

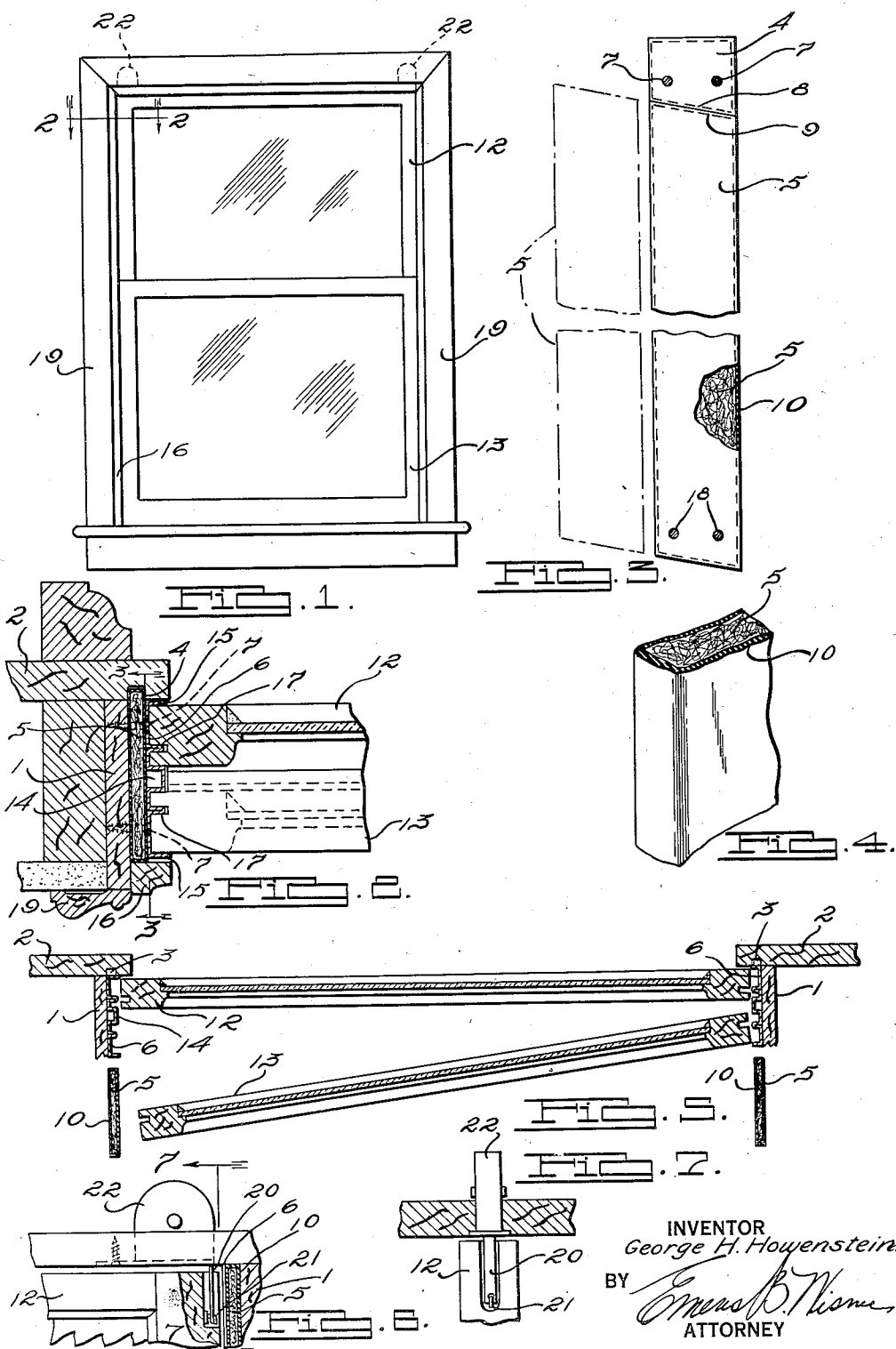
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WINDOW CONSTRUCTION

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WINDOW CONSTRUCTION

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This invention relates to window constructions and the object of the invention is to provide a window of the sliding type, arranged to allow the window sash to move freely in the frame at all times.

