July 6, 1943. C. L. MILLS 2,323,559

SASH FIXTURE FOR WINDOWS AND THE LIKE

Filed Aug. 30, 1940

Fig. 1.

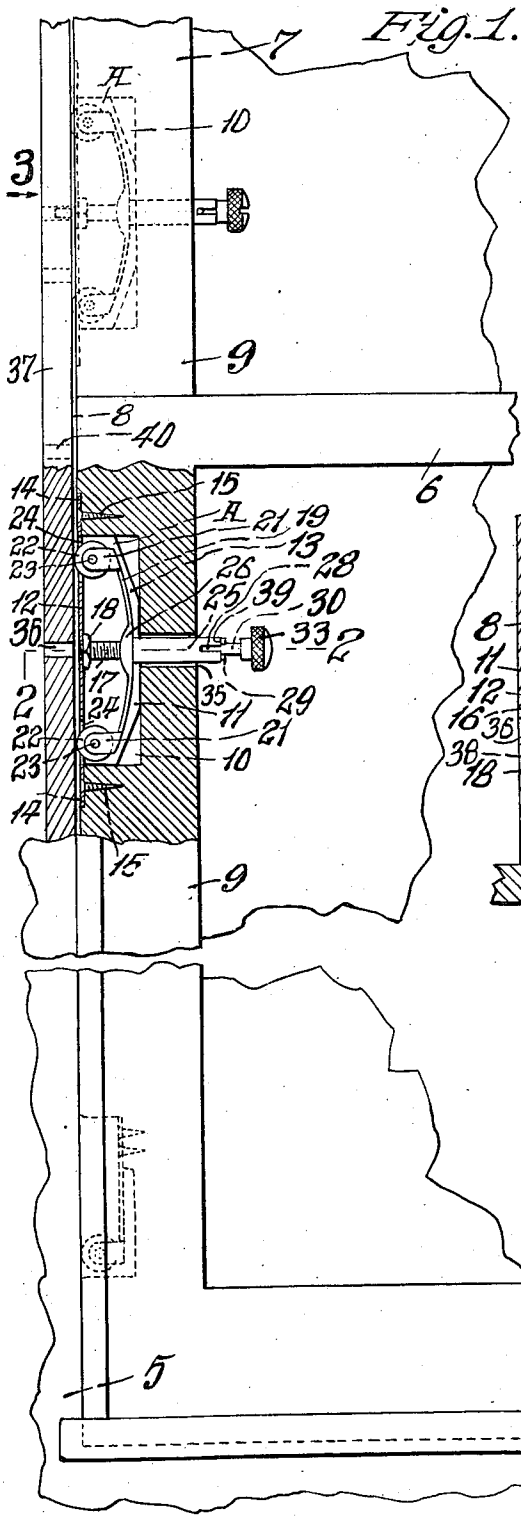


Fig. 3.

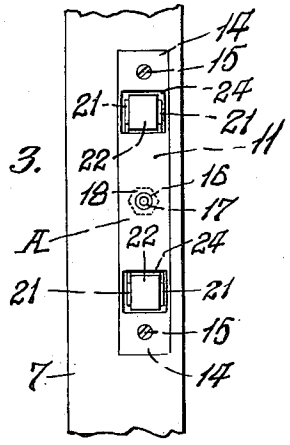


Fig. 2.

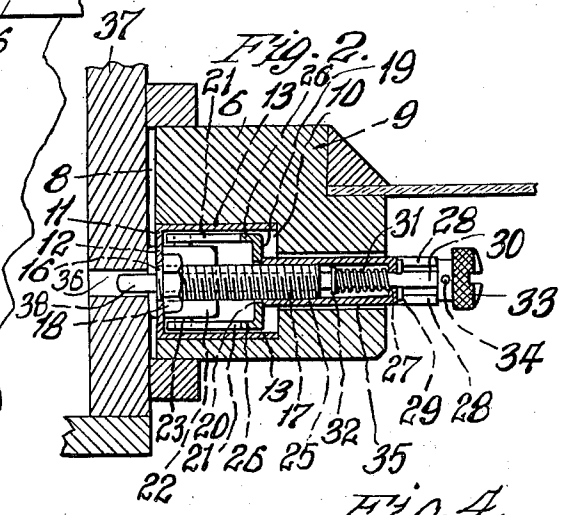
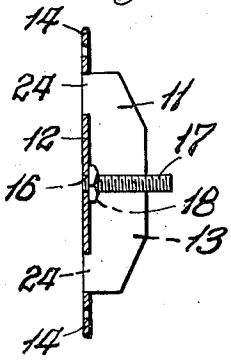


