# A. B. DEAN & H. H. HIGDON.

## STONE-PAVEMENT.

No. 174,495. Patented March 7, 1876.

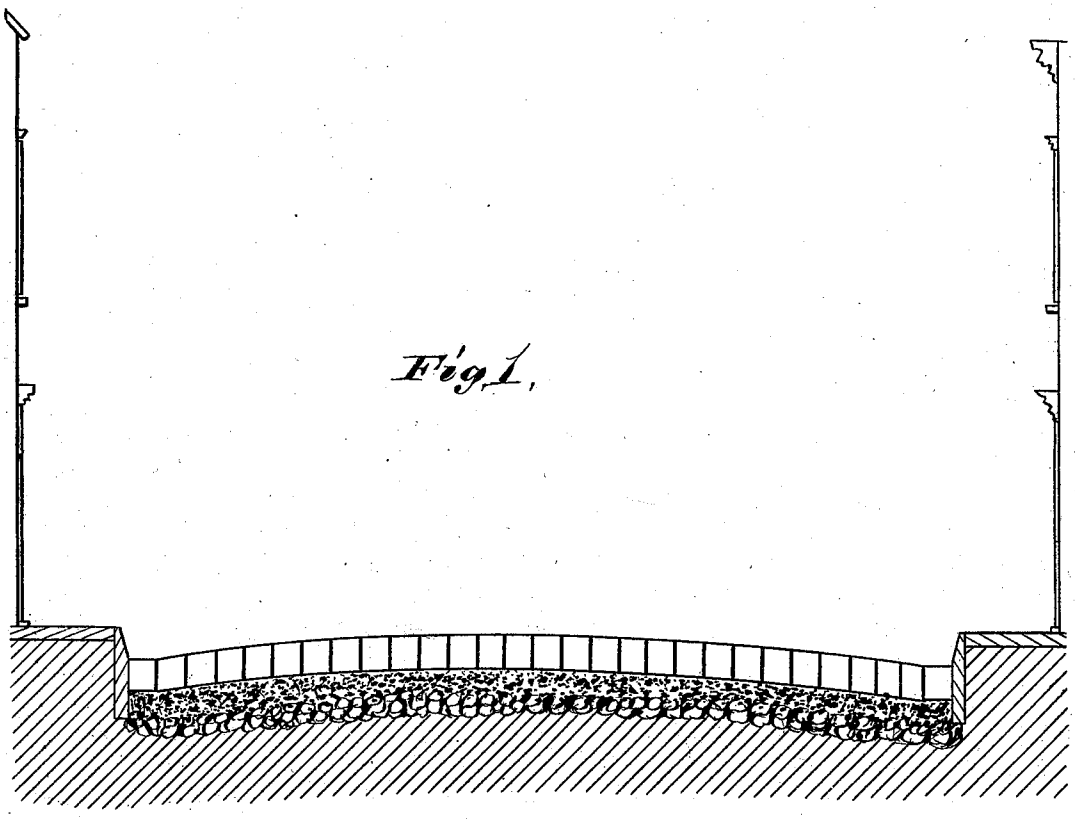
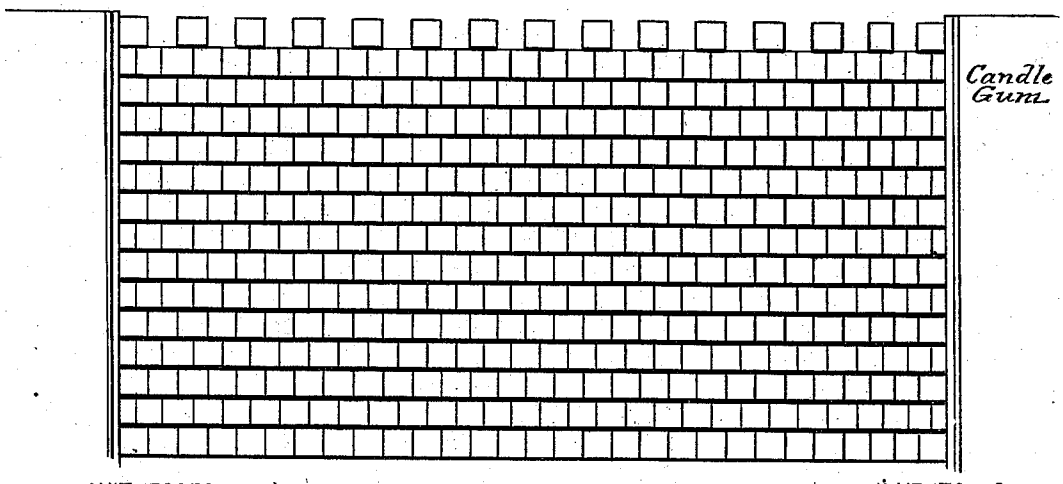


