(No Model.)

M. MACLEOD.

WOOD BLOCK FLOORING OR PAVING.

No. 398,062. Patented Feb. 19, 1889.

Fig. 1.

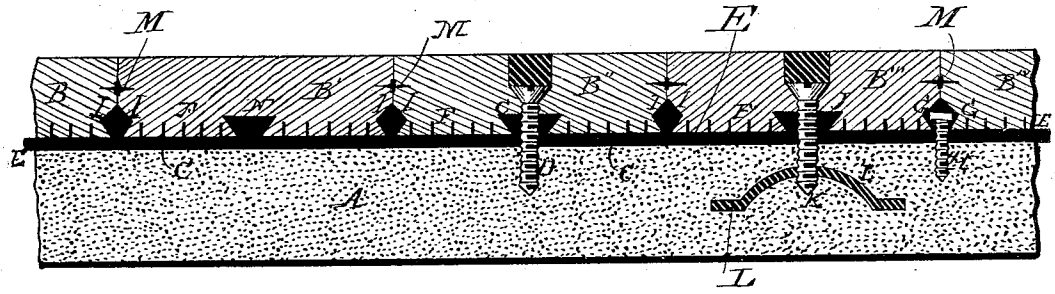


Fig. 3.

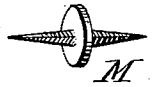
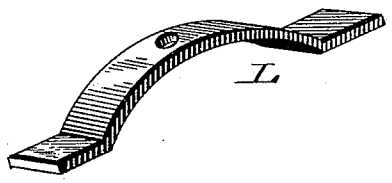


Fig. 2.



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UNITED STATES PATENT OFFICE.

MALCOLM MACLEOD, OF PHILADELPHIA, PENNSYLVANIA.

WOOD-BLOCK FLOORING OR PAVING.

SPECIFICATION forming part of Letters Patent No. 398,062, dated February 19, 1889.

Application filed November 30, 1888. Serial No. 292,211. (No specimens.)

To all whom it may concern:

Be it known that I, MALCOLM MACLEOD, a subject of the Queen of Great Britain, and a resident of the city and county of Philadelphia, State of Pennsylvania, have made certain new and useful Improvements in Wood-Block Flooring and Paving, of which the following is a description, reference being had to the annexed drawings, making part hereof.

The nature of my invention will fully appear from the following specification and claims; but it may be generally stated to be a wood-block pavement, which is keyed down to the lowest layer of concrete by iron keys sunk therein and surrounded thereby, each block being mechanically joined to its neighbor.

In the drawings, Figure 1 is a broken-off vertical sectional view of my device; Fig. 2, a detached perspective view of my anchor-clip; Fig. 3, a similar view of my double-shanked nail to connect neighboring blocks.

A is the substratum of concrete.

B B′ B″ B‴ B^{IV} are wooden blocks.

C is a dovetailed groove in block B″, extending along the lower face of the block. The upper face of block B″ is countersunk to permit of the entrance of the head of screw or serrated bar D, which screw passes downwardly through the remaining thickness of the block B″ beneath, and penetrates through the mastic E into the substratum A of concrete.

F F are saw-cut grooves in the lower faces of the blocks.

G G are two long <-shaped grooves in the adjoining faces of neighboring blocks B‴ B^{IV}. The lower long edges of these grooves are so separated as to allow the mastic to enter into the space formed by them, as shown.

H is a screw or serrated rod or bar, the head of which is within said space, and the lower part of which extends into the substratum of concrete, whereby the wooden pavement is held down.

I I are simple <-shaped grooves, similar to grooves G G, above referred to. The lower opposite edges of the blocks which form these grooves do not meet, whereby the mastic E is allowed to enter into the groove and tie adjoining blocks down.

J is a groove, and K a screw similar to those described above, and lettered D and D′; but in this case K is a screw which engages with an anchor-clip, L, in a screw-threaded hole in the latter. This anchor-clip is of iron or other metal, and sets in the midst of the body of the substratum of concrete, as shown. I make it in a curved form, so that its ends may set down into the body of the concrete, leaving a gradually-increasing thickness of the body of concrete from the middle of the curve down on each side toward the ends of the anchor-clip. These screws are set at intervals in the grooves to permit the mastic E to enter the latter and set around them.

