## Z. WATERS.

## STONE-PAVEMENT.

No. 191,273.

Patented May 29, 1877.

Frig. 1.

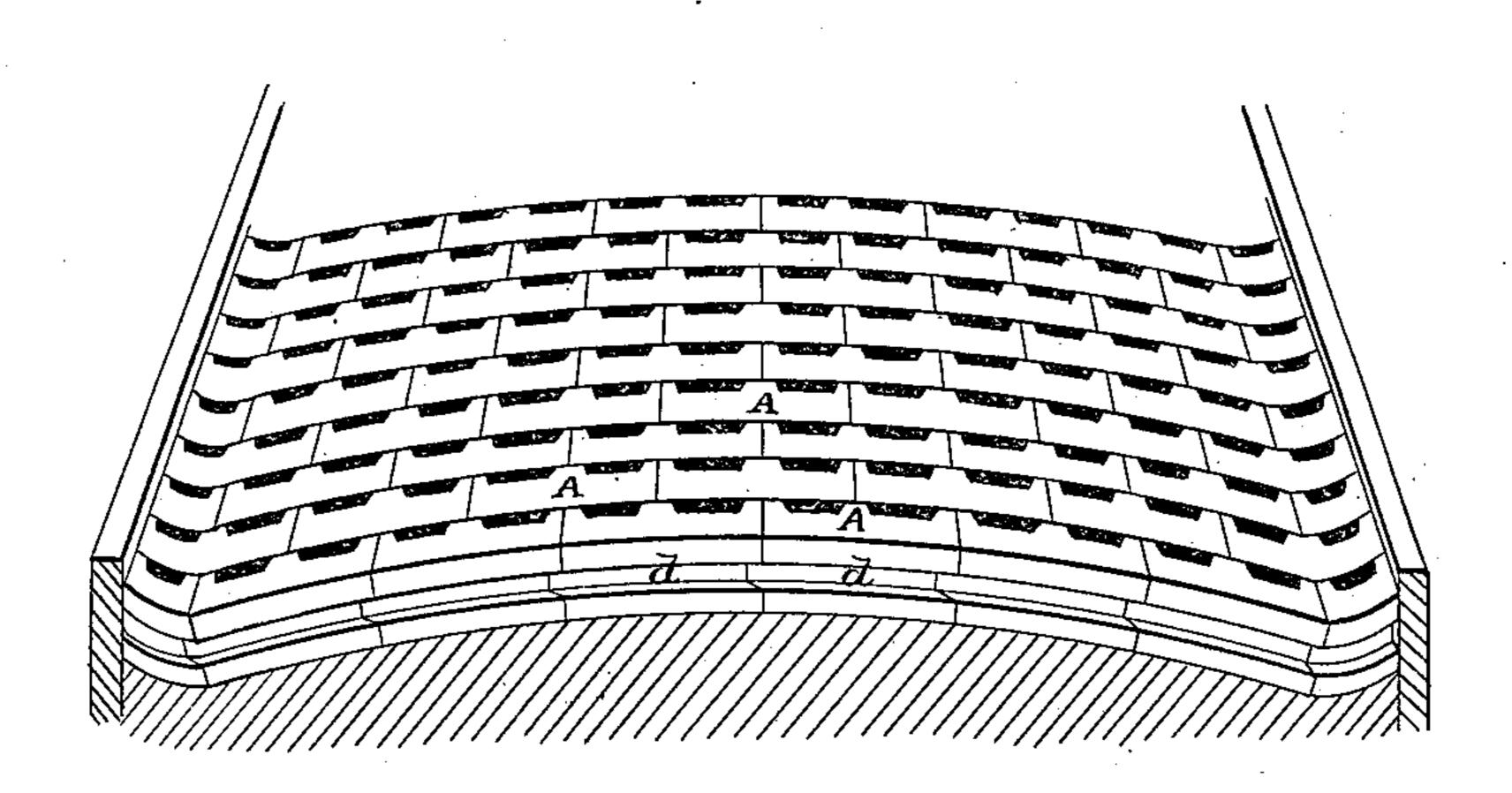


Fig. 2.

