No. 627,168. Patented June 20, 1899.

O. E. WINGER.

GLAZING FRAME.

(Application filed June 17, 1898.)

(No Model.)

Fig. 1.

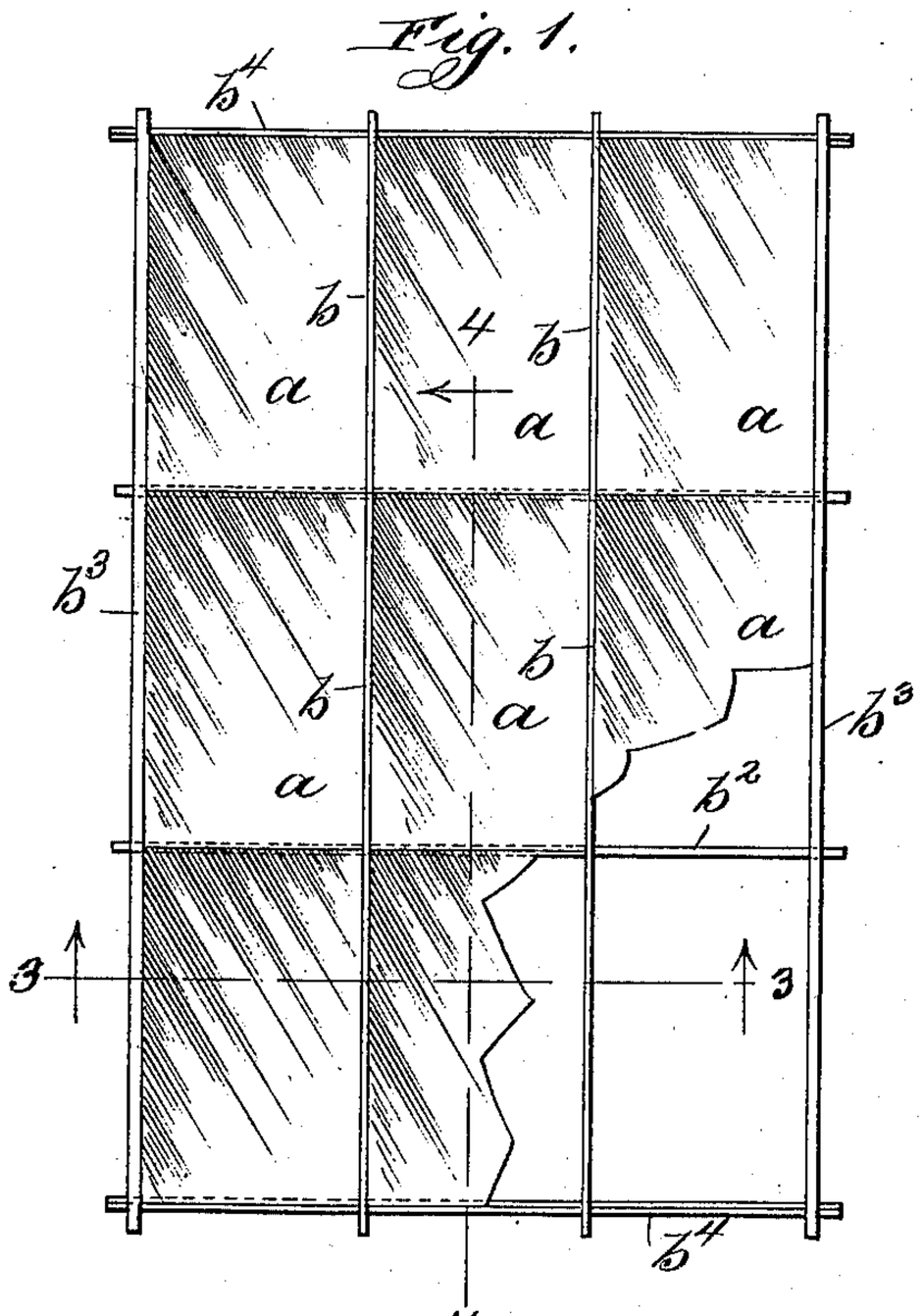


Fig. 2.

