Aug. 9, 1938. J. RENTLER 2,126,043

STRIP MOUNTING DEVICE FOR WINDOWS

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Fig. 1.

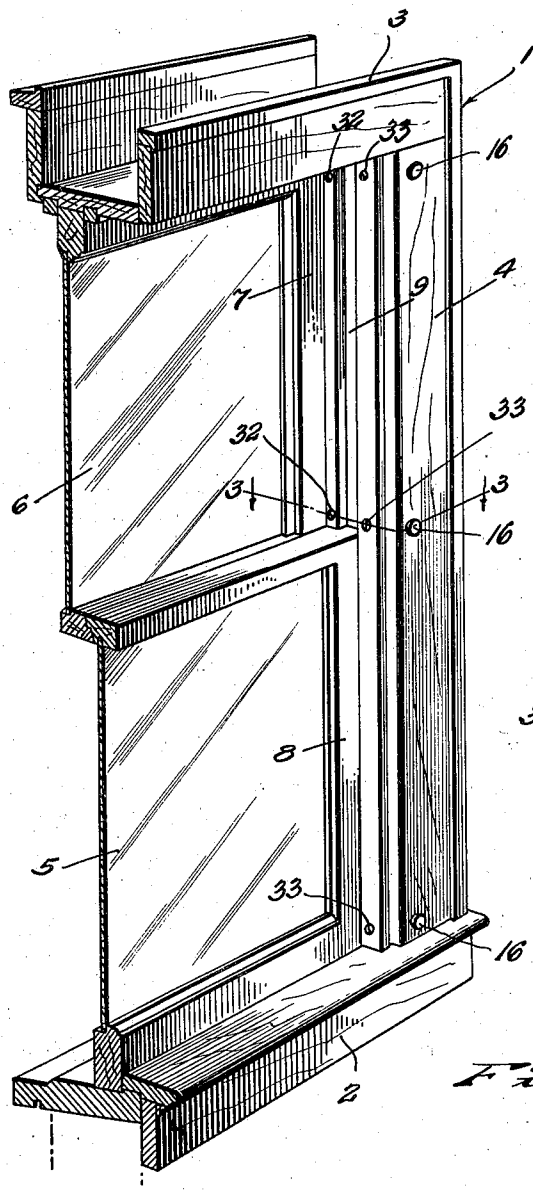


Fig. 5.

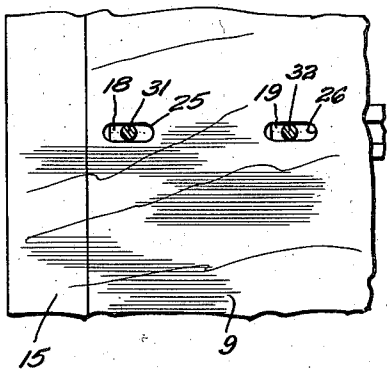


Fig. 7.

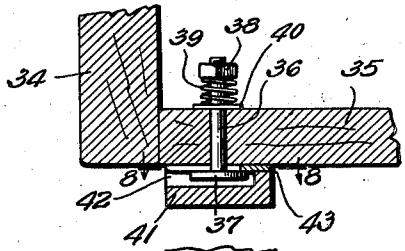


Fig. 8.

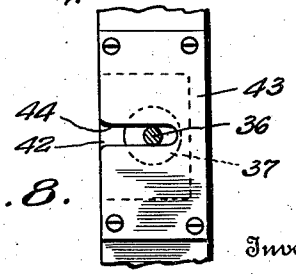
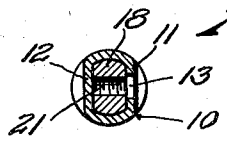


Fig. 6.



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Fig. 2.

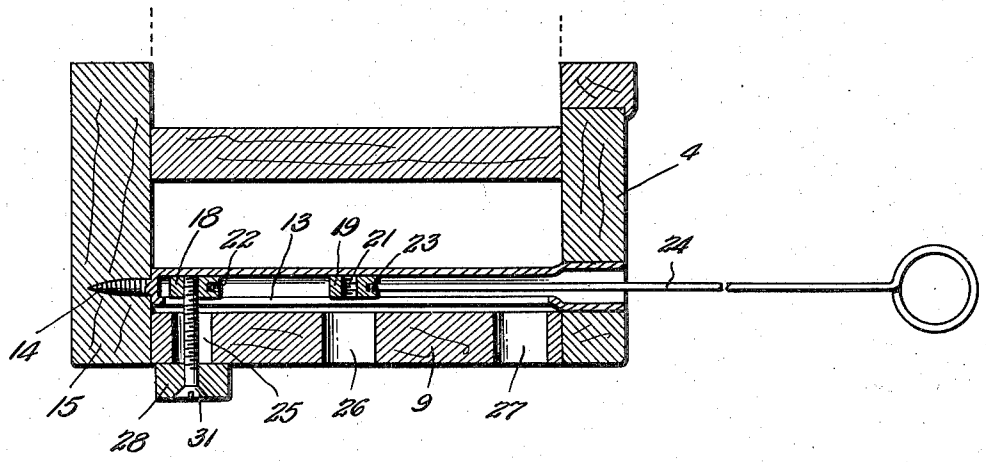


Fig. 3.

