

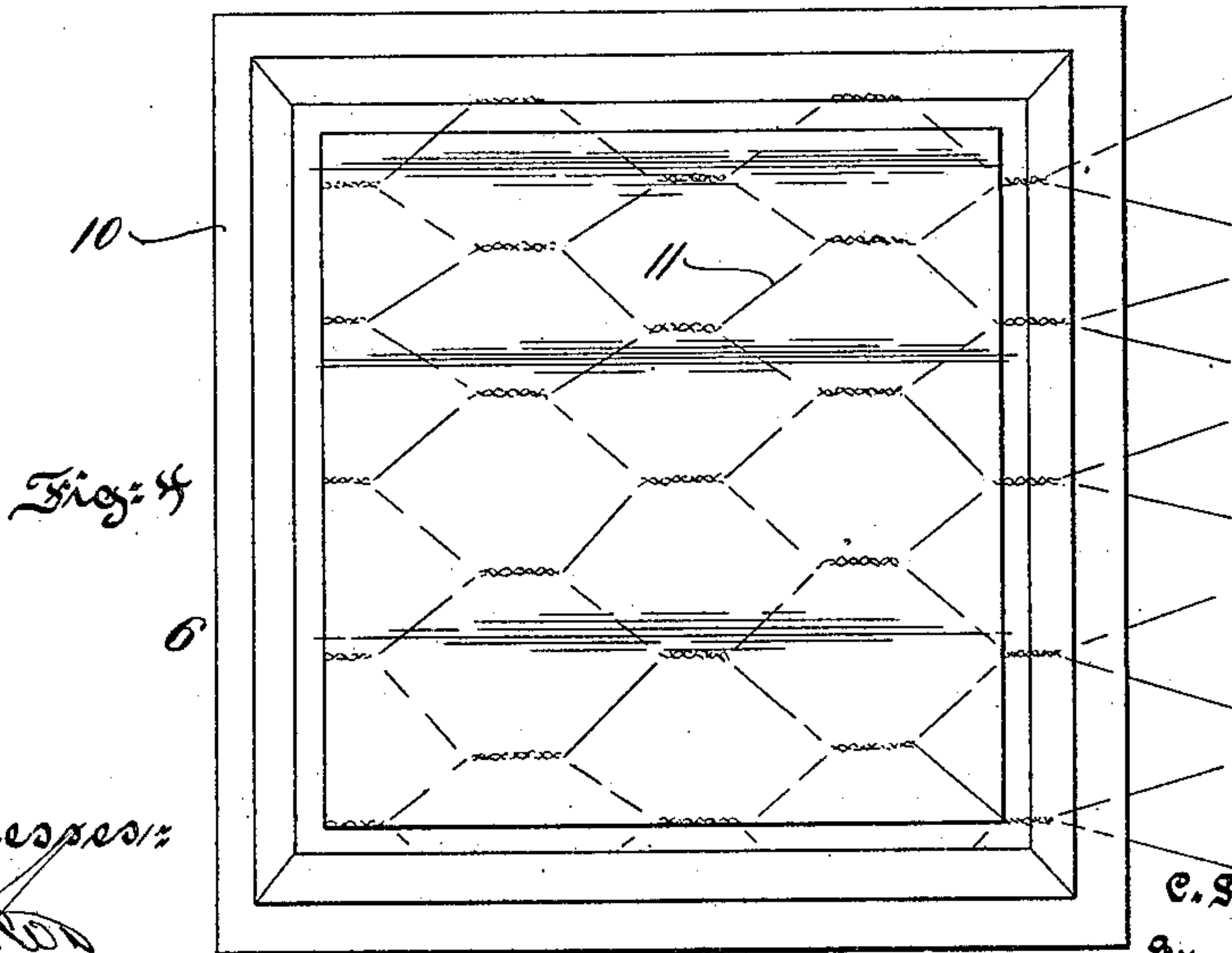
