payment of school loans granted under the authority of sub-section 2.

F. J. C.—In section 135 Assessment Act, 1892, these words occur, "or instructed by the council not to collect."

Can you inform me what section confers this power on the council?

Also could the council instruct the collector "not to collect" from a person who can be made to pay. It would almost appear that the collector could return any taxes unpaid if he had been instructed by the council "not to collect," even though the party assessed had ample means from which to make collection.

See section 67 of The Assessment Act, which gives the court of revision and the council the power in certain cases to remit or reduce taxes.

We grant local licenses to butchers, Draymen, Milk peddlers, etc.

1. Can a person who is doing business under one of these licenses hold the office of councillor or be a member of the council of this town?

No.

2. If he is already a member of the council can he be unseated.

Yes.

J. A.—In a case where village treasurer was defaulter of village funds to quite an amount, and on account of irregularities in not having the accounts audited in proper time and for other reasons the sureties of said treasurer refused to make good the amount of loss, the council employed legal advice, but before writs were issued a petition was presented to council asking them to accept a compromise which the sureties had offered rather than go to law. The council accepted the offer of the sureties and passed a by-law accepting the same and exonerating them from any further responsibility in the matter and handed the bond over to the sureties. Now the question I wish to ask you, is, who are liable for the amount of shortage or will the municipality have to lose it?

The amount is lost if not obtainable from treasurer.

ENQUIRER—I. Can a yearly tenant qualify for a municipal council on property that is mortgaged enough to disqualify the owner, does it effect the tenant or leaseholder as well as owner?

2. A owns one hundred feet of land in a town, there is a frontage tax for improvement against it. A sells to B. C. D. E. (a.) Can the town pass a by-law making A collect the frontage tax from B. C. D. E? (b.) Are they compelled to take A's receipt or his agent's for the tax? (c.) Should they not be allowed to pay it to the treasurer or collector with the other taxes? (d.) Would not their lots be liable for the frontage tax if A did not pay it to the town, he having left the country?

3. Can a council order its officers to remove all medicine and show bills from the telegraph and telephone poles in their town without giving notice to any person?

I No.

2. (a.) No. (b.) No. (c.) Yes (d.) Yes.

3. Yes—A by-law should be passed authorizing the removal, see section 496, sub-section 39 Consolidated Municipal Act.

RATEPAYER.—1. What is the law regarding maintenance of county high schools where county pupils attend?

2. Can a fee be also collected?

3. Would a ratepayer of a township living in an incorporated village in said township be qualified to hold a position in township council?

1. High schools attended by county pupils are maintained by government grant, county grant, by assessment on high school district and by fees imposed on county pupils. See sections 31, 32, 33, 34, High School Act, 1891 and chapter 52 of the act of 1893.

2. County pupils are to pay to the treasurer of the high school such fees as the county council of the county may deem expedient, not exceeding \$1.00 per month.

3. Yes. A person possessing sufficient property qualification residing within two miles of the municipality, is qualified to hold a position in the council of such municipality. See section 73 of the Consolidated Municipal Act of 1892.

E. G.—1. With regard to the general rate raised all over the township, which is supposed to benefit the poorer school sections, I am at a loss to understand how it can benefit such sections. For instance, one section in our township is so thinly settled that they are not able to keep a school house. The richer sections get the benefit of this rate, and the poor section is paying its share and gets nothing

1. Would the council leave themselves liable if they did not collect this rate from the poor section?

2. If we must collect the rate, could we legally hand over the amount collected in this poor section to their board of trustees for further use for their school?

3. A is cutting a large quantity of cordwood on a lot in our township. B, his brother, has located said lot since the assessor was around, hence he is not assessed. Can we legally seize the cordwood for taxes?

4. When a treasurer is dismissed must we give up his bonds or can we hold them?

5. When two townships wish to unite, does it require a two-thirds' majority vote of the ratepayers of each township, or is a majority of each township sufficient?

6. Which is the proper way to proceed to unite should the ratepayers vote on the question, or should they petition the councils to unite townships?

