

(No Model.)

T. SHARTS.
ILLUMINATING TILE.

No. 378,558.

Patented Feb. 28, 1888.

Fig. 1.

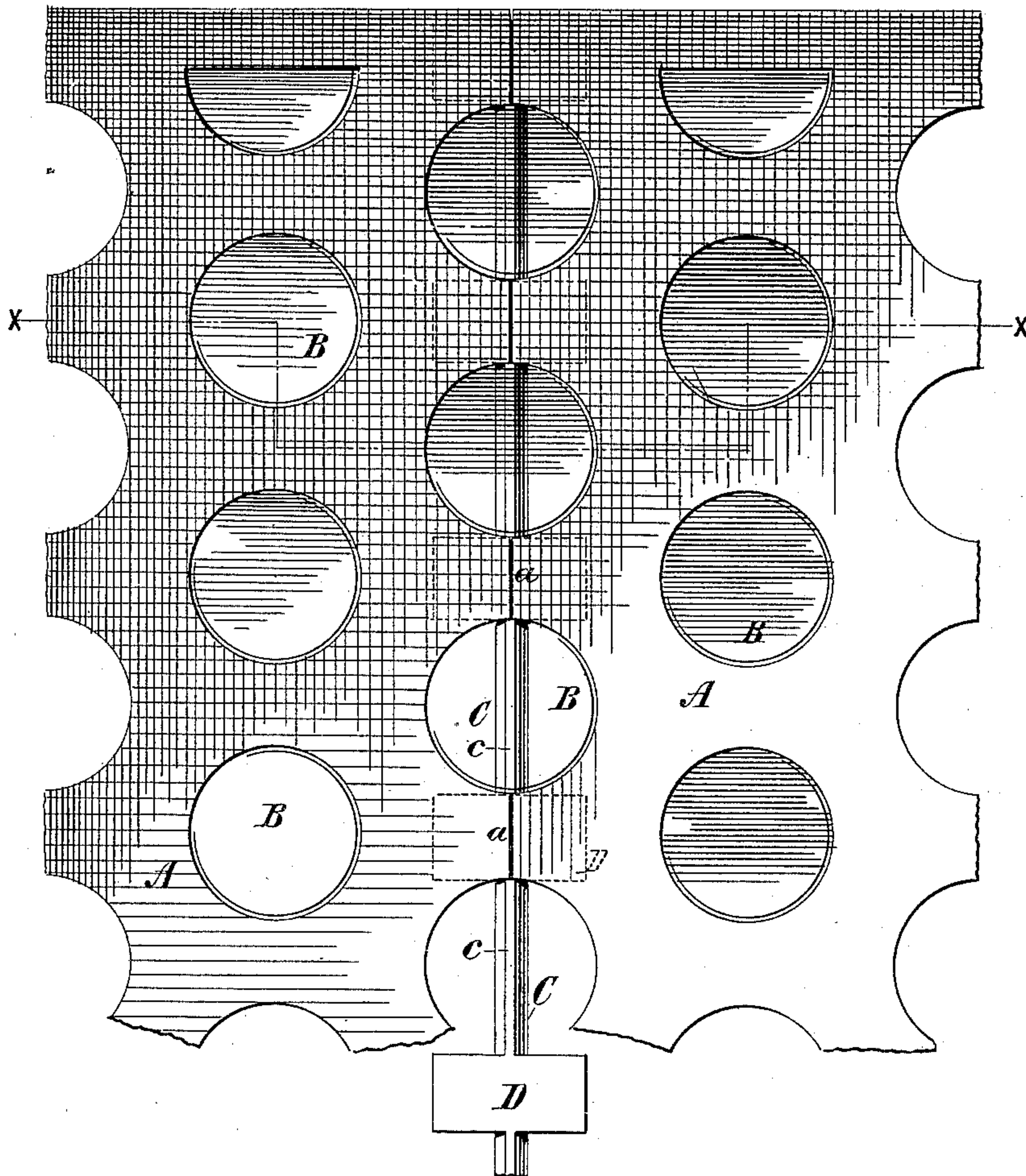


Fig. 2.

