

# MUNICIPAL DEPARTMENT

## CREOSOTED WOOD BLOCK PAVEMENTS.\*

Before, and when, I became a member of the Board of Public Works a number of years ago we often had property owners say, "Why can't we have such wood pavements as we see in Paris, London and other European cities? They seem to be so much cleaner and quieter than asphalt or stone." They insisted that there was a fine dust, a glare, a noise and heat that were positive discomforts, which they could escape to a great extent if they could have a wood pavement, and if we could give them a durable wood pavement they wanted it, and many wanted the wood without conditions, and many petitions for it were presented.

A careful study of wood pavements in this country and Europe followed. There can be no doubt that the consensus of opinion in this country is that the wood block pavement as commonly known has not been a success. It seems strange that the glaring defects—one might almost say the kindergarten defects—of those pavements had not been noted and eliminated, but they were not, and millions of square yards of wooden block pavement have been laid and are yet being laid, the only foundation for which is plank laid on sand. The blocks were cut from round, green cedar posts, with the sapwood left on, and in some instances the bark. These blocks, without further preparation, were laid on boards, some gravel tamped into the joints and covered with coal tar. It would seem almost absurd to call such a structure a pavement. In saying this, I am not forgetting the Nicholson pavement, the principal defect of which was the lack of suitable wood. It seems to me that all the ingenuity and inventive genius of that time was exercised along the line of discovering some odd or novel way to cut and lay the blocks, or to bind and lock them together. As far as I have been able to discover, these things were of little avail. The cardinal defects were:

First. Failure to select wood with sufficient strength and toughness to withstand the loads and abrasion, and

Second. The total absence of any attempt to create conditions to prevent the rotting of the blocks.

Just why it was considered necessary to select white pine and cedar when the country abounded in the harder and stronger woods it would be difficult to conjecture, but the fact remains.

And why no adequate effort was made

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

to properly season and treat the wood I leave to engineers to answer. It may have been because it was a new field and explorers are scarce. Certain it is that if any architect had attempted to build a house of such material treated in the same way he would have been severely criticized by his professional brethren, to say the least.

As a result of our studies of wood pavements, we decided to require the concrete foundation in every instance. We first laid Washington red cedar, rectangular blocks without treatment of any kind. This wood was very soft and porous. It was practically the Nicholson pavement. The blocks were laid close together on a 1 in. cushion of sand over the concrete. Two heavy traffic resident streets were laid in this way and they are now in their fifth year; both are considerably worn on account of the softness of the blocks, while

here and there rotted blocks are visible. Washington red cedar was still in the specifications when I became a member of the Board of Public Works. A provision was inserted providing for creosoting, but the specifications were indefinite. The following spring and summer, 1896, four streets were paved with creosoted (about three pounds of oil to the cubic foot of wood) Washington red cedar. These blocks were 4 in. wide and 5 in. with the grain of the wood. The blocks were laid in rows at an angle of 45° with the curb. All of these pavements are in excellent condition at this time, and on parts of them the traffic is heavy. No provision was made for expansion, the blocks were driven as close together as could be with a sledge and the joints filled as far as could be with paving pitch. We have had some trouble caused by the blocks bulging. Most of this was where the blocks were not creosoted; in a few cases blocks bulged on other streets, but nothing serious.

(To be Continued.)



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