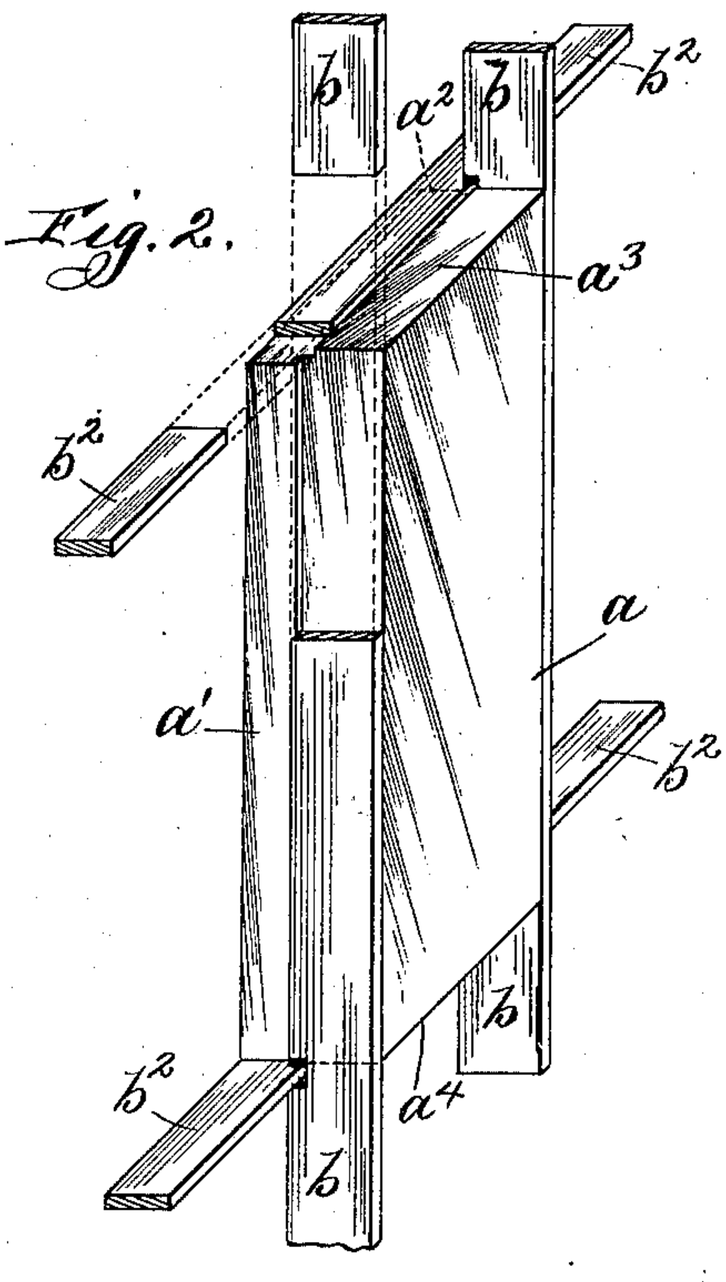


Fig. 3.

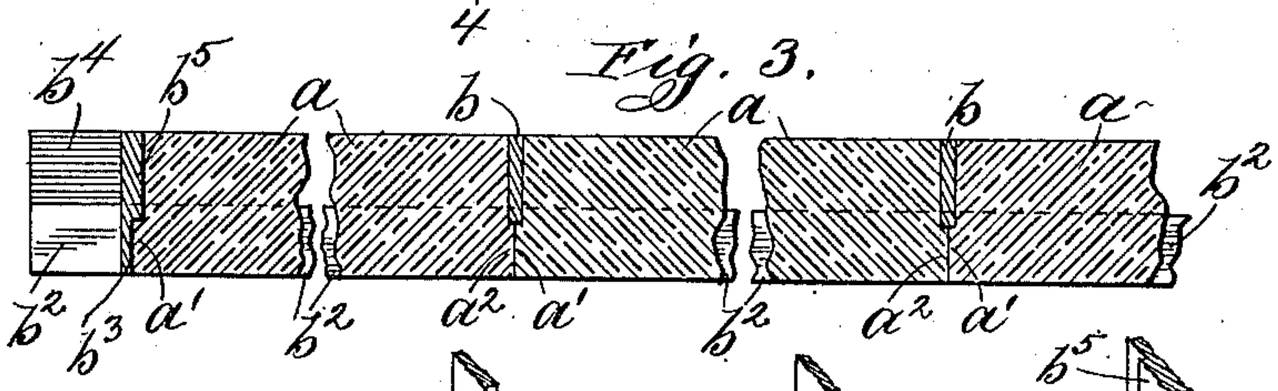


Fig. 4.

