T. HYATT.

Illuminating-Tiles.

No. 165,835. Patented July 20, 1875.

Fig. 1.

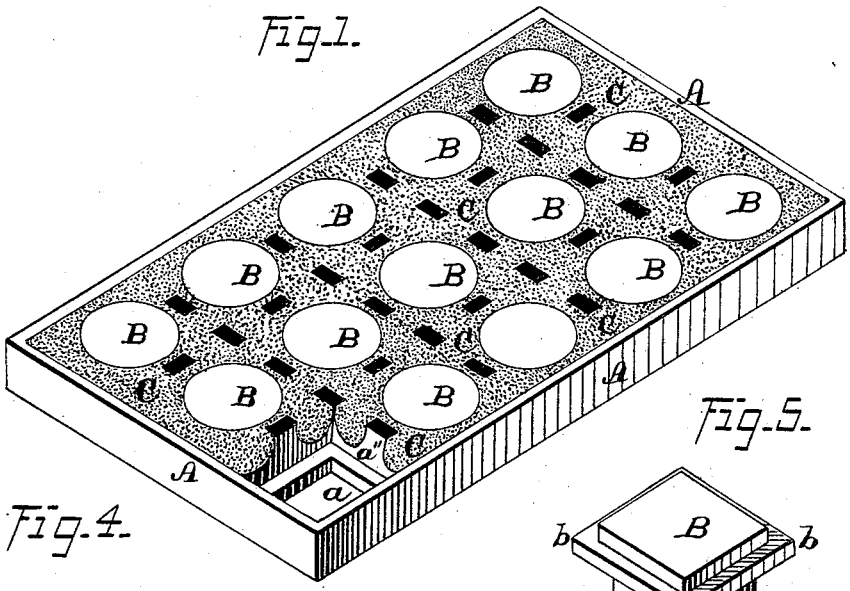

Fig. 5.

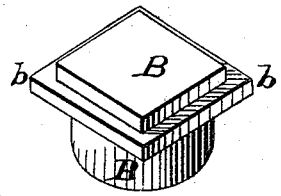

Fig. 4.

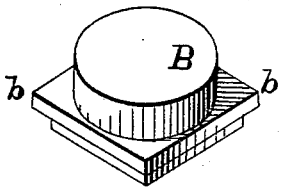

Fig. 2.

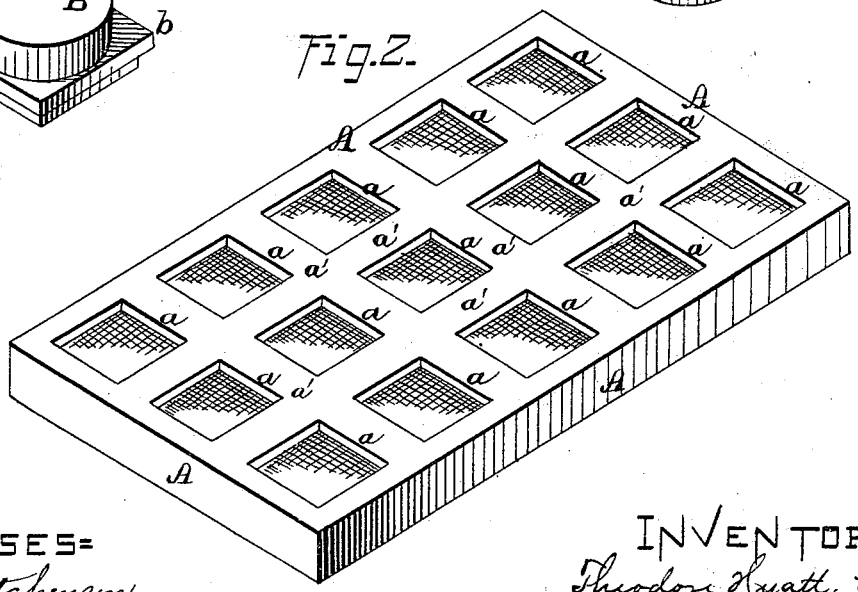

Fig. 3.