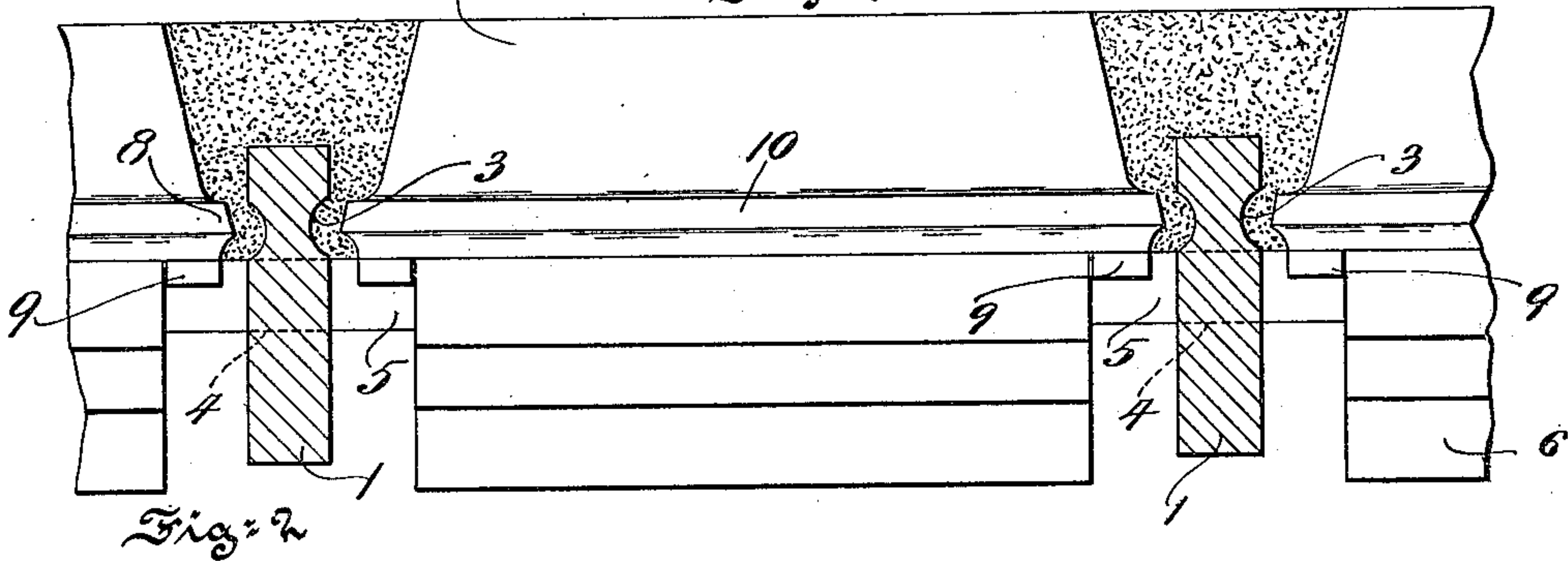
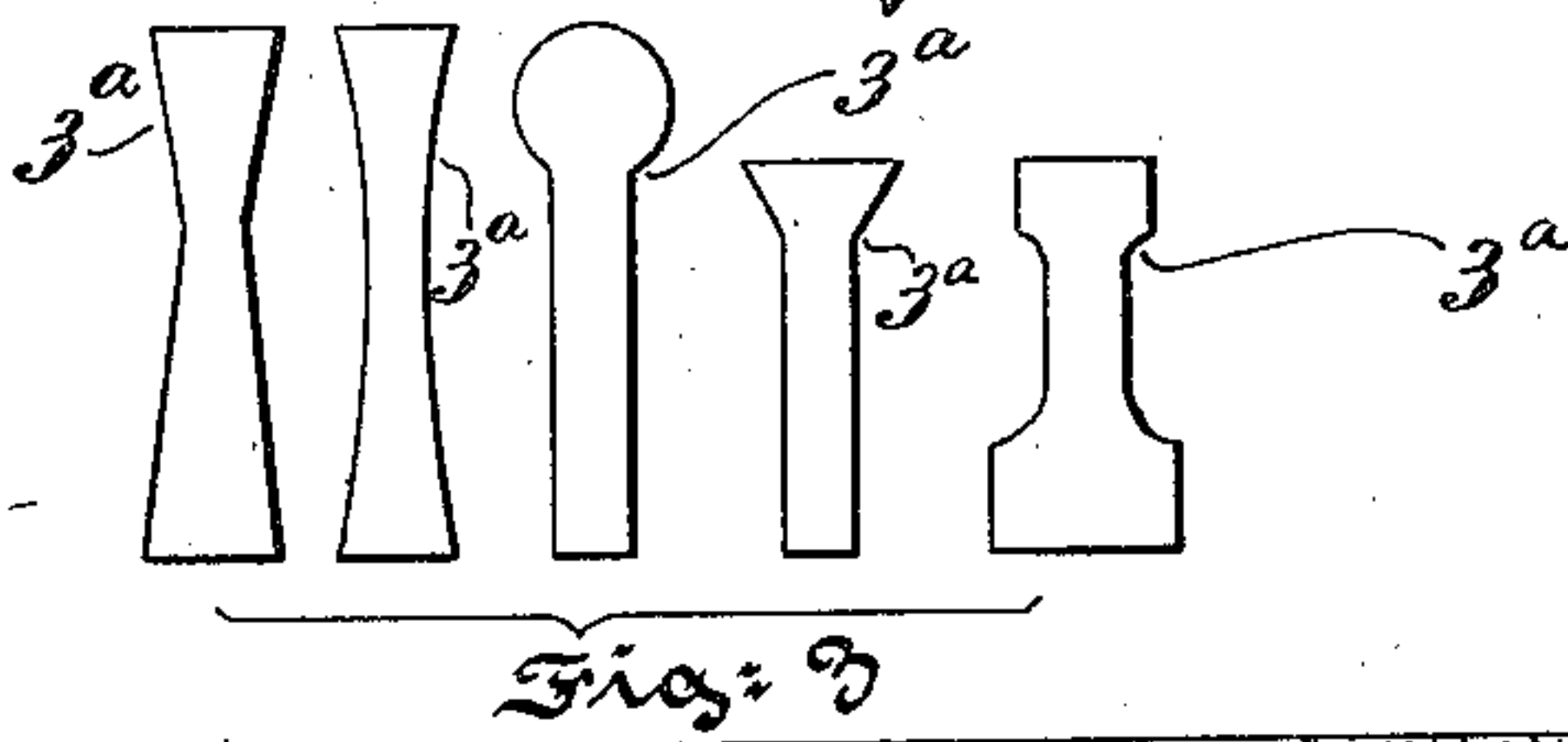
