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PATENTED DEC 13 1870 ² Sheets
Sheet 1.

William S. Morse
Wooden Pavement

Fig. 2

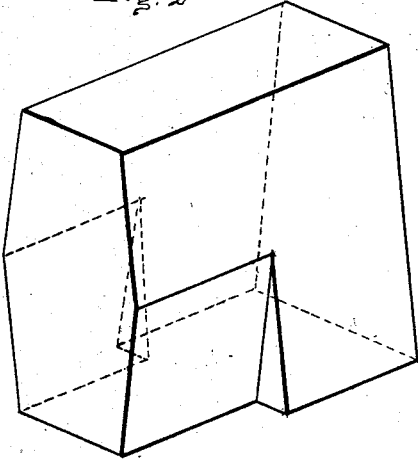


Fig. 6

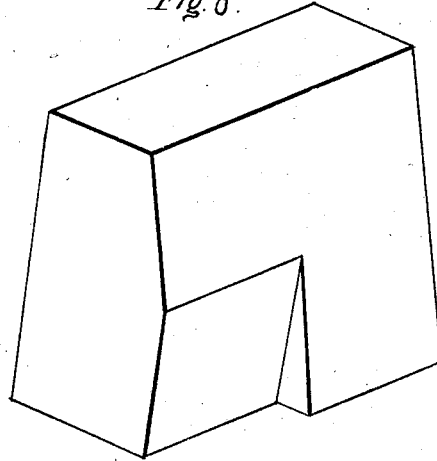
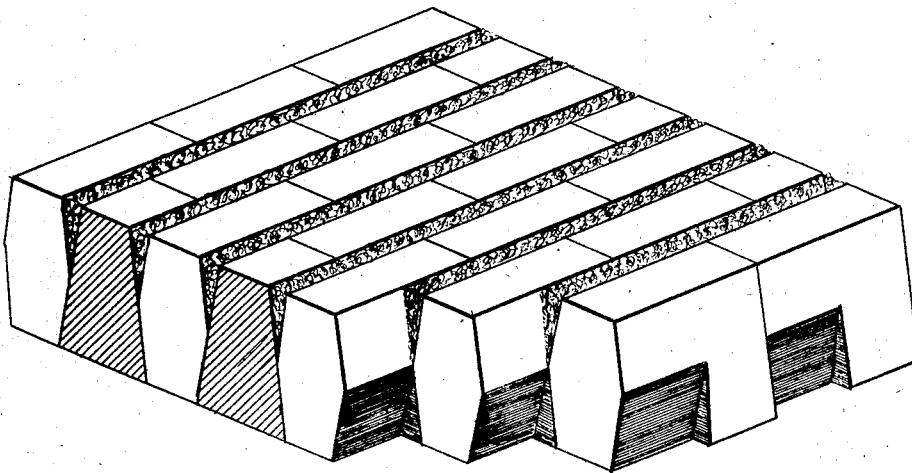


Fig. 1.



Witnesses.

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2 Sheets
Sheet 2.

Fig. 3.

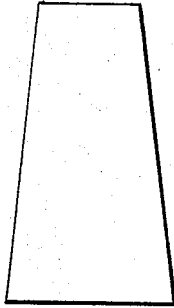


Fig. 4.

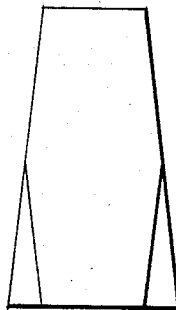


Fig. 5.

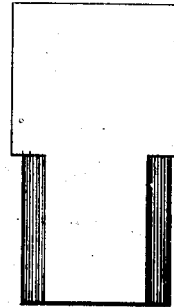


Fig. 7.

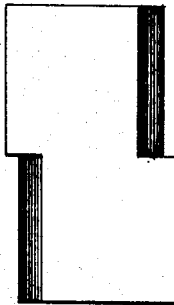


Fig. 8.

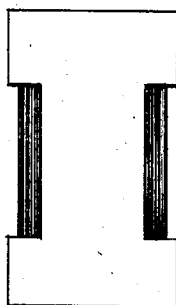


Fig. 9.



Fig. 10.

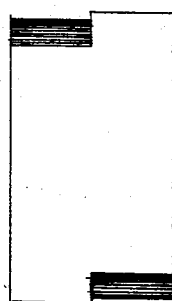
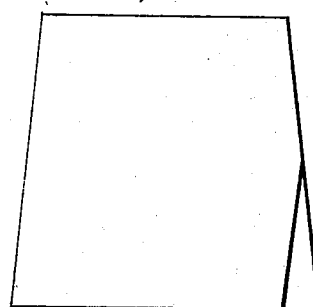


Fig. 11.



Witnesses.
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UNITED STATES PATENT OFFICE.

WILLIAM S. MORSE, OF WASHINGTON, DISTRICT OF COLUMBIA.

IMPROVEMENT IN WOOD PAVEMENTS.

Specification forming part of Letters Patent No. **110,153**, dated December 13, 1870.