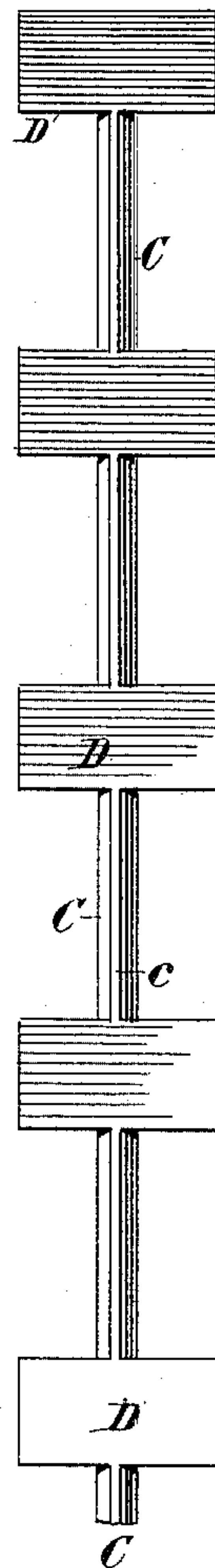
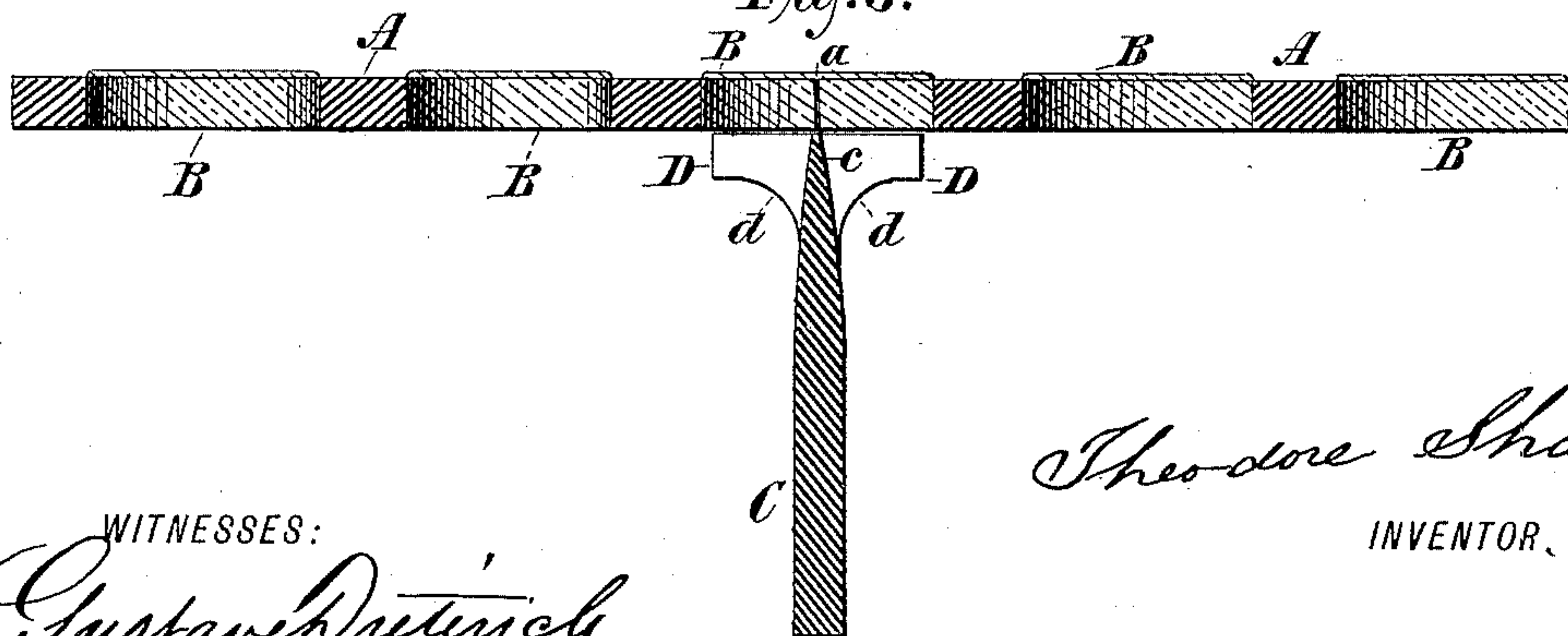


Fig. 3.



WITNESSES:

Gustave Dretsch
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UNITED STATES PATENT OFFICE.

THEODORE SHARTS, OF NEW YORK, N. Y.

ILLUMINATING-TILE.

SPECIFICATION forming part of Letters Patent No. 378,558, dated February 28, 1888.

Application filed July 27, 1887. Serial No. 245,400. (No model.)

To all whom it may concern:

Be it known that I, THEODORE SHARTS, a citizen of the United States, residing in the city, county, and State of New York, have invented a new and useful Improvement in Illuminating-Tiles for Sidewalks, Areas, Roofs, Stoops, &c., of which the following is a specification.