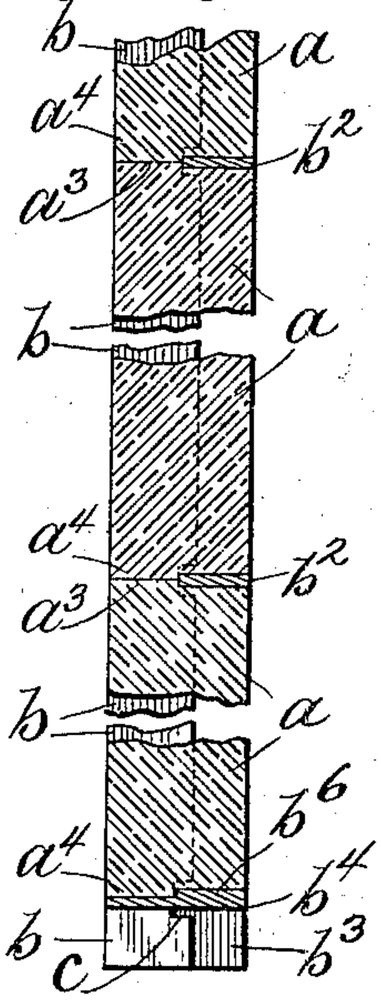
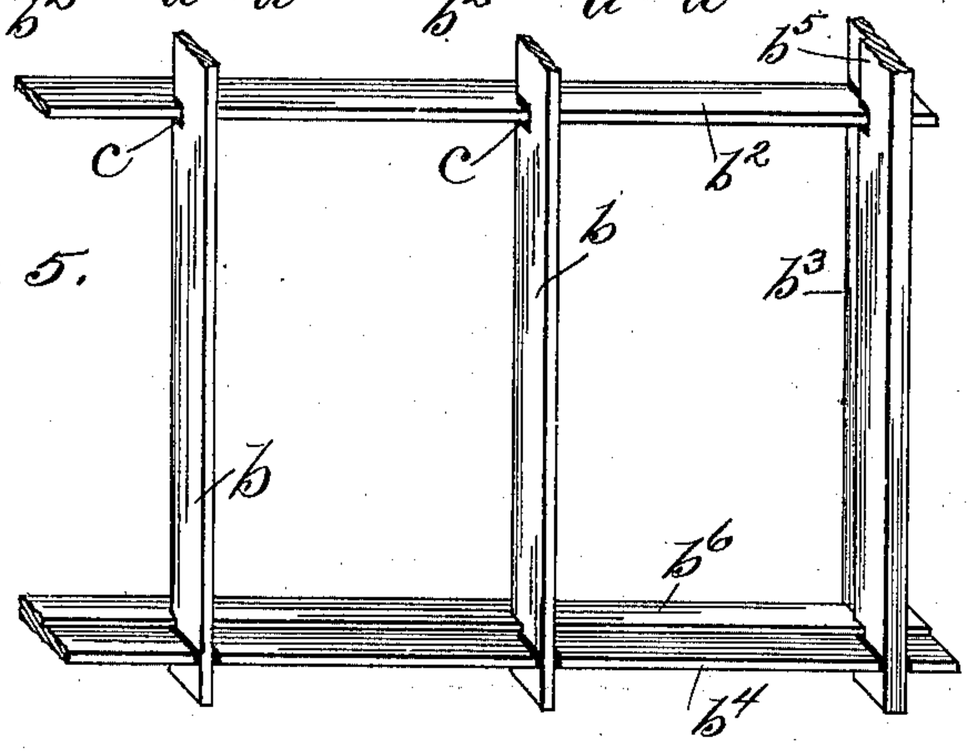


Fig. 5.



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UNITED STATES PATENT OFFICE.

OSWALD E. WINGER, OF JOLIET, ILLINOIS, ASSIGNOR, BY MESNE ASSIGNMENTS, TO THE ENCLOSED PRISM COMPANY, OF CHICAGO, ILLINOIS.

GLAZING-FRAME.

SPECIFICATION forming part of Letters Patent No. 627,168, dated June 20, 1899.

Application filed June 17, 1898. Serial No. 683,688. (No model.)

To all whom it may concern:

Be it known that I, OSWALD E. WINGER, a citizen of the United States, residing at Joliet, in the county of Will and State of Illinois, have invented a certain new and useful Improvement in Glazing-Frames, of which the following is a full, clear, concise, and exact description, reference being had to the accompanying drawings, forming a part of this specification.

My invention relates to a glazing-frame, my object being to provide an improved form of frame for securely maintaining a plurality of panes in position.

In accordance with my invention the glazing-frame is formed of a series of intersecting bars, between the faces of which the panes are clamped and securely held, and in order to prevent the lateral movement of the panes overhanging or projecting ledges are provided upon certain of the edges of the pane along one face thereof, adapted to rest against the edges of the bars to withstand pressure in one direction, while upon other edges of the pane overhanging ledges are formed along the opposite face of the pane, the ledges resting against other of the bars to withstand pressure in the opposite direction. In practice I have usually employed rectangular panes and clamping-bars intersecting at right angles, one set of bars—say the longitudinal bars—resting against ledges on two of the opposite edges of the pane to withstand pressure in one direction, while the transverse bars rest against ledges on the other two edges, these ledges, however, being placed along the opposite face of the pane to thereby withstand pressure in the opposite direction.