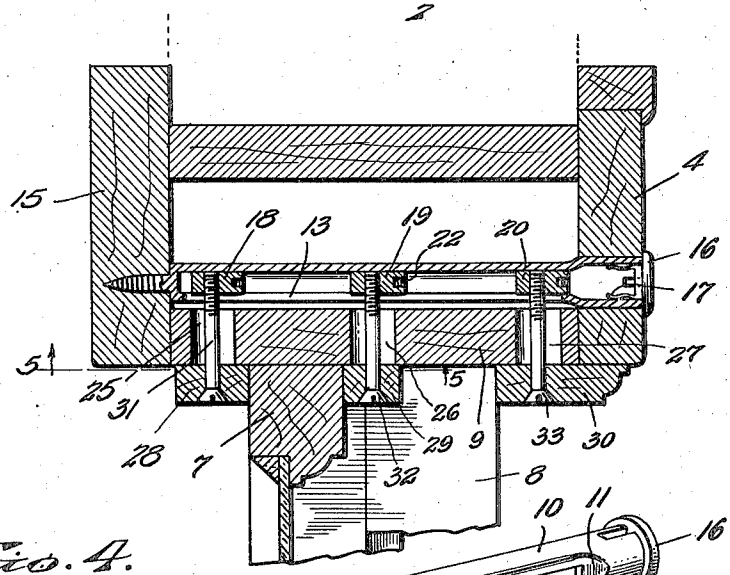
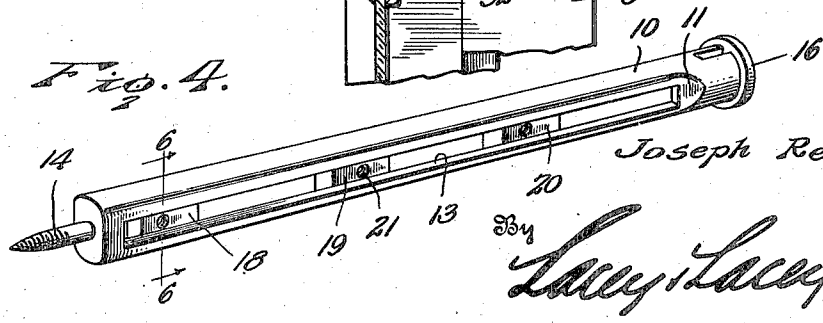


Fig. 4.



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STRIP MOUNTING DEVICE FOR WINDOWS

Joseph Rentler, Columbus, Ohio

Application February 4, 1937, Serial No. 124,103

5 Claims. (Cl. 16—220)

This invention relates to an improved strip mounting device for windows and is more particularly intended for use in mounting the guide strips used in guiding sashes in a window frame.

One object of the invention is to provide a strip mounting device for windows which may be built into window frames of new houses during construction, or which may be readily installed in window frames of houses already built, and which device will permit quick adjustment of the guide strips to lie in close relation to the side rails of the sashes so that the windows will be sealed to prevent leakage of air about the sashes without the use of weather-stripping.

Another object of the invention is to provide a strip mounting device which will permit quick removal of the guide strips should it be necessary to repair or replace ropes of the window frame.

Another object of the invention is to provide a device of this character, a plurality of which are adapted to be placed in a window frame at both sides thereof in a vertical spaced series and being adapted to carry the guide strips on said sides and permit close engagement of said guide strips with opposite sides of sashes so that the sashes will be prevented from rattling.

And a still further object of the invention is to provide a strip mounting device which may be manufactured cheaply in quantity.

Other and incidental objects of the invention not specifically mentioned will render themselves apparent during the course of the following description.

In the accompanying drawings:

Figure 1 is a vertical sectional view, partly in perspective, of a window frame embodying my improved strip mounting device.

Figure 2 is an enlarged horizontal sectional view of a portion of a window frame with my improved strip mounting device partially installed therein, the manner of placing the bolt anchoring blocks employed being shown.

Figure 3 is an enlarged horizontal sectional view on the line 3—3 of Figure 1, looking in the direction indicated by the arrows.

Figure 4 is an enlarged perspective view showing one of my strip mounting devices as it would appear before installation, and with the anchoring bolts employed removed.

Figure 5 is an enlarged detail sectional view on the line 5—5 of Figure 3.

