Dec. 21, 1937. W. E. PETERS 2,103,015

REVERSIBLE SASH ATTACHMENT

Filed Feb. 15, 1937

Fig. 1.

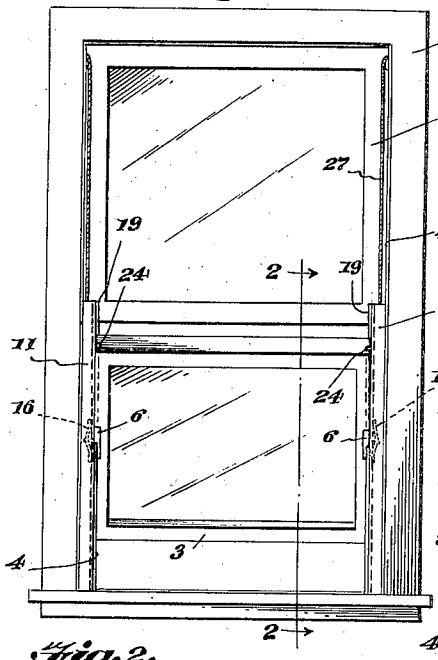


Fig. 3.

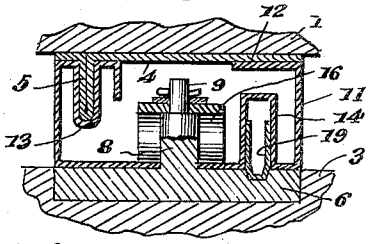


Fig. 4.

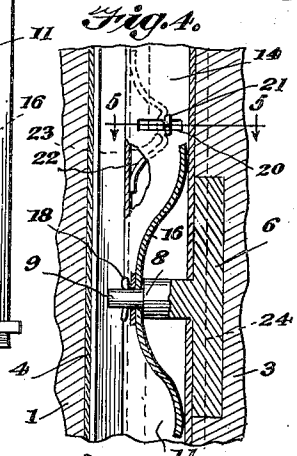


Fig. 5.

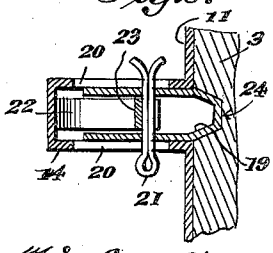


Fig. 2.

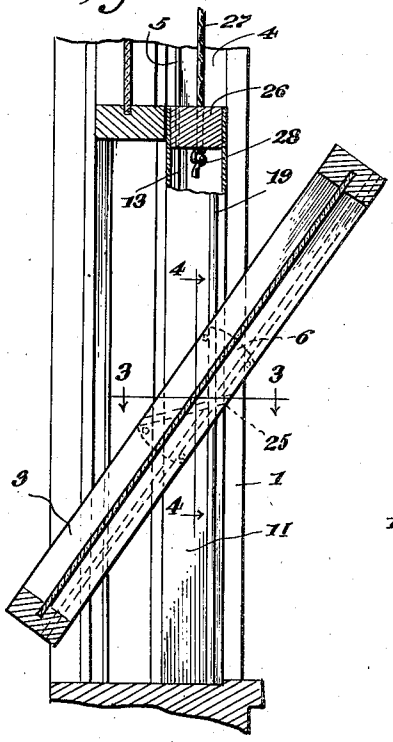


Fig. 6.

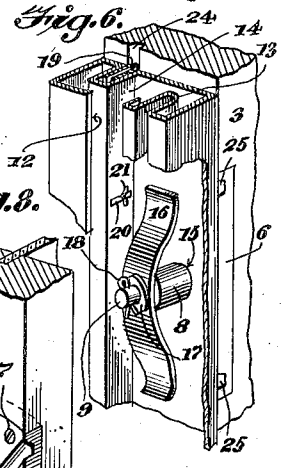


Fig. 7.

