

MUNICIPAL ENGINEERS, CONTRACTORS, AND MATERIALS.

the local district foreman, and the work carried rapidly forward to completion. In this way the repairs were made, as shown on the table of the highway widening and reconstruction, at considerable less time and expense than if carried on simultaneously by the separate district forces.

The improved appearance and condition of the streets thus cared for was quickly noted by citizens. The men appear to take a pride in their work and their efforts were attended with nearly equal results considering the varying conditions, namely, the original condition of the roadbed; level or lilly streets; stone curbing or sodded edging; concrete or cobble paved gutters, amount to traffic, etc. *Engineering News.*

Canadian collectors of customs have been instructed that paving blocks of stone, not further advanced than chipped or rough hammered, are properly dutiable under item 547 of the tariff at the rate of 20 per cent. ad valorem.

A broken water main which it was inexpedient to remove immediately was repaired at Zanesville, O., by inserting sections of smaller pipe 80 feet long when coupled together, digging down to the places where the two ends of this pipe were, cutting open the larger pipe and then caulking the smaller firmly in place.

Asphalt pavements in Frankfort-on-the-Main are reported to have shown rapid deterioration as a result of contact with gas leaking from street mains. Shortly after the pavements had been put down in 1885 and 1886 cracks of varying lengths, from 0.8 inch to 1.2 inch deep, were formed in the asphalt, resembling those sometimes formed in earth under great heat. The cracks were found to extend mainly along the line of the gas mains in the streets, and odors of illuminating gas were freely given off from them. Removing the asphalt surface showed that the beton foundation layers immediately underneath were also cracked, permitting the gas leaking from the mains to come in direct contact with the asphalt. The latter, it appeared, absorbed more or less of the gas elements, principally benzine, and through their action lost all its cohesive properties, finally cracking in the manner referred to. — *Engineering Record*

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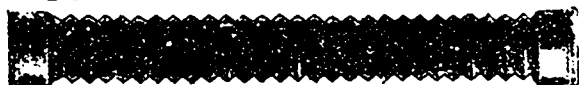
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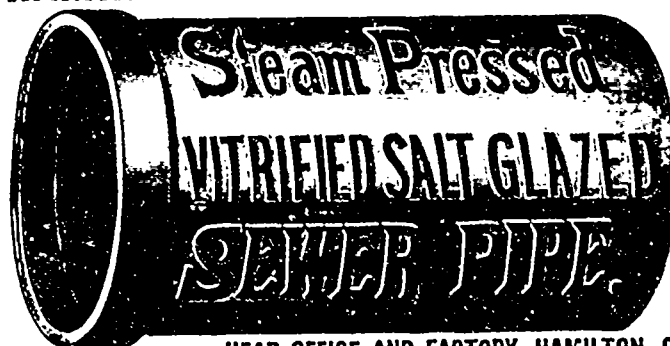
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