Another object of the invention is to provide a window construction in which means is provided to take up swelling or shrinking of the frame or sash members to prevent the sash from binding or sticking in the frame.

Another object of the invention is to provide metal sash guides for the window sash, the sash guides being supported on resilient cushion strips which are removable to allow removal of the sash from the frame.

Another object of the invention is to provide a cushion support for the sash guides arranged to maintain proper contact between the sash guides and window sash irrespective of swelling or shrinking of the window sash.

A further object of the invention is to provide a means to prevent leakage about the sash guide, the said means providing a seal between the sash guide and adjacent window frame and providing a yielding support for the sash.

Another object of the invention is to provide a window construction in which the sash may be readily removed from the window frame with very little trouble or effort.

These objects and the several novel features of the invention are hereinafter more fully described and claimed and the preferred form of construction by which these objects are attained is shown in the accompanying drawing in which—

Fig. 1 is an elevation of a window frame provided with my improved window construction.

Fig. 2 is an enlarged section taken on line 2—2 of Fig. 1.

Fig. 3 is a section taken on line 3—3 of Fig. 2 showing a face view of the cushion member and cushion strip.

Fig. 4 is a sectional perspective of a portion of the cushion strip.

Fig. 5 is a section through the window frame illustrating the removal of the sash.

Fig. 6 is a section showing the connection for the sash balance.

Fig. 7 is a section taken on line 7—7 of Fig. 6.

The device comprises a frame member 1 having a blind stop 2 secured to one side thereof. This blind stop 2 is provided with a channel 3 cut therein and this channel is adapted to receive the edges of the cushion member and cushion strip. As will be noted from Fig. 3, the cushion is formed of two parts, a fixed cushion

member 4 and a removable cushion strip 5. The cushion member 4 is positioned at the top of the window opening on each side and the sheet metal sash guide 6 is positioned against the cushion member 4 and screws 7 extend through the metal sash guide 6 and cushion member 4 and are threaded into the frame member 1 as will be understood from Figs. 2 and 3. The cushion member 4 is provided with an angular lower edge 8 and the cushion strip 5 is provided with an angular upper edge 9 extending at the same angle as the edge 8, as shown in Fig. 3.

The cushion member 4 and cushion strip 5 are preferably formed from a resilient material such as rubber, thick felt, matted hair or other fibrous material of a resilient nature. In order to prevent the cushion member or strip from soaking up water or dampness, it is preferably coated or covered with a water proof covering 10 which may be rubber or other non-absorbent material which is also flexible.

The sheet metal sash guide 6 is preferably shaped to provide channels for the upper and lower sash 12 and 13 and is shaped also to provide a parting stop 14 between the sash. At the edges, the sash guide 6 is provided with flanges 15 which engage against the blind stop 2 and trim stop 16 as the case may be. This sheet metal sash guide may or may not be provided with weather strip ribs 17 shown in Fig. 2, it being only necessary to this invention to provide a sheet metal guide for the sash. This sheet metal sash guide extends along the vertical side of the window frame from the top to the bottom of the window frame and, as hereinbefore described, is secured in place by the two screws 7, shown in Figs. 2 and 3. The sash guide may also be secured to the window frame at the bottom by means of screws 18, shown in Fig. 3, which are similar to the screws 7, shown in Fig. 2 and extend through the cushion strip 5 into the frame member 1.

With the parts in the position shown in Fig. 2, the trim stop 16 and casing 19 are secured to the frame member 1, as shown, to complete the window frame.