Figure 6 is a fragmentary vertical sectional view on the line 6—6 of Figure 4.

Figure 7 is a horizontal sectional view of a slightly modified form of my invention.

Figure 8 is a vertical sectional view on the line 8—8 of Figure 7, looking in the direction indicated by the arrows.

Referring now more particularly to the drawings, wherein like numerals of reference will be seen to designate like parts throughout the various views, the numeral 1 indicates in general, a window frame which includes a sill 2, a top portion 3, and a side facing 4. Sashes 5 and 6 are adapted to be slidably mounted in the frame and have side rails 7 and 8 which are slidable against side rails 9 of the window frame.

My improved strip mounting device for windows comprises a tubular body 10 which is provided with flattened oppositely disposed portions 11 and 12. The body is formed with a longitudinal slot 13 which extends throughout substantially its entire length through one of said flattened portions. The forward end of the body is provided with a screw 14 which is adapted to be engaged in an outer rail 15 of the window frame, while the inner end portion of the body is adapted to be closed by a removable cap 16, which is formed with spring clips 17.

Carried in the body 10 and adapted to slide longitudinally therein, are anchoring blocks 18, 19 and 20. Each of the anchoring blocks is formed with laterally disposed threaded openings 21 which are presented to confront the slot 13. Relatively small threaded openings 22 are formed in each of the blocks at one end thereof. As best seen in Figures 2 and 3 of the drawings, the blocks are positioned in the body with the openings 21 confronting the slot 13 and the openings 22 facing the outer end of the body. The openings are adapted to receive the threaded shank 23 of an adjusting rod 24. By referring to Figures 1, 2 and 3 of the drawings, it will be seen that the body 10 is screwed through the facing 4 and into the outer rail 15 so that said body extends between the outer rail 15 and the facing 4 in close parallel spaced relation with the rail 9 therebehind. The rail 9 is formed at points in a laterally spaced series and confronting the slot 13 of the body 10, with lateral openings 25, 26 and 27. Guide strips 28, 29 and 30 are adapted to be removably connected with the window frame and are intended to engage opposite sides of the side rails 7 and 8 of the sashes 6 and 5 respectively. In order to mount the guide strips 28, 29 and 30 in proper relation to the window frame, I provide anchoring bolts 31, 32 and 33. The anchoring bolts are adapted to be screwed through said strips and have externally threaded inner end portions passing through the slot 13

and into the openings 21 of the blocks 18, 19 and 20.

In a typical window frame, such as is shown in Figure 1 of the drawings, and in order to mount the sashes 5 and 6 properly therein, three of my improved mounting devices are shown as being mounted in a side rail 9, one of them being preferably disposed at the top of the window frame, one at the bottom, and one medially between the top and bottom of said window frame. It should be understood that three of the devices are carried behind the opposite side rail of the window frame. The bolts 31, 32 and 33 are then screwed into the blocks 18, 19 and 20, but before tightening said bolts, the guide strips 28 and 30 are moved toward each other and toward the guide strip 29, which guide strip 29 is intended to remain stationary at all times. The blocks are moved such a distance that the guide strips will be snugly but yet slidably engaged with the side rails 7 and 8 of the sashes 6 and 5 respectively, so that said sashes will be permitted to be raised and lowered in a normal manner. A tight seal against air will be provided so that it will not be necessary to use weather-stripping. The lateral openings 25, 26 and 27 permit the bolts to be moved the desired distance and, after the bolts and guide strips have been shifted, the bolts are tightened in the anchoring blocks for firmly clamping the guide strips against the face of the side rail 9. The devices will be firmly anchored in position in the window frame and the guide strips will be firmly fastened in position so that the sashes will be prevented from rattling. Should changes in weather conditions slightly warp or otherwise loosen the sashes between the guide strips, or if a rise in temperature should cause said sashes to stick between the guide strips, it is only necessary to loosen the bolts 31 and 33 and then shift the guide strips 28 and 30 either away from or toward the side rails 7 and 8 of the sashes, accordingly as may be necessary either to loosen or to tighten the sliding engagement between the sashes and the guide strips. If one or more of the ropes of the window frame should break, the strips may be readily removed by merely removing the bolts from the anchoring blocks so that repairs to the ropes, or renewal thereof, may be made with relative ease.

During installation, the block 18 is first placed in position by means of the adjusting rod 24. That is to say, the shank 23 is, as described, screwed into the opening 22 of the block 18 and said block is shifted in the body to a point near the forward end thereof and to a point where the opening 21 in said block confronts the lateral opening 25 in the rail 9. When the block is in this position, it will be a simple matter to screw the bolt 31 into said block. Successively, the blocks 19 and 20 are placed in position in the body in the same manner. Should it be desired to remove the blocks, or any of them, from the body, 10 it is only necessary to remove the cap 16, remove the bolts 33, 32 and 31 in the order named, and then remove the blocks 20, 19 and 18 from the body, also in the order named. It is believed that the operation of my improved strip mounting device for windows will be clearly understood from the foregoing.

