

2 Sheets--Sheet 1.

LYSANDER HILL.

Improvement in Wood-Pavements.

No. 115,960.

Patented June 13, 1871.

fig. 1.

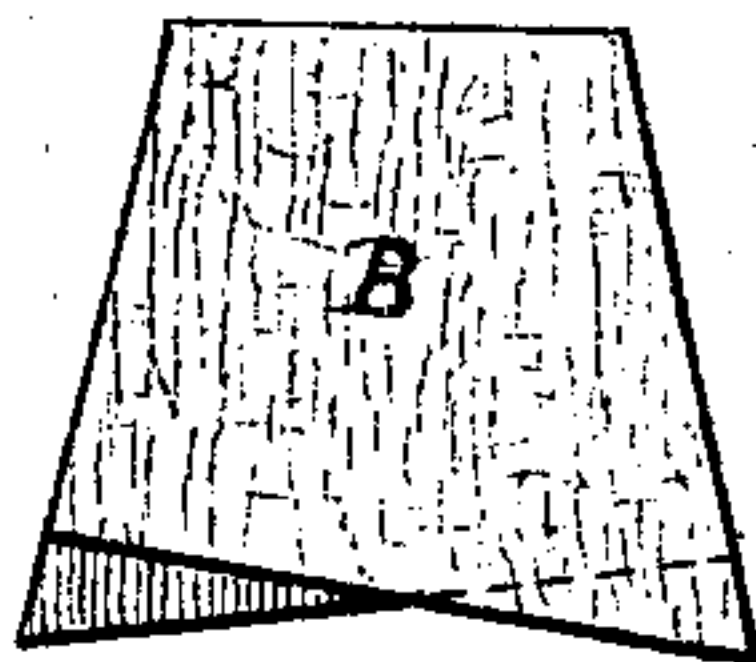


fig. 2.

