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WEATHER STRIPPING FOR DOORS AND WINDOWS

Filed Sept. 8, 1926

2 Sheets-Sheet 1
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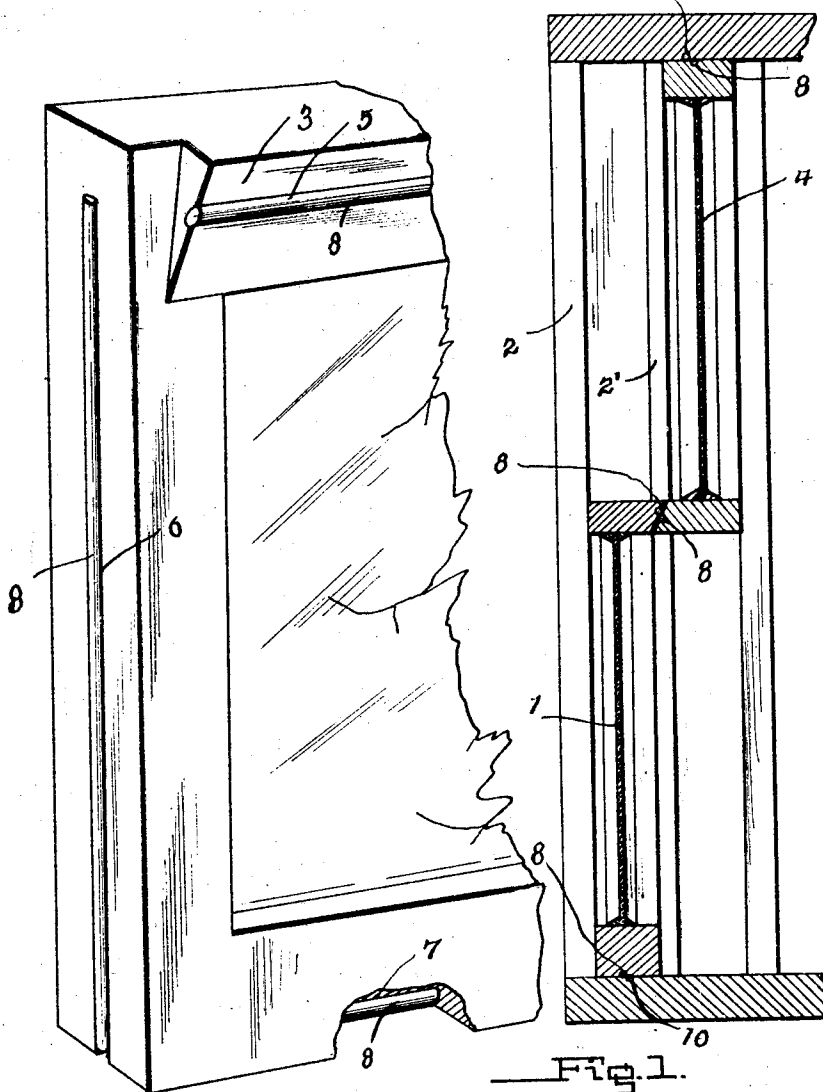


Fig. 3.

Fig. 1.

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2 Sheets-Sheet 2

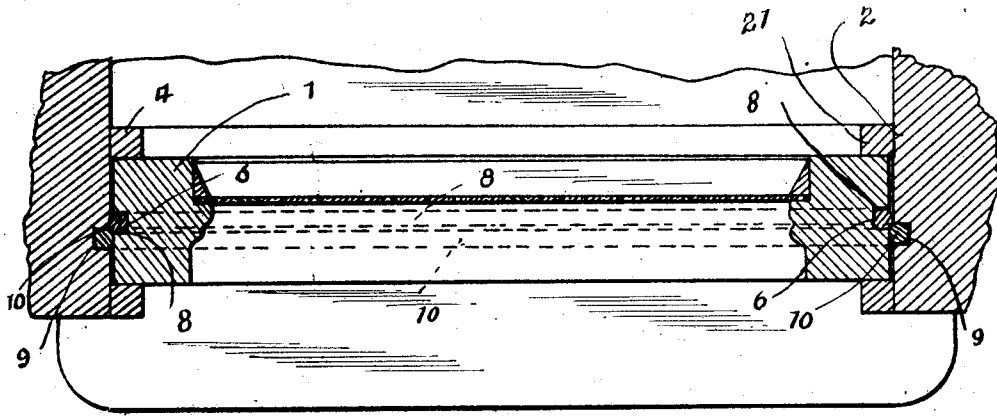


Fig. 2.

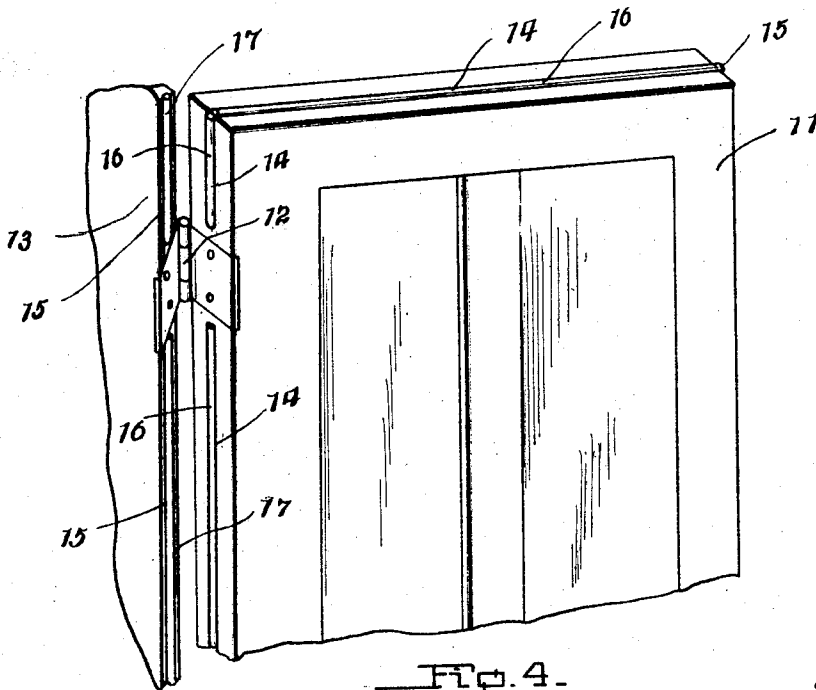


Fig. 4.

