No. 635,576. Patented Oct. 24, 1899.

P. E. McINTOSH.

FRAME FOR PRISM LIGHTS.

(Application filed Aug. 14, 1899.)

(No Model.)

Fig. 1.

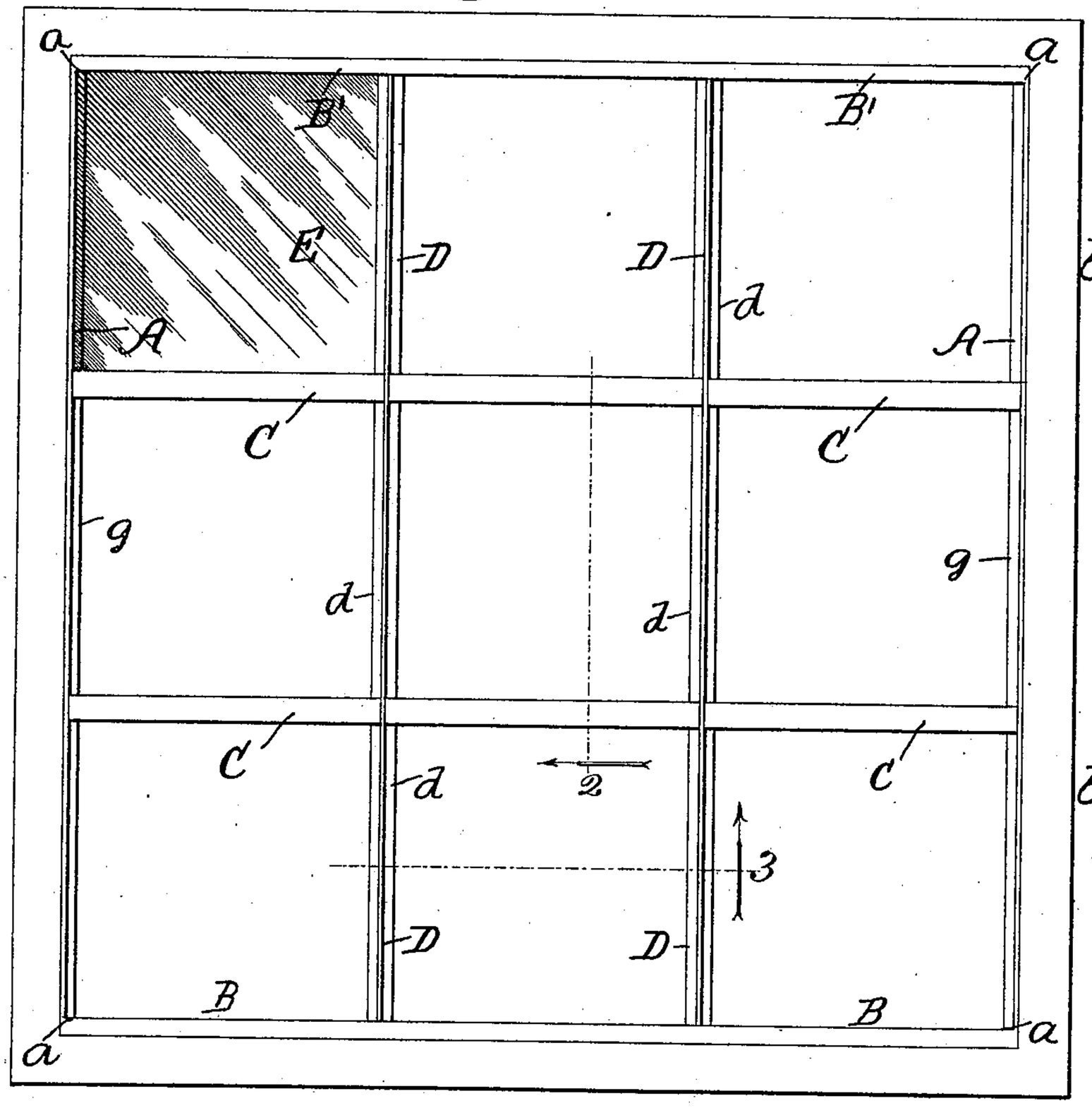


Fig. 2.

