

Jan. 10, 1928.

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WINDOW CHANNEL

Filed Aug. 25, 1924

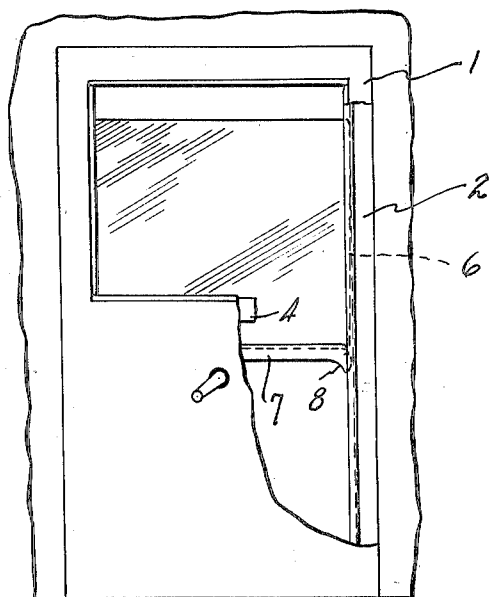


Fig. 1

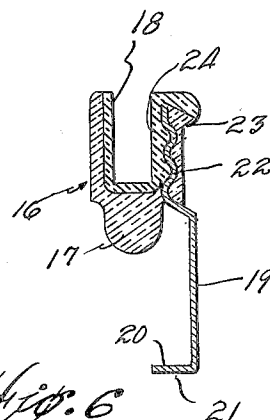


Fig. 6

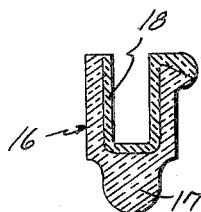


Fig. 7

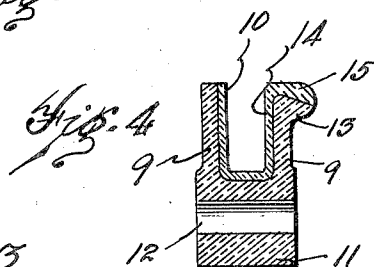


Fig. 4

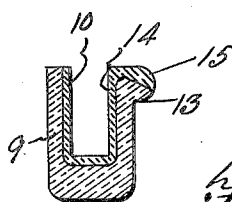


Fig. 5

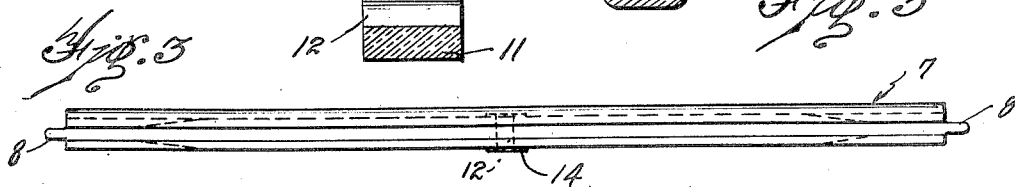


Fig. 3

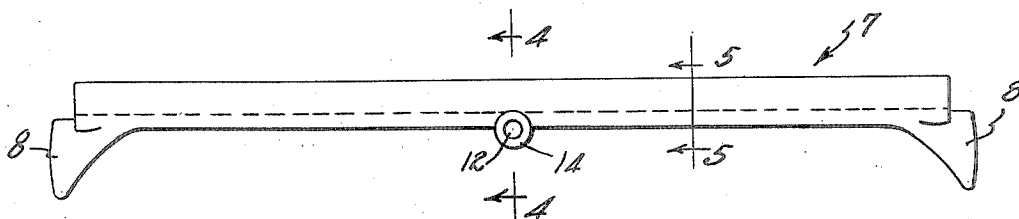


Fig. 2

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UNITED STATES PATENT OFFICE.

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WINDOW CHANNEL.

Application filed August 25, 1924. Serial No. 734,124.

The invention relates to windows and particularly refers to window channels. One of the objects of the invention is to provide a construction by means of which binding of the window is avoided so that the window may be readily raised or lowered. Another object is to provide a mounting for the glass plate forming the window which precludes the need of a felt insert.

With these as well as other objects in view the invention resides in the novel features of construction and combinations and arrangements of parts as more fully hereinafter set forth.

In the drawings:

Figure 1 is a side elevation, partly broken away, of a portion of a motor vehicle door having my invention applied thereto;

Figure 2 is a side elevation of the window channel;

Figure 3 is a top plan view thereof;

Figures 4 and 5 are cross sections on the lines 4—4 and 5—5 of Figure 2;

Figures 6 and 7 are cross sections corresponding respectively to Figures 4 and 5 and showing a modified construction.

As shown in the present instance my invention is applied to a motor vehicle door having the frame 1 which includes the uprights 2 and 3 having in their inner edges substantially parallel guideways and the lock board 4. 5 is the window in the nature of a glass plate which is vertically movable in the frame.