Fig. 4.



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SASH FIXTURE FOR WINDOWS AND THE LIKE

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Application August 30, 1940, Serial No. 354,871

2 Claims. (Cl. 292—9)

This invention relates to certain new and useful improvements in a sash cord fixture for windows and the like, and has for its purpose to provide a structure in the form of a fitting for a window sash, to be used in lieu of the heretofore balancing weights and sash cords for sustaining the sashes in any located positions.

The invention has for its primary object to provide a sash cord eliminator in the form of a fitting to be secured on a side edge or opposing side edges of a window sash which is capable of yieldably supporting and guiding the sash in the guideways of a window frame.

Another object of the invention is to provide a fitting structure for a window sash with an improved roller support mounting and more specifically to provide a roller support of a leaf spring construction.

A further object is to provide the roller support of the fitting with improved tension adjusting means.

Still another object of the invention is to provide the fitting with improved means for locking the sash against being slidably moved in the sash or window frame.

Another still further object is to provide the fitting with combined sash locking and guide roller tension adjusting means.

With the foregoing and other objects in view which will appear as the description proceeds, my invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes may be made within the scope of what is claimed without departing from the spirit of the invention.

An embodiment of the invention is illustrated in the accompanying drawing, wherein—

Figure 1 is a side elevation of a fragmentary portion of a window and its frame having an intermediate portion thereof broken away and part thereof being shown in section.

Figure 2 is an enlarged fragmentary horizontal sectional elevation taken approximately on the line 2—2 of Fig. 1.

Figure 3 is an end elevation of a portion of a window sash taken in the direction of the arrow 3.

Figure 4 is a vertical sectional elevation through the housing portion of the sash cord eliminator fitting.

Referring by numerals to the several figures of the drawing, 5 designates a portion of a window frame having a lower sash 6 and an upper sash 7 slidably mounted in respective vertical guideways 8 formed therein, and borne by each sash is a sash cord eliminator fitting A.

The fitting A in the upper sash 7 is shown as being mounted therein adjacent the lower end thereof, whereas the fitting A of the lower sash 6 is shown as being mounted adjacent the upper end of the sash and in a pocket 10 of a respective side member 9 of each sash, and in light weight sashes which are narrow in width only one eliminator fitting may be used, but in wide and heavy sashes, a pair of eliminator fittings may be used on each sash, with a fitting on each side thereof.

For the purposes of specific description of this improved sash fitting but one fitting A will be herein described and in this connection, a housing 11 having a base portion 12 and opposing side walls 13, is provided, the extending ends 14 of the base portion 12 each having an opening for the reception of a screw 15 for securing it to the side member 9 of the sash, with the side walls 13 thereof disposed in the pocket 10 of the member 9.

Threadingly secured in an opening 16 which is formed in the base portion 12 of the housing 11 intermediate of its length is one end of an exteriorly threaded sleeve 17 which is locked in right angular extending position from the base portion 12 by the jam nut 18. A roller support 19 in the form of a leaf spring which is provided with an intermediately disposed opening 20 is mounted over the sleeve 17, said roller support at each end having a pair of ears 21 for the support of a respective roller 22 by respective pins 23 passing through said ears and said rollers. Each roller 22 is engaged in an aperture 24, said apertures being formed in the base portion 12 of the housing 11.

Threadingly engaged on the extending end of the sleeve 17 is one end of a tubular extension 25, the end of said tubular extension which is engaged on the sleeve 17, being in abutment with the central portion of the roller support 19 and for stiffening the central portion of the roller support a pair of right angular bent portions 26 are formed thereon.

