MUNICIPAL. DEPARTMENT

THE PAVEMENTS OF TORONTO.

The annual report of the city engineer of Toronto for the year 1897 contains some figures regarding pavements in that city which may be interesting to other municipalities. Table No. 2 shows the mileage of different classes of pavements and sidewalks laid from 1890 to 1897, and is as follows:

there are worn-out cedar block pavements existing, can do better than have the streets relaid with new blocks, if the amount of travel is moderate and the property not valuable enough to perm t of the tax for a pavement on concrete foundation.

BRICK.—The mileage of brick pavement constructed during 1897 shows quite a large increase over that of the two previous years. The greater part of it was laid on a foundation of Portland dement concrete four inches in depth. On a few streets the bricks were laid on gravel foundation, and it remains to be seen whether those on gravel will give entire satisfaction. From present indications I do not think they will, as several

durability of the pavement, the small increase in expense incurred is money well expended. It is claimed by some that the noise caused by the vehicles passing over brick pavements can be greatly reduced by filling the joints with paving pitch, instead of grout, but I do not think that this condition is true, as I have stood on brick pavements where part of the filling was grout and part pitch, and could not detect any difference in the noise as the vehicles passed over them.

GRAVEL-These roads are very good during dry weather, and much nicer to drive or wheel on than pavements, but when the weather is wet they become very muddy and are easily cut up when subjected to heavy travel, consequently they will require to have much more labor expended on them than pavements do to avoid ruts forming. Of course, these ruts are not as likely to become dangerous as the holes in cedar block pavements, but they will give the roadway more the appearance of a country road than a city street. Since the people have seen their condition during the wet weather of winter, they do not seem to be so much in favor of them as they were a few months ago, so I do not think that there will be many more constructed.

An important motion was presented recently in the Superior Court at Hull, Que., before Justice Lavergne. Some time ago the corporation of Gatineau Point deposited in the hands of Notary Labelle debentures to the amount of \$10,000 issued by the Stadacona Light and Power Company, of Montreal, for the construction of the waterworks in Gatineau Point. A few days ago a dispute arose between the company and the corporation as to the amount of work performed. The result was that the company claimed 80 per cent. of the debentures on the work done, as per estimate prepared by engineer Farley, of Hull. On the other hand, the corporation refused the request on the ground that the amount of work performed was not sufficient to guarantee 80 per cent. Notary Labelle therefore made an application to be relieved of the guardianship of the debentures. Judge Lavergne contended that the council of Gatineau Point had not done its duty in not appointing a regular engineer to prepare the estimates, and refused to grant Notary Labelle's motion, giving him power, however, to pay over percentage of debentures to the company when he finds it necessary.

| Class of Pavement. | 1890. | 18ģī. | 1892. | 1893. | 1894. | 1895. | 1896. | 1897. |
|--|----------------|-------------------------|----------------|----------|--------|--------|----------------|----------------|
| , | Miles. | Miles. | Miles. | Miles. | Miles. | Miles. | Miles. | Miles. |
| Asphalt | 1.73 | 1.635 | 6.216 | 5.607 | 3.067 | 1.156 | 0.366 | 0.460 |
| Cedar block on sand and plank foundation | 0.10 0.192 | 0.123 0.069 0.077 | 0.494 0.366 | 3.249 | 0.059 | 1.663 | 1.661 | 0.510 |
| Stone setts on concrete | | | 6.705 | 3.743 | 2.563 | 0.085 | | |
| Scoria block on concrete | | . 4, | | 3.964 | 0.787 | 0.744 | 1.032 0.028 | 5.803 0.838 |
| Total of pavements | l | | | <u> </u> | | | | |
| SIDEWALKS. Concrete | 1.426 1.273 | 0 398 | 0 104 | 0 035 | 0 011 | | | |
| Total of sidewalks | 2:699 | | | 2.294 | | | | .1.873 |

In Table No. 4 is shown the percentages of the different classes of pavements in the city, it being as follows:

| • | er cent |
|---|---------|
| Cedar block | 39.24 |
| Stone and scoria | 0.31 |
| Asphalt | 5.84 |
| Brick | 1.37 |
| Wood on concrete | 0.21 |
| Macadam | 15.68 |
| Gravel | 1.25 |
| Cedar block with asphalt between tracks | 2.10 |
| Cedar block with brick between tracks. | 3.21 |
| Macadam with stone setts between tracks | 0.42 |
| Unpaved | 30.37 |
| - | |

Total.....258.30 miles.

Regarding the different pavements the City Engineer says.

CEDAR BLOCK .- There seemed to be a revival in the popularity of cedar block pavements this year, as seven streets were relaid with them, and only three the year before, and it is to be hoped that the people of this city will get over the prejudice they have long had against this class of roadway. Their seeming failure arose through allowing the payments for them to extend over too long a period of time, which resulted in the ratepayers being obliged to pay a local improvement tax on these pavements for several years after they were completely worn out and beyond repair. Under our present system, the time for payment only extends over five years, a period well within their lifetime; and considering their cheapness, quietness and freedom from dust, I do not think that the residents on streets where

depressions have been found in them already, caused by the sinking of the foundation; besides, the grout filling between the joints of the bricks does not stand so well when they are faid on gravel as when laid on concrete. The filling is one of the most important parts to be considered in the construction of brick povements, and I find that grout composatiof one part of Portland cement to two parts of sand does not stand nearly as well as grout made one to one of Portland cement and sand, and if the filling in the joints gives way the brick will crumble at the edges, as there is nothing to support them, then the pavement becomes rough and noisy; so when the stability of the grout filling is such an important factor in the smoothness and

Portland Cements...

HIGH GRADE GERMAN BRANDS FOR GRANOLITHIC AND ARTIFICIAL STONE SIDEWALKS.

Sewer Pipes, Best Culvert Pipes, &c.

Best English Coments. Best Belgian Coments.

W. McNALLY & CO., Montreal.

BELLHOUSE, DILLON & CO., 30 St. Francois Xavier St., Montreul Sole Agents for the Compagnie Generale des Asphaltes de Franco (Rock Asphalt).

PORTLAND NORTH'S CONDOR

Paving, and Fire Brick a Specialty

SITTING LION and WHITE CROSS Brand

NORTH'S "CONDOR" BRAND AWARDED FIRST PRIZE AND COLD MEDAL AT THE ANTWERP EXHIBITION.