To avoid binding of the window during its vertical movement in the frame, this window has the downwardly converging side edges 6 the upper portions of which slidably engage in the guideways in the uprights 2 and 3 and the lower portions of which are spaced laterally inwardly from these guideways. 7 is a channel which embraces the lower edge of the window and is secured thereto and has the lateral ears 8 located in the plane of the window and extending downwardly therefrom, these ears slidably engaging in the guideways in the uprights.

With this arrangement binding of the window in the guideways of the uprights is avoided and furthermore any inequalities in the side edges of the window which occur in the commercial manufacture of the same have no detrimental effect. Furthermore, since the channel is located below the upper edge of the lock board when the window is

in its uppermost or closed position, the appearance of the construction remains neat and pleasing.

The channel 7 is formed of the outer channel shaped section 9 preferably of hard rubber and the inner channel shaped section 10 preferably of soft rubber, the two together forming a unit and the inner section embracing and being secured to the lower edge of the window. The outer section 9 is provided at its middle with the boss 11 having the transverse aperture 12 therethrough for engagement by suitable means for raising and lowering the window. The outer section also has the lateral guide-way engaging ears 8 which afford a good wearing surface.

For the purpose of providing a weather seal between the window and the outer cross member of the frame forming the sill, the outer section 9 of the channel 7 has at the outer edge of its outer side flange the bead 13 and the inner section 10 has at the outer edge of its outer side flange 14 the bead 15 resting upon the bead 13 and engageable with the inner face of the sill. With this arrangement a yieldable contact is provided and the lower edge of the window opening is effectively sealed.

As shown in Figures 6 and 7 the modified channel 16 comprises the outer and inner channel shaped sections 17 and 18 respectively formed of hard and soft rubber, the construction being the same as that of the channel 7 with the exception that the channel 16 cooperates with a metallic retainer 19 for receiving a roller or the like of a window operator. This retainer has the shoulder 20 extending parallel to and below the base of the channel, which is preferably enlarged and extends downwardly to effectively cooperate with the roller or the like to assist in retaining the same upon the shoulder. The shoulder is formed by the transverse flange 21 at the lower edge of the retainer. To secure the retainer to the channel, the former has the upper wavy portion 22 which is anchored between the outer side flanges 23 and 24 of the outer and inner sections respectively.

What I claim as my invention is:

1. The combination with a frame having substantially parallel guideways, of a glass plate of greater width at one point in its length than at another point, the side edges

of said glass plate at the first-mentioned point engaging said guideways, and a member secured to said glass plate and extending beyond its side edges at its last-mentioned point to engage one of said guideways.

2. The combination with a frame having substantially parallel guideways, of a glass plate of greater width near one end than near the other end, the side edges of said glass plate near the first-mentioned end slidably engaging said guideways, and a member secured to said glass plate near the last-mentioned end and extending laterally beyond one of its side edges and slidably engaging one of said guideways.

3. The combination with a frame having substantially parallel guideways, of a glass plate having downwardly converging side edges, the upper portions of said side edges engaging said guideways and a member secured to the lower portion of said glass plate and extending beyond the side edges thereof into engagement with said guideways.

4. The combination with a frame having substantially parallel guideways, of a glass plate having downwardly converging side edges, the upper portions of said side edges engaging said guideways, and a channel embracing the lower edge of said glass plate and having lateral ears below said glass plate extending beyond the side edges thereof into engagement with said guideways.

5. The combination with a frame having substantially parallel guideways, of a glass plate having downwardly converging side edges; the upper portions of said side edges engaging said guideways, and a channel embracing the lower edge of said glass plate and extending beyond the side edges thereof into engagement with said guideways.

6. The combination with a glass plate, of a channel secured to an edge thereof and

comprising an outer channel-shaped section of hard rubber and an inner channel-shaped section of soft rubber.

7. The combination with a glass plate, of a channel member having a channel embracing a horizontal edge of said glass plate and lateral ears substantially in the plane thereof and extending outwardly beyond the side edges of said glass plate.

8. The combination with a window and a channel secured to an edge thereof, of a member having a portion imbedded in said channel and a shoulder extending substantially parallel to and spaced from the base of said channel, said shoulder and base forming opposed bearing surfaces for engagement with an actuating member for the window.

9. The combination with a window channel comprising an outer channel shaped section of hard rubber and an inner channel shaped section of soft rubber, of a retainer having a portion anchored between the adjacent sides of said outer and inner sections and a shoulder extending substantially parallel to and spaced from the base of said channel.

10. The combination with a glass plate, of a channel secured to an edge thereof and comprising an outer channel shaped section of hard rubber and an inner channel shaped section of soft rubber with a transversely extending weather sealing bead at the outer edge of one of its side flanges.

11. The combination with a window and a channel secured to an edge thereof, of a member having a portion imbedded in and anchored to said channel and a flange extending substantially parallel to and spaced from the base of said channel to form a retaining channel for engagement with an actuating member for the window.

In testimony whereof I affix my signature.
STANLEY W. NICHOLSON.