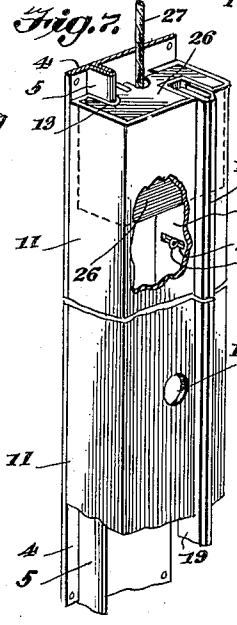
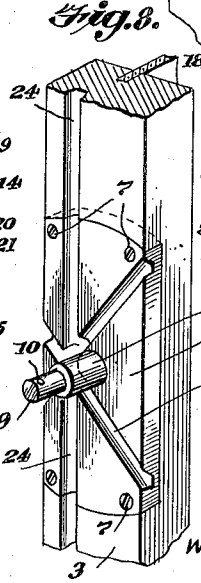


Fig. 8.



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UNITED STATES PATENT OFFICE

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REVERSIBLE SASH ATTACHMENT

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Application February 15, 1937, Serial No. 125,354

5 Claims. (Cl. 20—49)

This invention relates to a reversible sash attachment.

An object of the invention is the construction of novel means attached to a sash whereby the sash can perform its normal function of vertically sliding in a window frame, or can be tilted quickly to assume an inclined position, as the operator desires.

Another object of the invention is the improvement of the construction of runner casings attached to the sash, whereby the tilting of the sash is efficiently accomplished.

The improvement disclosed in these application papers is made upon the general structure disclosed in my prior Patent No. 1,406,411, issued February 14, 1922.

With the foregoing and other objects in view, my invention comprises certain novel constructions, combinations and arrangements of parts as will be hereinafter fully described, illustrated in the accompanying drawing and more particularly pointed out in the appended claims.

In the drawing:

Figure 1 is a view in front elevation of a window frame with its sashes, and showing my invention preferably attached to the lower sash.

Figure 2 is an enlarged sectional view, taken on line 2—2, Figure 1, and looking in the direction of the arrows.

Figure 3 is a sectional view, taken on line 3—3, Figure 2, and looking in the direction of the arrows.

Figure 4 is a sectional view, taken on line 4—4, Figure 2, and looking in the direction of the arrows.

Figure 5 is an enlarged sectional view, taken on line 5—5, Figure 4, and looking in the direction of the arrows.

Figure 6 is an enlarged perspective view, partly shown in section, of the runner casing, and looking at the inner side thereof.

Figure 7 is an enlarged perspective view, partly shown in section, of one of the runner casings, and looking at the outer side thereof.

Figure 8 is a large fragmentary sectional view of a sash, showing the plate in perspective and fastened thereto.

Referring to the drawing by numerals, 1 designates an ordinary window frame in which is slidably mounted the usual upper sash 2 and the lower sash 3. While my invention may be applied to either sash, I preferably show it applied to the lower sash 3.

The window frame 1 is provided on its inner edges with the usual vertical weatherstrips 4, each of which is provided with an inwardly extending flange 5; this flange is preferably formed by bending together two portions of the weatherstrip, as is clearly shown in Figure 3.

On opposite side edges of sash 3 are fastened plates 6 by preferably screws 7 (Fig. 3). Each plate 6 is provided with a stub axle 8 that is provided on its outer end with an extension 9. Extension 9 is provided with a transverse cotter-pin receiving aperture 10.

The two runner casings 11 which I employ in this preferred embodiment of my invention, are each formed by bending sheet metal to produce a hollow-like body that is open, on its inner face, as at 12; this inner face having an inwardly extending channel 13 for receiving flange 5 of the cooperating weatherstrip 4 (Figs. 3 and 6). On the outer face of the runner casing I bend in the metal to form primary channel 14, which is substantially rectangular shaped in cross section (Fig. 5).