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WEATHER STRIPPING FOR DOORS AND WINDOWS.

Application filed September 8, 1926. Serial No. 134,239.

This invention relates to window and door constructions, and one object of the invention is to provide the door or window and the frame in which it fits with weather stripping which will form a tight seal and prevent cold air, dust or moisture from entering a room or building.

Another object of the invention is to provide stripping which may be readily applied and will not be liable to work loose when a door or window is opened or closed.

Another object of the invention is to prevent the stripping from interfering with easy opening and closing of the window or door.

The invention is illustrated in the accompanying drawings, wherein

Figure 1 is a vertical sectional view of a window provided with the improved weather stripping;

Fig. 2 is a transverse sectional view through the window sash and a portion of the window frame in which the sash is slidably mounted;

Fig. 3 is a perspective view showing one side portion of a window sash provided with the improved weather stripping, and

Fig. 4 is a perspective view showing a portion of a door provided with the improved stripping.

In Figs. 1, 2 and 3, there has been illustrated a window frame and sashes provided with the improved weather stripping. The sash, which is indicated in general by the numeral 1, represents a lower sash and is slidably mounted in the usual track formed in the window frame, indicated by the numeral 2. The sash 1 may be provided with a thickened upper portion 3 to overlap a correspondingly shaped lower portion of an upper sash 4, or, if the sashes are slidably mounted in a single track instead of tracks separated by a bead 2', thickening of the portions of the sashes which overlap will not be necessary. A groove 5 which may be either arcuate or rectangular in cross section is formed in the outer side face of the upper portion of the sash 1 and similar grooves 6 and 7 are formed along the side and lower edge face of the sash. Strips 8, which are preferably formed of rubber, are seated in the grooves 5, 6 and 7 and project slightly so that, when the sash is mounted in the frame 2, the strips 8 at the sides of the sash will engage the inner walls of the tracks, as shown in Fig. 2, and the strip which extends

across the bottom of the sash will contact with the sill when the window is closed. It will be understood that both the upper and lower sashes will be provided with grooves in which packing strips 8 are mounted but that the upper sash will be provided with a packing along its upper edge face instead of its lower edge. Grooves 9 are formed vertically in the inner walls of the tracks of the window frame and packing strips 10, similar to the strips 8, are placed in the grooves 9. The strips 8 and 10 may be firmly secured by cement or in any other desired manner. It should be noted that the packing strips 10 are in slightly offset relation to the strips 8 at the sides of the window so that, while the strips of the frame and sash may contact and form a tight closure between the sash and frame, they will not interfere with sliding of the sash vertically in the frame to an open or a closed position. It should be further noted that the packing strip 8 contacts with the side edge face of the sash as well as engaging the packing strip 10 and the packing 10 has a portion engaging the side of the window frame. Therefore, the two packing strips cooperate to provide a three point contact between the window frame and sash and a very tight joint is formed between them. The sill and top of the frame are also provided with grooves 9, each having a packing strip 10 placed therein in slightly offset relation to the strips extending respectively along the lower and upper edges of the upper and lower sashes. A very tight joint will, therefore, be formed which will effectively prevent cold air, dust and rain from entering a room between a window frame and sashes slidably mounted therein. It will be obvious that a window including a frame and a single sash slidable therein instead of upper and lower sashes could be packed in a similar manner.

In Fig. 4, the improved packing has been shown applied to a door 11 which is of a conventional construction and pivotally mounted through the medium of hinges 12 secured to the door jamb or frame 13 at one side of the door. Grooves 14 and 15 are cut in the edge faces of the door and frame, and in these grooves are mounted packing strips 16 and 17, similar to the packing strips 8 and 10. These strips may be either round, square or any other desired shape in cross section. When applied to the door and

frame, they project slightly from the grooves formed therein and will be compressed between the door and frame when the door is closed. It will thus be seen that the packing strips may be applied to a door as well as to a window and that, when the doors and windows of a house or other building are equipped with the improved door and window construction, cold air, dust and rain will be excluded and rattling of the doors and windows prevented. Windows which are pivotally mounted in a frame by pins and swung into and out of a closed position would be provided with packing similar to that provided for the door shown in Fig. 3.

Having thus described the invention, I claim:

1. In a structure of the character described, a frame, a closure in said frame movable into and out of a closed position, packing strips extending along the edge faces of said closure, and companion packing strips extending along adjacent faces

of said frame, cooperating packing strips of the frame and closure being partially overlapped transversely for side to side contact with each other and contacting engagement with the frame and closure to form a tight joint between the frame and closure.

2. In a structure of the character described, a frame, a closure in said frame movable into and out of a closed position, the edge faces of said closure and abutting faces of said frame being formed with longitudinally extending grooves disposed in overlapped and transversely offset relation when the closure is shut, and companion packing strips firmly seated in said grooves, said packing strips being circular in cross section and having portions projecting from the grooves for overlapped side to side contact with their companion packing strips and contacting engagement with the frame and closure adjacent the grooves when the closure is shut.

In testimony whereof I affix my signature.
NORRIS E. BRAY. [l. s.]