No. 820,200. PATENTED MAY 8, 1906.

J. JACOBS.

ILLUMINATING TILE.

APPLICATION FILED JULY 20, 1905.

Fig. 1.

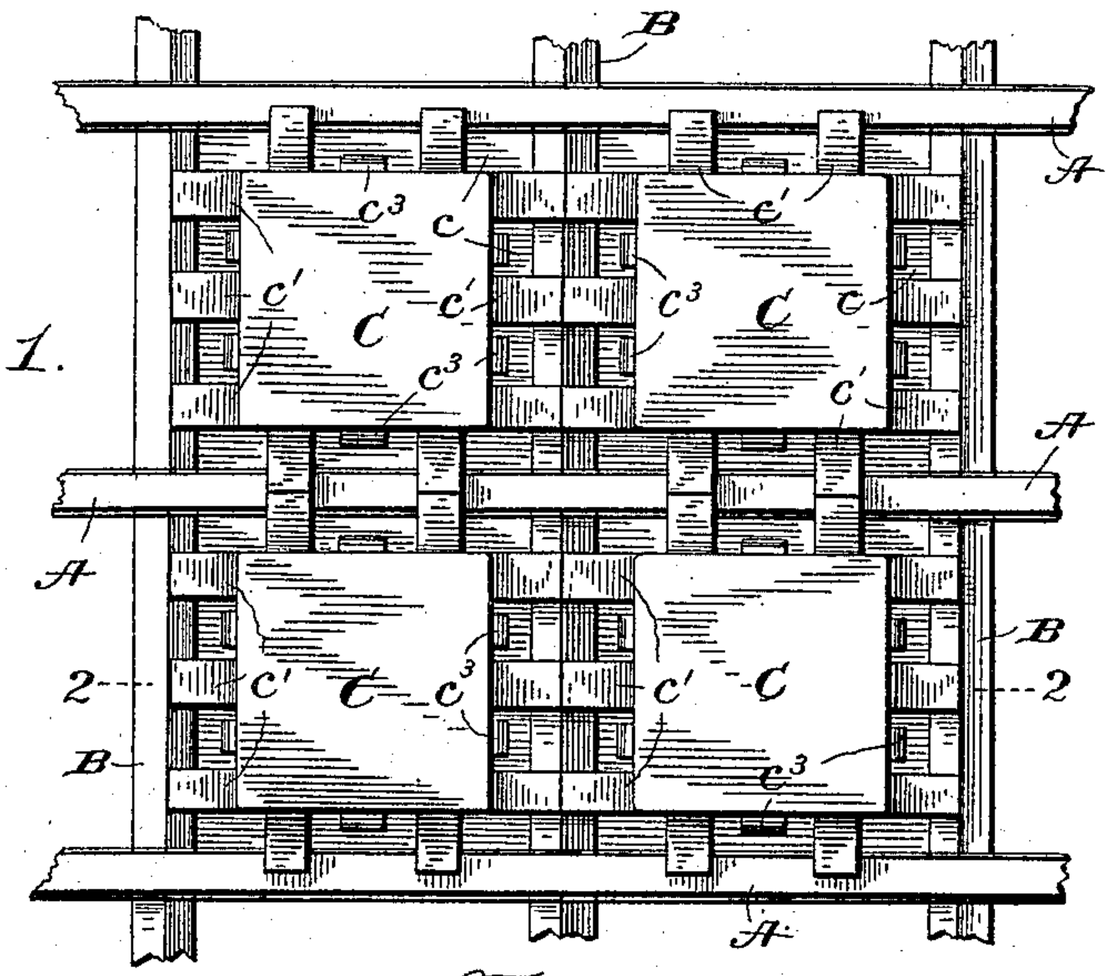


Fig. 2.