M is a double-shanked nail with a rim or cheek in the middle. This rim serves to prevent the nail from entering farther into one block than into the other. This nail is driven partially into the side of one block, and the neighboring block is then driven upon the other point of the nail until the latter enters equally into both neighboring blocks. The ragged square groove, readily made by a saw, is well calculated to receive and retain a firm hold upon the mastic.

N is a simple dovetail groove.

The operation of laying my pavement or floor is as follows, viz: A layer or bed of concrete—say asphaltic, cement, or other concrete—F, is first laid, into which I bed the anchor-clips L at invervals, with screws K in place in them. I lay these clips at intervals—say at about ten feet. I also set long wooden plugs in this concrete at desired intervals when it is desired to subsequently insert the screws or serrated bars H. I then prepare the blocks to be laid by driving into each block one end of the double-shanked nail M, leaving the other end of the nail projecting. I then dip the saw-grooved surfaces of the blocks to be joined in a mass of heated, soft, antiseptic, adhesive mastic, E, and place these blocks immediately upon the concrete, removing the wooden plugs or screws before doing so, and then inserting a screw in place of the plug, or reinserting the screw removed before the location of the point from which it has been taken has been lost. I drive the block in each case against one already laid until the binding-nail M is driven home into

both adjoining blocks. This soft mastic will thus be forced into the grooves and form a plastic connection between the blocks and the concrete. The countersunk openings above the screw-heads are subsequently filled with tight wooden plugs. Each screw before being finally inserted is dipped in cement or concrete analogous to the concrete A, whereby it will set firmly in the latter.

What I claim as new is—

1. The combination of wooden blocks B B′ B″ B‴ B^{IV}, secured laterally one to another by double-shanked nails M, which latter are provided with middle flanges or rims, concrete substratum A, mastic E, intermediate between the concrete and the said blocks, anchor-iron clip L, embedded in and surrounded by the concrete, screw K, passing through block B‴ and engaging in a screw-threaded hole in anchor-clip L, and grooves F F in the lower faces of the blocks to engage with the mastic, substantially as described.

2. The combination of wooden blocks B B′ B″ B‴ B^{IV}, secured laterally one to another by double-shanked nails M, which latter are provided with middle flanges or rims, concrete substratum A, mastic E, intermediate between the concrete and the said blocks, anchor-iron clip L, embedded and surrounded by the concrete, screw K, passing through block B‴ and engaging in a screw-threaded hole in anchor-clip L, grooves F F in the lower faces of the blocks to engage with the mastic, and opposite <-shaped grooves G G, the lower edges of which are separated to receive the mastic to bind the blocks to the latter, substantially as described.

3. The combination of wooden blocks B B′ B″ B‴ B^{IV}, concrete substratum A, intermediate layer of mastic, E, double-shanked nails M, to unite the blocks laterally one with the other, and serrated bar D, passing through wooden block B″, through the mastic, and into the concrete, with which it engages, and is held fast by its serrations, substantially as described.

4. The combination of wooden blocks B B′ B″ B‴ B^{IV}, concrete substratum A, and intermediate layer of mastic, E, the said blocks being provided with saw-grooves F F upon their lower surfaces, as shown, to engage them with the mastic, substantially as described.

5. The combination of wooden blocks B B′ B″ B‴ B^{IV}, united laterally by double-shanked middle flanged or rimmed nails M, concrete substratum A, and intermediate mastic, E, substantially as described.

6. The combination of wooden blocks B B′ B″ B‴ B^{IV}, concrete substratum A, intermediate mastic, E, metallic anchor-clip, L, embedded in and surrounded by the mastic, and screw K, passing through one of said wooden blocks and engaging in a screw-threaded hole in the said clip, substantially as described.

7. The combination of wooden blocks B B′ B″ B‴ B^{IV}, substratum A, intermediate mastic, E, and screw D, passing through one of said blocks and the mastic and engaging beneath with the substratum to hold the blocks down, substantially as described.

In witness that the above is my invention I have hereunto set my hand.

MALCOLM MACLEOD.

Witnesses:
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