

## MUNICIPAL DEPARTMENT

### FINE SAND FOR PAVEMENTS.

In asphalt paving in New York the contractors use in most cases a fine, well-graded sand. Mr. W. H. Broadhurst, chemist of the highway department, states that the use of such sand, together with a large amount of fine mineral dust, permits of the use of a large percentage of bitumen containing a larger percentage of flux than is possible with a coarse sand. The effect of such improvement in formula tends largely to increase the life of the pavement. It should be noted in this connection that on Broadway, and on many downtown streets subjected to heavy traffic, Portland cement has been used for the fine mineral dust in place of powdered carbonate of lime. As Portland cement contains a larger amount of impalpable powder than does powdered carbonate of lime, the use of same with a fine, well-graded sand, and proper amount and quality of asphaltic cement, produces a very dense pavement mixture with a minimum percentage of voids. The result has been for the reasons above noted an asphalt pavement of the highest grade, in fact it may be said that the feasibility of laying asphalt pavements on streets which sustain such heavy traffic as Broadway is due to these improvements in the asphalt mixture.

### NOTES.

In the city of Toronto there are 259,600 miles of streets, of which 182,377 miles are paved and 77,223 miles unpaved.

The city engineer of Toronto has recommended that a thoroughly competent electrical engineer be appointed to look after the interests of the city in its dealings with the various electrical companies.

There are now laid in the city of Toronto a total of 223.5 miles of sewers of all kinds. According to the annual report of the city engineer 7,783 lineal feet were constructed in 1901, also 19,947 lineal feet of drains from the main sewers to the property lines. During the same year 76 miles of sewers were flushed and cleaned and 27,712 yards of material were removed from the slips into which the city sewers empty and were taken out into the lake a distance of eight miles before being deposited.

Brick pavements as laid in Grand Rapids, Mich., have received particular attention in order to secure a smooth surface. City Engineer L. W. Anderson states in his last report that the sand cushion has been increased in depth and changed to a fine, soft sand. The bricks, after being laid, are rolled with a hand roller, thoroughly culled, and then rolled with a 7 ton steam roller. It was feared that the heavy roller would chip the bricks,

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but such does not prove to be the case to any material extent. The pavement so laid, with joints well filled with Portland cement grout, gives a surface as smooth as asphalt blocks, although somewhat more noisy. The brick pavement is laid with a 5-year maintenance guaranty by the contractor. The contract prices for this brick paving on a concrete foundation for the year ending April 30, 1902, varied from \$1.35 to \$2.25 per square yard.

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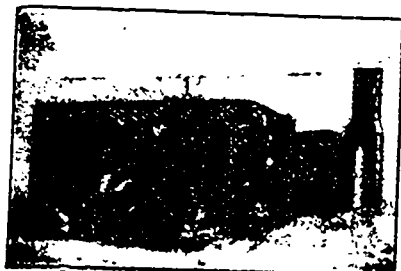
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