

No. 726,587.

PATENTED APR. 28, 1903.

P. H. JACKSON.  
ILLUMINATING TILE.  
APPLICATION FILED OCT. 3, 1901.

NO MODEL.

Fig. 1.

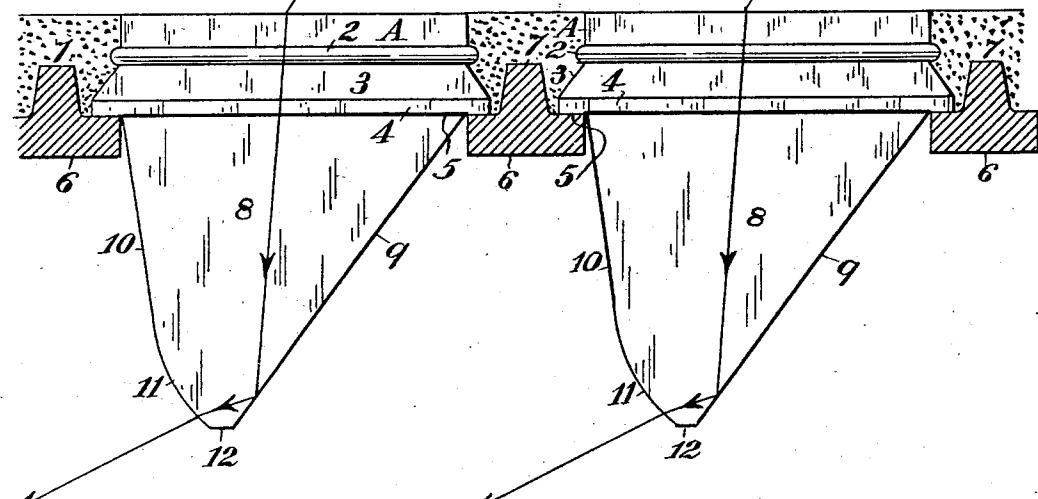
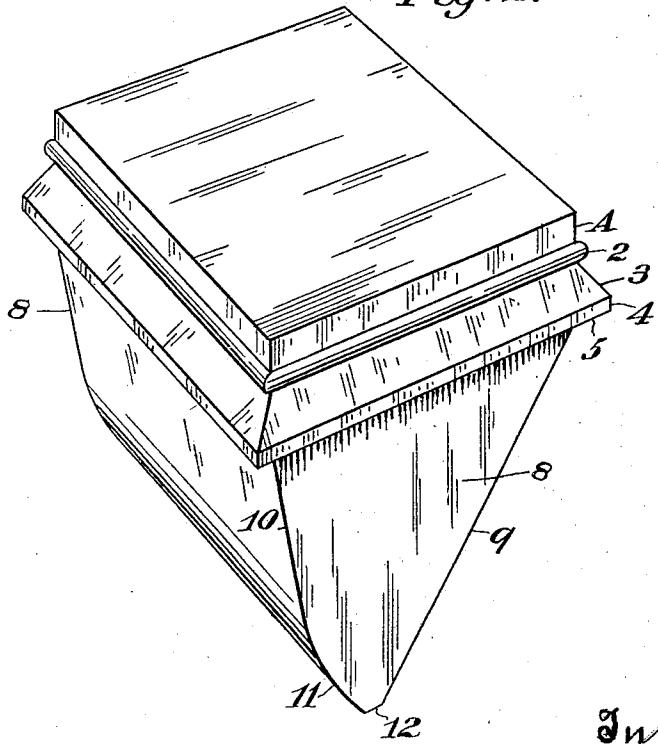


Fig. 2.



Witnesses,

*E. A. Brandau*  
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*Attest,*

# UNITED STATES PATENT OFFICE.

PETER H. JACKSON, OF SAN FRANCISCO, CALIFORNIA.

## ILLUMINATING-TILE.

SPECIFICATION forming part of Letters Patent No. 726,587, dated April 28, 1903.

Application filed October 8, 1901. Serial No. 77,425. (No model.)

