

## MUNICIPAL DEPARTMENT

### CREOSOTED WOOD BLOCK PAVEMENTS.\*

(Concluded)

The specifications were then changed, providing for the heartwood of the long leaf southern yellow pine, with the blocks 4 in. wide, 4 in. deep with the grain of the wood and impregnated with ten pounds of the best quality of creosote oil. These blocks were laid in the manner above described, except that a space of from 1 to 2 in. (according to the width of the streets) was left between the curb and the blocks for expansion. This space was filled with dry sand and covered over with heated paving pitch. The intersices were partly filled with fine, dry sand and the street surface rolled to a smooth surface before covering with heated paving pitch and top dressing with fine gravel or screenings. In no instance have we had any trouble on any of these streets from the blocks bulging. The surface of these streets is as smooth as a floor, and has a soft brown color that is restful to the eye. Under the heaviest traffic no wear is as yet noticeable and the streets are in perfect condition. The oldest is about three years old. It appears that the dirt of these pavements does not grind into such fine dust as it does on the asphalt and consequently is not as unsanitary nor annoying. The cost of cleaning is less than brick or asphalt, for the reason that we do not have to clean as often. We often hear complaints of the heat that comes from asphalt on hot days. This does not seem to be common to the wood, but one quality that seems to be preeminent is noiselessness. I think that people pay more attention to this quality, of late years, than they used to; in fact, they now often demand it, whereas, when I was a younger man, people would speak of it as desirable, but were not willing to be assessed anything extra on that account. We feel that the creosoted wood block pavement is a success from every point of view. We believe that, constructed of the material we are using (or other strong woods, like beech, tamarack, red or yellow fir), properly creosoted, using first-class quality of creosote without adulteration, that the pavement is more durable than asphalt and brick and nearly as durable as granite. It certainly has met with an enthusiastic reception in this city, as is testified to by the great demand for it. We have contracted for about three times as much this year as we have for asphalt. There is practically no demand for stone or brick in this city except for alleys.

\* Paper read before the American Society for Municipal Improvements by M. A. Downing, President Board of Public Works, of Indianapolis, Ind.

We have not adopted the European method of spacing the blocks from a quarter to a half inch apart and filling them with portland cement grout, but I am not sure that their practice is not preferable. We have found up to this time that our present practice is good and our engineer hesitates to depart from it, although I must say that when the blocks are driven so closely together it is next to impossible to get any filled in the joints. This may cause swelling later, although I hardly think so.

We have thus far not followed the common European practice of making the surface of the concrete perfectly smooth and laying the blocks directly thereon, but have introduced the 1 inch cushion of sand. But if we are called upon to pave heavy traffic streets we will probably do so, as experience in both London and Paris has shown that the practice has been successful, as the Rue de Rivoli, over which pass 42,000 vehicles per day, and King William St., the busiest in London, are both paved with wood in that way. Few people understand the efficacy of creosoting;

why the wood seems harder, tougher, and more durable. It is simple. Wood dried to 10 per cent. moisture has about double the power to resist crushing and abrasion that it has if very wet. In creosoting, the sap and moisture are removed and the heavy oil (creosote) which repels moisture becomes encysted in the fibre of the wood. When snow and rain lie on the pavement they may get to some extent into the cells, but not to any great extent into the fibre, because they cannot displace the oil; hence the fibre remains dry, and, of course, retains its strength. The uncreosoted wood pavements wear doubly as much in wet weather as they do in dry weather. This is not true of the creosoted wood pavements for the reasons above given.

I might say a word in regard to cost. This would probably vary according to the distance the blocks would have to be freighted. The pavement laid with long leaf yellow pine blocks, 4 inches deep treated with 10 lb. of the best quality of creosote oil per cubic foot of wood, laid on a concrete foundation complete, and guaranteed from five to nine years, has cost us from \$2.10 to \$2.50 per square yard.



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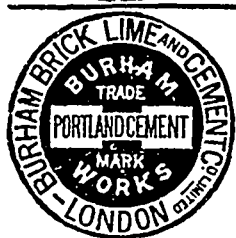
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