No. 753,078. PATENTED FEB. 23, 1904.

J. JACOBS.

ILLUMINATING TILE.

APPLICATION FILED JUNE 23, 1903.

NO MODEL.

Fig. 1.

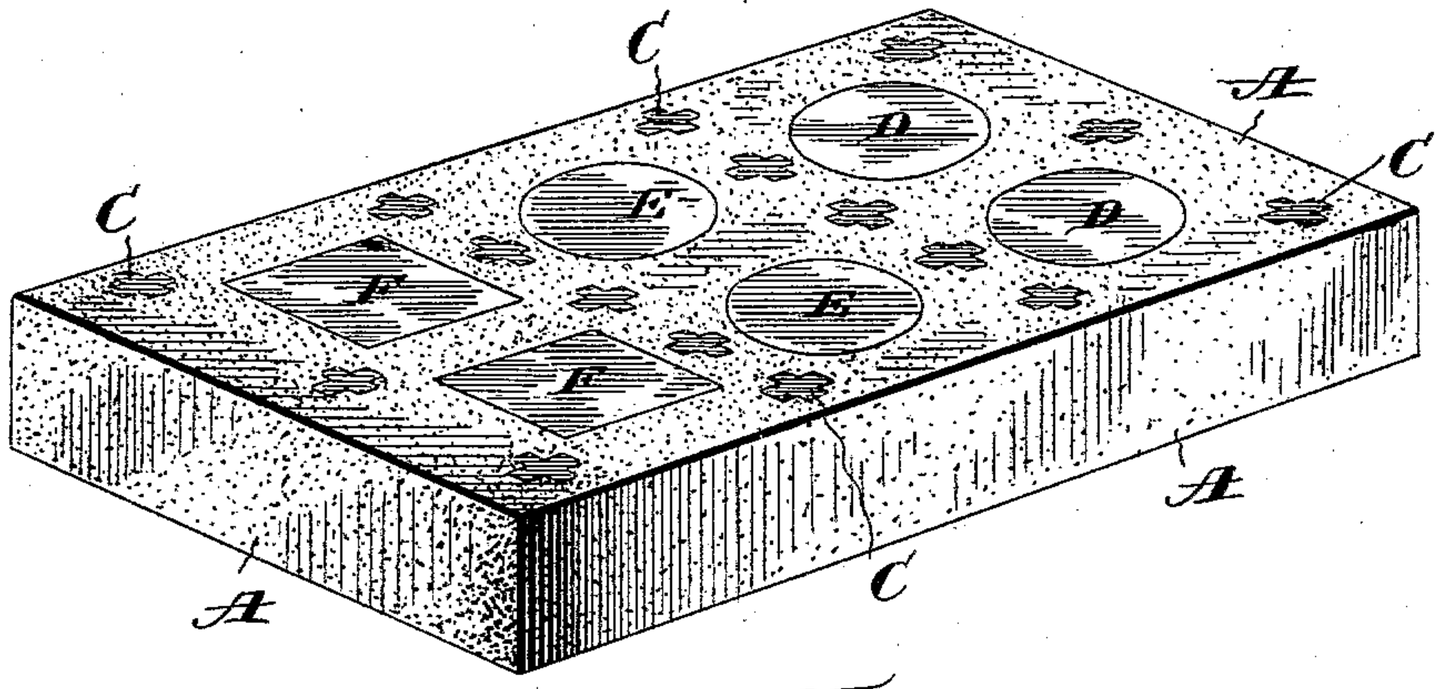


Fig. 2.

