No. 654,282. Patented July 24, 1900.

# P. C. SACHSE.

## TRUSS BAR FOR MEETING RAILS OF WINDOW SASHES.

(Application filed Apr. 19, 1900.)

(No Model.)

Fig. 1.

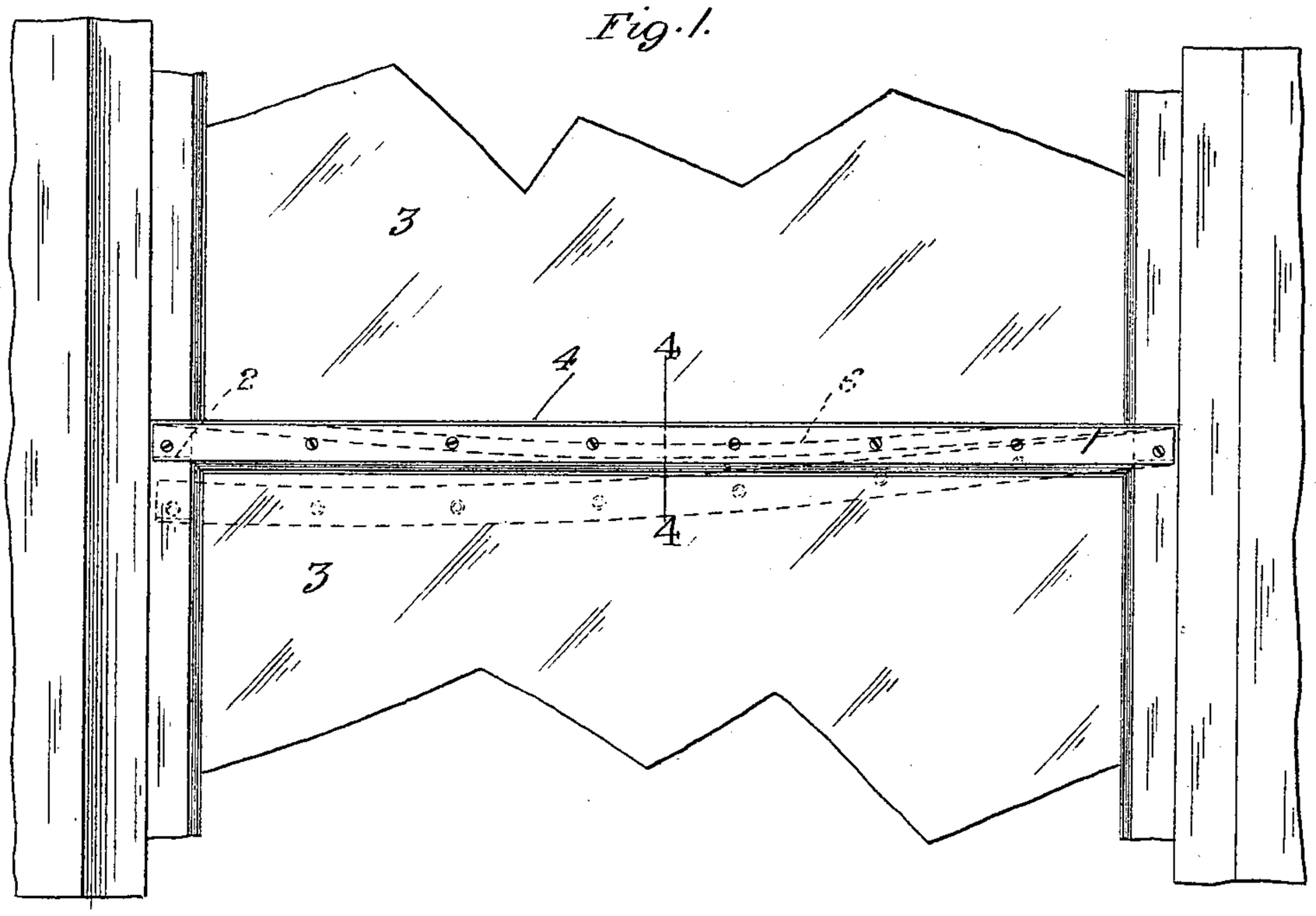



Fig. 2.

