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PATENTED JULY 10, 1906.

A. W. VAN HAFSTEN & J. L. GILMORE.

ANCHORED BLOCK PAVEMENT.

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Fig. 1.

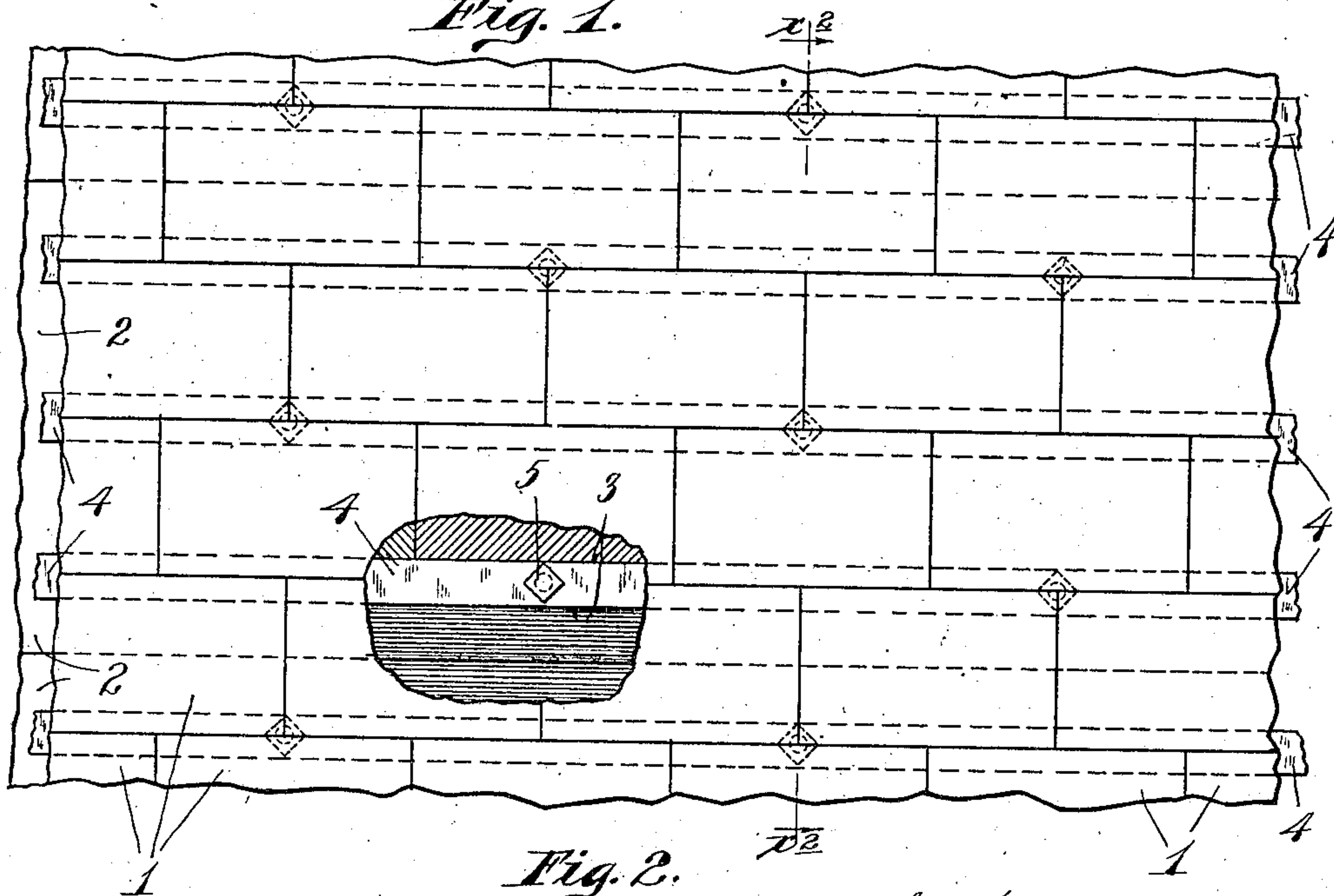
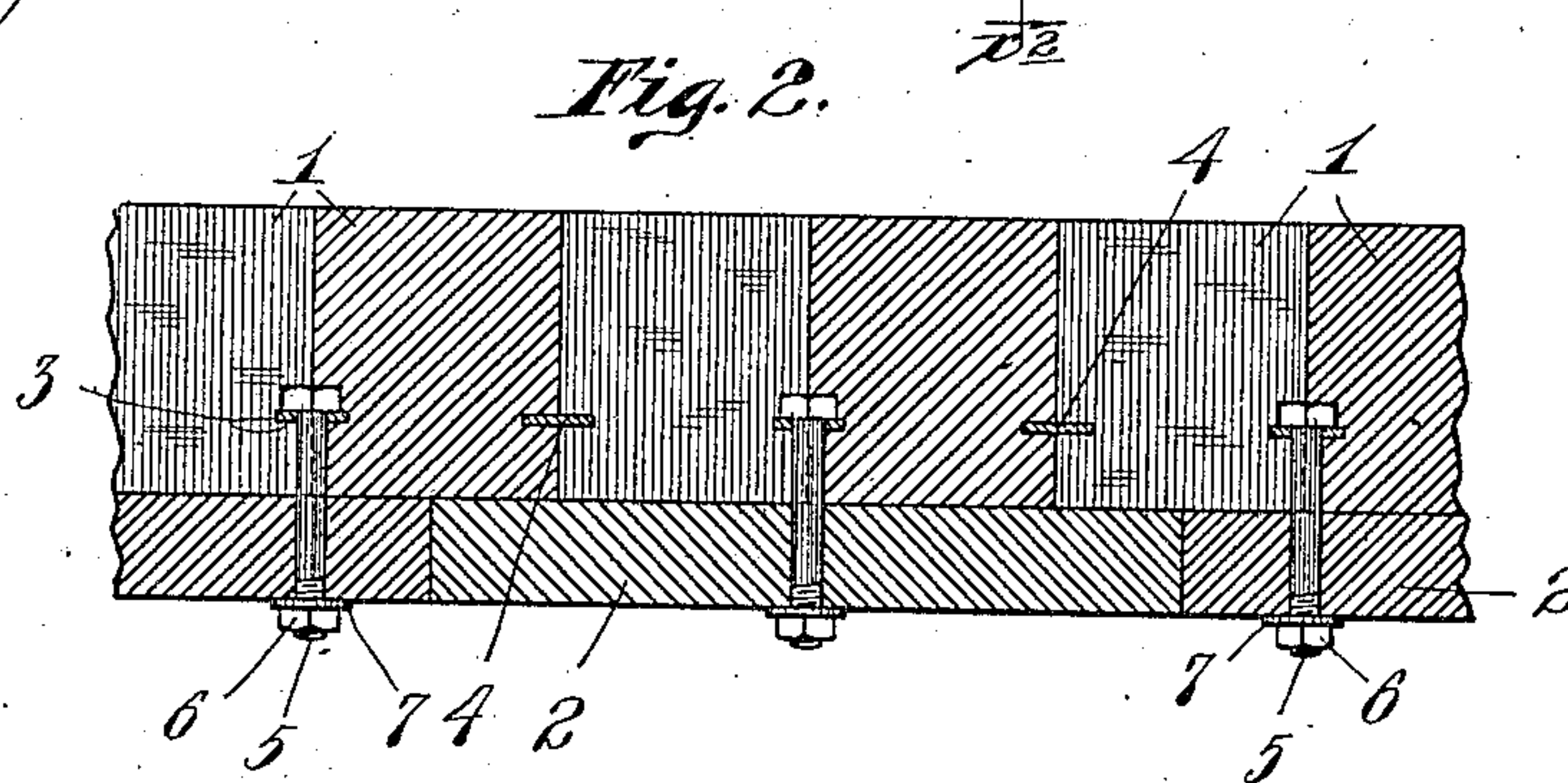


Fig. 2.