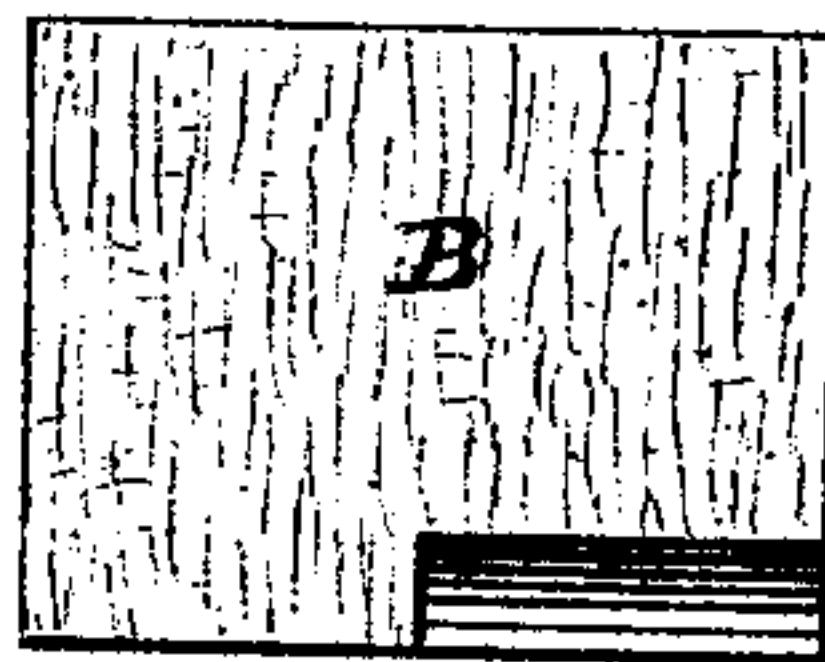
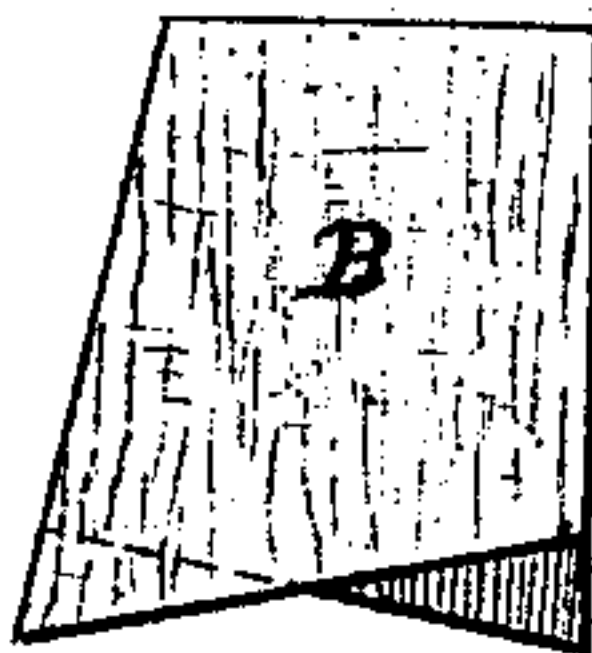
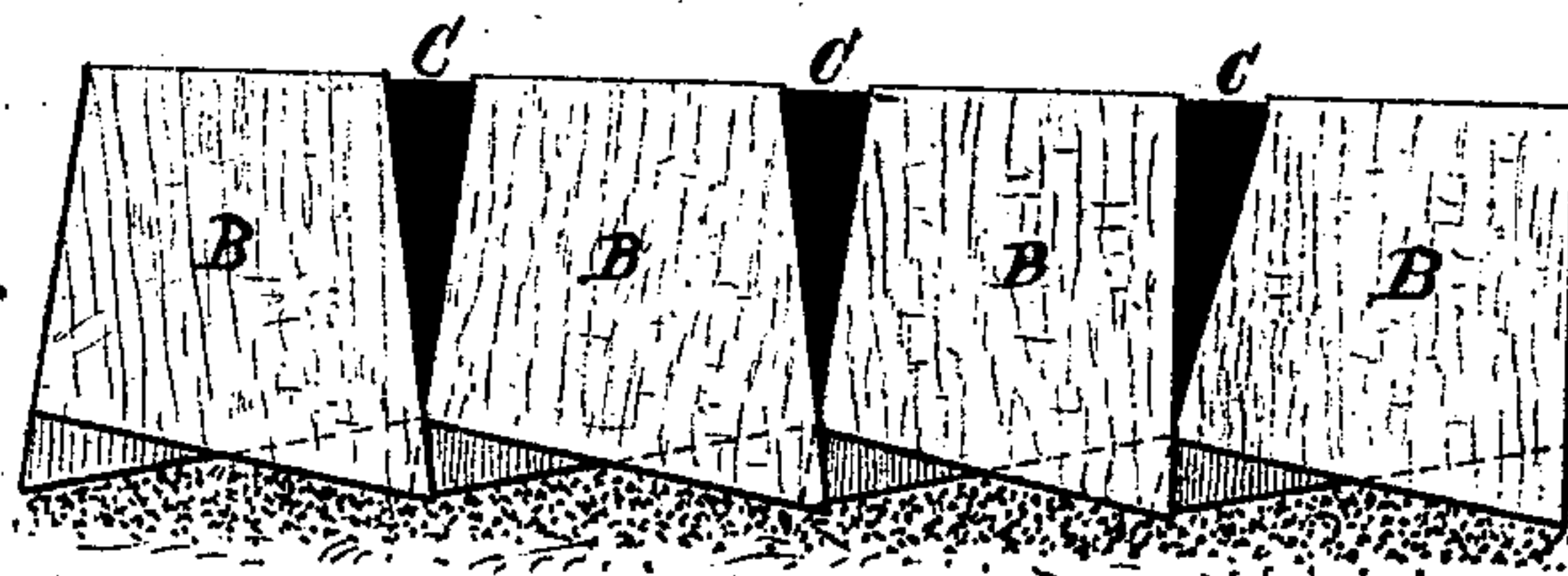


fig. 3.



Witnesses:

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Inventor:

