S. STRONG.

Brick-Pavement.

No. 166,822. Patented Aug. 17, 1875.

Fig. 1.

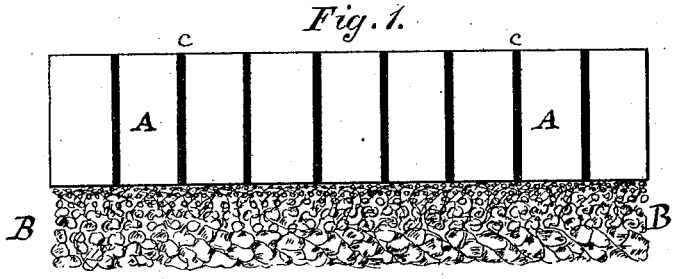


Fig. 2.

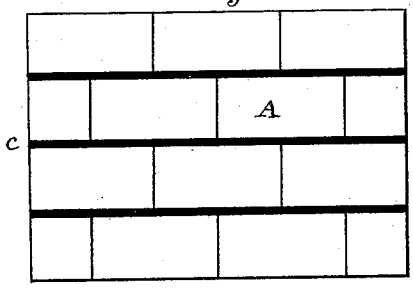


Fig. 3.

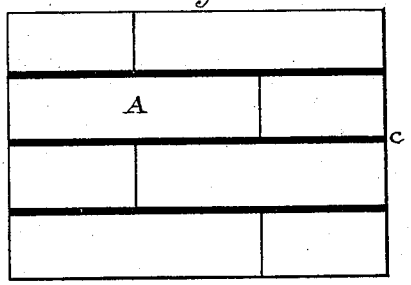
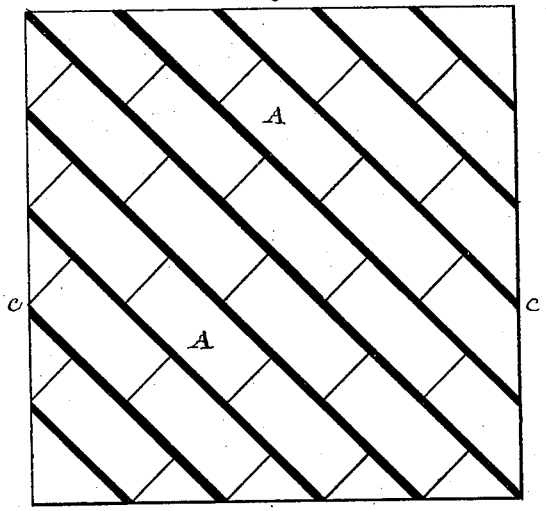


Fig. 4.



WITNESSES

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UNITED STATES PATENT OFFICE

SAMUEL STRONG, OF WASHINGTON, DISTRICT OF COLUMBIA, ASSIGNOR OF ONE-HALF HIS RIGHT TO EBON C. INGERSOLL, OF SAME PLACE.

IMPROVEMENT IN BRICK PAVEMENTS.

Specification forming part of Letters Patent No. **166,822**, dated August 17, 1875; application filed July 22, 1875.

To all whom it may concern:

Be it known that I, SAMUEL STRONG, of the city of Washington, and District of Columbia, have invented a new and useful Improvement in Brick Pavements for Carriage-Ways, which improvement is fully set forth in the following specification, reference being had to the accompanying drawings.

This invention is an improvement upon the pavement for which Letters Patent of the United States were granted to me the 8th day of June, 1875, No. 164,231; the invention described and claimed in my said former patent consisting in a foundation made of pounded stones, gravel, and strong cement, covered with a bed of good water-proof cement, about one inch in thickness, and a pavement of hard-burnt pressed bricks, set thereon upon their edges, sides, or ends, breaking joints, and the spaces between the bricks filled with tar or strong cement, commonly called grouting.

I have discovered that the essential elements of a good pavement of this class are, first, a solid foundation completely impervious to water, and, second, a pavement of hard-burnt bricks laid thereon, as in my former patent described, and rendered impervious to water by having the interstices between the bricks filled with tar, cement, or other substance which will render the pavement water-tight, and that, when so constructed, an intermediate stratum of cement between the concrete foundation and the bricks is not necessary.

In the annexed drawings, Figure 1 represents a vertical section of a pavement constructed on my improved plan, the bricks A being set upon their edges immediately upon the concrete foundation B. Fig. 2 represents a top view of the same pavement; Fig. 3, a top view of a pavement in which the bricks are set upon their edges, and Fig. 4 a pavement in which the bricks are set in diagonal rows across the carriage-way.

I first form a foundation-bed about six inches in thickness, more or less, of broken stones or gravel, or of both, thoroughly cemented together by coal-tar, pitch, asphaltum, or any suitable cement, to render the same impervious to water. In forming this bed it is advisable to place larger stones or coarser gravel at the bottom than at the top, quite fine gravel being preferable for the top. The concrete bed should be thoroughly compacted, and made as smooth as practicable on the surface, by rolling or other means of compression, and, if necessary, a thin layer of sand may be spread upon the concrete for the mere purpose of forming a smooth and even surface for the reception of the bricks.

The bricks must be hard-burnt, and those which have been compacted by powerful machine pressure will be most serviceable.

When bricks of the ordinary size and shape are used, they are either set upon their ends or edges, and in either case are so set as to break joints. But bricks may be specially made for the purpose of other sizes and shapes, as, for instance, six inches in width by eight or ten inches in length, and of about the ordinary thickness.

The bricks are set in straight, diagonal, or zigzag rows or courses across the roadway, upon the concrete foundation, and the interstices between them I fill with tar, pitch, cement, grouting, or with any other material that will prevent the surface-water from running down between them. Narrow spaces *c* may be left between the courses of bricks of about one-fourth of an inch, or any less width, to be filled as aforesaid.

I thus form a pavement completely impervious to water, either from the surface or from below, and which, consequently, is not liable to injury from water or frost.

What I claim as my invention is—

A pavement composed of hard-burnt bricks, set upon their edges or ends upon a water-tight concrete foundation, with the interstices between them filled with tar, pitch, cement, grouting, or any other material that will render the pavement impervious to water, substantially as described.

SAMUEL STRONG.

Witnesses:

JOS. L. COOMBS,

JAMES L. NORRIS.