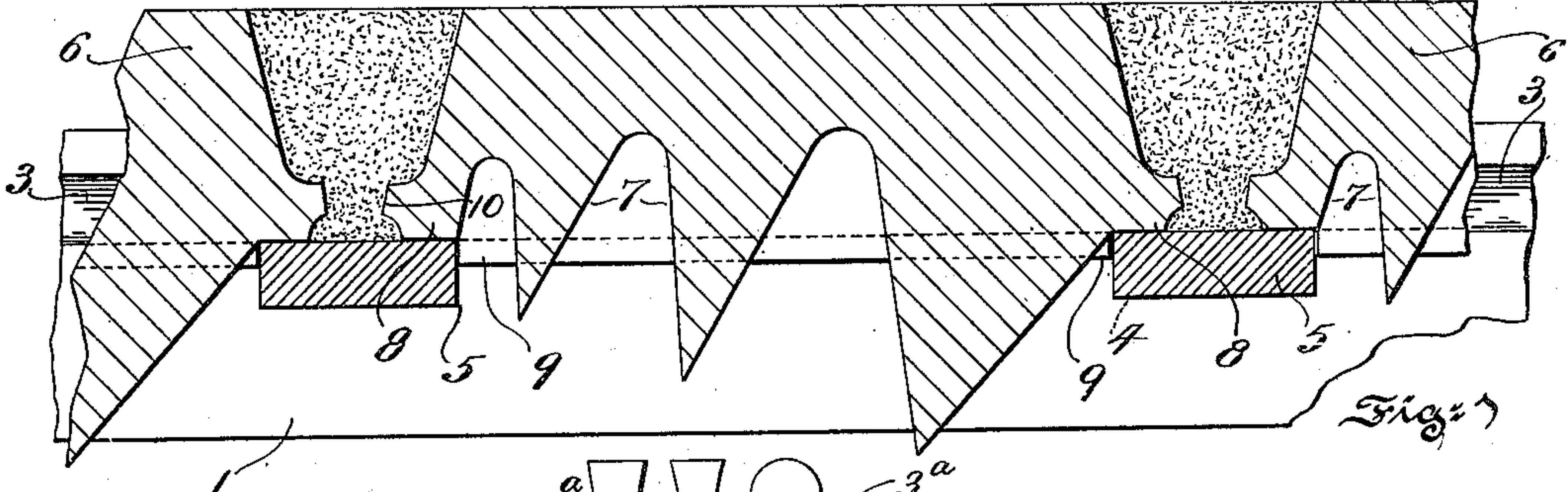
No. 887,119.