1. Yes.

2. No, but could make a grant under section 379 of Municipal Act.

3. Yes.

4. Bonds are the property of the municipality.

5. A two-thirds' petition from each township to county council necessary. See section 29, Consolidated Municipal Act.

6. No provision for vote of ratepayers. A petition to county council the proper way.

County Houses of Refuge.

To the Editor of THE MUNICIPAL WORLD:

SIR,—I am pleased to learn that THE MUNICIPAL WORLD is making its way among municipalities, and that some of the counties have authorized the county treasurer to order a copy for each member of the council. This is as it should be, and their timely action will doubtless be followed by other county councils doing the same thing. Permit me again to thank you, on behalf of the Prisoners' Aid Association, for the valuable aid you have given to a cause in which we are deeply interested, namely, the establishment of county poor-houses or houses of refuge.

As your readers are aware, the counties of Ontario that have so far adopted the county poor-house system are the following, viz.: York, Wellington, Waterloo, Middlesex, Elgin, Oxford, Brant, Norfolk, Lincoln and Welland. Some of your readers may not be aware, however, that other counties are now moving in the same direction. The county of Huron has purchased a farm near Clinton for the establishment of a house of refuge, and the united counties of Leeds and Grenville have purchased a farm for the same purpose, north of Brockville, at the village of Athens. The county council of the county of Peterborough has adopted a resolution in favor of establishing a county institution, provided that the municipality of the town of Peterborough join the county in its erection and maintenance on equitable terms. I am also glad to be able to report that the following county municipal councils have appointed committees to report on the question at the June meeting, viz.: Stormont, Dundas and Glengarry, Frontenac, Halton, Peel, Simcoe, Lambton and Bruce.

This step has doubtless been taken by other counties also, but those named are the only ones that, up to the time of writing, have been brought under my notice.

One word more. We are now preparing a little pamphlet for free distribution, dealing specially with this question, and in which we propose giving the important particulars of each of the ten county poor-houses now in operation, including the cost of buildings, farms, etc., complete, the cost of maintenance, etc., and other facts and suggestions that may be useful to all who are in any way interested in what we consider, not only the most humane, but also the most economical method of caring for the destitute poor of the community.

Respectfully,

A. M. ROSEBRUGH, M. D.,
Secretary.

I would especially call the attention of your readers to the admirable description of the Oxford county house of refuge at Woodstock, which appeared in THE MUNICIPAL WORLD in October last. This institution is one of the best of its kind in Canada.

The Limits of Party Obligation.

(From the American Institute of Civics.)

(Continued from last month.)

The realm in which party fealty rules, as of right, does not, however, include the region of things which cannot be questions of political principle; which are at most questions of mere local business policy, of business ability, of common honesty, and such are, principally, one might almost say, exclusively, the questions which arise in modern municipal governments. These questions are not properly of a political character at all. Now here some classicist may interpose with a reminder that *polis* means a city, and that politics with the Greeks meant the affairs of the city. Admit this, but is the modern city the ancient city? Are their constitutions identical or even similar? Are their powers the same or even alike? Are the affairs discussed in and the acts passed by the governing body of a modern city, whether it be a town meeting or a council, and which affect the city, the same as the affairs discussed in and acts passed by the governing body of the ancient city, and which affected it? Most emphatically, NO. The ancient city was the state—the nation. There was in Greece no central power, no nation, as we understand it, not even a permanent union or federation of states; bound together for a limited period, from time to time, when a common danger threatened, when that danger passed, the bond snapped, and the cities became again rivals and enemies, each to itself the state, and, although a common religion and participation in the same great religious festivals supplied a bond of sentiment and made the Greek look upon Hellenes, though not of his race, as favored by the gods above the non-Hellenic races, yet they did not prevent war between the cities or in any way tend to the creation of a power superior to the city. One city might, indeed, become tributary, through conquest or otherwise, to another city, but the city was still the state. The modern municipality is a corporation of limited powers, created by the mandate of a superior legislature, by which its rights have been granted and defined, and by which it may be deprived of those rights, except so far as the legislature is restrained by the constitution.