Witnesses.

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UNITED STATES PATENT OFFICE.

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ANCHORED-BLOCK PAVEMENT.

No. 825,564.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that we, ALEXANDER W. VAN HAFFTEN and JOHN L. GILMORE, citizens of the United States, residing at Minneapolis, in the county of Hennepin and State of Minnesota, have invented certain new and useful Improvements in Anchored-Block Pavements; and we do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

Our invention has for its object to provide simple and efficient means for anchoring paving-blocks to their underneath support; and to this end it consists of the novel devices and combinations of devices hereinafter described, and defined in the claim.

The invention is illustrated in the accompanying drawings, wherein like characters indicate like parts throughout both views.

Figure 1 is a plan view with some parts broken away, showing a portion of a block pavement, the blocks of which are anchored in accordance with our invention; and Fig. 2 is a transverse vertical section taken on the line $x^2 x^2$ of Fig. 1.

The numeral 1 indicates the paving-blocks, and the numeral 2 planks upon which they are rested and to which they are secured. The paving-blocks are preferably made rectangular and oblong, as shown in Fig. 1, and they are laid with overlapping joints, as clearly shown in said Fig. 1, this much being the standard or customary construction.

The paving-blocks 1 are formed in their sides with grooves located at a common distance from their bottoms, so that when the blocks are placed together the grooves of the one block will register with the grooves of adjoining blocks. The grooves 3 of longitudinally-alined blocks and of transversely-adjacent blocks form long channels that are adapted to receive metallic anchor-bars 4, preferably of flat rolled steel or wrought-iron. The anchor-bars 4 at suitable intervals of space are perforated to pass anchoring-bolts 5, that are passed downward or outward

through the planks 2 and are provided at their outer ends with nuts 6 and preferably also with washers 7.

It will be noted that the bolts 5 are each located at the intermediate side portion of one block and at the abutting corners of two other blocks and are seated in part in each of the three blocks, the said blocks being of course grooved to receive them. In this way the bolts are caused to lock the paving-blocks against sliding movements longitudinally of the anchor-bars 4. As is evident, when the nuts on the bolts are tightened the anchor-bars will draw the paving-blocks firmly against the bed-planks 2.

The novel block-anchoring device described is especially designed for use to hold paving-blocks to the supporting-planks of up-lift bridges—that is, to bridges in which the sections are turned into upright or nearly upright positions, so that the paving-blocks, unless anchored, are liable to be thrown from position. As is evident, the anchoring device described will securely hold the paving-blocks against displacement on bridges of the character above noted.

The anchoring device is, however, adapted for use for a great many other purposes and will be found very serviceable for securely anchoring paving-blocks in street-pavements, sidewalks, and floors, and especially where the blocks are liable to be washed out from heavy rainfalls. In fact, paving-blocks anchored as above described may be submerged in running water indefinitely without danger of their being displaced. The device is also adapted for use to secure blocks on retaining-walls and other upright walls and even on ceilings. The device described is of comparatively small cost and may be very quickly applied. Furthermore, a pavement made up of blocks anchored as described will wear better and will retain an even surface longer than a pavement made up of unanchored blocks.

What we claim, and desire to secure by Letters Patent of the United States, is as follows:

The combination with a plurality of paving-blocks laid in rows, with the blocks of the rows in close contact, and with the blocks of the several rows in close contact, said blocks
5 having longitudinally-alined side grooves in the direction of the rows of blocks, of a support for said blocks, of flat anchoring-bars seated entirely within the alined grooves of adjacent rows of blocks, and bolts seated in
10 said blocks, passed through said anchor-bars

and serving to anchor the blocks, substantially as described.

In testimony whereof we affix our signatures in presence of two witnesses.

ALEXANDER W. VAN HAFPTEN.
JOHN L. GILMORE.

Witnesses:

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