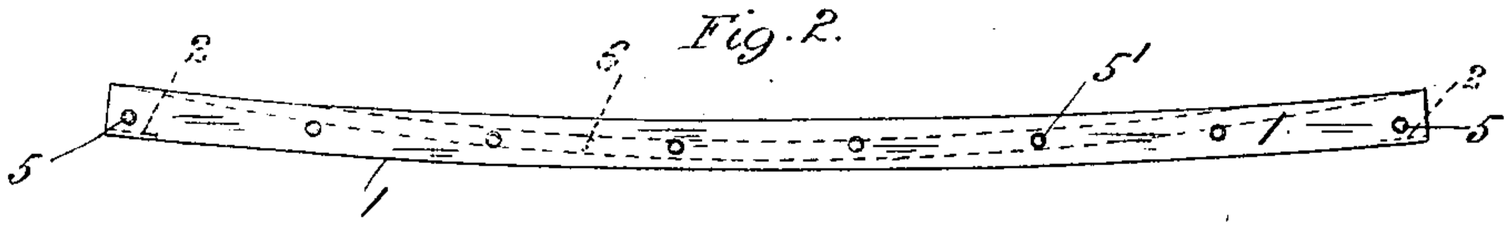



Fig. 3.

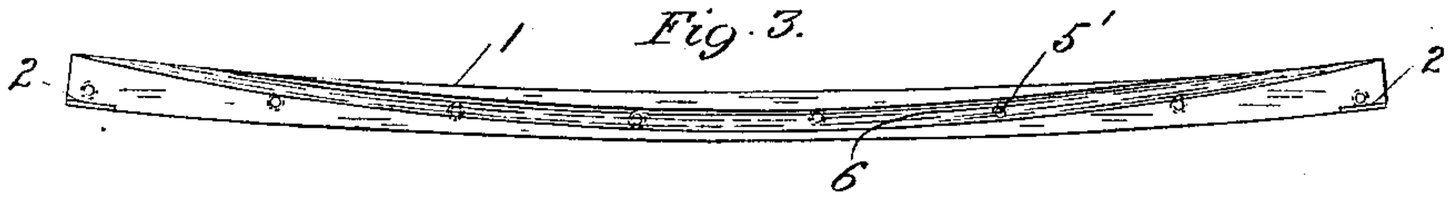



Fig. 5.

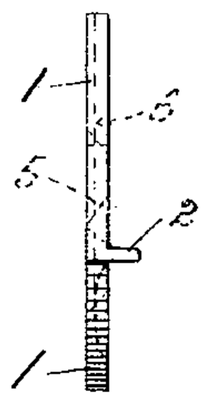



Fig. 4.

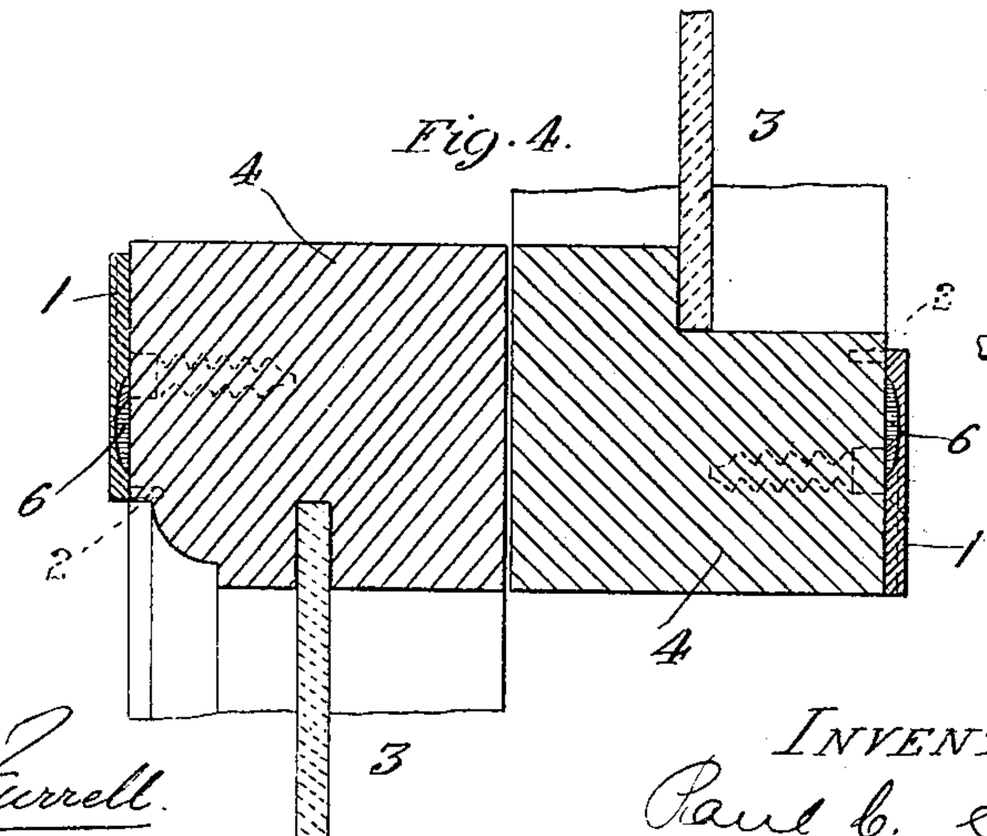
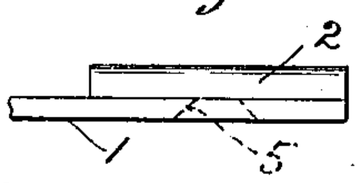



Fig. 6.

