

No. 687,106.

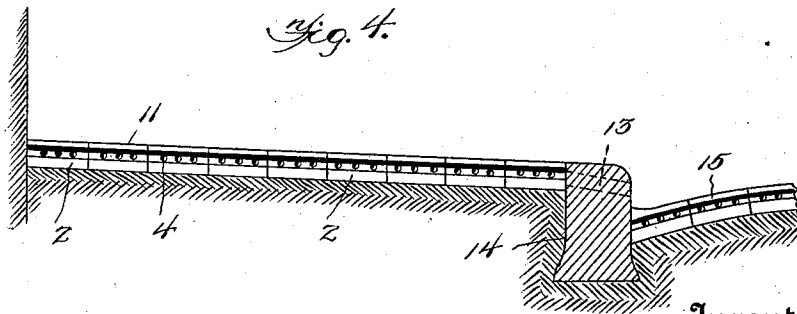
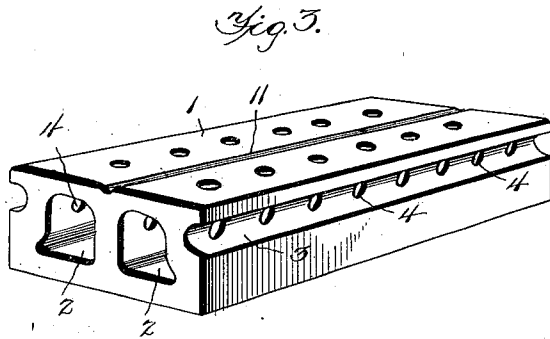
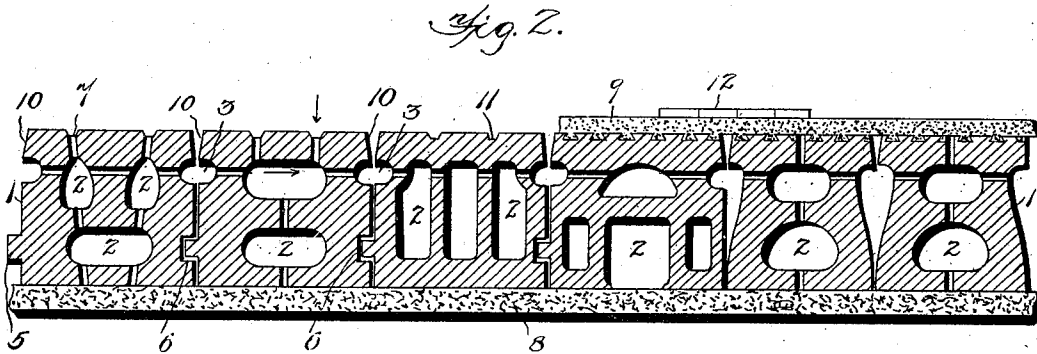
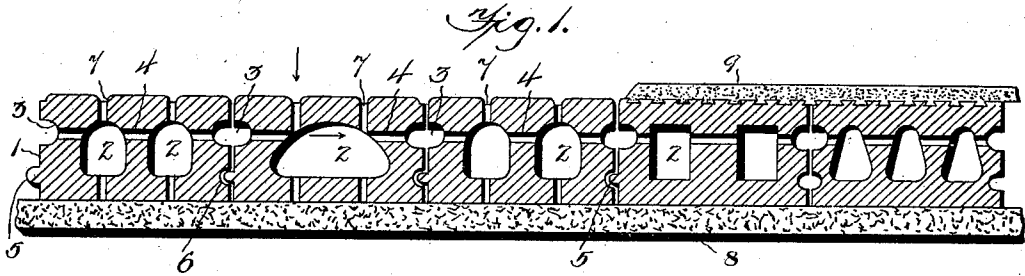
Patented Nov. 19, 1901.

D. W. ANDERSON.
PAVING BLOCK.

(Application filed Mar. 29, 1901.)

(No Model.)