WITNESSES=

Jas. B. Hutchenson—

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Prindle and Co. his Attys.

UNITED STATES PATENT OFFICE.

THEODORE HYATT, OF NEW YORK, N. Y.

IMPROVEMENT IN ILLUMINATING-TILES.

Specification forming part of Letters Patent No. **165,835**, dated July 20, 1875; application filed July 3, 1875.

To all whom it may concern:

Be it known that I, THEODORE HYATT, of New York city, in the county of New York and in the State of New York, have invented certain new and useful Improvements in Illuminating Roofing and Pavement Tiles; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings making a part of this specification, in which—

Figure 1 is a perspective view of the upper side of my improved tile. Fig. 2 is a like view of the lower side of the same. Fig. 3 is a cross-section of said tile, and Figs. 4 and 5 are perspective views of one of the lenses detached from its frame.

Letters of like name and kind refer to like parts in each of the figures.

The design of my invention is to improve the quality of an illuminating-tile for use as a walking-surface; and it consists, principally, in an illuminating-tile provided with cross-bars that have the forms of inverted arches, and in which the abutments of said arches are flush with the upper surface of said tile, substantially as and for the purpose hereinafter specified. It consists, further, in in an illuminating-tile having a portion of its upper surface composed of emery combined with adhesive material, substantially as and for the purpose hereinafter shown.

In the annexed drawing, A represents a rectangular tile, which has its otherwise open center divided into a series of square light openings, *a*, by means of intersecting cross-bars *a'*, that have a ⊥ shape in cross-section. The horizontal portions of the cross-bars *a'* and *a'* form ledges for and upon which the lenses B and B are supported, each of which lenses is cylindrical from its upper end downward, nearly to its lower end, at which latter point is provided a horizontally and outwardly projecting flange, *b*, that corresponds to and loosely fills the light opening *a*.

If desired, said lenses may be extended downward between said cross-bars *a'* and *a'*, to the bottom of the tile, in which event such extended portion would be reduced in horizontal dimensions, as seen in Fig. 5.

The vertical portion or web of each cross-bar forms a series of inverted arches, the abutments *a''* of which extend upward to and are flush with the upper surface of the tile.

The metallic portion of the tile being thus constructed, the lenses are placed in position, and the spaces between the upper portions of the same and the cross-bars are filled with a composition formed of emery and suitable adhesive material, preferably Portland cement, which composition is applied in a plastic state, and allowed to harden before the tile is used.

It is intended that the upper surfaces of the lenses, the side and cross bars, and the filling-composition shall have the same plane, so that the feet of a person standing upon the tile shall be supported equally by each material named, in which event all liability to slipping is avoided, and a firm foothold afforded by the gritty surface of the filling.

The abutments *a''* offer sufficient resistance to wear to prevent either the glass or the filling composition from becoming abraded with undue rapidity. Said composition furnishes a firm foothold, that could not be obtained by the use of metal or glass, while the union of said materials enables an illuminating-tile to be constructed that is as easy to the foot and as safe from slipping as is an ordinary wooden floor.

The inverted arch form of the cross-bars gives to them unusual strength, and enables the tile to be constructed with less weight of metal than would otherwise be necessary, while, from the peculiar form of the lens, no liability exists to their displacement, and an increase is effected in their light-transmitting qualities.

As a walking-surface, the emery composition possesses important advantages, as it not only furnishes a firm, sure foothold, but is so hard as to have great durability without being liable to become glazed by use.

Having thus fully set forth the nature and merits of my invention, what I claim as new is—

1. An illuminating-tile, A, provided with cross-bars *a'* and *a'*, that have the form of inverted arches, the abutments *a''* of which arches are flush with the upper surface of

said tile, substantially as and for the purpose specified.

2. An illuminating-tile having a portion of its upper surface composed of emery combined with adhesive material, substantially as and for the purpose shown.

In testimony that I claim the foregoing I have hereunto set my hand this 30th day of June, 1875.

THEODORE HYATT.

Witnesses:
E. P. STARR,
WM. ACKERMANN.