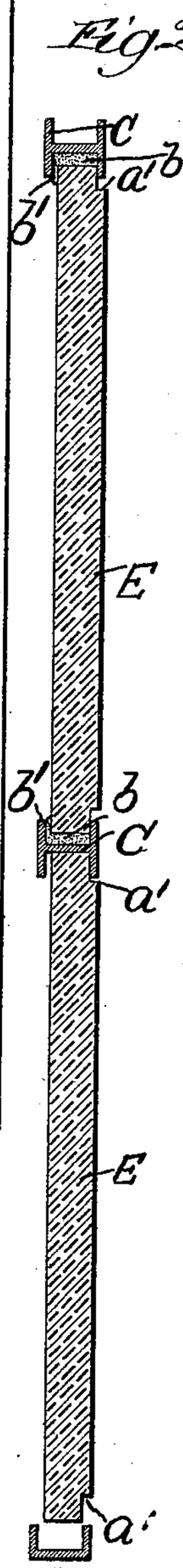
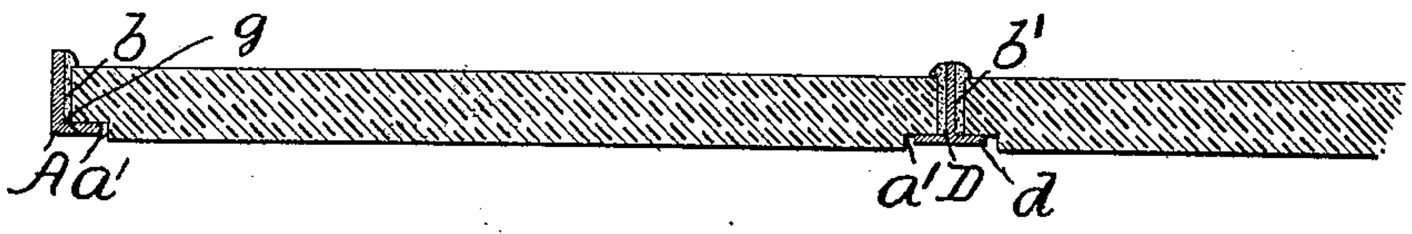


Fig. 3.



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UNITED STATES PATENT OFFICE.

PETER E. McINTOSH, OF NEW YORK, N. Y.

FRAME FOR PRISM-LIGHTS.

SPECIFICATION forming part of Letters Patent No. 635,576, dated October 24, 1899.

Application filed August 14, 1899. Serial No. 727,144. (No model.)

To all whom it may concern:

Be it known that I, PETER E. MCINTOSH, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Frames for Prism-Lights; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to a framing device for transparent prism lights, plates, tiles, and the like, and has for its object to provide a frame or sash for this purpose in which the illuminating-plates may be inserted with facility and tightly retained in place, thus obviating the difficulty often experienced in setting the prism-plates in a substantial and satisfactory manner.

In the accompanying drawings, Figure 1 is an inside or bottom plan view of a frame embodying the improved features. Fig. 2 is a transverse section on line 2, Fig. 1, looking in the direction indicated by the arrow; and Fig. 3 is a broken-away transverse section on line 3, Fig. 1, taken at right angles to Fig. 2.

The inside sash-frame is composed of a number of bars or beams of such form and arrangement as to afford a large area of supporting and cementing surface with but little obstruction to a free entrance of the light through the prism-plates. The sash will ordinarily be made of metal; but any other material suitable for the purpose may be used. The arrangement shown provides a structure that is notably strong, although the bars may be comparatively light.

The two outside L-angle bars A A form the two opposite sides of the frame, and the two outside channel-bars B B′ form the top and bottom bars, respectively. The respective ends of the four outside bars are properly joined together at the corners *a*. The double channel-bars C C form the inside horizontal cross-bars, and the inside T-bars D D the bars running at right angles thereto in a vertical plane.

The illuminating-plates E, which may have a plain or ribbed prism-surface, are cut away clear around to provide the continuous rabbet or shoulder edges *a*′, thus reducing the thickness of the plates along the edges and facilitating the operation of inserting and setting the same in the peculiar sash structure shown.

The width of the space between the flanges of the channel-bars is greater than the thickness of the engaging edges of the illuminating-plates, so that the cement or other setting composition used will fill in between the adjacent surfaces, as shown at *b*′, thus increasing the area of the cementing-surfaces and insuring a perfectly tight joint.

The plates are placed in the sash from the inner or under side by being inclined a little and then brought to a horizontal position, as shown in the lower half of Fig. 2, and then drawn back to have a bearing in each channel-bar, the space at each edge being filled in with cement. The two edges at right angles rest on the flanges *d* of the T-bars, the outer row of plates having one edge resting on the L-bars, as shown in Fig. 3.

The flanges of the bars composing the sash will be made as narrow as possible, so as to cover but a small surface of the light-reflecting surface of the plates.

When necessary, the sash-frame may be inclosed by an outside frame F, composed of any suitable material.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A sash-surface for prism-plates and the like, consisting of two outside angle-bars arranged on opposite sides, the companion outside channel-bars, forming the two other sides, the inside double channel cross-bars, and the T-bars, intersecting the double channel-bars at right angles, substantially as described.

2. The combination with a sash-frame, comprising two outside angle-bars, two outside channel-bars, arranged at right angles to the angle-bars, the double inside channel-bars, the T-bars crossing the inside channel-bars at right angles, of an illuminating plate or prism, cut away on one side to form a shoulder bearing and framed in said sash, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

PETER E. MCINTOSH.

Witnesses:

L. M. FREEMAN,

L. B. COUPLAND.