

(No Model.)

T. SHARTS.
ILLUMINATING TILE.

No. 378,559.

Patented Feb. 28, 1888.

Fig. 1.

Fig. 2.

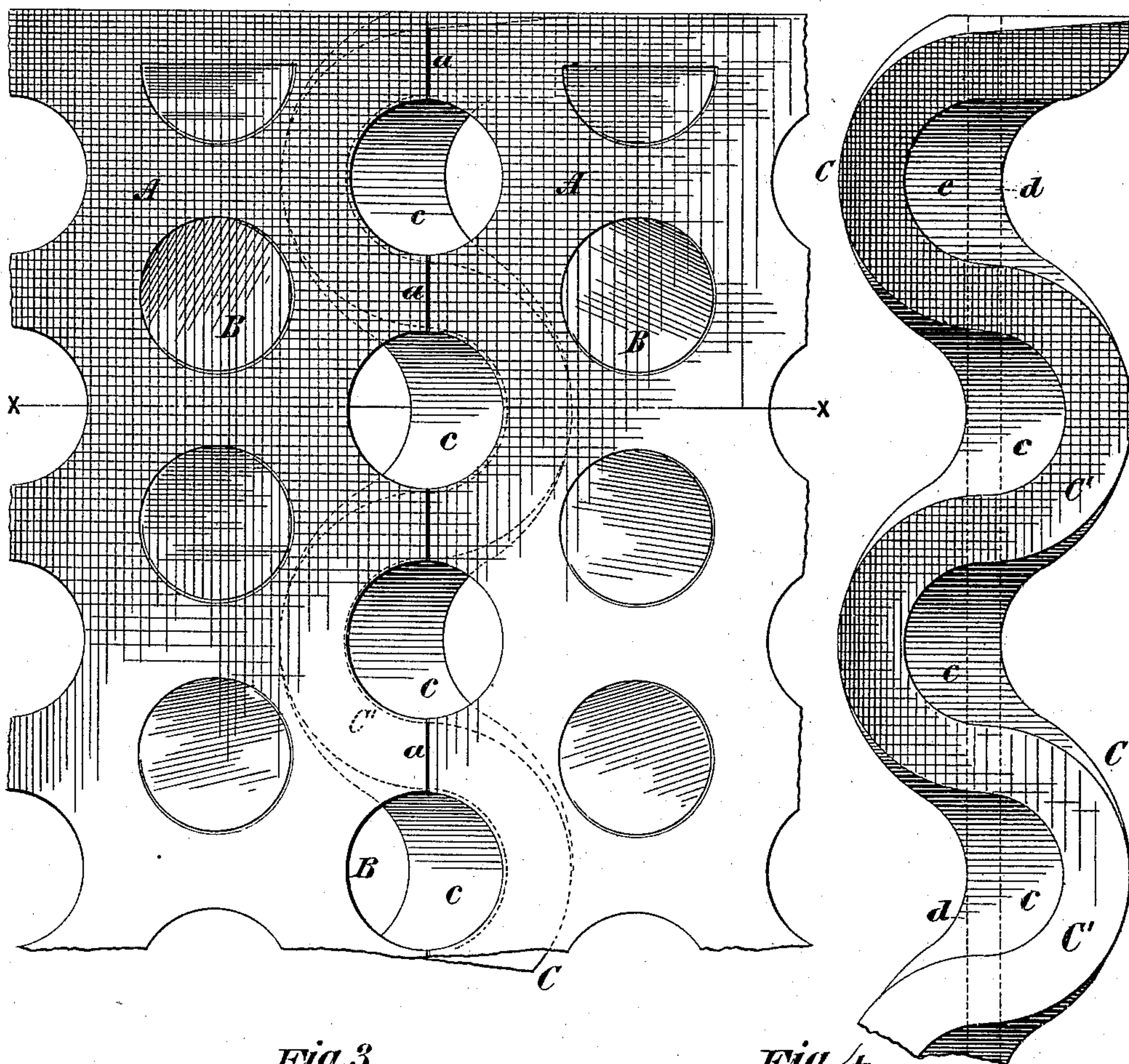
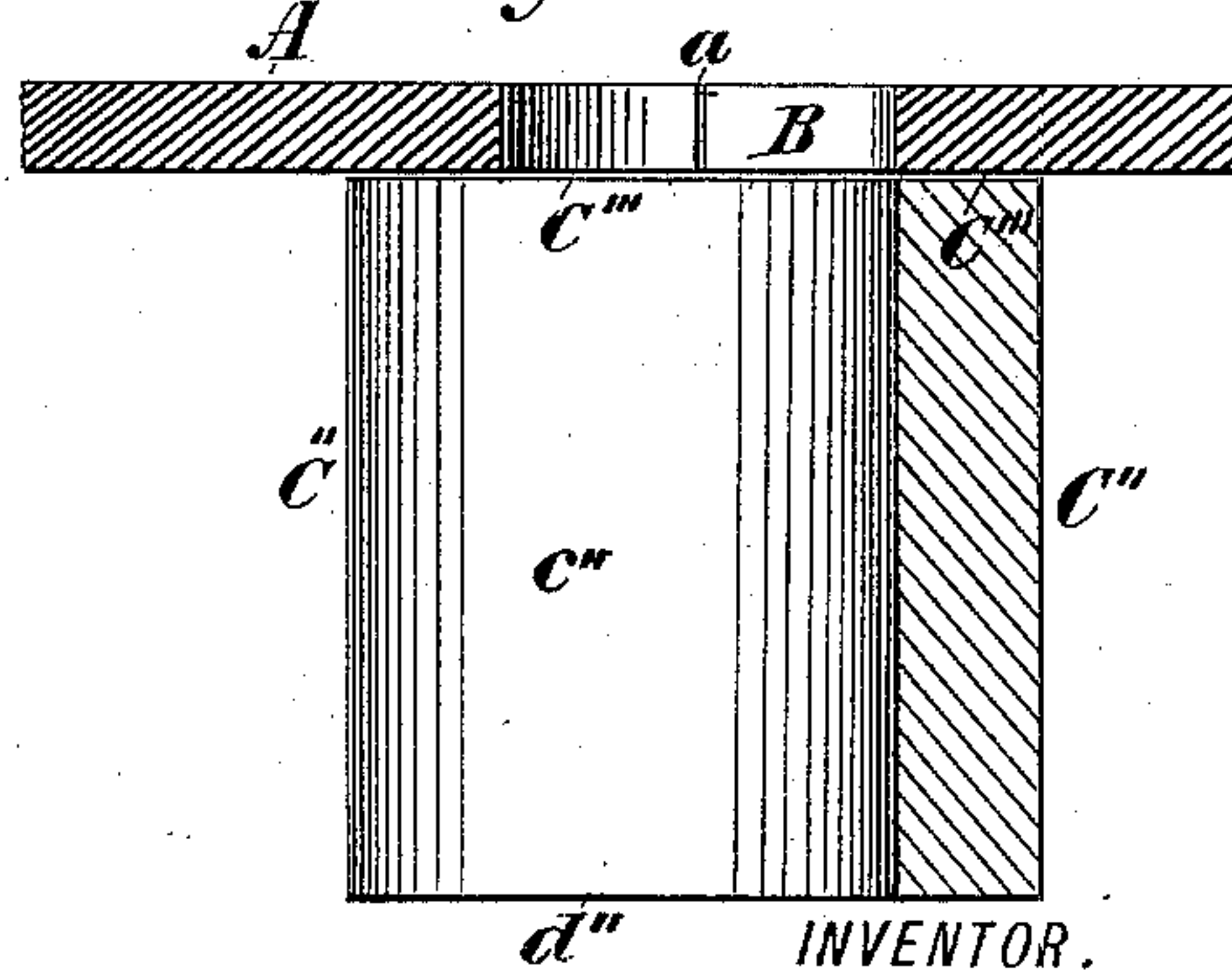
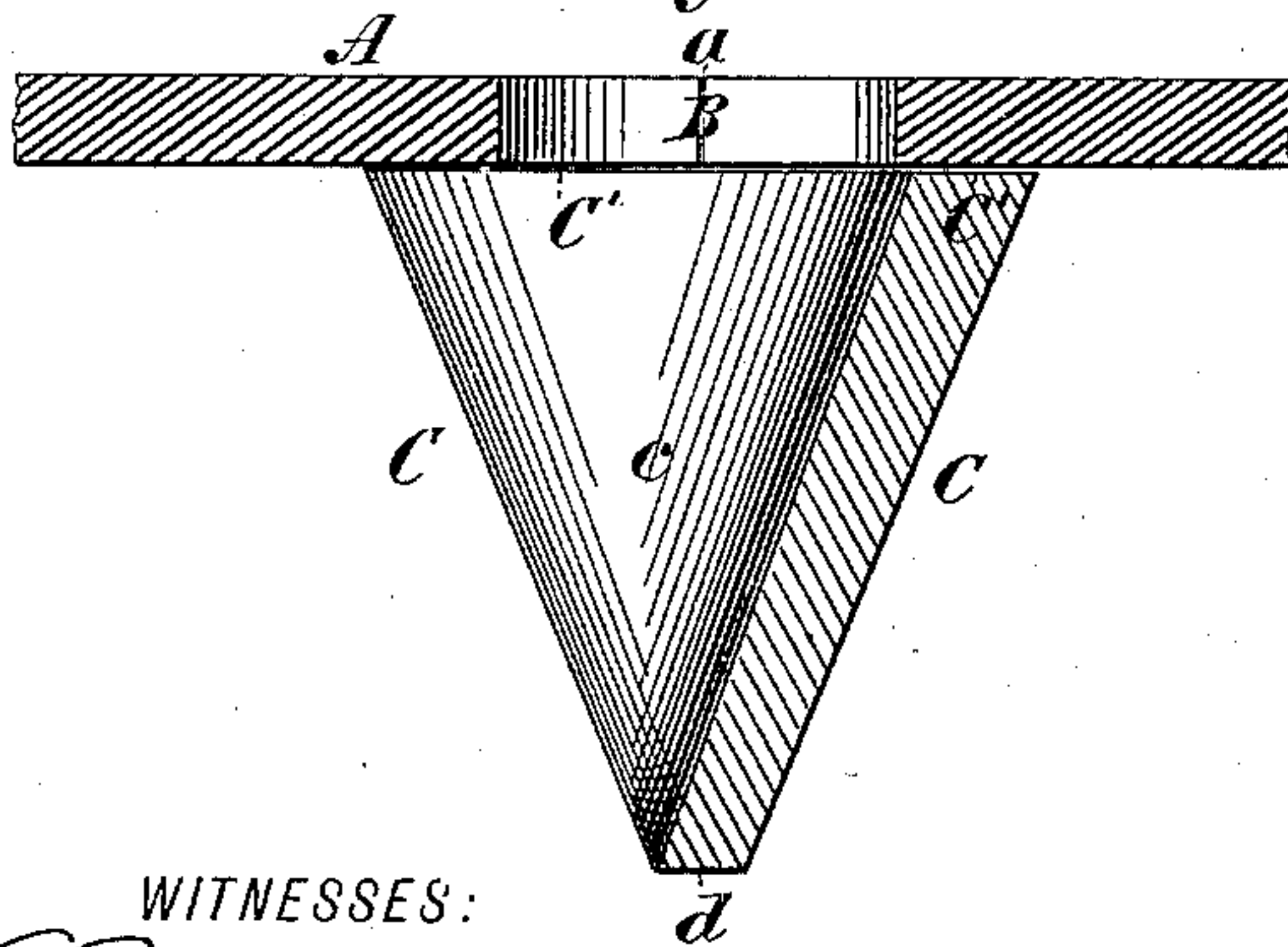