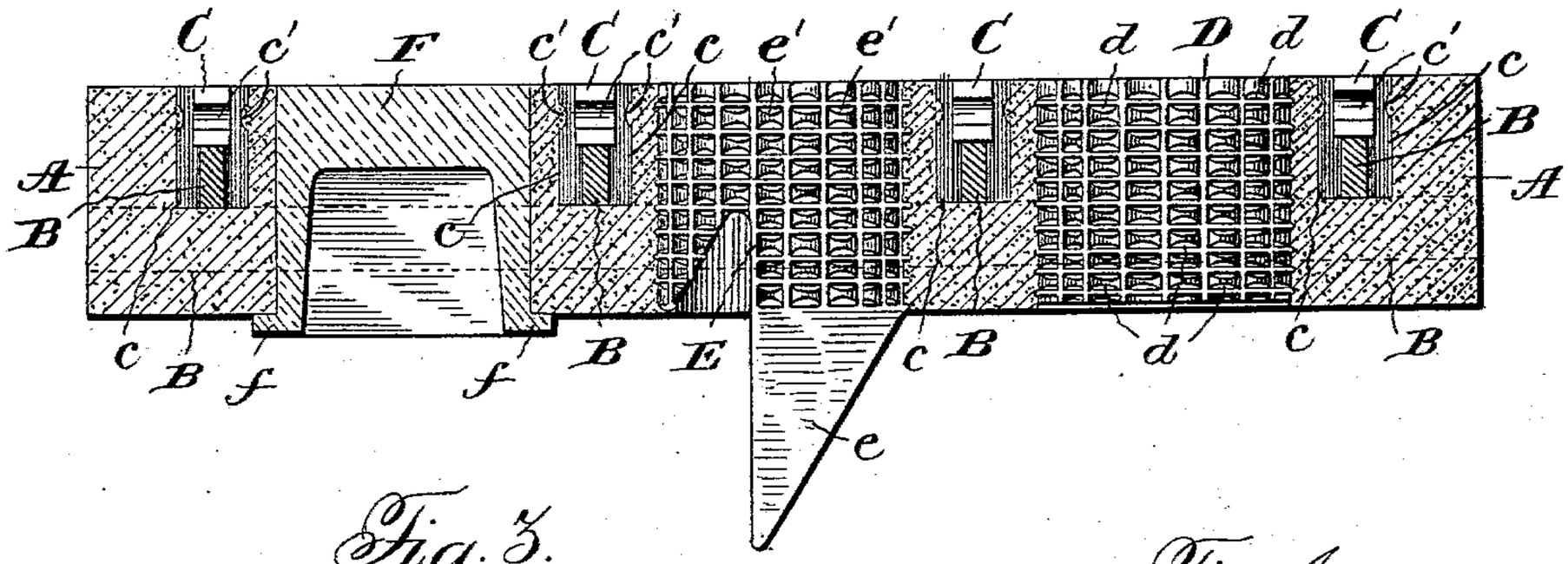
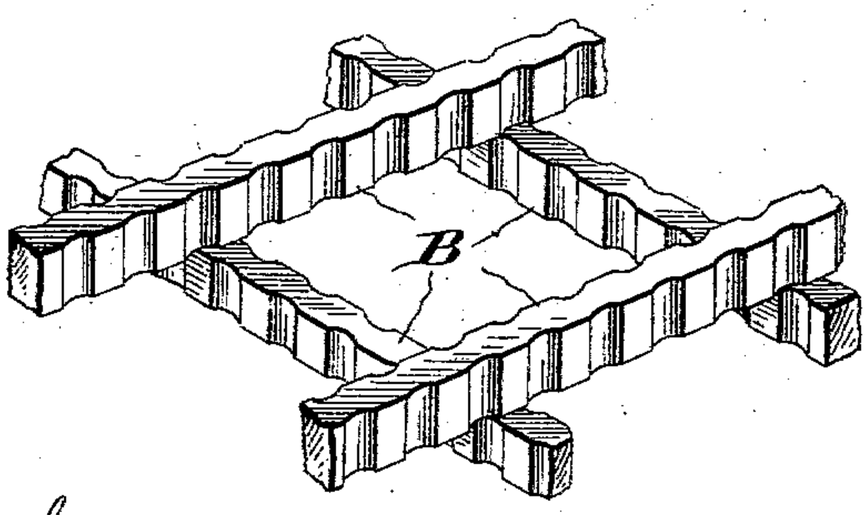
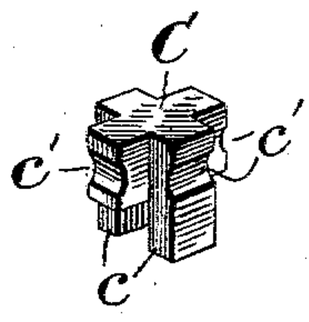


Fig. 3.

Fig. 4.





Witnesses:

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No. 753,078. Patented February 23, 1904.