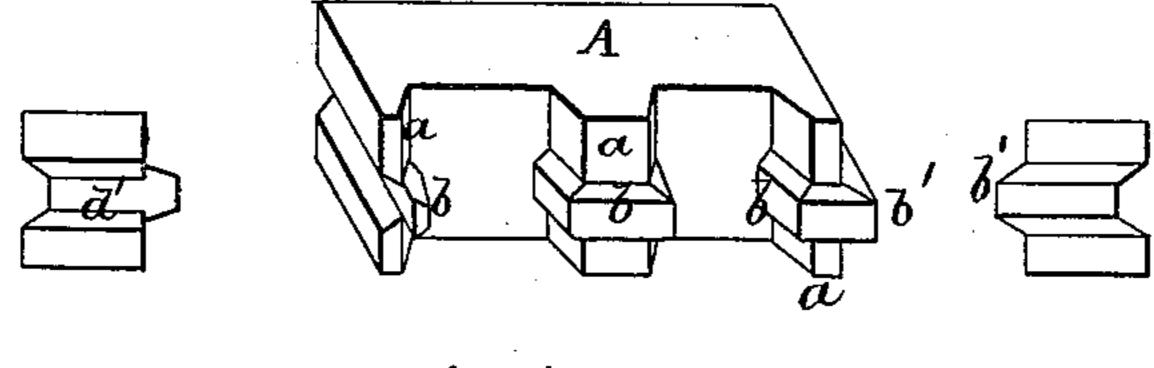


Fig. 3.

WITNESSES

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## UNITED STATES PATENT OFFICE.

ZERA WATERS, OF BLOOMINGTON, ILLINOIS.

## IMPROVEMENT IN PAVEMENTS.

Specification forming part of Letters Patent No. 191,273, dated May 29, 1877; application filed October 31, 1876.

To all whom it may concern:

Be it known that I, Zera Waters, of Bloomington, in the county of McLean, and in the State of Illinois, have invented certain new and useful Improvements in Construction of Brick or Artificial-Stone Pavements; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon, making a part of this specification.

The nature of my invention consists in the construction and arrangement of a pavement composed of blocks of artificial stone or equivalent material, or brick of the construction as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing, in which—

Figure 1 is a perspective view of a pavement embodying my invention. Fig. 2 is a perspective view of one of the blocks. Fig. 3 shows a modification in the construction of the blocks.

A A represent blocks, which may be made of brick in the ordinary manner, or of any suitable compound for artificial stone, and of any desired size, by any of the well-known processes for such purpose.

As represented in the drawing, each block A is formed on one side with projections a extending from top to bottom, one at each end and one in the center. The center projection, however, may be dispensed with, if desired, or more than three projections may be used, the object being to form spaces between the rows of bricks or blocks when the pavement is laid, which spaces are to be filled with concrete, so as to afford a suitable foothold for horses.

On each projection a is made a lug, b, which enters a groove, d, made in the back of the block or brick to prevent one brick from rising above or sinking below the adjoining brick or block. For the same purpose a lug, b', is formed at one end of each block to fit in a groove, d', in the end of the adjoining block.

It is, of course, evident that the projections a may be formed on one or both sides of the block or brick to form the desired spaces; and in place of the continuous groove d in the

back of the brick simply recesses may be formed to receive the lugs b, which latter is of great importance where it is necessary to prevent any lateral movement of the blocks.

The lug b on the center projection a may be dispensed with, especially where the pavement is to be laid in short arch form—for instance, in narrow alleys.

The blocks or bricks, before they are laid, are to be saturated by coal-tar, pitch, or asphaltum, or any combination of such materials making them water-proof, more elastic and tough, and cementing the rows of blocks firmly together.

When these blocks are used on street railroad tracks they may be provided with a groove on top to receive the rail, and loops may be put under the block and hooked over the edge of the rail, or through the rail, or fastened in any other way to the rail.

Instead of the lugs b, as above described, a continuous tongue may be used to fit in the groove d.

I am aware that it is not new in pavements to saturate or cement the blocks together; hence I do not broadly claim such as my invention.

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

1. The blocks A A, made of brick, artificial stone, or other equivalent material, and provided on one or more sides with projections a, which bear against the side of adjoining blocks, and form spaces between the blocks, substantially as and for the purposes herein set forth.

2. The block A, constructed as described, with projections a, lugs b b', and grooves or recesses d d', substantially as and for the purposes herein set forth.

3. The blocks A A, of brick or artificial stone, having projections a, lugs b b' and recesses d d', and saturated with coal-tar, pitch, or asphalt, or a mixture of the same, cementing the blocks firmly together, when combined and used for the purposes herein set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 20th day of October, 1876.

ZERA WATERS.

Witnesses:

WILLIAM L. BRAMHALL, C. L. EVERT.