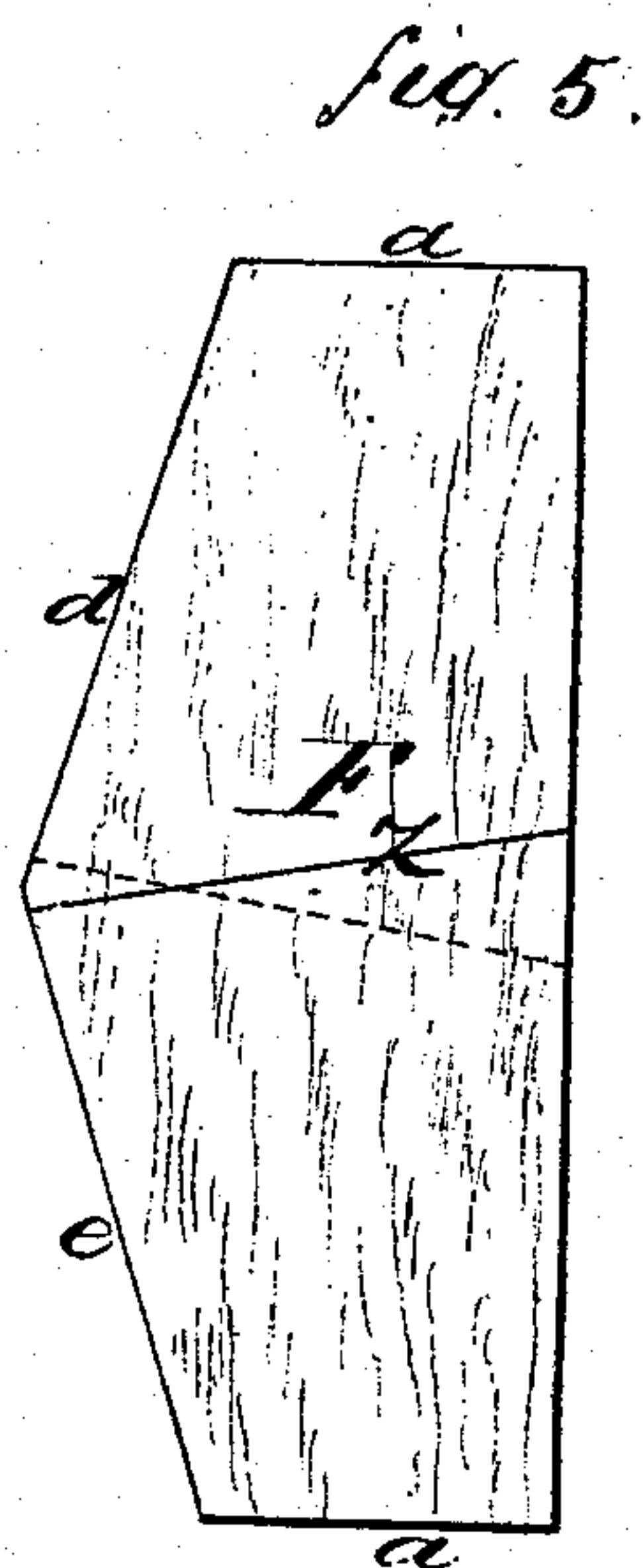
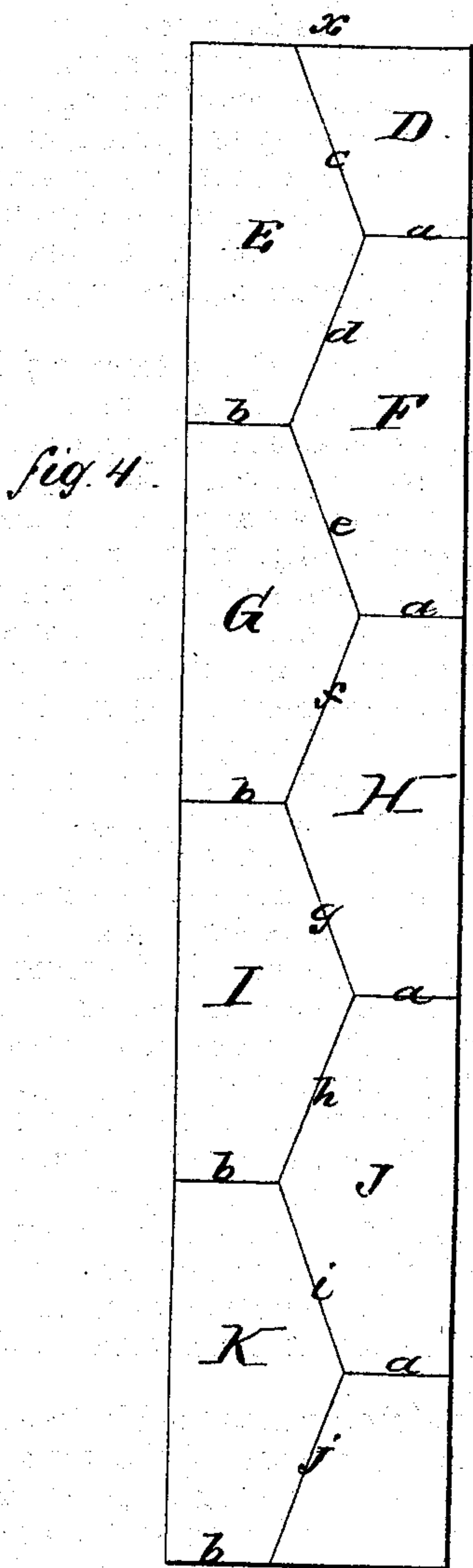
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Witnesses:

Victor Hayman
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Inventor

Lysander Hill

UNITED STATES PATENT OFFICE.

LYSANDER HILL, OF ALEXANDRIA, VIRGINIA.

IMPROVEMENT IN WOOD PAVEMENTS.

Specification forming part of Letters Patent No. 115,960, dated June 13, 1871.