Fig. 3.

Fig. 4.



WITNESSES:

Gustav Dietrich
J. Goodwin.

INVENTOR.

Theodore Sharts
"

UNITED STATES PATENT OFFICE.

THEODORE SHARTS, OF NEW YORK, N. Y.

ILLUMINATING-TILE.

SPECIFICATION forming part of Letters Patent No. 378,559, dated February 28, 1888.

Application filed August 5, 1887. Serial No. 246,171. (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-beam, upon which they rest at their junction with each other, which as at present constructed prevents the transmission of any light into the apartments 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 junction upon my improved bearing-beam or supporting-bar. Fig. 2 is a top view of my improved bearing-beam. Fig. 3 is a longitudinal vertical section of tiles and bearing-beam taken on the line *x x* of Fig. 1. Fig. 4 is a longitudinal vertical section of tiles, and a modification of bearing-beam 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 light-openings through the tiles; C, my improved bearing-beam; C', the top surface of the bearing-beam; C'', the vertical corrugations of the modification; C''', the top surface of the modification; *c*, the oblique corrugations; *d*, the bottom of the oblique corrugated bearing-beam; *d''*, the bottom of the vertical corrugated modification; *a*, the line of junction of the tiles.

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 or 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 inefficient 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 upon 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 jointure of the tiles, so that the light can penetrate into the apartments below, I construct a bearing-beam of a corrugated form, the corrugations C' passing between the light-openings B of the tiles, forming a solid bearing for the same, not only at their immediate junction *a*, but also alternately around the half-openings. A bearing-beam or supporting-bar constructed in this manner offers but little or no obstruction to the passage of light through the tiles into the apartments beneath.

My bearing-beam can be made with the corrugations running either vertically or obliquely from the top surface downward. When made alternately oblique, the light will take an oblique course, but when made vertical the light will penetrate directly downward.

I do not confine myself to any particular shape of corrugations, as these should be made to conform to the light-openings in the tiles, which may be round, square, polygonal, or any desired shape.

When the bearing-beams are made with oblique corrugations, they should be constructed from cast-iron; but when made with vertical corrugations either cast or wrought iron can be used.

The tiles and bearing-beams may be bolted or fastened together in any suitable manner that may suggest itself to the manufacturer.

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 bear-

ing-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 applicable for any kind of illuminating-tiles, roof-lights, vault-lights, floor-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.

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

1. The combination of illuminating-tiles having half light-openings along their sides or

edges, with a cross-bar or bearing-beam made in a corrugated form, so as to pass beneath the uniting edges, and partly around the full light-openings thus formed, substantially as described, and for the purpose set forth.

2. A cross-bar or bearing-beam for illuminating-tiles, made in a corrugated form, the corrugations being oblique from the top downward, substantially as described, and for the purpose set forth.

THEODORE SHARTS.

Witnesses:

RO. L. CLUTTER,
GIOVANNI TRAPONI.