To all whom it may concern:

Be it known that I, WILLIAM S. MORSE, of Washington, in the county of Washington and District of Columbia, have invented a new and useful Improvement in Wood Pavements; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and letters of reference marked thereon.

The object of this invention is to construct a wooden pavement composed of separate blocks that may be readily taken up and replaced without disturbing any part of the pavement except the particular blocks removed, and in which also each block will have a bearing upon contiguous blocks, to obviate or diminish the danger of its being depressed by heavy weights.

In the accompanying drawings five forms of blocks are shown, either of which may be used in constructing my pavement, the effect being substantially the same in all cases. These different forms I designate as modifications Nos. 1, 2, 3, 4, and 5.

Figure 1 is a perspective view of a section of pavement made according to modification No. 1. Fig. 2 is a perspective view of a paving-block made according to said modification No. 1. Figs. 3 and 4 are opposite end views, and Fig. 5 a bottom view of the same. Fig. 6 is a perspective view, and Fig. 7 a bottom view, of a block made according to specification No. 2. Fig. 8 is a bottom view of a block made according to specification No. 3. Fig. 9 is a bottom view of a block made according to specification No. 4. Fig. 10 is a bottom view of a block made according to modification No. 5, and Fig. 11 a side view of the same.

The blocks are set in parallel rows across the roadway, with the grain of the wood vertical.

In the following description the distance from top to base of the blocks I term "depth;" the extension in the line of the row I term "length," and in a transverse direction, "thickness."

I prefer to make my blocks about seven inches in depth, four and a half inches thick at the base, (where not reduced by the lower bevel hereinafter described,) three inches thick at their upper surface, and of any convenient length; but I do not limit myself to these precise dimensions.

The blocks are beveled, on both sides alike, from base to top, as shown in Fig. 3, but throughout one-half of their length (except in modification No. 5) there is a reverse bevel from near the vertical center down to the base, as shown in Fig. 4.

In the modification No. 1 said lower reverse bevel is made on opposite sides of the same end of the block, extending just one half its length, as shown in Fig. 6.

In modification No. 2 said lower bevel is made by cutting away the block at both ends, but on opposite sides, just half its length on each side, as shown in Fig. 7.

In modification No. 3 the lower bevel is made by cutting away the central portion of the block on opposite sides just half its length, as shown in Fig. 8.

In modification No. 4 the lower bevel is made by cutting away the central portion of the block on one side, and the end portions on the opposite side, as shown in Fig. 9.

In modification No. 5 the block is beveled from base to top on both sides and at the ends, but the side bevels should only be half as great as in the other modifications, making the base of a correspondingly less thickness. In this modification the lower bevels are made by cutting away the block at both ends, but on opposite sides, as shown in Fig. 10, in a reverse direction to the main end bevels of the block.

In blocks seven inches deep I prefer to commence said lower bevel about three inches from the base, but it may commence at the center.

The blocks are so set as that the broad portion of each, or the portion not having the lower bevel, will fit into the lower beveled recess in an adjoining block, and so as to break joints, as shown in Fig. 1. The blocks fit closely at the base, and from the point at which the lower bevel commences downward; but in the upper portion of the pavement there are V-shaped grooves between the rows of blocks, which are filled with a gravel, with or without tar, pitch, or other cementing substances, as may be deemed most expedient.

If the blocks are four and a half inches thick at the base and three inches thick at the top; and the lower bevel is from the center down, the V-shaped groove will be three-fourths of an inch wide at the surface, but if the lower

bevel commences three inches from the base, (the blocks being seven inches deep,) the groove will be about an inch wide at the surface. Thus it will be seen that the width of the groove may be varied by changing the point at which the lower bevel commences, as well as by varying the inclination of the bevel from top to base, and consequently the difference in the thickness between the base and top of the block; but the grooves should not be more than an inch nor less than three-fourths of an inch wide at the top.

This pavement may be set on a firm earth foundation, on a bed of well-packed sand, on concrete, or on a board floor, if desired.

It will be seen that whether the blocks are formed according to modification Nos. 1, 2, 3, 4, or 5, each block has a direct vertical bearing upon laterally-adjoining blocks, and the whole pavement forms a keyed arch, in which no block can move up or down independently of the adjoining blocks.

In modifications Nos. 1 and 2 each block has a direct vertical bearing on two laterally-adjoining blocks.

In modifications Nos. 3 and 4 each block has

a direct vertical bearing on four laterally-adjoining blocks.

In modification No. 5 each block has a direct vertical bearing upon the two longitudinally-adjoining blocks. In this modification there is a groove between the ends of the blocks, as well as between the rows, to be filled in the same manner.

A number of these blocks may be bolted together, so as to form a compound block, or a section of pavement composed of blocks firmly united together.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. A wooden pavement composed of blocks beveled from base to top, and having reverse bevels in the lower portions thereof, and fitted together substantially as shown and described.
2. A wooden paving-block beveled from base to top, and having a reverse bevel in the lower portion thereof, substantially as shown and described.

WM. S. MORSE.

Witnesses:

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JOS. L. COOMBS.