W. Bushnell,

Wood Pavement.

No. 111,904. Patented Feb. 21. 1871.

Fig 1.

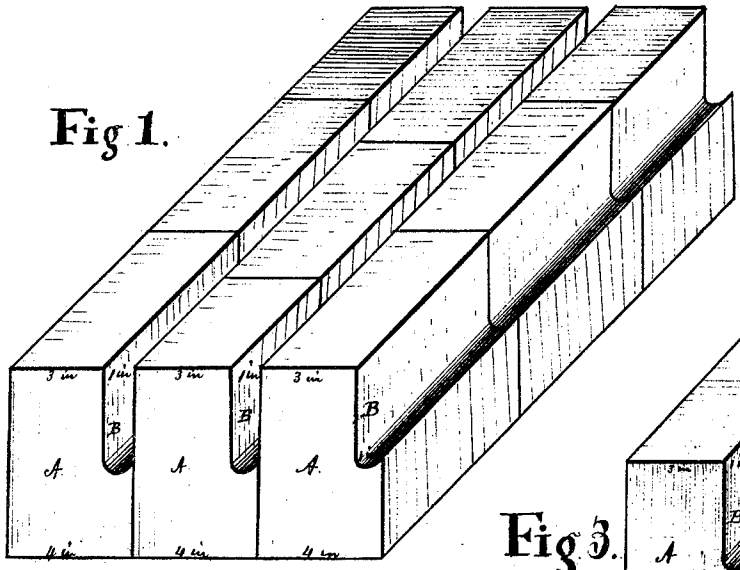


Fig 3.

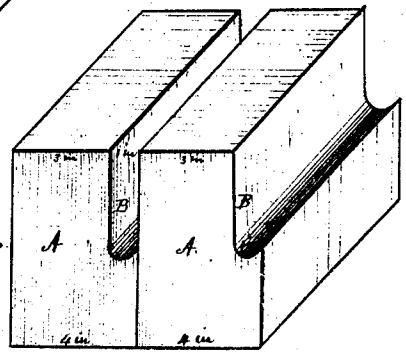


Fig 2.

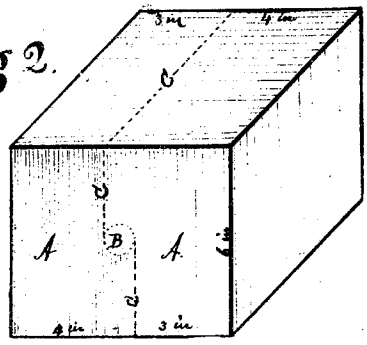


Fig 4

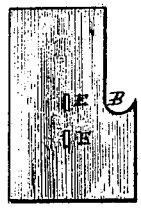
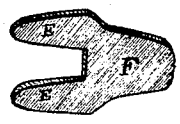


Fig 5



Witnesses

Jno. D. Coughlin

Edward Rand

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UNITED STATES PATENT OFFICE.

WILLIAM BUSHNELL, OF ELIZABETH, NEW JERSEY.

IMPROVEMENT IN WOOD PAVEMENTS.

Specification forming part of Letters Patent No. **111,904**, dated February 21, 1871.

To whom it may concern:

Be it known that I, WILLIAM BUSHNELL, of the city of Elizabeth, in the State of New Jersey, have invented a new and useful Improvement in the Construction of Wooden Pavement; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawing, making a part of this specification, in which—

Figure 1 represents a section of pavement wherein the blocks are placed in the order in which they are to be laid for practical use, and showing the comparative thickness of the base and of the top of each block; also showing the recesses B B B, with their concave or half-circular bottoms, between the rows or tiers of blocks, in which concrete or sand and gravel is to be compressed. Fig. 2 represents a rectangular block of wood, six inches in height with the grain, and seven inches in thickness across the grain. The dotted circle B in the center of the block indicates an auger-hole to be bored through it, and the dotted lines C C indicate the saw-clefts by which the block is to be divided in two equal parts. Fig. 3 represents two blocks of wood formed from the one block represented in Fig. 2, and showing a gain of nearly one-eighth in the area covered by their united bases over the area of the original block. Fig. 4 represents a block of same form as shown in Fig. 3, and indicating by the slots E E the position in which the points E′ E′ of a forked dowel, Fig. 5, are to be driven into it, leaving the single point F of the dowel projecting. Fig. 5 represents a full-sized flat dowel, cut or made out of band or hoop iron, having one end forked and the other end terminating in a single point, the object of this peculiar form being to insure a proper and equal penetration of the dowel into each of the blocks of wood intended to be joined together.

Similar letters of reference indicate corresponding parts in the several figures of this drawing.

To enable those skilled in the art to fully understand and construct a pavement upon my improved plan and invention, I will proceed to describe it and explain the mode of construction.

The first step, of course, is the preparation of the blocks, and these I form in the following manner, to wit: I take timber or plank seven inches in thickness and of ordinary width, and saw it into rectangular blocks of any required length, usually six inches, as represented in Fig. 2, and bore an auger-hole, one inch in diameter, through the center of each block, as indicated by the dotted circle B. I then saw into each end of the blocks, as indicated by the dotted lines C C, until the saw cuts into the sides of the auger-hole aforesaid, thereby dividing the blocks and producing from each two blocks, whose united bases will be eight inches in thickness, (less the saw-cleft,) as shown in Fig. 3, thus gaining nearly one-eighth in the use of the timber, which is more than sufficient to pay all the expense of preparing the blocks, besides giving them the most substantial and simple, as well as desirable, form, the concave or half-circle bottom of the recesses upon which the concrete or sand and gravel is to rest, being by far the best of any and all forms and styles for keeping the sand and gravel from working down and under the blocks. The blocks being thus prepared, I proceed to grade the street in the ordinary manner, and lay upon it a substructure or foundation of boards, the length of the boards running parallel with the line of the street, and upon such foundation I lay the blocks, commencing at one side of the street and placing the first block (not having a dowel in it) snug up against the curb-stone, and then, taking the second block, having the points E′ E′ of a dowel, Fig. 5, inserted in it, and the point F projecting, and placing the point F against the block already laid, I drive the two blocks together and force the point F into the first-laid block, and then in like manner continue to lay the blocks in rows or tiers from one curb-stone to the other across the street, taking care to so place the blocks as to form continuous recesses, as indicated in Fig. 1, letter B. It will thus be seen that each row or tier of blocks will be firmly united and held together and in place, and yet be independent of the other rows or tiers, rendering it an easy and convenient matter to take up and replace any portion of the pavement. The blocks being thus laid, I fill and pack the recesses between the blocks with sand and gravel

saturated with tar or pitch, in the usual manner, and thereby finish my pavement.

The key or dowel I make of sheet metal or hoop-iron in the form shown, with two prongs upon one end and one on the other. It may be struck out of sheet metal comparatively thin and at little expense.

In laying the pavement, into each block of a row already placed I drive a dowel, the two prongs entering the wood. It will bring up against the shoulder between the prongs; and then the next block may be driven on the one prong without driving the dowel into the first block. This dowel is well adapted to the form of block shown, but may be used with other blocks having vertical sides.

Having thus described my invention and improvement, what I claim as new, and desire to secure by Letters Patent, is—

1. The herein-described mode of cutting two shouldered paving-blocks from a single block, as shown and set forth.

2. The dowel made and applied to the blocks of the pavement as set forth.

WILLIAM BUSHNELL.

Witnesses:

JNO. D. COUGHLIN,

EDWARD RAND.