I have illustrated my invention in the accompanying drawings, in which—

Figure 1 is a view in elevation of the glazing-frame of my invention, showing the panes in position. Fig. 2 is a perspective view of one of the panes and the surrounding portion of the frame. Fig. 3 is a sectional view on line 3 3, Fig. 1. Fig. 4 is a sectional view on line 4 4, Fig. 1. Fig. 5 is a partial view of the frame at one corner thereof.

Like letters refer to like parts in the several figures.

Each of the panes a is provided upon two of the opposite and parallel edges with overhanging or projecting ledges a' a^2 along one face of the pane, while the other edges of the pane are provided with overhanging or shelving ledges a^3 a^4 along the opposite face of the pane. The frame comprises a series of bars, usually of metal, extending at right angles and clasping the edges of the pane between the same. The longitudinal bars b b are adapted to rest against the edges of the pane, the edges of the said bars resting against the edges of the ledges a' a^2, while the transverse bars b^2 b^2 rest against the ledges a^3 a^4 of the pane. The bars b b^2 are double the thickness of the ledges, and consequently the faces of the ledges a' a^2 and a^3 a^4 rest in contact, as more clearly illustrated in Figs. 3 and 4, and the recesses adjoining the ledges form channels within which the bars b b^2 of the frame are adapted to fit. The panes are thus clamped between the faces of the longitudinal and transverse bars, and any tendency of the pane to move in one direction, due to presssure exerted thereon, is resisted, due to the engagement of the ledges a' a^2 with the bars b b, while any pressure exerted thereon in the opposite direction is resisted, due to the engagement of the ledges a^3 a^4 with the bars b^2 b^2. The intersecting bars extending at right angles thus serve to maintain the pane securely in position and constitute a rigid structure which withstands any pressure in either direction without permitting the loosening or removal of the pane from the frame. The bars b^3 b^4, which constitute the boundaries of the frame, are formed of a width equal to the thickness of the pane and are provided upon the inner faces with projecting ledges b^5 b^6 to accommodate the edges of the pane, the ledge b^5 fitting into the recessed portion of the edge of the pane, while the ledge upon the edge of the pane fits into the recess alongside the ledge b^5. Likewise the ledge b^6 cooperates with the ledge upon the other edge of the pane. The ledge b^5 thus serves the same purpose as the longitudinal bars b, while the ledge b^6 serves the same purpose as the transverse bars b^2. Slots c c are provided in one or both sets of bars at the intersections to facilitate the placing of the panes in position and to permit the panes to be firmly

and securely clamped between the bars after having been placed in position. After the panes have been placed in position the bars are securely fastened to the surrounding frame, preferably by the employment of solder, which fills the slots and securely locks the longitudinal and transverse bars together.

I have illustrated my invention in connection with a plurality of rectangular panes having greater length than width; but it is evident that the invention is clearly applicable to panes of other forms and shapes and having a greater or less number of edges and that the bars instead of intersecting at right angles may intersect at any other angle.

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

1. The combination with intersecting bars or members, of a pane or panes clamped between the same, some of the edges of the pane carrying projecting ledges to rest against the bars and prevent movement in one direction and other of the edges of the pane carrying projecting ledges to rest against the bars and prevent movement in the opposite direction, substantially as described.

2. The combination with intersecting bars or members, of a pane or panes having on some of the edges projecting ledges along one face of the pane and on other edges projecting ledges along the opposite face of the pane, the inner edges of said ledges resting against said intersecting bars, substantially as described.

3. The combination with a plurality of panes resting edge to edge, and cut away on one face at the adjoining edges to form a series of longitudinal channels, and cut away on the opposite face at the adjoining edges to form a series of transverse channels, and a series of bars fitting in said channels and joined together to form a frame, substantially as described.

4. The combination with intersecting longitudinal and transverse bars or members, of a pane or panes having on two of the opposite edges projecting ledges along one face of the pane, and having on the other two edges projecting ledges along the opposite face of the pane, the longitudinal bars resting against the ledges along one face of the pane and the transverse bars resting against the ledges along the opposite face of the pane, substantially as described.

5. The combination with the bounding members of the frame having the projecting ledges thereon, of the transverse and longitudinal intersecting bars secured thereto, and the panes having the projecting ledges on the edges thereof, substantially as described.

6. The combination with a bounding frame, of a series of transverse and longitudinal bars, the transverse bars lying substantially in one plane and the longitudinal bars lying substantially in a plane parallel to and laterally displaced from said first plane, and a pane having projections or ledges on the edges to engage the transverse and longitudinal bars, substantially as described.

7. A pane having a projecting ledge on the edge along one face of the pane and a projecting ledge on another edge along the opposite face of the pane, substantially as described.

8. A pane having on two of the edges projecting ledges along one face of the pane, and on two other of the edges projecting ledges along the opposite face of the pane, substantially as described.

In witness whereof I have hereunto subscribed my name in the presence of two witnesses.

OSWALD E. WINGER.

Witnesses:
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