M. A. BURNHAM.

Improvement in Laying Tile.

No. 120,850. Patented Nov. 14, 1871.

Fig. 1

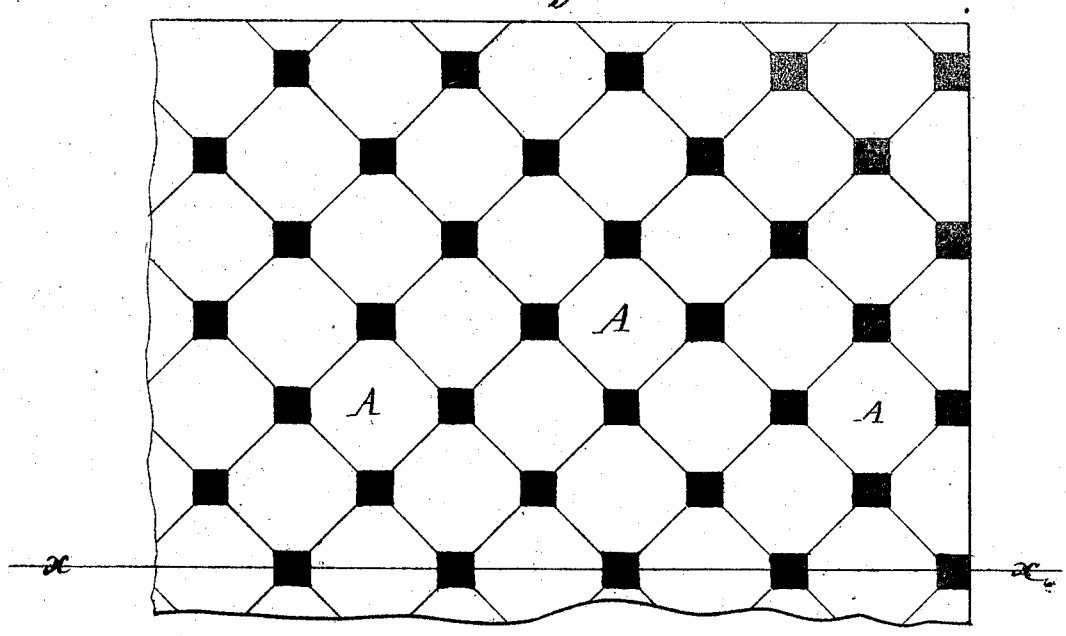
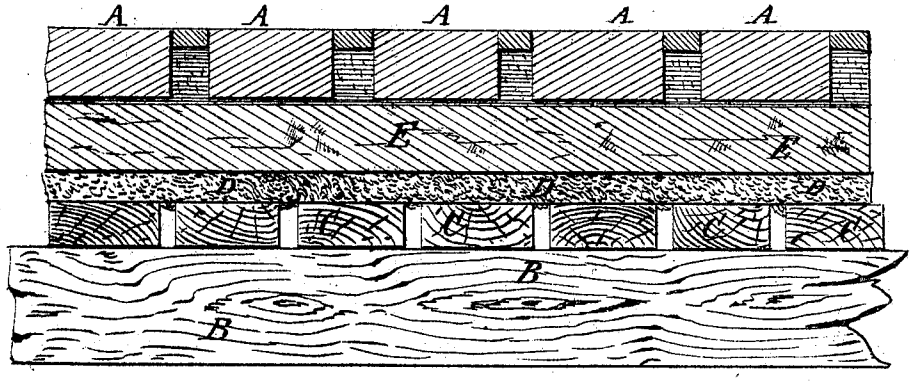


Fig. 2



Witnesses:

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UNITED STATES PATENT OFFICE.

MANLY A. BURNHAM, OF NEW YORK, N. Y., ASSIGNOR TO HIMSELF AND TOBIAS NEW, OF SAME PLACE.

IMPROVEMENT IN LAYING TILES.

Specification forming part of Letters Patent No. 120,850, dated November 14, 1871.

To all whom it may concern:

Be it known that I, MANLY A. BURNHAM, of the city of New York, in the county and State of New York, have invented a new and useful Improvement in Laying Tile; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawing forming a part of this specification, in which—

This invention relates to a new and useful improvement in laying tile in vestibules, halls, and other apartments; and consists in the use of a continuous stone bed or floor above the foundation and "gauge-mortar," which prevents the tile from being affected by the shrinking, swelling, and warping of the wood foundation beneath, the arrangements of parts being as hereinafter more fully described.

In the accompanying drawing, Figure 1 is a top view. Fig. 2 is a vertical section taken on the line *x x*.

Similar letters of reference indicate corresponding parts.

A represents the tile-floor, composed of squares or pieces of marble, porcelain, or any artificial composition or material, of any desired shape or color, and laid in any manner to suit the taste. This tile flooring is supported, first, by the foundation timbers or joists B, which rest in the walls of the building. On these timbers a flooring of boards or planks is placed, marked in the drawing C. To prevent warping I make my wood floor C of narrow pieces, as represented, and place them so that they may swell without crowding each other. D is the layer of gauged mortar resting upon the floor C, upon which the tile-floor A is usually placed. This layer of mortar (as tile-floors are ordinarily laid) is more or less disturbed by the swelling and warping of the wood floor beneath, and, as a natural consequence, the tile becomes loosened and uneven and frequent repairs are necessary. As a perfect remedy for these very serious evils I interpose a continuous floor, E, composed of marble slabs or of stone (either natural or artificial) embedded in in the gauged mortar D. Upon this stone floor I spread a layer of plaster of Paris or other suitable cement sufficiently thick to form a level surface. Upon this the tile floor is laid, the tile being bedded down so that the upper surface will present a perfectly level plane, as represented in the drawing. The tile floor supported in this manner will not be affected by the swelling, shrinking, or warping of the wood beneath. The pieces of tile are cemented to the stone floor E, and the adhesion of the stone floor E to the gauged mortar in which it is embedded being perfect, all objection to the floors laid above wood supports is obviated.

By the use of my stone floor E I am enabled to lay a permanent sidewalk or tile an area out of doors as well as indoors, and when no wood is used in the foundation, the stone floor E being thus supported on walls built up for the purpose. I do not, therefore, confine myself to vestibules, halls, &c., indoors, but propose to interpose my stone floor in doing outdoor as well as indoor work.

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

1. The stone floor E interposed between the "gauged mortar" D and the tile of a tile floor or sidewalk, substantially as and for the purposes described.

2. The continuous stone flooring E, in combination with wood floor C and gauged mortar D, substantially as and for the purposes described.

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