My invention relates to the cross-bars or bearing-beams upon which rest the tiles or gratings at their junctions with each other, the object being to utilize the blank space of the tiles or gratings which usually overlies the top surface of the bearing-beams upon which they rest at their junctions with each other, which, as at present constructed, prevents the transmission of any light into the apartment underneath wherever such blank spaces occur.

In the drawings that serve to illustrate my invention, Figure 1 is a top view of two sections of illuminating tiles or gratings resting at their junctions upon my improved bearing-bar. Fig. 2 is a top view of my improved bearing-bar. Fig. 3 is a longitudinal vertical section of tiles and bearing-bar, taken on the line *x x* of Fig. 1.

Similar letters indicate corresponding parts.

The letter A designates the illuminating tiles or gratings; B, the openings or light-holes through the gratings, upon or into which are set glass lenses for the transmission of light into the apartments underneath; C, my improved bearing-beam; D, the top bearing-surface of my improved bearing-beam; *a*, the line of junction of the tiles or gratings; *c*, the beveled edge of the upper portion of the bearing-beam immediately under the light-holes, forming almost a feather edge at the top line of the bearing-beam; *d*, the strengthening-brackets under the top bearings of the bearing-beams.

Heretofore illuminating tiles or gratings have been constructed with the edges or sides perfectly straight, the surface of the tile near the edge forming a blank space where it rests on the bearing-beam underneath. The top of bearing-beam, usually two to three inches wide, forms a solid bearing for the tiles above at their junction with each other. Any light-openings along this blank space would be ineffective as to the transmission of light into the apartments below, owing to the obstruction of the bearing-beam.

Some manufacturers have made half-openings along the edge of the tiles, which, when placed together, form whole openings where they rest upon the bearing-beams, and have inserted in or on these openings glass lenses solely for the purpose of making a uniform appearance on the top surface of the tiles. These lenses so inserted are merely "dead-eyes," and serve only the purpose above mentioned. To utilize this blank space and allow the insertion of glass lenses along the juncture of the tiles, so that the light can penetrate into the apartments below, I construct a bearing-beam which has its top part cut away and beveled on each side immediately under the light-openings of the tiles. The top sides of the bearing-beam under the light-openings, being beveled to almost a feather edge, present but a slight obstruction, scarcely perceptible, to the transmission of light. The top surfaces of the bearing-beam not immediately under the light-openings retain their original shape. These solid spaces, actually forming the bearings for the tiles above, are strengthened by brackets cast under their upper surfaces, or in any other suitable manner. It will be readily understood that by utilizing the blank space at the junction of the tiles by the formation of light-openings in the tiles and the insertion of glass lenses it will add greatly to the volume of light passing to the apartments below. This desideratum is effectually accomplished by the use of my improved bearing-beam.

Cases frequently occur where it is requisite to use extra bearing-beams at intermediate points under the tiles. My improved bearing-beam, offering little or no obstruction to the light, can be placed wherever it is found necessary.

My improved bearing-beam or cross-bar is equally applicable for any kind of illuminating-tiles, vault-lights, floor-lights, roof-lights, &c., and for either "concrete" or "knob" tiles.

I do not claim, broadly, the construction of tiles or gratings having half light-openings along their edges, which form whole light-openings when in junction with each other.

The principal points of my invention are the bearing-beam C, with its beveled edges *c* under the light-openings B, and its top bearing-surfaces, D, with its strengthening-brackets *d*.

My cross-bar or bearing-beam can be made wholly of cast-iron, or it may be made by using a straight bar of wrought-iron, with the top bearing-surfaces of malleable iron or other
5 suitable metal fastened to it at proper intervals along its upper edge, (see letters D and *d*, Fig. 3,) in which case the beveled edges may be dispensed with, if desired.

What I claim as new, and desire to secure
10 by Letters Patent, is—

1. The combination, with illuminating-tiles having half light-openings along their meeting edges, of the supporting-bars provided at regular intervals on their upper sides with the
15 broad bearings, as at D, having re-enforcing

flanges *d d*, and the upper edges of the bar between these bearings, which are adapted to come beneath the light-openings, tapered so as to permit the entrance of light, substantially
as specified. 20

2. As an improved article of manufacture, a supporting-bar for the purpose described having its upper edge tapered to nearly a feather edge, and provided at regular intervals with broad bearings re-enforced by flanges beneath them, substantially as specified. 25

THEODORE SHARTS.

Witnesses:

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