2 Sheets—Sheet 1.



Witnesses
D. L. Nostrand
E. S. Sawyer

Inventor
D. W. Anderson,
by *Geo. L. Widmore,*
his Attorney

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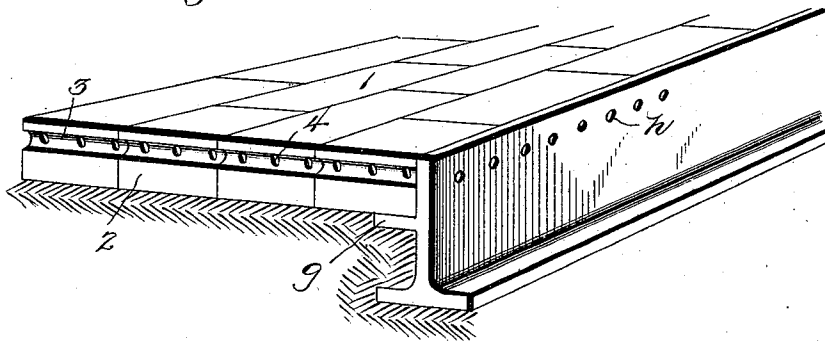
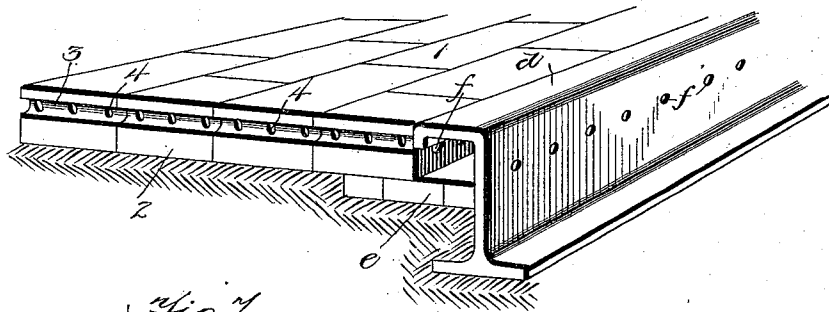
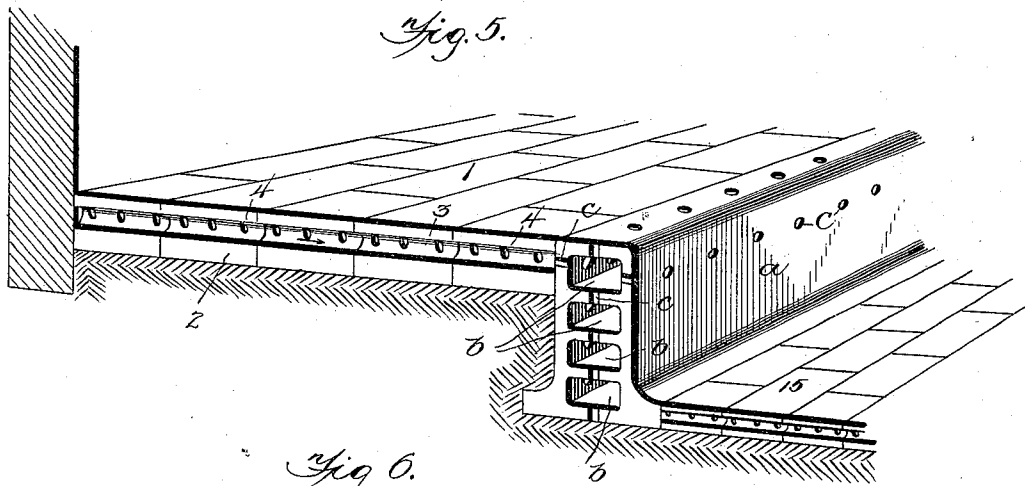
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2 Sheets—Sheet 2.



Witnesses:
G. L. Mockett
E. P. Bremer

Inventor:
D. W. Anderson,
by Jas. L. Skidmore,
his Attorney.

UNITED STATES PATENT OFFICE.

DAVID WILEY ANDERSON, OF RICHMOND, VIRGINIA.

PAVING-BLOCK.

SPECIFICATION forming part of Letters Patent No. 687,106, dated November 19, 1901.

Application filed March 29, 1901. Serial No. 53,484. (No model.)

To all whom it may concern:

Be it known that I, DAVID WILEY ANDERSON, a citizen of the United States, residing at Richmond, in the county of Henrico and State of Virginia, have invented certain new and useful Improvements in Paving-Blocks; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

My present invention relates to combined ventilated and drained brick-tile paving-blocks for sidewalks, streets, floors, and other purposes; and the objects of the same are to provide a paving-block or tile which will form a sidewalk, floor, or pavement, having provision for thorough drainage and ventilation in order that said pavement or sidewalk will dry out in a very short time after being flooded with rain or covered with snow, ice, or slush.

In sidewalks as usually constructed there is no provision made for ventilation or draining except at the surface, and in many instances the materials of which the sidewalk is composed are more or less absorbent. As a result of the use of such materials the walk soon becomes saturated with moisture and it takes a long time to dry out. Moreover, a thin film of ice will form on the surface and render it dangerous for pedestrians. In my construction I contemplate a system of ventilation immediately under the surface of the sidewalk in all directions and also provide for draining the water through openings from the surface into the hollow draining-passages, said draining-passages being inclined toward the curb or gutter to carry the water off rapidly and to permit air to circulate freely in every direction to dry out all parts of the structure readily after a storm. I also provide a surface groove or channel which extends from the inner edge of the sidewalk or pavement to the gutter to run off the water, which would otherwise remain until dried up by external heat or evaporation.

In carrying out my invention I utilize a brick tile of hollow or skeleton form, which may be provided with tongue-and-groove con-

nections at the points between the tiles, and the surface of the tiles may be glazed to form a surface finish or may be roughened for the application of concrete or an artificial-stone surface.

In the accompanying drawings, Figure 1 is a transverse section taken through a portion of a sidewalk, floor, or pavement. Fig. 2 is a similar view showing a slightly-modified form of tiling which I may use. Fig. 3 is a perspective view of a brick tile made in accordance with my invention. Fig. 4 is a transverse section through a sidewalk, curbstone, and gutter and showing the manner in which such structures are thoroughly ventilated and drained. Fig. 5 is an isometrical view of a sidewalk, showing a modified form of curbstone made of terra-cotta and provided with ventilating-openings and draining-conduits. Fig. 6 is a similar view showing one form of metal curb which I may use. Fig. 7 is also an isometrical view of a portion of a sidewalk, showing another form of metal curb which I may utilize in connection with my brick tile.