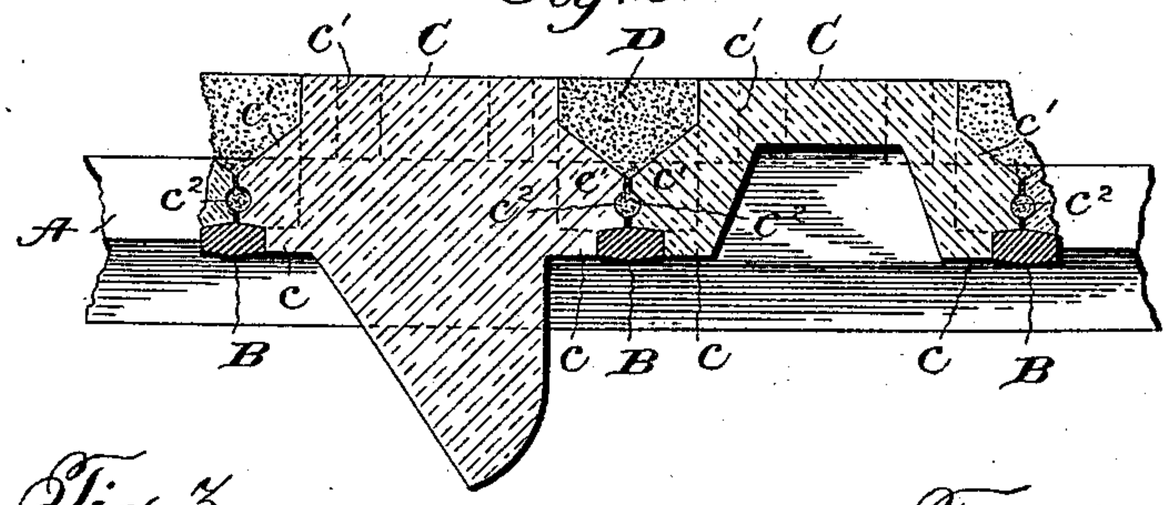


Fig. 3.

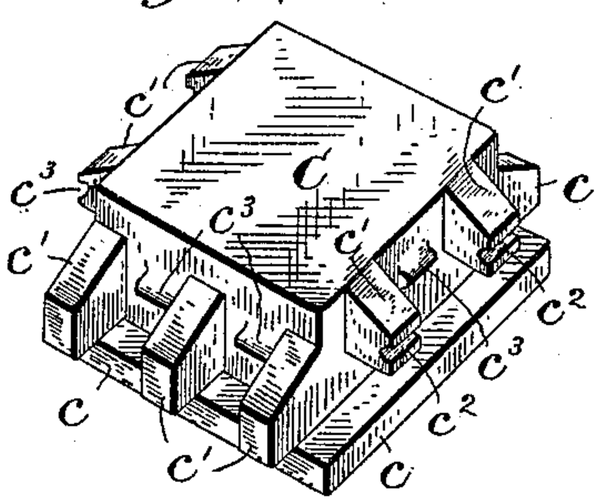
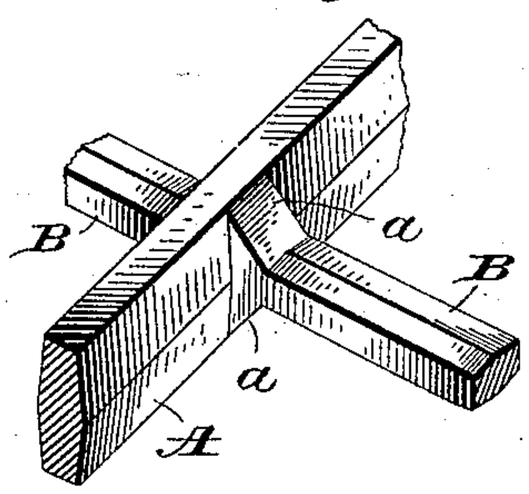


Fig. 4.



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UNITED STATES PATENT OFFICE.

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ILLUMINATING-TILE.

No. 820,200. Specification of Letters Patent. Patented May 8, 1906.

Application filed July 20, 1905. Serial No. 270,574.

To all whom it may concern:

Be it known that I, JACOB JACOBS, of Brooklyn, in the county of Kings, and in the State of New York, have invented a certain new and useful Improvement in Illuminating-Tiles; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, in which—

Figure 1 is a top plan view of a portion of an illuminating-tile embodying my invention with the lenses in position, but the concrete omitted. Fig. 2 is a vertical section on the line 2 2 of Fig. 1 of the complete tile. Fig. 3 is a detail perspective view of a lens or glass, and Fig. 4 is a detail perspective view of a portion of the frame.