Each runner casing 11 is provided with a large horizontal aperture 15 (Fig. 7) into which fits stub axle 8. Mounted on the extension 9 is a large bowed spring 16 (Fig. 6) against which fits washer 17, and against washer 17 is cotter-pin 18; this cotter-pin being in aperture 10. The ends of bowed spring 16 bear at all times against the inner face of the runner casing and exert pressure thereon to hold the runner casing snugly against the sash. This structure will be further understood upon referring to my prior Patent No. 1,406,411. It is to be understood that the two channels 13 and 14 extend longitudinally of the runner casing and from end to end thereof.

A sliding locking strip 19 is mounted in each primary channel 14. This locking strip is formed preferably of sheet metal and is substantially U-shaped in cross section (Fig. 5). In the sides of the primary channel 14, and preferably near its ends, are sets of registering slots 20. A cotter pin 21 extends through the registering slots 20 of each set and through the sides of the locking strip 19. A bowed spring 22 is provided at its center with an inwardly extending saddle 23 into which cotter-pin 21 fits. The bowed spring 21 is positioned by sliding it under cotter-pin 21 until the pin fits in saddle 23, whereby the spring is fastened in an assembled position. The two springs 22 of each runner casing serve to keep the outer end of locking strip 19 either in the longitudinally extending groove 24 of the sash and plate 6, or in the transverse grooves 25 of plate 6, depending upon the position of the sash upon the window frame. It is, therefore, obvious

that these locking strips 19 are yieldably mounted in position and serve to lock the sash either in its normal vertical position within the window frame, or in an inclined position, as shown in Figure 2, as the operator desires.

Within the ends of each runner casing 11 are filler blocks 26. Extending through the two upper blocks of the two runner casings are window sash cords 27; each cord is knotted as at 28 (Fig. 2) on its inner end so that the cord is securely fastened in an assembled position with its cooperating block. The blocks are securely fastened, by any ordinary means, within the runner casings.

While I have described the preferred embodiment of my invention, and have illustrated the same in the accompanying drawing, certain minor changes or alterations may appear to one skilled in the art to which this invention relates, during the extensive manufacture of the same, and I, therefore, reserve the right to make such alterations or changes as shall fairly fall within the scope of the appended claims.

What I claim is:

1. In a device of the class described, the combination with a sash, plates fastened to the side edges of said sash, each plate provided with an inclined groove and with a longitudinally extending groove, said sash provided with a longitudinally extending groove registering with the longitudinally extending groove of said plate, of runner casings engaging said sash and said plate, each runner casing provided with a hollow channel, a hollow locking strip slidably mounted in said channel, said hollow locking strips provided with means therein, whereby they are extended into said grooves of said plates and said sash.

2. In a device of the class described, the combination with a sash, plates provided with grooves fastened to the side edges of said sash, of hollow sheet metal runner casings on said sash, each runner casing being provided with an inwardly-extending channel elongated in cross section and provided in its sides with sets of transversely-positioned registering slots, a sliding locking strip substantially U-shaped in cross section in each channel, pins in the registering slots and extending through the sides of said locking strips, springs in each channel and bearing against said pins, and said locking strips being adapted to engage the grooves of said plates.

3. In a device of the class described, the combination with a sash, plates provided with grooves fastened to the side edges of said sash, of runner casings on each sash, each runner casing provided with slots and a sliding locking strip, pins extending through said sliding locking strip and positioned in the slots of said runner casing, bowed springs in said runner casing, each spring provided with a saddle, and one of said pins seated in each saddle.

4. In a device of the class described, the combination with a sash, plates provided with grooves fastened to the side edges of said sash, of runner casings on each sash, each runner casing provided with a slotted channel, a sliding locking strip in each channel, pins extending through said sliding locking strip and positioned in the slots of said channel, bowed springs in each channel, each spring being bent in at its center to from a saddle, and one of said pins seated down in said saddle.

5. In a device of the class described, the combination with a sash, plates fastened to the side edges of said sash, each plate provided with grooves, said sash provided with a groove registering with the grooves of said plates, of runner casings engaging said sash and said plates, each runner casing provided with a hollow channel, a locking strip substantially U-shaped in cross section in each channel, and springs in each channel and exerting outward pressure on each locking strip.

WILLIAM E. PETERS.