PATENTED MAY 12, 1908.

C. H. PASCHALL.

VAULT LIGHT.

APPLICATION FILED FEB. 21, 1905.



Witnesses:

*[Signature]*  
*A. M. Gilligan*

Inventor.

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# UNITED STATES PATENT OFFICE.

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## VAULT-LIGHT.

No. 887,119.

Specification of Letters Patent.

Patented May 12, 1908.

Application filed February 21, 1905. Serial No. 246,726.

*To all whom it may concern:*

Be it known that I, CHARLES H. PASCHALL, a citizen of the United States, and resident of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Vault-Lights, of which the following is a specification.

Objects of the present invention are to provide a simple, efficient and strong vault and floor and roof light construction which may be conveniently assembled and which is durable and tight.

To these and other ends hereinafter set forth the invention stated in general terms comprises the improvements to be presently described and finally claimed.

The nature, characteristic features and scope of the invention will be more fully understood from the following description taken in connection with the accompanying drawings forming part hereof and in which

Figures 1 and 2 are sectional views taken at right-angles to each other and illustrating a construction embodying features of the invention. Fig. 3, is a view illustrating a variety of cross-sections of base which may be used in modifications of the invention, and Fig. 4, is a top or plan view illustrating a modification.

In the drawings 1, are bars as of iron or steel, grooved as at 3 upon their opposite sides and near their top edges. In Fig. 3, the parts marked 3<sup>a</sup>, constitute the equivalent of the grooves 3. These bars 1, are at appropriate intervals and below the grooves 3 provided with generally rectangular openings 4, through which pass other bars 5 as of iron or steel which are arranged flatwise and which constitute supports for the illuminator tiles 6. Thus there is provided a web or frame having square openings therein for the reception of the illuminator or glass tiles and this frame or grille is properly supported at its edges. The tiles or illuminators 6, are shown as provided with prisms (which however may be omitted) and as of generally arched form so that they have side walls 7. These latter depend below the end walls 8, but do not extend outward laterally as far as the end walls, so that the ends 9 of the side walls constitute abutments which engage the bars 5 and thus prevent undue turning as well as shifting of the tiles while they are being set. 10, is a bead which may extend all around

the tile. When the tiles are set, the grooves in the bars 1, receive cement which also engages the tile or bead 10 thereon and thus the tiles are held downward against upward displacement. By inserting a wire mesh or netting 11, in the illuminators or tiles they are rendered stronger and if broken their parts are prevented by the wire from falling. Furthermore if the wire netting be permitted to extend beyond the edge of the tiles as shown at the right in Fig. 4, it will be embedded in the cement, thus locking the whole structure together.

It will be obvious to those skilled in the art to which the invention relates that modifications can be made in details without departing from the spirit thereof, hence the invention is not limited further than the prior state of the art may require, but

Having thus described the nature and objects of my invention what I claim as new and desire to secure by Letters Patent is

1. The combination of bars of which some are arranged edgewise and are grooved on their opposite sides and near their top edges and of which the others are flat and arranged flatwise through the first mentioned bars and said two sets of bars constituting a grille or framework, glass tiles arranged in the spaces of the grille and resting at two edges on the flat bars and clear at the other two edges of the grooved bars and having beads on their edges and having embedded in them wire mesh which projects laterally, and cement in which the projecting portions of the mesh is embedded and which is arranged between the tiles flush with their top surfaces and above the bars and which extends down under the grooves and the beads at the other two edges, thereby mechanically tying the cement at the last mentioned edges to the grooved bars against upward displacement.

2. The combination of bars of which some are arranged edgewise and are grooved on their opposite sides and near their top edges and of which the others are flat and are arranged flatwise through the first mentioned bars and said two sets of bars constituting a grille or framework, tiles arranged in the spaces of the grille or frame and resting at two of their edges on the flat bars and clear of the grooved bars at the other two edges and having beads on their edges, and cement arranged between the tiles flush with their top surfaces and above all the bars and which ex-



tends down under the grooves and beads at the opposite two edges of the bars, thereby mechanically tying the cement of the construction to the grooved bars against upward displacement.

3. The combination of bars arranged edge-wise and having upon their opposite sides near their top edges grooves and having at intervals rectangular openings, bars of generally rectangular section arranged flatwise through said openings, tiles having two of their end walls arranged on the last mentioned bars and having their two depending side walls of less length than the end walls to

constitute abutments which engage the edges of the last mentioned bars, beads on all sides of said tiles, and cement arranged between the tiles flush with their top surfaces and above the bars and which extends down under the grooves and beads at the other two edges of the tiles, thereby mechanically tying the cement against upward displacement.

In testimony whereof I have hereunto signed my name.

CHARLES H. PASCHALL,

Witnesses:

W. J. JACKSON,

FRANK E. FRENCH.