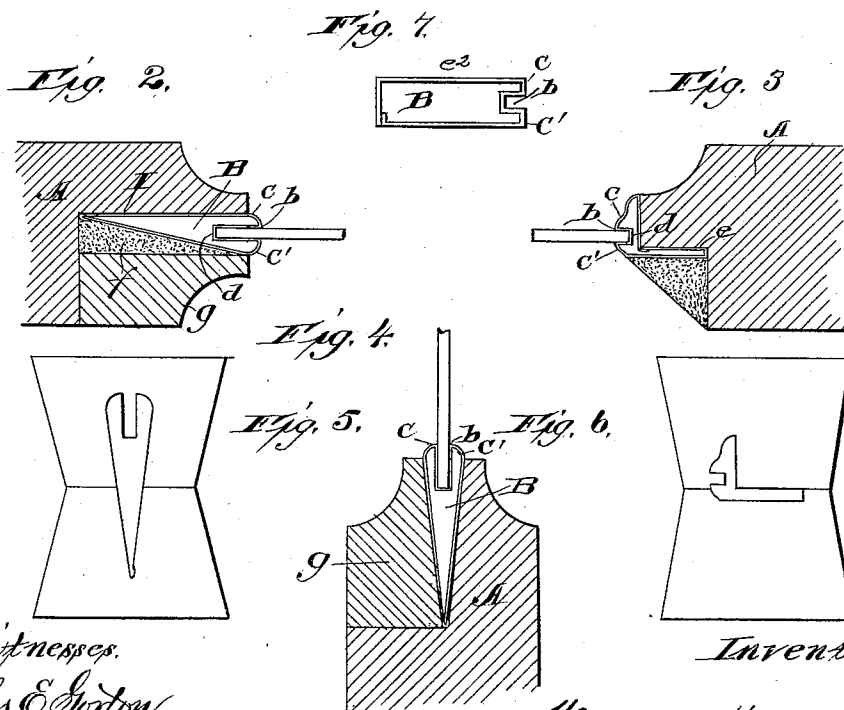
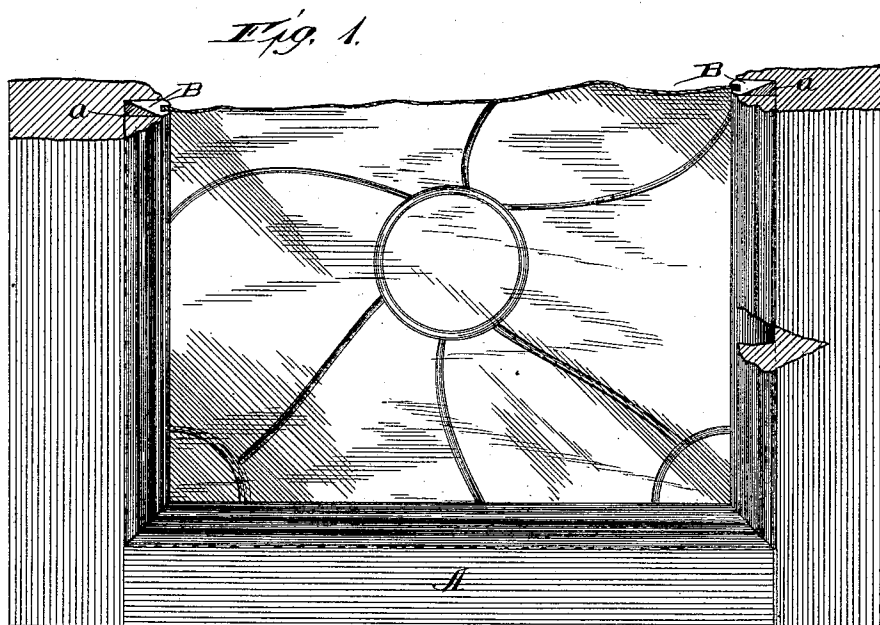


(No Model.)

W. HENDERSON.
RAIL FOR SECURING GLASS.

No. 484,590.

Patented Oct. 18, 1892.



Witnesses,
Chas. E. Gordon,
L. Denary

Inventor,
William Henderson
By Chas. C. Dillman
Atty.

UNITED STATES PATENT OFFICE.

WILLIAM HENDERSON, OF CHICAGO, ILLINOIS.

RAIL FOR SECURING GLASS.

SPECIFICATION forming part of Letters Patent No. 484,590, dated October 18, 1892.

Application filed July 6, 1891. Serial No. 398,588. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM HENDERSON, a subject of the Queen of Great Britain, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Rails for Securing Glass, of which the following is a specification.

My invention relates to devices for securing glass in a frame, and is especially adapted to be used for the outside rail of glasswork which may have numerous bars or comes for holding the small pieces of glass in place, and which said bars are united at one end to the rail by solder.

The objects of my invention are to afford a rail or frame for glass which can be readily applied thereto and will retain the same without the use of any fastenings—such as putty, glazing-points, tacks, and the like—and also a rail or frame for the exterior of stained or ornamental or other glasswork which shall be attractive in appearance on each side, and is adapted to be used as a frame for signs, &c., or to stiffen the network of small bars or comes used in stained glass or other structures, and to furnish a frame which not only embraces the glass with its groove, but can be readily bent, and also allows the saddle-bars used in leadwork to be joined thereto, thus obviating the necessity of marring the molding.