With the parts assembled, as shown in Fig. 2, the sash will readily slide up or down in the sash guide and the cushion strips 5 maintain a pressure on the sheet metal sash guides 6 to hold them in contact with the sash. If the sash swells, the cushion strips 5 allow the sash to push the sash guides outwardly against the cushion strips and still maintain the desired sliding contact between the sash and sash guide. In other words, the cushion strip is not affected by variation in tem-

perature or dampness and thus provides proper contact between the sash guide and sash at all times. The cushion strip also provides a seal between the sash guide and window frame and by carrying the edges of the cushion member 4 and cushion strip 5 into the channel 3 in the blind stop 2, leakage of air between the sash guide and window frame is effectually prevented, while the resilient action of the cushion strip forces the face of the sash guide into contact with the sash to prevent leakage between the sash guide and sash. The weather strip rib 17 may also be provided to form a further seal between the sash and sash guide. This sheet metal sash guide is shown more particularly in my Patent No. 1,743,454, issued January 14th, 1930.

The window construction is also arranged so that the sash may be readily removed from the window opening. To remove the sash, the screws 18 at the bottom of the sash guide are first removed and the trim stop 16 is removed from the face of the window frame. At this time, the cushion strips 5 may be withdrawn from between the sash guides and window frame.

This frees the sash guides 6 so that they may be spread outwardly against the window frame, as shown in Fig. 5, at which time the sash are removable by lowering them to the bottom of the window opening, as shown. It is also necessary when removing the sash to unhook the flexible metal strip 20 from the hook 21 which is secured to each sash, as shown in Fig. 6. The strip 21 forms a part of a spring sash balance which is contained in a casing 22 in the head jamb of the window frame, but this sash balance does not form a part of this invention, but is shown to provide a means for balancing the weight of the sash. To re-install the sash, the strips 20 may be re-engaged over the hooks 21 and the sash may be moved back to position as will be understood from Fig. 5, at which time the cushion strips may be re-inserted between the sash guides and window frame and the trim stop may be again secured in place as shown in Fig. 2. When this has been done, it is only necessary to replace the screws 18, whereupon the device is again ready for operation. The cushion strips are preferably semi-flexible and resilient, as described, but are stiff enough so that they may be readily re-inserted between the sash guide and window frame.

This window construction may be arranged to allow removal of the sash by providing a non-resilient spacer member 4 and a non-resilient strip 5 which is removable. This arrangement while not having the cushion action hereinbefore described does have the advantage that the non-resilient strips may be removed from behind the

sash guides to allow the sash guides to be spread apart below the spacer members 4 thus providing a space through which the sash may be removed from the window opening.

This construction is very practical where the cushion feature is not desired and provides a take-down construction whereby the sash may be readily removed from the window opening for washing or for other purposes.

From the foregoing description, it becomes evident that the device is very simple and efficient in operation, will not easily get out of order, may be easily dis-assembled or re-assembled and provides a device which accomplishes the objects described.

Having thus fully described my invention, its utility and mode of operation, what I claim and desire to secure by Letters Patent of the United States is—

1. In a window construction, a window frame including a frame member and blind stop, the blind stop being provided with a channel adjacent the face of the frame member, a spacing member secured to the top of the frame member and extending into the channel of the blind stop, a sheet metal sash guide secured against the face of the spacing member and a removable resilient cushion member of fibrous material positioned between the sash guide and frame member and extending into the channel of the blind stop and a trim stop secured to the face of the frame member and engaging the cushion member and sash guide to maintain the same in position, said trim stop being removable to allow removal of the cushion member from between the sash guide and frame member, the removal of the cushion member allowing disengagement of the sash guide from the sash and removal of the sash.

2. In a window construction, a window frame including a frame member and blind stop, a spacing member secured to the top of the frame member, a sheet metal sash guide secured against the face of the spacing member and extending downwardly therefrom in spaced relation with the frame member, a removable resilient cushion member of fibrous material positioned between the sash guide and frame member below the spacing member and a trim stop secured to the face of the frame member and engaging the cushion member and sash guide between the blind stop and trim stop, the trim stop being removable to allow removal of the resilient cushion member from position between the frame member and sash guide.

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