Fig. 1.

Fig. 2.




WITNESSES

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# UNITED STATES PATENT OFFICE.

ANDREW B. DEAN AND HENRY H. HIGDON, OF LOUISVILLE, KENTUCKY.

## IMPROVEMENT IN STONE PAVEMENTS.

Specification forming part of Letters Patent No. **174,495**, dated March 7, 1876; application filed January 29, 1876.

*To all whom it may concern:*

Be it known that we, ANDREW B. DEAN and HENRY H. HIGDON, of Louisville, in the county of Jefferson and State of Kentucky, have invented a new and valuable Improvement in Block-Stone Pavements; and we do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, in which—

Figure 1 is a cross-section, and Fig. 2 a top view.

This invention relates to a new method of making block-stone pavements which are impervious to water and frost, and for which reason the blocks, when properly laid down, will not become loose or displaced.

Our invention consists in the employment of a substance known as candle-gum, which is a sulphurated hydrocarbon of great adhesiveness and durability, and mixing with this substance sand, gravel, finely-broken stone, or other suitable paving material, to form a good concrete with which to fill the interstices, as will be hereinafter explained.

To make a substantial street-pavement for the heaviest traffic, we first properly grade the roadway and then spread upon it a layer of broken stone to a depth of four inches, which is well rammed or rolled under a heavy weight; we then spread on this bed of broken stone a layer of gravel or sand, which is likewise rolled or rammed under a heavy weight; these two layers form the bed or foundation for the paving-blocks. On this bed or foundation we then place the paving-blocks in rows from one side to the other side of the street, or from gutter to gutter, as may be desired, leaving a space or interstice between the rows. Each row is laid with blocks of a corresponding thickness and width, so as to present a uniform surface, and they are so arranged as to break joints with the adjacent rows; the ends of the blocks in each row may join each other, or they may be left apart so as to form an interstice at the ends if desired. If the said ends join, the blocks should be well coated with hot liquid candle-gum before being put together. Having thus properly arranged the rows, we then fill in the interstices to within three inches of the surface with sand, gravel, finely-crushed stone, or any other desirable paving material, which is well rammed. The remainder of the interstices is then filled with a paving compound, the basis of which is sulphurated hydrocarbon, known as candle-gum, intermixed with sand, gravel, or finely-broken stone, or any mineral or bituminous substance in a heated state, and rammed into a compact body even with the surface of the pavement. The narrow blocks of stone having these seams of paving compound will afford a surer foot-hold for animals than when a wider surface of stone is exposed, which would soon wear very smooth and become unsafe; but if it is not convenient to get the blocks of stone of uniform width, our process will apply to blocks of stone of any irregular shape or size, provided they all have one uniform dimension for depth. When laid, the surface of the blocks of stone which are left exposed for the top of the pavement are left rough according to the natural fracture of the stone, or roughly dressed, for the purpose of affording better foot-hold.

The depth of the paving-blocks, and the foundation on which they are to be laid, may be varied according to the uses to which the street are to be subjected.

What we claim as new, and desire to secure by Letters Patent, is—

A pavement, composed of blocks of stone between which is applied a compound consisting of candle-gum, sand, gravel, and finely-crushed stone or other material, mixed as described.

In testimony that we claim the above we have hereunto subscribed our names in the presence of two witnesses.

ANDREW B. DEAN.
HENRY HARRISON HIGDON.

Witnesses:
H. C. RODES,
A. B. LAMPTON.