Be it known that I, LYSANDER HILL, of Alexandria, in the county of Alexandria and State of Virginia, have invented a new and Improved Pavement; and I do declare that the following is a clear and exact description thereof, reference being had to the accompanying drawing, in which—

Figure 1 is an end view, representing two different forms of blocks. Fig. 2 is side view. Fig. 3 is a section of pavement, showing the ends of the blocks and the manner in which they interlock. Fig. 4 is a plan, showing how the paving-blocks are sawed, double, from the plank or scantling; and Fig. 5 is a plan, showing how said double blocks are afterward divided.

Similar letters of reference indicate like parts.

This invention relates to the class of wood pavements; and it consists, first, in a new form of blocks adapted to the construction of such pavements; and, secondly, in the arrangement of such blocks to interlock with each other, as hereinafter described.

In the drawing, B B are the blocks, which may be round, square, lozenge-shaped, or oblong, their sides being either vertical or inclined. The truncated wedge-shaped block represented in Figs. 1 and 3 is, however, the best. The under side of these blocks is divided into two inclined planes having opposite inclinations, said inclines extending across the block, and each forming, as near as may be, one-half of its under surface. The blocks thus formed are preferably arranged to interlock with each other, as shown in Fig. 3, the toe of one extending into the recess under the adjacent block in the next row, and the space C between their upper ends being filled with tar and gravel, artificial asphalt, or any kind of concrete. This, however, is only one of the many ways in which they may be arranged to form a substantial pavement. For example: the recesses may be arranged to come opposite to each other in two adjacent rows, forming an arch-shaped cavity, which may be filled with sand, or in which may be placed a small piece of board to support both blocks, the board being beveled to the shape of the cavity or not, as may be preferred. Again: the rows ordinarily transverse to the street may be laid diagonally, especially when the lozenge-

shaped blocks are employed; and strips of wood may be placed under the center or edges of the rows, and, at the option of the builder, may be fastened to sections of blocks forming a part of the same, or parts of different rows, to facilitate the laying of the pavement and to support the blocks at their center or edges; and the blocks may be set to break joints or not. All these differences of arrangement will be obvious when merely suggested, and it will be equally as obvious that, under almost all circumstances, the arrangement shown in Fig. 3 will be superior to any other. To this arrangement, therefore, I shall confine myself in the remarks which follow.

The advantages resulting from my form of block are numerous. In the first place, the blocks interlock so as at the same time to hold each other down to prevent each other from tipping, and to prevent any displacement, laterally or longitudinally, of the rows. In the second place, the toes of the blocks project into the sand and prevent it from shifting either laterally or longitudinally of the rows, and while the pavement is laying they hold the blocks in place during the tamping of the concrete or gravel. In the third place, when the blocks are laid to slightly break joint, and are filled in between with concrete, a portion of the concrete enters the recesses under them, and when it sets forms a key which effectually holds it in place. In the fourth place, the blocks can be made at less expense than any other interlocking block, it only being necessary to gage the saw at the proper angle and saw the block to or a little past its center, the saw-kerf running along the line *z*, as shown in Fig. 5; then turn it over, without changing the inclination of the saw, and saw it in the same way on the opposite side, and then break it off; this simple operation forming the bottom of two blocks at once, without waste of material.

The material from which the blocks are made is cut into double blocks, of the form shown in Fig. 5, in the following manner: First, a plank is scored laterally, as shown at *a a b b*, Fig. 4; then, commencing at *x*, the saw is run along the line *c* till it strikes the kerf *a*, when the block D will drop out, leaving the saw or the timber free to turn so as next to cut along the line *d* and liberate the block E, and so on

successively till the whole plank is reduced to double blocks, after which the latter are divided as above described. It is an easy matter for any skilled machinist to arrange the saws so as to cut any number of these lines at once or in rapid succession, as may be preferred, one saw cutting the lines *c d*, &c., while another or others in advance of it are cutting the lines *a b*. The blocks *F G*, &c., when scored at *z z*, will readily break asunder by their fall from the saw-table; or, if a knot prevents, a slight blow with a hammer or another block will separate them. The whole process involves no extra labor, and not the slightest waste of material except the sawdust. Besides these advantages the pavement can be laid very rapidly, as the rows need no spacing; and any part of it can readily be taken up and relaid when necessary to make repairs or to get at the gas or water pipes in the street.

It will also be observed that the sand in contact with the under side of the blocks keeps them dry by its capillary attraction, while there

are no wood surfaces bearing against each other to produce decay except where the sharp edge of one block rests against the face of another, which is a matter of no importance, as the sand is also in contact with both all along the line.

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

1. A wood pavement-block, having its under side formed of two oppositely-inclined surfaces extending entirely across the block, for the purposes specified.

2. A pavement consisting of the blocks *B*, interlocking with each other, as shown in Fig. 3, and having the spaces filled with concrete, asphalt, or tar, and gravel, substantially as described.

LYSANDER HILL.

Witnesses:

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A. C. RAWLINGS.