A wall 27 is formed on the inside of the tubular extension 25 and formed on said tubular extension from said wall 27 to the extending end thereof, are a pair of guiding slots 28 for the reception of respective ends of a pin 29 which is transversely projected from a locking bolt 30, said bolt being longitudinally disposed within the tubular extension 25 and extending into and through the sleeve 17 through an opening provided in the wall 27 of said tubular extension

25, said bolt 30 being spring actuated in one direction by a coil spring 31 mounted thereon between a collar 32 on said bolt and the wall 27 of the tubular extension 25, as shown in Fig. 2. The hand engaging knob 33 is secured to one end of the locking bolt 30 adjacent the slotted end of the tubular extension 25 by a pin 34.

In mounting a fitting A in a window sash, in addition to the pocket 10 being formed in the side member 9 of the sash, a hole 35 is formed in the member 9 intermediate the length of the pocket 10, and in communication therewith for projecting the tubular extension 25 as the housing 11 is being secured to the sash. Obviously the knob 33 can be mounted on the end of the locking bar 30 after the tubular extension 25 has been projected through the opening 35, the pin 34 of said knob securing it to the locking bolt.

After the fitting A has been secured to a window sash, the required yielding tension is given to the rollers 22 by manipulating the tubular extension 25 on the sleeve 17 and against the leaf spring roller support 19, the required tension given to the rollers being such as to hold the sash in any elevated or lowered position in the guideways 8. The tubular extension 25 can also be manipulated in adjustment by turning the knob 33 on the bolt 30 when the ends of the pin 29 are in engagement with respective slots 28 of the tubular extension. For locking the sash in closed position a hole 36 is provided in the wall 37 of the guideway in which the fitting A cooperates, said hole 36 being in alinement with the sleeve 17 so that the end 38 of the locking bolt 30 can be projected into the hole 36 by the spring 31 by the operator turning the knob 33 to release the ends of the pin 29 from engagement with the outer end 39 of the tubular extension 25 and allow the ends of the pin 29 to engage respective slots 28 of the tubular extension 25.

In Figure 2 of the drawing, the end 38 of the locking bolt 30 is shown in locked position in the hole 36, and in Figure 1 the locking bolt of the lower fitting A is shown in unlocked position with respect to the hole 36.

Other holes for locking engagement with the bolt 30 such as shown at 40, can be provided to hold the sash in a locked open position so that the sash cannot be further raised or lowered for the purposes of preventing unauthorized access.

For releasing the locking bolt 30 from locking engagement with either of the holes 36 or 40, the knob 33 is engaged and outwardly pulled against the pressure of the spring 31 until the ends of the pin 29 are withdrawn from the slots 28 and the knob is then turned to engage the ends of the pin 29 on the end 39 of the tubular extension 25.

Obviously constructional modifications of the sash cord eliminator fitting shown, are possible without departing from the spirit of the present invention and therefore it is to be understood that it is not necessary to limit the invention by the terms used in the foregoing description, excepting such as the state of the art may require.

What I claim is:

1. A fitting for a window sash comprising a base plate having a pair of vertically alined openings and an intermediately disposed threaded member extending at right angles therefrom, a roller in alinement with each opening of said base plate, a support for said rollers, a threaded sleeve mounted on said threaded member and having one end in cooperable engagement with said support, and a locking bolt reciprocably mounted in said threaded member and said sleeve and having keyed engagement with said sleeve for adjusting it on said threaded member.

2. A fitting for a window sash comprising a base plate, a pair of rollers, a support for said rollers, a sleeve extending at right angles from said base plate between said rollers and passing through said support, tubular adjustable means threadingly mounted on said sleeve, and having one end bearing against said support, said tubular adjustable means being slotted on its opposite end, and a spring actuated locking bolt mounted in said sleeve and said tubular adjustable means and having a pin for engaging cooperation with the slotted end of said tubular adjustable means.

CHARLES L. MILLS.