The object of my invention is to provide an illuminating-tile which shall have the qualities of cheapness of manufacture, strength, and durability, and large lighting capacity; and to these ends my invention consists in the illuminating-tile constructed substantially as hereinafter specified and claimed.

In the carrying of my invention into practice I employ a frame that consists of intersecting bars A and B, which frame may be a built-up one; but I preferably cast it, and cast it in large pieces or lengths and then cut it into the desired sizes. As shown in the drawings, the frame thus formed of intersecting bars has square or rectangular lens-receiving openings, in each of which is shown a lens or glass C of similar shape, the lens having a base or flange *c* to closely fit its opening. The upper edges or surfaces of the bars A and B are in different horizontal planes and each lens is provided with shoulders in the form of lugs or projections *c'* on its different sides which rest upon the upper surfaces of the bars A and B, and the lens is thereby supported. The bottoms of the lugs *c'* which rest upon the tops of the bars A are of course in a higher plane than the bottoms of the lugs *c'* which rest upon the tops of the bars B. I of course do not limit myself to any particular number of these supporting-lugs on a side, as the number may be varied without departure from the scope of my invention. I employ a plurality of lugs, however, on each side, because thereby spaces are provided for the concrete or cement filling D. To give the lugs *c'* ample strength, so that they will not be broken off and will not fail to support the glass or lens, they are thickened vertically and their upper surfaces are inclined, as shown, to remove the presence of abrupt or angular surfaces apt when struck to result in the breakage of the lugs. In the outer side of some of the lugs notches or cavities c^2 are provided for the entrance of concrete or cement to interlock with the lugs, and thereby assist in holding the lenses or glasses in place, and for the same reason the sides of the lens between the lugs may be provided with ribs or projections c^3.

The bottoms of the lenses may be chambered of provided with cavities to lighten them, which can be done without endangering the strength of the lenses, because of the employment of the supporting-lugs *c'*, or the lenses at their bottoms may be given any desired formation. If desired, prisms may be employed on the bottoms of the lenses or glasses.

When the frame is formed of cast-iron, for the purpose of giving strength lugs or bosses *a* may be provided at the points of intersection or union of the bars composing the frame, and the slighter bars B may be provided with ribs on their upper sides. Thus a strong or light frame is produced.

It will be seen that as the entire opening formed by the bars A and B for each lens or glass is filled by the latter the bottom of the tile is wholly of glass, except where the frame-bars appear, so that the tiling possesses abundant light-transmitting capacity, and the under side of the structure being free from any considerable corners or angles in which dust or dirt can accumulate the under side of the tiling can be easily kept in a clean condition. The filling of concrete or cement, it will be understood, extends to a level flush with a level of the tops of the lenses.

My construction is such that rough castings can be employed for the frame, and a rough glass finished only on the tops and bottoms can be used. These things are important upon the question of manufacture.

In some constructions it may be desirable to support the frame by metal beams; but it is not necessary to illustrate these.

Having thus described my invention, what I claim is—

1. In an illuminating-tile, the combination of a frame composed of intersecting bars that form tile-receiving openings with straight sides, a tile in each opening having a body with straight sides conforming to the shape of the openings, and having on each side sep-

arated lugs that rest upon the bars, no portion of the body of the tile resting upon the bars, but only said lugs, said lugs being thickened vertically and having inclined upper sides, and a filling of concrete or cement between the tiles and above the lugs and entering the spaces between the lugs.

2. In an illuminating-tile, the combination of a cast frame composed of intersecting bars forming tile-receiving openings with straight sides, integral strengthening-lugs being provided where the bars intersect, tiles in such openings conforming in shape thereto, and having on each side separated lugs that rest upon the bars, no portion of the body of the tile resting upon the bars, but only said lugs, said lugs being thickened vertically and having inclined upper surfaces, and a concrete or cement filling between the tiles and above the lugs and filling the space between the lugs thereof.

In testimony that I claim the foregoing I have hereunto set my hand.

JACOB JACOBS.

Witnesses:
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