In said drawings the numeral 1 designates my ventilating and draining tile or paving-block provided with hollow or tubular conduits or passages 2, extending longitudinally from end to end of the brick tile or paving-block. As shown in the drawings, there may be one or more of such passages 2 through the brick tile or block, and these openings may be arranged side by side or superposed one above the other, as found the most convenient or desirable, and may be of any suitable contour. Extending longitudinally on both sides of the tile or block are grooves 3, provided with a series of ventilating-openings or air-ducts 4, said openings communicating with the draining or ventilating passages or conduits 2, as illustrated. Tongues and grooves 5 6 may be formed on the sides of the brick tiles for giving stability to the structure when laid. The vertical drain-openings 7 extend from the surface down into the conduits 2 and may pass down entirely through the brick to permit the water to pass through to the sand, earth, concrete, or any suitable bed or support 8. A concrete or other facing 9 may be applied to the face of the tile, if desired, in which event the faces of the tiles may be roughened or

grooved to anchor the material. In case the face of the tile is to be used as the surface of the sidewalk, floor, or pavement such face may be glazed or vitrified, as will be understood, and when so formed the edges of the tiles may be beveled or recessed, as at 10. Longitudinal grooves or channels 11 are also formed on the surface of the tile to permit the surface-water to drain off. As shown in Fig. 2, a small tile 12 may be laid upon the concrete or cement 9.

Referring to Fig. 4, it will be seen that the draining and ventilating conduits or passages 2 communicate with an opening 13, formed in the curb or coping 14, thus permitting the water to flow into the gutter 15, the surface grooves or channels 11 also conveying water to said gutter.

As illustrated in Fig. 5, it will be seen that the terra-cotta curb *a* is provided with a series of conduits or ventilating-passages *b* and air ducts or openings *c* communicating therewith. It is very desirable that a curb of this kind be used with my brick tile, as shown in the preceding figures of the drawings.

Fig. 6 shows a metal curb provided with the curved portion *d*, which forms a hollow passage along the curb and has a common brick base *e* and ventilating-openings *f*.

In Fig. 7 a plain metal beam having a supporting-flange *g* and openings *h* is utilized.

From the foregoing it will be obvious that a sidewalk, floor, or pavement constructed as set forth will be thoroughly ventilated and drained and will dry out in a very short time after a rain or other storm. Among the many advantages of such a structure may be mentioned the fact that repairs may be readily made, as broken or damaged tiles or blocks may be replaced by new ones at a slight cost and without skilled labor.

I do not wish to be limited to the exact details shown, as they may be varied to some extent without departing from the spirit and scope of my invention.

Having thus described my invention, what I desire to secure by Letters Patent is—

1. A brick or tile for paving or other purposes, having a longitudinal passage extending from end to end thereof, a groove extending along each side of said brick or tile, and vertical and horizontal openings communicating with said passage through said grooves.

2. A brick or tile for paving or similar purposes, having longitudinal passages extend-

ing from end to end thereof, a groove along each side, vertical openings, horizontal openings communicating with said passages through the grooves, and a glazed or vitrified surface having a draining-channel therein. 60

3. A brick or tile for paving and other purposes, comprising a hollow body provided with air-passages communicating with the hollow portions, a groove along each side, and a tongue and groove for connecting the brick. 65

4. A sidewalk, pavement or floor, having conduits or drain-passages under the surface, air-ducts communicating with said conduits, drain-channels; and draining-holes extending from said channels into the conduits. 70

5. A sidewalk composed of brick tiles having drain-passages, side grooves, a glazed surface and openings extending through said grooves and through the surface and communicating with the drain-passages. 75

6. A sidewalk, floor or pavement, composed of brick tiles having conduits therein, side grooves, drain-channels in the surface thereof, and openings leading from said channels into said conduits. 80

7. A sidewalk composed of brick tiles having conduits therein, side grooves, air-ducts in said grooves, air and drainage openings communicating with said conduits, and means connecting the conduits with a gutter. 85

8. A brick-tile block for paving and other purposes, comprising a hollow body portion, grooves at the sides thereof, transverse openings leading into said hollow body portion, and a drainage-channel in the upper surface thereof extending its entire length. 90

9. A sidewalk composed of brick tile having drain-passages and ventilating-openings therein, in combination with a hollow curbing, the hollow portion thereof communicating with the drain-passages in the brick tile, substantially as described. 95

10. A sidewalk composed of brick tile having longitudinal draining-conduits and ventilating-openings communicating therewith, in combination with a metal curbing having a conduit therein, which conduit communicates with the conduits of the tile, substantially as described. 100

In testimony whereof I have affixed my signature in presence of two witnesses. 105

DAVID WILEY ANDERSON.

Witnesses:

C. G. PETTIT, Jr.,

C. E. ANDERSON.