

(No Model.)

F. HAINES.
ARTIFICIAL STONE PAVING BLOCK.

No. 481,353.

Patented Aug. 23, 1892.

Fig: 1.

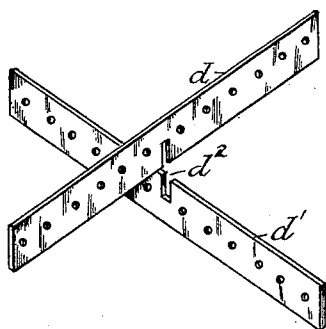


Fig: 2.

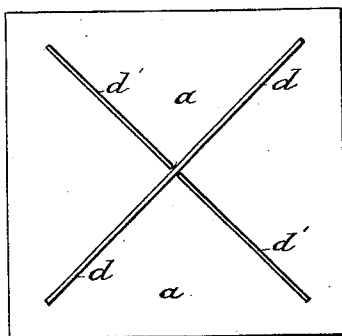


Fig: 3.

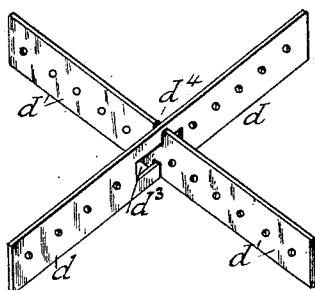


Fig: 4.

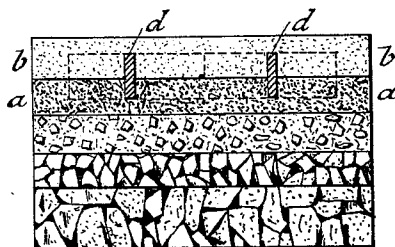
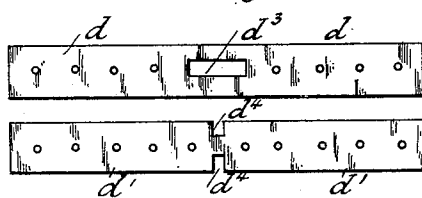


Fig: 5.



WITNESSES:

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ARTIFICIAL-STONE PAVING-BLOCK.

SPECIFICATION forming part of Letters Patent No. 481,353, dated August 23, 1892.

Application filed August 3, 1891. Serial No. 401,560. (No model.)

To all whom it may concern:

Be it known that I, FRANKLIN HAINES, a citizen of the United States, residing at Yonkers, in the county of Westchester and State of New York, have invented certain new and useful Improvements in Artificial-Stone Block-Pavements, of which the following is a specification.

This invention relates to certain improvements in artificial stone-blocks for pavements, in which a binder of a peculiar construction is employed, by means of which the pavement is enabled to withstand a more considerable pressure or strain than has before been possible and by means of which blocks of smaller or larger size can be readily constructed; and the invention consists of an artificial-stone paving-block formed of cement or other suitable material and provided with a binder composed of interlocking metallic binder bars or plates, said plates being set on edge in the block and made to interlock at or near their center and at right angles or other suitable angle, according to the shape and size of the block.

In the accompanying drawings, Figure 1 represents a perspective view of two interlocking binder bars or plates shown in the act of interlocking with each other. Fig. 2 is a plan of a block, showing the binder-bars embedded therein. Fig. 3 is a perspective view of still another form of binder. Fig. 4 is a vertical transverse section of a block or portion of pavement, showing the arrangement of the binder in the same; and Fig. 5 represents detail side views of the individual binder bars or plates, of which the modified form shown in Fig. 5 is composed.

Similar letters of reference indicate corresponding parts.

My improved artificial-stone blocks or pavements are constructed on a foundation, the lower layer or stratum of which is composed of broken stones, rubble stone, or building-stone set upright on edge, on which a layer of broken stones of smaller size is placed, which layer is preferably covered by a layer of clean cinders. When the foundation heretofore described has been thoroughly wetted and rolled or rammed, the pavement proper is constructed, which is formed of two layers or courses, a base course *a*, made of concrete,

and a top or wearing course *b*, of cement and other materials. A binder *d* of peculiar construction is partly embedded in the lower or base course by being set on edge into the same, after which the top course of the block is applied. The binder is constructed either of intersecting binder bars or plates *d d'*, as shown in Fig. 1, which bars are recessed at or near their center, as at *d²*, Fig. 1, so as to interlock with each other, and which are preferably perforated, so that the cement or composition of which the pavement is composed can pass through the perforations and produce the rigid uniting of the bars or plates with the upper and lower courses. For square blocks the binder-plates are arranged at right angles to each other and extended either diagonally toward the corners of the block, as shown in Fig. 2, or crosswise, as desired. Instead of recessing the interlocking edges of the binder-plates, one binder-plate may be provided with a slot *d³* of sufficient length at its center, while the other has recesses *d⁴* at both sides of its center, so that when the recessed plate *d'* is passed through the slot of the plate *d* until the recesses arrive in line with the slot the recessed plate is turned on its axis, so as to be placed on edge, in which position it interlocks with the slotted binder-plate, as shown clearly in Fig. 3. In forming the paving blocks or slabs of which the pavement is composed the binder-plates are embedded in the lower or concrete course before the same has set and is still in a plastic state, the binder-plates being set on edge into the same. The entire binder may be pressed down into the lower course of concrete, or one of the binder-plates may be first pressed into the same and then the other, care being taken that they interlock properly at their points of intersection. The upper layer or wearing-course is then cast, poured, or worked around the binder, so that the latter is firmly united with the layers of the block when the setting or solidification of the two courses is accomplished. The binding-bars become then an integral part of the block and form a bond of great strength between the same. The binder imparts great resisting-power against crushing and tensile pressure and adds to the wearing capacity of the blocks, while it serves, also,

as means for firmly uniting the two courses of the block, so as to increase the strength and resisting-power of the same.

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

1. An artificial-stone paving-block having embedded therein two intersecting flat metallic binder bars or plates set on edge, both of
10 said plates being provided at or near their centers with interlocking slots, substantially as described.

2. An artificial-stone paving-block having embedded therein two perforated intersecting
15 flat metallic binding bars or plates set on edge, both of said plates being provided at or near their centers with interlocking slots.

3. An artificial-stone paving-block formed of two layers or courses, having embedded
20 therein metallic binder bars or plates set on

edge and provided with interlocking slots at or near the center of said bars and with openings along the middle thereof, the material forming the pavement uniting at said openings and flowing therethrough.

4. An artificial-stone paving-block having
25 embedded therein interlocking metallic binding bars or plates set on edge, one of said bars being provided with a longitudinal closed central slot and the other with lateral open slots,
30 whereby the interlocking of the bars is effected.

In testimony that I claim the foregoing as my invention I have signed my name in presence of two subscribing witnesses.

FRANKLIN HAINES.

Witnesses:

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A. M. BAKER.