### MUNICIPAL DEPARTMENT.

DUTIES OF COUNTY ENGINEER.

The county engineer should have control of all his assistants and clerks, with power to dismiss them for misconduct; should have all necessary contracts and specifications drawn up, should keep a road map of the county, showing its various subdivisions for taxation purposes, and all roads and bridges, each road being properly numbered; should have plans and profiles of all roads, also plans and sections of all bridges and large culverts. He should have a set of books showing the nature and amount of work to be done on each section of a road, according to its name, number or other designation, together with the contractor's name and the amount paid annually or half yearly for each description of work.

He should certify all amounts to be paid to contractors; report annually to the council on all work done under his control during the year, showing the amounts paid to: each work, and giving a statement of the condition of all roads and bridges, together with any information which may show the advantages of the works executed.

He should also prepare estimates of work to be done each year, showing the proportions to be paid by each subdivision of the county and by the county at large, and also the unexpended balances on any contracts which may remain over to the credit of the various subdivisions of the county or to the credit of the county at large. He should also see to the advertisement for tenders of all works under his charge.

The assistant engineers should personally attend the execution of all works within their districts, measure up all stone or other material supplied, estimate as closely as possible the amount of macadam on hand at the end of the year, report on how much shall be required on each section for the ensuing year, attend closely to the manner in which the various contractors execute their work, instruct the men under them in the performance of their duties, see that the roads are not encroached on or interfered with, except on permission from the county engineer in writing, assist the county engineer in making surveys, taking levels and preparing plans, profiles and estimates, and furnish the county engineer with the data necessary for drawing up his annual report.

port.

The county engineer and his assistants should be empowered by law to enter on and traverse the property of any person whatever, when it may be necessary to do so for the purpose of surveying or taking levels on the route or proposed route of a new road or drain, provided that they do no damage to such lands or pay for any necessary damage.

## WATER SUPPLY AND MANUFACTURERS.

Manufacturers, when deciding upon a location, are wise in that respect when they look well after their water supply. Failure to do this often rises up in after years and troubles them, and the towns that desires the location of manufacturers are in a good way when one of the inducements they offer is plenty of good water. This people are coming to understand better year by year. Still it is a fact that some pretentious cities are furnished with water so poor in quality that, although it must be used for drinking and for domestic purposes, it will not answer the requirements in certain lines of manufacture in which water of a fairly good quality is required. And it is also a fact that manufacturers have refused to locate in such cities on this account, while others have been obliged to move for lack of fairly good water. There is a demand for more and better water, not only in cities, but in small towns, and this demand—this growing desire—has added in building up important industries in the manafacture of pumping machinery, and has brought

about such healthy competition in its manufacture as to reduce the cost and improve the quality two very desirable things.

things.

A few years ago a pumping engine was a rather formidable as well as a costly piece of machinery; something no moderately small town could ever hope to own and operate. Pumping engines were luxuries for large cities. Now engines are made tor such puiposes, so moderate in cost, and so easily erected and managed, that any ambitious town of a few thousand inhabitants cannot afford to be without good water.

One of the commonest faults in securing a water supply is in stopping short of going far enough for it. In fact, it seems to be rather the rale, in the first instance, to consider immediate needs only, rather than to look ahead to future requirements. It costs a little more to go further to the certain supply than to stop short at the supply sure to be inadequate in a few years, but it generally pays in the end, especially in a country like this, where the little town of to-day is the pretentious cuy of to-morrow, to look for the more than adequate supply.

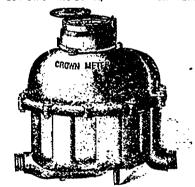
The greatest activity in providing water

The greatest activity in providing water works has been in the smaller towns. In some large cities notable mistakes have been made, delays having placed them at the merry of speculators, who have bought up the available supply with the intention of themselves supplying the cities with water. We believe every city should own its own water works, and supply manufacturers and others at the lowest possible cost that will pay expenses. Doing this induces manufacturers to locate, and thereby increases the general prosperity.—American Machinist.

### National Meter Go.

GOWER & GO,

204 St. James Street. - MUNTREAL.



94,000 Meters sold and in use to date.

GOWER & CO, will also quote for FILTERS. STAND PIPES. CAST PIPES. SPECIALS, HYDRANTS, VALVES, and all Waterworks and Municipal Supplies.

## THE CENTRAL BRIDGE WORKS

Peterborough, Ont.

WM. H. LAW, Proprietor and Engineer,

MANUFACTURER OF

### RAILWAY AND HIGHWAY BRIDGES

Viaducts, Piers, Roofs, Turntables and Girders in Steel and Iron.

Tension members torged without welds. Rycting done by Eydraulic or compressed air malfales Spicialities. Good wo kmarship and strict adherence to specifications and drawings.

CAPACTIY 2,000 IONS PER ANNUM.

#### DEBENTURES WANTED.

Municipalities usuing detentures, no matter fir what purpose, will find a ready purchased by applying to G. A. STIMSON, D Toronto Street, Toronto, N.B. Money to loan at lowest rates on first mortgage.

#### ALAN MACDOUGALL.

CIVIL AND SANITARY ENGINEER, 32 Abelaide Street East

TORONIO

R. E. H. BUGKNER,
32 Adelaids St. East, - TORONTO.

PATENT CAST TRON GULLIES, Virilied Clay Sewers - Dust Bins - Sewer Pipe Cements - Steam Road Rollers - Stone Breakers - Street Scrapers Horse Brushes, etc.

St. George's Patent Sectional

## VITRIFIED CLAY SEWER

CAST IRON STREET GULLEY.

Over 6000 Gulleys are now in use in the following towns: Montreal, Foronto, Ottawa, Quebec, St. Cunegonde, St. Henri, Peterlioro, Owen Sound, Saniia, Cote St. Antoine. A saving of \$22 on each gulley over the brick gulleys.



## LEWIS SKAIFE,

New York Life Building, - MONTREAL AGENT.

# CANADIAN BRIDGE & IRON CO.

Architectural Ironwork a specialty. Pleased to furnish estimates.

HAMILTON and TORONTO SEWER PIPE CO.



SEWERS,

CULVERTS,

Common Walling. Good Facing Sewer

Pressed Brick, Per M .

Plain brick, f. o. b. at Milton
"and quality
"3rd
"3rd
"Hard Building
Moulded and Ornamental, per
100
Tiles
Diamond locking tile

First quality, f.o.5, at Campbellville,

and quality, f.o.b..

850 9 0 850

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WATER PIPES.

INVERTS
For Brick Sewers

Write for Discounts.

HEAD OFFICE AND FACTORY, HAMILTON, CANADA.

### THE STANDARD CRAIN PIPE CO.

OF ST. JOHNS, P. Q. (LIM.)



Mante turn of Salt-Glazed, Vitrified

# SEWER PIPES

Double Strength Railway Culvert Pipes, Inverts, Vents,

AND ALL KINDS OF FIRE CLAY GOODS.

## Prices of Building Materials.

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