S. S. INGALLS.

CONCRETE BLOCK-PAVEMENTS.

No. 195,286. Patented Sept. 18, 1877.

Fig. 1.

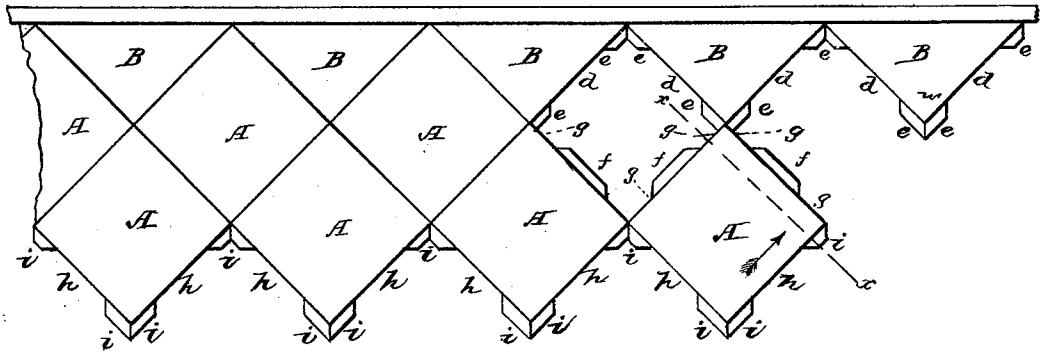


Fig. 2.

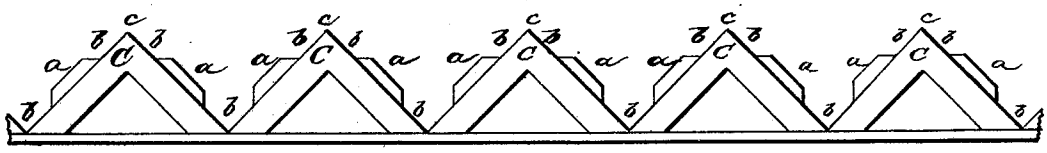
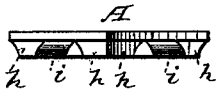


Fig. 3.



Fig. 4.



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SAMUEL S. INGALLS, OF CHICAGO, ILLINOIS.

IMPROVEMENT IN CONCRETE-BLOCK PAVEMENTS.

Specification forming part of Letters Patent No. **195,286**, dated September 18, 1877; application filed July 9, 1877.

To all whom it may concern:

Be it known that I, SAMUEL S. INGALLS, of the city of Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Artificial-Stone Pavement, of which the following is a full description, reference being had to the accompanying drawings, in which—

Figure 1 is a plan view, representing the completed blocks; Fig. 2, a plan view of the frame used in making the pavements; Fig. 3, a section of one block on line *x x* of Fig. 1, looking in the direction of the arrow; Fig. 4, a front view of one section of the frame.

I have a patent dated April 14, 1874, No. 149,658, and this invention is an improvement on that therein described, which consisted in providing the pavement-blocks with tongues and grooves to prevent the completed pavement from becoming uneven, said tongues and grooves, in my present application, commencing near the top and extending to the bottom of the block, instead of having the tongues and grooves in the center of the sides, as in my former patent.

In use it is necessary to tamp the concrete into place, and I find that unless this is done with care the edge of the block is liable to be broken at the point beneath the groove, and it is also difficult to place tarred paper between the blocks, which oftentimes is not desirable.

The principal object of this invention is to overcome these two difficulties, and to provide a concrete or artificial-stone pavement the several blocks of which will support each other, so that they will not become uneven by the settling of some of the blocks or by the action of frost; and it consists in providing each side of the block with one or more tongues or projections, and also with one or more recesses to receive the tongues upon the adjoining block, as more fully hereinafter described.

In the drawings, A represents the completed blocks, and B a half-block, which are necessary when the blocks are laid diagonally.

C represents the frame, consisting of a series of triangular blocks, connected together substantially as shown in my former patent, except that each face of each half-block is provided with a tongue or projection, *a*, which may be circular upon its face, commencing at a point a little distance below the surface, and extending to the bottom of the block, its length being equal to about one-half of the length of the face of the block, and it is centrally located. The lower part of the remaining portion *b* of each face is recessed.

In laying the pavement, the frame C is arranged with the points *c* touching the curb or border of the pavement. The composition is then introduced and firmly packed within the space between the frame and the curb, when, on removing the frame, the half-blocks which have been formed will have upon their faces recesses *d* and projections *e*. Then the frame is to be placed so that its points will be in contact with the points of the half-blocks, forming, with the half-blocks, square openings to receive the cement for complete blocks. Into this space cement is placed and firmly tamped, or otherwise packed therein, during which process the cement will be forced into the recesses *d*, while the projections *e* will form recesses in the completed block, so that each complete block will have centrally located upon two of its faces projections *f*, and the remaining portions *g* of the same faces will be provided with recesses. Upon the other two faces there will be recesses at *h*, centrally located, and the remaining portions of these faces will be provided with projections or tongues *i*. This process can be continued as long as desired.

After the frame has been removed I sprinkle the blocks with air-slaked lime, or equivalent material, or place tarred paper or other suitable material along the edges, to prevent adhesion.

The projection *a* upon the frame, as well as the recesses *b* therein, do not extend to the top of the block, but only about two-thirds of the distance, thus leaving a square shoulder at the top of the completed blocks, giving them strength at that point.

The projections *f* upon the several blocks fit into corresponding recesses at *h* in the adjoining blocks, and the recesses at the points *g* of the several blocks receive the corresponding projections *i* upon the adjoining blocks, so that the several blocks support each other, and

are so interlocked that they cannot rise or fall unevenly at their edges. Neither are there any weak points to be injured by the workmen while the process of laying is performed, or broken away by the action of frost or by travel over them.

What I claim as new is as follows:

As an improvement on my former patent No. 149,658, the artificial-stone paving-blocks formed with the tongues and grooves commencing near the top and extending to the bottom of the block, all constructed as and for the purpose set forth.

SAMUEL S. INGALLS.

Witnesses:
E. A. WEST,
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