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# UNITED STATES PATENT OFFICE.

PAUL C. SACHSE, OF ST. LOUIS, MISSOURI.

## TRUSS-BAR FOR MEETING-RAILS OF WINDOW-SASHES.

SPECIFICATION forming part of Letters Patent No. 654,282, dated July 24, 1900.

Application filed April 19, 1900. Serial No. 13,458. (No model.)

*To all whom it may concern:*

Be it known that I, PAUL C. SACHSE, a citizen of the United States, residing at St. Louis, State of Missouri, have invented certain new and useful Improvements in Truss-Bars for the Meeting-Rails of Window-Sashes, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

My invention has relation to improvements in stiffening truss-bars for the meeting-rails of window-sashes; and it consists in the novel construction of bar more fully set forth in the specification and pointed out in the claims.

In the drawings, Figure 1 is an elevation of a window, showing the two sashes partly broken away and showing my invention applied to the rail of the lower sash. Fig. 2 is a face view of the truss-bar detached. Fig. 3 is rear view of the truss-bar. Fig. 4 is an enlarged cross-section on line 4 4 of Fig. 1, taken through the meeting-rails of the sashes and through the truss-bars secured thereto. Fig. 5 is an end view of the cambered bar, and Fig. 6 is an edge view of one end of the bar.

The object of my invention is to provide the meeting-rails of sashes with a bar which will insure for such rail the necessary amount of stiffness and durability, thus preserving the sash for an indefinite period. It is a well-known fact that very long rails in time will bend in the middle, and thus impair the connection between the glass and putty, causing the latter to flake off and crack, thereby admitting dirt and daylight between the rail and glass and allowing drafts of air to enter the room. At the same time the dowel-pins and tenons by which the rail is secured to the vertical members of the sash become weakened and in time decay, thus ruining the sash completely. By the use of my bar the rails are preserved indefinitely.

In detail the invention may be described as follows:

Referring to the drawings, 1 represents a flat steel bar cambered in a plane parallel to its faces, the ends of its convex edges being provided with inwardly-turned lips or flanges 2, adapted to be inserted into the vertical members of the sash 3 beyond the ends of the meeting-rails 4. The bar is first secured at one end by inserting the lip into a recess cut for its reception in the sash and driving a screw into the opening 5 adjacent to said lip. (See dotted position in Fig. 1.) The operator then straightens the bar against the resiliency offered by the camber thereof, driving home the screws through the series of openings 5′, it being understood that the holes in the rail 4 are disposed in a straight line. In order to impart the necessary stiffness to the bar, (stiffness that is inherent in all trusses,) the inner face of the bar is hammered, so as to form a groove 6, the form of the latter following the general camber of the bar. Of course in securing the bar to the lower sash the original camber of the bar is down and that of the upper sash is up, the bars being perfectly straight when finally secured to their respective rails. It is apparent from the foregoing that as a result of the straightening of the cambers of the respective bars the latter will always tend to draw the rails in the direction of the original camber—that is to say, in a direction opposite to that of the strain to which the rails are subjected when seized for purposes of opening either sash. Thus if an attempt is made to raise the lower sash by seizing the upper rail thereof (as is generally done) the original camber of the bar tends to draw the rail down against the upward strain to which it is subjected in the act of opening the window, and vice versa with the upper or outer sash. In this way all strain is removed from the tenons and dowel-pins by which the meeting-rails are generally secured to the vertical side members of their respective sashes, and the life of the window is preserved indefinitely.

It is apparent that minor changes may be made in the device without departing from the spirit of my invention.

Having described my invention, what I claim is—

1. A truss-bar for window-sash rails comprising a cambered bar, adapted to be secured to the outer surface of the rail of either sash, and lips disposed at the ends of the convex edges of the bar for temporarily securing either end of the bar as the camber thereof is being straightened, substantially as set forth.

2. A truss-bar for window-sash rails comprising a flat bar cambered in a plane parallel to its faces, a groove formed on one face there-

of following the general direction of the camber, and means for securing the same to the rail of a sash, substantially as set forth.

3. A truss-bar for window-sash rails comprising a flat bar cambered in a plane parallel to its faces, a groove formed on one face thereof following the general direction of the camber, and lips disposed at the ends of the convex edges of the bar and turned toward the face on which is disposed the aforesaid groove, the bar being provided with openings for the passage of securing-screws, substantially as set forth.

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

PAUL C. SACHSE.

Witnesses:
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G. L. BELFRY.