UNITED STATES PATENT OFFICE.

JACOB JACOBS, OF BROOKLYN, NEW YORK.

ILLUMINATING-TILE.

SPECIFICATION forming part of Letters Patent No. 753,078, dated February 23, 1904.

Application filed June 23, 1903. Serial No. 162,786. (No model.)

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 perspective view of an illuminating-tile embodying my invention, a portion of the concrete or cement body being broken away to better show the construction. Fig. 2 is a vertical section of the same. Fig. 3 is a detail view in perspective of a portion of the frame, and Fig. 4 is a detail view in perspective of one of the non-slipping blocks.

My invention relates especially to tiles of the kind in which the glasses or lenses are embedded in a slab or body of concrete which is strengthened by rods or bars; and the object of my invention is to provide such a tile whose reinforcing or strengthening bars will be light, strong, and with which the concrete will firmly interlock, so as to be securely restrained in place.

Another object of the invention is to provide blocks to coöperate with the bars of such a tile, whose tops will form non-slipping surfaces.

With the objects stated in view my invention consists in the tile having the features of construction substantially as hereinafter specified and claimed.

In the embodiment of my invention illustrated in the drawings a slab or body of concrete A is made, in which are embedded in parallel rows glasses or lenses, the latter of course extending entirely through the body or slab of concrete. Extending between the rows of lenses and embedded in the concrete are bars B, such bars extending in directions that intersect each other, so that each glass or lens is inclosed by what, in effect, is a square frame. Each of the bars B has a fluted form, there being in the side of each a series of vertical grooves or recesses, and, as preferably made, the bars are of rolled metal, the flutes being formed by rolling, so that the making of the flutes not only does not weaken the bars, but by condensing the metal thereof strengthens them. If desired, however, the bars can be cast. By reason of the presence of the numerous cavities or recesses in the sides of the bars the concrete is securely anchored to them, so that it cannot be displaced. Preferably one series of bars is placed upon the other, so that the bars of one series lie higher than those of the others; but if desired they can all be in the same plane, for which purpose the usual expedient of halving them where they intersect is employed.

At suitable intervals apart blocks C, of lead or other suitable material, but preferably lead or some analogous material, are embedded in the concrete with their tops flush with the upper surfaces of the latter to form non-slipping walking surfaces. These blocks rest upon the bars, and each is provided with downwardly-extending lugs *c* to embrace the bar upon which it is placed and overlap it on opposite sides. Being of lead or some analogous material, the lugs can be slightly pinched inward, so that they will snugly fit the bar and the block be thereby held in place. This last-named feature is useful in making the tile, for in filling in the concrete around the bars, blocks, and lenses the displacement of the blocks is prevented and it is insured that they will be in the desired position. Preferably each block is provided in its sides with cavities or notches *c'* for the concrete to enter and interlock. It will be seen that as the blocks C are constructed so that they overlap the bars on but two and opposite sides the blocks can be placed anywhere along the bars that it may be desired, whether at the points where the bars cross each other or at some intermediate point.

Lenses or glasses of any desired form may be employed. For illustration I show several styles of glasses. The glass designated D is of round or cylindrical form, having in its circumference numerous cavities *d* to receive the concrete and add to the reflecting power of the lens. The glass designated E is substantially similar to the glass D, except that on its under side it has a prism-form projection or extension *e* and is provided with a cavity or recess that extends up into its under

side and has one surface inclined, while the glass designated F has a cubical form, with a cavity or recess opening into it from its bottom and provided at its bottom with a horizontal ledge or flange *f*.

It will be understood that changes in details of construction can be resorted to which will involve no departure from the scope of my invention. Thus the flutes in the bars, instead of being merely concave depressions, may be of other form—such, for example, as V-shaped or rectangular.

Having thus described my invention, what I claim is—

A tile, comprising a body of concrete, glasses having cavities in their sides for the entrance of concrete, bars extending through and being embedded in the concrete and constituting means for tying the same and fixing the position of the glasses, said bars having vertical flutes for the entrance of concrete, and blocks whose ends form non-slipping surfaces that have downwardly-projecting lugs adapted to grip the sides of the bars, said blocks having in their sides horizontal concrete-receiving recesses or surfaces.

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

JACOB JACOBS.

Witnesses:

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