In the ancient city the citizen had to pass, whether in the Pynx, or in the *comitia*, or in the assembly, upon questions of foreign policy, of peace or war, of the enactment of laws of property, of the extension or restriction of the rights of suffrage or office-holding; he had to elect not only those who should administer justice and preserve order within the city, but also those who should represent her abroad, command her armies and her navies, make treaties of peace and commerce. Does the modern citizen, when he acts, either in town meeting or through his delegate in councils, pass upon such

questions? Does he not rather decide whether he shall have concrete, or Belgian block, or cobblestone, or rubble pavement on his streets? Whether they shall be lighted with gas or with electricity? Whether an additional reservoir is needed to insure, to the good people of his town, a sufficient supply of water? How many clerks he will allow a particular public officer to employ, and how much they shall be paid? And (the greatest question of all) what particular kind of public conveyance, controlled by private power and for private profit, he will permit to occupy his streets?

Does the citizen, acting as stated in the modern municipality, select generals, foreign ambassadors, or those who shall make laws upon great moral subjects, those who shall determine the relations of his city with all the world, whose unwise action may bring upon the city war and disaster, or whose wise and conciliatory measures may cause its harbors to be filled with foreign shipping and its streets crowded with strangers seeking to purchase its manufactures? No. The officers he selects are to see that deeds are correctly and with reasonable promptness copied into books; that writs are handed to whomsoever may purchase them; that the writs are served; that property taken on execution be sold by a competent auctioneer; that taxes are assessed at a proper amount to defray the municipal expenses; that those taxes, when assessed, are collected; that coal is shoveled into a retort that it may come out gas, be passed through a purifier and made fit for illuminating purposes; that firemen be employed and properly drilled and disciplined to preserve buildings from destruction by fire; that a police force be maintained to guard the peace of the city from the nocturnal brawler and burglar, and to pursue and capture the law-breaker. The questions submitted, the matters considered, the officers elected, have not to do with political affairs, taking *polis* in its proper sense when used to express a government, namely, the state; they have to do with municipal affairs in the modern sense, that is, with affairs which are highly important in that they bear upon the internal peace and good order of a city, and the comfort, health and happiness of the dwellers therein, but have nothing whatever to do with the relations of the city or state to the world at large, or with the policy of the superior legislature from which the city derives its power. This seems too plain for argument. Yet there are people who will persist in proclaiming by their actions, if not by their words, that there is no difference between the election of a constable and that of the president of the United States, and who regard the loss of one office equally with that to the other as a party defeat; the difference between the disaster in one case and the other being of degree and not of kind.

Now, what possible difference can it make to us or to the public, when we go to the office of the recorder of deeds, whether the man who copies our deeds be a Democrat, or a Republican, or a Prohibitionist, or a Populist, provided he write a fair hand and give the deed back to us in a reasonably clean condition, within a reasonable time? What difference does it make whether the man who oversees a job of street paving be a Democrat, or a Republican, or a Prohibitionist, or a Populist? What we want is a man who will see that the foundation of the street is laid according to the contract and according to law, and that the pavers drive home with energy the superjacent stones and make them firm. And when a brave fireman risks his life in entering a burning house that he may save the lives of its inmates, or drags his hose up a ladder that he may the more effectually direct its stream against the devouring element and check its ravages, do we ask, before giving way to feelings of admiration or breaking out into applause, what are his politics, or the politics of the superior officer by whom he is directed, or of the head of the department to which he belongs?

Yet there are men who will say that on account of the party it is necessary, or it is fitting, that all the officers charged with the performance of duties of the character just mentioned should be selected from among the persons of the particular political belief which they themselves happen to hold; that it is necessary for the party to control the appointment of the clerks, of the recorder or the register, the commissioners or inspectors of highways, the firemen, the police. Men seem actually to think, and practically do require, that a person must hold sound tariff or sound money principles, or be a believer in centralization, or in local self-government, or at least profess to belong to the party holding such principles, before he can be permitted to copy a deed, sell a writ, or arrest a pickpocket. And the people who practically teach and practice this doctrine have the actual support of the majority of the community; the actual support, I say, although many give it unconsciously, and would shrink from an expressed declaration of adherence to so monstrous a doctrine if put forth in plain, naked exposure.