In order to enable others skilled in the art to which my invention pertains to make and use the same, I will now proceed to describe it, referring to the accompanying drawings, in which—

Figure 1 is a view in side elevation, partly in section, of the lower portion of a wooden frame, showing my device in place as it appears when employed for stained glasswork. Fig. 2 is a plan view, partly in section, of a portion of the wooden frame, showing my preferred construction of the rail in place and securing a piece of glass. Fig. 3 is a similar view of a modification of the rail. Fig. 4 is a plan view, partly in section, showing a modified manner of securing the rail or frame in the wood. Figs. 5 and 6 are rear views of dies used to form my rail, and Fig. 7 is an end view of another modification of the rail.

In the drawings, A represents a wooden

frame or window-sash, which has formed therein the ordinary rabbet *a* to receive and retain the edge of the glass, but as shown in Fig. 1 is the receptacle or seat for my metal rail or frame B, which embraces the edge or edges of the glass.

The rail B is preferably made of one piece of material which is formed in a manner to produce a bar or rail B, preferably of a wedge shape having in its front or receiving portion a longitudinal groove or channel *b* for the reception of the glass. This channel is preferably formed in substantially a rectangular shape by bending the metal back upon itself, thus forming the double marginal heads *c c'* on each side of the channel and uniting them by a rib *d*, which rib acts as a stop to the glass, as is clearly seen in the drawings.

In Figs. 2 and 4 I have shown my bar or rail constructed of one piece of metal formed into a wedge-shaped rail, the tapering portion I thereof extending into the rabbet of the sash or wooden frame, and while I prefer this construction on account of its simplicity, yet I may sometimes use a rail of the form illustrated in Fig. 7, which is of similar construction, except that the rail is rectangular in cross-section instead of being wedge-shaped. It will be noticed that in each of these constructions the bar or rail is hollow, which form increases the strength thereof, as is a well-known fact; but I may form them solid.

In Fig. 3 I have illustrated another modification which I may employ and in which the result obtained is the same as with the wedge-shaped rail or rectangular one. In this style of rail I form the front or receiving portion, as before, with a longitudinal groove or channel *b*, having double marginal heads *c c'*, and unite them with a rib *d*; but instead of placing the projection *e*, which fits into the rabbet of the sash and which assumes the place of the tapering portion I of the wedge-shaped rail or the elongated part *e'* of the rectangular rail at the center of the receiving part of the rail, it may be placed, as shown in Fig. 3, opposite one of the marginal heads or at any other suitable point, and may be made double, as illustrated, or of single thickness or otherwise, if desired, the essential features of my invention being to provide a bar having a longitudinal channel having doubled marginal

heads and a projection at the rear to fit into the rabbet of a sash, that can be readily applied to the glass and requires no brazing or independent fastenings to conceal or unite the seams or sections when made of more than one piece.

In Fig. 2 I have shown my rail secured in a portion of a sash by means of putty *f* and a piece of molding *g*, while in Fig. 3 I use putty only and in Fig. 4 molding only. Of course any of these methods may be employed. Fig. 7 represents an end view of the rail, which can be used in the rabbet of a sash or as a frame for signs, pictures, &c.

Figs. 5 and 6 show the draw-dies which I use in constructing my rails and giving them their compact form and desired configuration.

In the drawings I have shown the rails formed hollow, and while it is not always necessary to do so, yet I may in order to augment the strength of the rail insert a piece of metal, wood, or other substance in the hollow without departing from the spirit of my invention.

By reference to the drawings it will be seen that the different modifications of the securing-rail present a longitudinal channel or groove toward the interior of the sash-frame and that the projection which extends into the rabbet of the sash is of less thickness than the exterior of the channel or the receiving portion of the rail, with the exception of the construction illustrated in Fig. 7, in which modification the projecting portion is of the same thickness as the front or receiving portion of said rail.

My object of forming the rail with a projection narrower than the exterior of the receiving or front portion is to allow the said projection to fit into the narrow rabbet and the front or receiving portion to rest on the daylight side of the sash, as is distinctly shown in Fig. 3 of the drawings.

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

1. As an improved article of manufacture,

a rail having a longitudinal groove or channel to receive the glass and having a doubled marginal head on each side thereof, and a rib at the rear of said channel connecting the heads to check the glass, and a projecting rear portion to fit in the rabbet of the sash, said projecting portion being of a thickness not greater than the thickness of the exterior of the receiving portion of the rail, substantially as set forth.

2. As an improved article of manufacture, a rail having a longitudinal groove or channel to receive the glass and having doubled marginal heads without seams on their outer surfaces, and a rib at the rear of said channel connecting the heads, and a projecting rear portion to fit in the rabbet of the sash, said projecting portion being of a thickness not greater than the thickness of the exterior of the receiving portion of the rail, substantially as set forth.

3. As an improved article of manufacture, a rail having a longitudinal groove to receive the glass and having a doubled marginal head on each side thereof, and a rib at the rear of said groove connecting the heads, and a projecting rear portion to fit in the rabbet of the sash, said projecting portion being of a thickness less than the thickness of the exterior of the receiving portion of the rail, substantially as set forth.

4. As an improved article of manufacture, a rail having a longitudinal groove to receive the glass and having a doubled marginal head on each side thereof, and a rib at the rear of said groove connecting the heads, and a projecting rear portion to fit in the rabbet of the sash, said projecting portion being wedge-shaped and of a thickness not greater than the thickness of the exterior of the receiving portion of the rail, substantially as set forth.

WILLIAM HENDERSON. [L. S.]

Witnesses:

CHAS. C. TILLMAN,
MAY JUDGE.