*To all whom it may concern:*

Be it known that I, PETER H. JACKSON, a citizen of the United States, residing in the city and county of San Francisco, State of California, have invented an Improvement in Illuminating-Tiles; and I hereby declare the following to be a full, clear, and exact description of the same.

My invention relates to illuminating floor, roof, or sidewalk tiles, such as are made of glass or transparent material; and it consists in the novel form of such tiles, whereby the light is reflected, refracted, and diffused within the space beneath the surface in which the tile is set.

My invention is particularly designed to so direct the light passing through each tile that it will be thrown beyond the lower edge of the tile preceding it in the direction in which the light is to be transmitted.

Referring to the accompanying drawings, Figure 1 is a section through the supporting tile-frame, the illuminating-tiles being in elevation. Fig. 2 is a perspective view of an illuminating-tile.

As herein shown, the upper portion of the tile is square, having equal vertical sides extending downwardly a short distance from the surface, as shown at A. At the base of these short sides is formed a bead 2, and from the lower surface of this bead the sides diverge, as shown at 3. From the outer edges of these divergent sides the short vertical sides 4 extend downwardly, and the upper portion thus formed projects beyond the lower portion, so as to form a continuous shoulder, as at 5, which is adapted to rest upon the plate 6 in which the tiles are set. This plate is made of cast or other metal having square holes made through it, with surrounding ledges upon which the shoulders 5 of the lenses or tiles are adapted to rest, and upwardly-projecting intermediate ribs, as at 7. Any suitable cement for setting and holding the tiles firmly in place is then poured into the spaces between that part of the tile which projects above the shoulders 5 and around the ribs 7, thus forming a complete lock and water-tight joint between this portion of the tiles and the supporting-plate. Below the ledges or shoulders 5 two sides of the tiles are vertical and parallel with each

other, as shown at 8. The rear or reflecting side 9, extending between the sides 8, stands at such an angle that the light passing through the horizontal top surface and striking this inclined surface will be reflected forwardly through the front of that portion of the tile which extends below the supporting-plate 6 in which the tile is set. The upper part of this front is made approximately vertical, as shown at 10, for a portion of its depth, and from the lower edge of this vertical portion the remainder is made convex, as shown at 11, terminating at one side of the flat horizontal lower part 12, with which portion the lower edge of the inclined surface 9 also forms a junction. The vertical portion 10 of the front of the tile meets the curved portion 11 in a plane tangent to said curved portion, and the curved portion thus falls away rearwardly from the vertical portion, as shown. The light passing through the tile will sufficiently illuminate the portion directly beneath the surface in which the tiles are set, and the portion of light which is reflected from the surface 9, striking the straight and curved portions 10 and 11, will be refracted, so that the light of each tile will be directed beneath the lower edge of the tile next preceding. It will thus be seen that one of the deflecting-surfaces of the tile consists of a convergent plane and the other surface of a plane converging slightly toward the first-named surface, said second-named surface at the lower portion merging into a segmental surface and the surfaces through which the light passes being upon opposite sides of a vertical plane passing through the apex and the lower part of the exit segmental surface.

By reason of a tile of the foregoing description I am enabled to throw the light from a sidewalk in front of the building which is supplied with these tiles to the rear-most part of a basement from one hundred and thirty to one hundred and forty feet in depth.

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

As an article of manufacture, an improved illuminating-tile formed as an integral unitary structure and consisting of a transparent

block having an approximately square top and short vertical sides, said sides diverging to form below a surrounding shoulder, and said tile having the portion below the shoulder formed with deflecting surfaces one of said surfaces consisting of a convergent plane, and the other surface of a plane converging slightly toward the first-named surface, said second-named surface, at the lower portion, merging into a segmental surface

and the surfaces through which the light passes being upon opposite sides of a vertical plane passing through the apex and the lower part of the exit segmental surface.

In witness whereof I have hereunto set my hand.

PETER H. JACKSON.

Witnesses:

S. H. NOURSE,  
JESSIE C. BRODIE.