At Hay Springs, Neb., recently the county and its bankers got into trouble over the county deposits, and the banks turned the cash over to the county. There was \$18,000 in silver dollars, which made such a large heap that the vaults in the county building would not hold it. The banks refused to take it back on any terms the county would make, and it is now guarded by an armed force in the court house.

Rules and Regulations for the Government of Common Gaols.

(Continued from February.)

Before awarding punishment to any prisoner, the gaoler shall make careful inquiry into all the facts connected with the commission of any offence, and shall make an entry, signed by his full name, in the punishment book, of the following particulars:

- (1) The name of the prisoner;
- (2) The nature of the offence;
- (3) The name of the complainant and witnesses;
- (4) The punishment of deprivation awarded.

PRISONERS' CLOTHING.

There shall be a uniform prison garb in all the gaols of the province, in which prisoners, who have been convicted and sentenced, shall be clothed; the garb for male prisoners to consist of a tunic, trousers, and cap made of cloth, the color and quality of which shall be prescribed by the inspector, a pair of brogans and such underclothing as the season requires; and for the females an overdress and under-shirt of such material and colour as the inspector shall prescribe, a pair of shoes, and such underclothing as the season requires—all of which articles must be marked with the name of the gaol to which they belong.

As soon as a prisoner is convicted and sentenced, his or her personal clothing

shall be removed, and a list thereof shall be entered in the prisoners' effects book, and the prisoner shall be clothed in the prescribed prison garb; and if the clothes of a prisoner awaiting trial are insufficient or unfit for use, or are required for the purposes of justice, they shall be removed, and the prisoner shall be clothed in the prison garb, unless he or she provides other suitable clothing.

Prisoners convicted of misdemeanors of a political character, or committed on civil process or for contempt of court, witnesses for the crown, and persons of unsound mind shall not be required to wear the prison garb, but may wear their own clothing, such clothing to be subject to examination.

Whenever prisoners' clothing of the prescribed garb and pattern, articles of bedding, or gaol furniture and furnishings, are required for the use of the gaol, the gaoler shall make a written requisition on the clerk of the council of the municipality controlling the gaol, which requisition must be marked approved by the sheriff; and if the clothing, articles of bedding, or furniture and furnishings be not delivered, or if authority is not given to the gaoler to purchase the same within a reasonable time, he shall forthwith report the same to the sheriff for the consideration and action of the inspector.

No beer or wine, or fermented, or spirituous liquors of any kind, shall be allowed to prisoners, or permitted within the gaol,

unless specially ordered by the gaol surgeon, such order to be recorded in his journal, together with the name of the prisoner for whom the article is ordered.

No smoking shall be allowed, nor shall any tobacco be permitted in the gaol, except by order of the gaol surgeon, such order to be recorded in his journal, together with the name of the prisoner to whom the privilege is allowed.

No food of any kind shall be sold by any gaol officer to a prisoner, or by one prisoner to another; nor shall any gaol officer have any pecuniary interest, direct or indirect, in any food, clothing, or other articles supplied to the prisoners; nor shall any gaol officer, or any member of his family, use any of the gaol stores, except for heating, lighting, or cleaning the house or quarters allotted to them.

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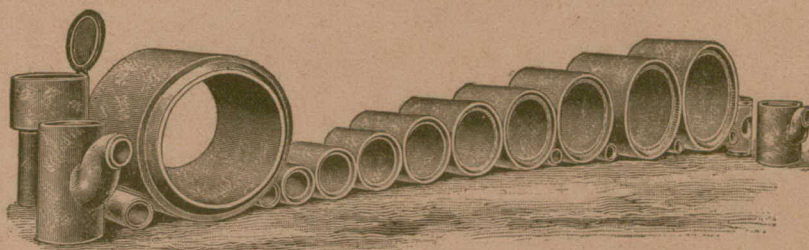
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