Referring now to the modification of the invention as shown in Figures 7 and 8 of the drawings, the numeral 34 indicates the outside rail of a window frame while the numeral 35 indicates the side rail of said frame. The side rail 35 is adapted to receive therethrough an anchoring bolt 36 which is provided with an enlarged head 37 adapted to overlie the outer face of the side rail 35. The bolt 36 is adapted to extend past the inner surface of the rail 35 and is threaded to receive a nut 38. A coil spring 39 surrounds the inner end portion of the bolt between the nut 38 and a washer 40, which washer is adapted to overlie the outer surface of the rail 35. The numeral 41 indicates one of the guide strips which is employed for retaining the sashes against lateral movement and for preventing inflow of air past the side rails of the sashes. The guide strip includes a cut away portion 42 which is adapted to receive, removably, the enlarged head 37. An anchoring plate 43, seen more clearly in Figure 8, is adapted to overhang the cut away portion 42 and is provided with a laterally extending relatively long slot 44. The slot 44 is adapted to receive the bolt 36, adjacent the enlarged head 37. It will be understood that the bolt 36 and head 37, by virtue of the spring 39, will retain the strip 41 against outward movement from the rail 35. When the nut 38 is tightened to its innermost extent along the bolt 36, the bolt will firmly lock the strip in position on the rail 35. However, by slightly loosening the nut 38, the strip may be shifted laterally inwardly toward the side rails of the sash for providing sealing means therefor, so that weather-stripping will not be needed. It should be understood that a suitable readily accessible opening is provided for the nut 38. It will be seen that the general idea of the modification of this invention is identical with that of the preferred form.

Having thus described the invention, what I claim is:

1. A strip mounting device for windows including a body adapted to be positioned in a window frame, anchoring blocks carried by the body, and anchoring bolts carried by the anchoring blocks being adapted to mount sash guide strips in position engaging sash rails whereby sashes will be sealed against air flow without the use of weather-stripping.

2. A strip mounting device for windows including in combination with a window frame having a facing, a side rail and an outer rail, said side rail being provided with lateral openings, a body carried by the frame between said facing and said outer rail in parallel relation with said side rail, said body having a longitudinal slot adapted to confront said lateral openings, an anchoring block carried by the body, an anchoring bolt removably connected with said anchoring block and adapted to extend through certain of said lateral openings, said anchoring bolt being adapted to mount a guide strip and said bolt being partially releasable from said anchoring block for permitting movement of said bolt in said lateral openings and movement of said guide strip toward the side rail of a window sash carried by the window frame whereby said sash will be weather sealed in said frame.

3. A strip mounting device for windows including in combination with a window frame having a facing, a side rail, an outer rail, and a sash, said sash having side rails, a body carried by the frame and extending between the facing and said outer rail in parallel spaced relation to the side rail of said frame, said body having a longitudinal slot adapted to confront lateral openings formed in the side rail of the frame, anchoring blocks mounted in the body and having openings adapted to confront the slot and said lateral openings, said anchoring blocks being mounted in a laterally

spaced series, anchoring bolts carried by the blocks and removably connected with said blocks, said anchoring bolts being adapted to extend through said lateral openings, and guide strips carried by the anchoring bolts, said bolts being partially releasable for permitting lateral movement of said bolts and said anchoring blocks, said bolts being movable in said lateral openings and said slot in the body for engaging the guide strips with the side rail of the sash whereby said sash will be weather sealed and prevented from lateral movement, said anchoring bolts being rotatable in the anchoring blocks for clamping the guide strips in a set position.

4. As a new article of manufacture, a strip mounting device for windows including a body having a closed end provided with a screw, said body being provided with a longitudinal slot, anchoring blocks slidably mounted in the body and having openings confronting the slot, said body being provided with an open opposite end, a removable cap normally closing said open opposite end, and anchoring bolts engageable through the slots and the openings in said anchoring blocks.

5. A strip mounting device for windows including a body adapted to be positioned in a window frame, said body having oppositely flattened portions and one of said portions being formed with a longitudinally extending slot, anchoring blocks carried within the body in a longitudinally spaced series and having openings confronting said slot, and anchoring bolts carried by the blocks and removably engageable through said longitudinal slot, said anchoring bolts being adapted to adjustably mounted guide strips on the window frame, said guide strips being shiftable with said anchoring bolts and anchoring blocks for engaging the side rails of a sash whereby said sash will be weather sealed and will be prevented from rattling, said bolts being rotatable for tightening in said blocks and clamping the guide strips in a set position.

JOSEPH RENTLER.