

COST OF ASPHALT PAVING.

The following figures give the cost of asphalt paving in four of the principal cities in Canada :

Ottawa-Rock asphalt, 15 years' guarantee, per square yard, \$3.10.

Montreal-Rock asphalt, 15 years' guarantee, per square yard, \$3.09.

Montreal—Trinidad asphalt, 10 years' guarantee, per square yard, \$3.43.

Montreal-Trinidad asphalt, 5 years' guarantee, per square yard, \$2.85.

Toronto-Trinidad asphalt, 10 years' guarantee, per square yard, \$2.60.

Hamilton-Trinidad asphalt, 10 years' guarantee, per square yard, \$2.15.

GERMAN PAVEMENTS.

The municipal authorities in Germany regulate building in the severest fashion. The new streets require the best kind of paving, and it is not put down to be torn up again in a few months to lay a forgotten gas or sewer pipe, but before the contract is let for paving the officials make sure that they have taken care of everything that needs to go underground for generations, says a writer in the Chicago Record. In Chicago, in Washington, and other American cities, a street is paved upon petition, or when the money is appropriated. The next year a new gas-pipe must be laid along that way, the pavement is torn up for a mile or two, and it is generally eight or ten months, or a year, perhaps, before the commissioner of public works succeeds in persuading the gas company to replace it. The next spring the water commissioners decide that a larger pipe should be laid in that street, and the pavement is torn up again. The year following another gas company is formed, and the pavement is torn up in order to enable it to furnish competition with the old one. The next year the first gas company discovers that its facilities are not adequate, and rips up the pavement again. Every reader will recognize his own experience, and realize that within a period of ten years an amount equal to the original cost of the pavement is wasted in repairs and in replacing for the purposes named, without considering the inconvenience and annoyances suffered by the people who live in the street.

In Germany they do things differently. Before a pavement is laid, the experts and they are experts with university degrees framed and hanging in their offices, not ward politicians—who have charge of underground engineering, put their heads together and consider what pipes and connections are likely to be needed along that particular street during the next three or four centuries. Then when these are supplied the pavement is laid, and it is not laid upon a thin crust of broken stone,

but upon a foundation that will last forever. `I saw some workmen trying to cut away a section of pavement in Berlin to make room for the foundation of a new monument. With crowbars, pickaxes, chisels and drills they had gone down about twelve or fourteen inches into the pavement, and were just able to jam a crowbar into the stuff so that it would support itself. This pavement cost money when it was originally laid, but was put down to stay, and \$100,000 expended in that manner at the start will last longer than \$1,000,000 worth of the pavements that are laid in American cities.

LEGAL DECISIONS AFFECTING MUNICIPALITIES.

GRAVEL VS. CORPORATION OF THE COUNTY OF LAVAL .--- This was a case tried in the Supreme Court at Montreal. The plaintiff claimed \$103.50 as the price of work done in connection with a water course known as the Ruisseau de la Pintere, which has its source in the parish of St. Martin, and crosses the parish of St. Vincent de Paul, in the county of Laval. The work was done on the order of the agricultural inspector of one of the parishes. The defendant pleaded that the work in question was not county work; that defendant had not ordered it, and it was not done under defendant's supervision. The court held that the water course in question crosses two parishes of the same county, and the work necessary to put it in proper condition was defined by an officer named by defendant, and his report homologated by defendant. Work necessary to execute the orders of its officer is county work, the cost of which should be borne by defendant, saving its recourse against those who are bound to contribute their share of the cost. Municipal work ordered by process verbal should be executed in the mode indicated by the process verbal itself. In the present case it was ordered that the work to be done on the water course should be executed by the owners of lots which drained thereinto, each being charged in proportion to the frontage of his property. All the lots from which the water was drained into the water course were named as well as the share of each in the work. The giving out of the work was not ordered by the process verbal, and in doing so the inspector acted without right and without authority, and exceeded his jurisdiction in having it done contrary to the process verbal of the special superintendent. Under the circumstances the defendant was not bound to the payment of the sum claimed by the present action. The plea was maintained and the action was dismissed.

A DRAINAGE CASE.

An important drainage case was heard before Thomas Hodgins, Q.C., Toronto, Master-in-Ordinary at Osgoode Hall The style of the case is Township of Augusta vs. Township of Oxford, and is in the nature of an appeal from the report of J. J. Collins, C. E., engineer for the township of Oxford, regarding the South Branch of the Rideau drainage scheme. The particulars briefly stated are as follows :- The township council of Augusta on petition of a number of ratepayers in their township, have originated a scheme for buying out the rights of the mill owners at Oxford Mills, these mill owners having agreed to take down their dams for a certain amount of money. The township of Oxford have sent on an engineer who has made the necessary surveys and assessed the various parties interested. The township of Augusta has appealed against this assessment and against the whole scheme.

The Perth Waterworks Company, Limited, which is installing the waterworks system for Perth, will use electric power for pumping. Their pump house is located within the limits of the town of Perth, but the power which they intend using is about four miles away on the Tay river. Here they are installing a water wheel and a 200 h.p. generator, which will, in addition to supplying the power for pumping purposes, furnish light and power for the town of Perth. The Waterworks Company has bought out the old Tay Electric Company and will distribute light and power on their old circuits. The electrical machinery is being installed by the Royal Electric Company, who will use their S.K.C. two phase system for this work. The pumping is to be done by means of a 75 h.p. motor belted directly to a triplex double acting power pump which pumps directly into the mains, no gravity system or stand pipe being employed. The mains are equipped with a relief valve so that the pressure can be maintained constant without varying the speed of the The pump is arranged so as to pump. The pump is arranged so as to be operated at two different speeds in order to raise the supply of water and the pressure for fire purposes.

