Sept. 15, 1925. 1,553,306

H. A. BUSBY

SASH HOLDER

Filed Feb. 16, 1925

FIG. 1

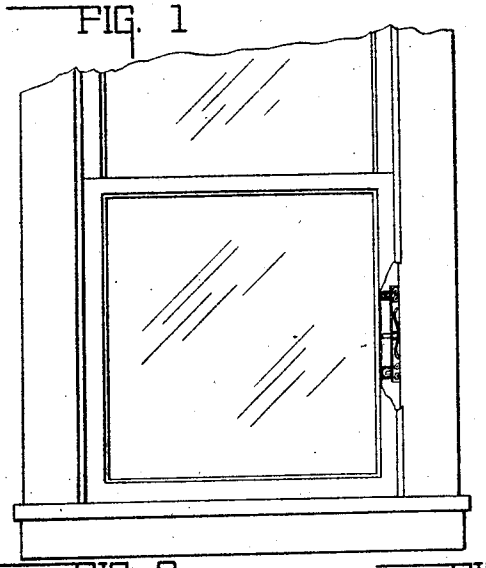


FIG. 5

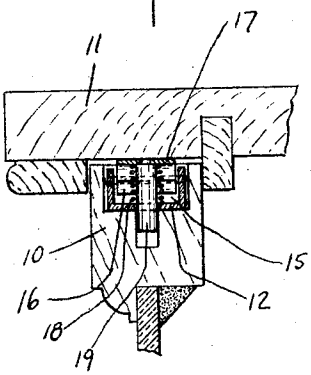


FIG. 2

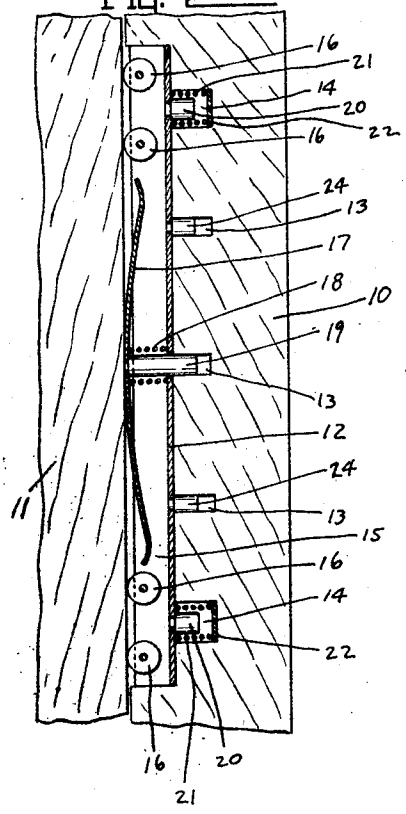


FIG. 3

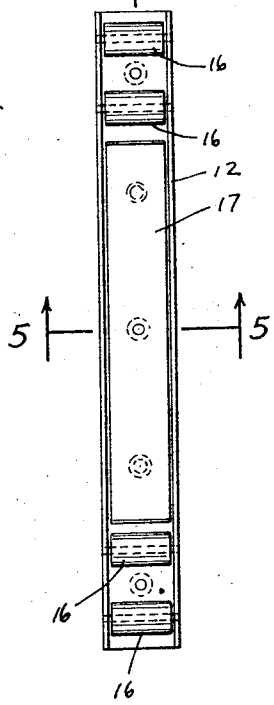
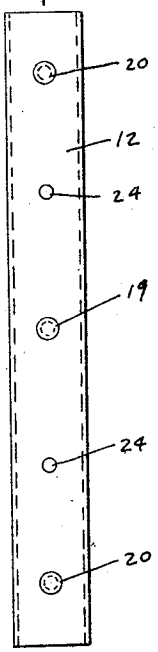


FIG. 4



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UNITED STATES PATENT OFFICE.

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SASH HOLDER.

Application filed February 16, 1925. Serial No. 9,573.

To all whom it may concern:

Be it known that I, HARPER A. BUSBY, a citizen of the United States, and a resident of Indianapolis, county of Marion, and State of Indiana, have invented a certain new and useful Sash Holder; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, in which like numerals refer to like parts.

This invention pertains to a device adapted to be employed in connection with a window sash and frame in place of the usual cord and weights for maintaining the window in a given open or elevated position, and preventing rattling and enabling a close fit of the window sash within the frame to be had.

The principal object of the invention is to provide a device or attachment adapted to be readily mounted within a window sash or within a frame, if desired, which will frictionally engage the sash or frame, as the case may be, and frictionally maintain the sash in adjusted position under spring tension, at the same time permitting its movement through the yielding action of the engaging member or device.

Other features of the device and the advantages obtained thereby will be hereinafter more fully set forth and described.

The full nature of the invention will be understood from the accompanying drawings and the following description and claims:

In the drawings, Figure 1 is a front elevation showing a window and frame with parts broken away to illustrate the position of the attachment or mounting. Fig. 2 is an enlarged sectional view illustrating the mounting of the device within the frame and the position of the sash with respect thereto. Fig. 3 is a front elevation of the device. Fig. 4 is a rear elevation thereof. Fig. 5 is a section taken on the line 5—5 of Fig. 3.

In the drawings there is shown a window sash 10 and a window frame 11. The window sash is provided along its sides with a longitudinal channel 12 and a plurality of inwardly extending tubular recesses 13 and 14 for receiving various parts of the attachment.

The attachment comprises a longitudinally extending channel frame 15 adapted to seat in the channel 12 having a plurality of rollers 16 pivotally mounted between its side flanges so as to protrude slightly beyond the same, as shown in Fig. 2. It is preferable that there be two rollers 16 positioned at each end between which there is mounted a curved friction plate 17 adapted to frictionally engage the abutting edge of the window frame. The friction plate 17 is bowed, having its free ends extending within the channel and its central portion protruding slightly beyond the flanges thereof and adapted to be forced outwardly into frictional engagement with the frame under spring tension of a coil spring 18. The coil spring 18 surrounds a pin 19 having a reduced head adapted to extend into a suitable opening in the plate 17 to be riveted flush with the engaging surface thereof and interconnecting the same therewith. The opposite end of the pin 19 extends through an opening in the channel iron and into the recess 13 of the sash.

Rigidly secured to the channel iron there are pins 20 extending rearwardly therefrom in position to extend freely into the recesses 14 in the sash. The ends of the pins 20 are spaced from the inner ends of the recesses 14 substantially the same as the space between the sash and channel iron, and are surrounded by the springs 21 adapted to seat between the channel iron and inner end of the recess so as to bear upon the plate 22 and provide a yielding cushion for said channel iron. The keys 24 comprise the inwardly extending pins formed upon the channel iron and slightly extending into their respective recesses 13 for locating and aligning the channel iron in proper position.

From the foregoing it will be apparent that the device may be mounted either upon the window frame so as to frictionally engage the sash, or upon the sash so as to frictionally engage the frame. The pin 19 and keys 24 align and position the channel iron or frame of the device, and the springs 21, which are compressed when it is in operative position, tend to force the rollers 16, as well as the plate 17, into frictional engagement with the sash or frame, as the case may be. The spring 18 further tends to force the plate 17 into frictional engagement under spring tension in conjunction with the springs 21.

The rollers 16 are adapted to maintain the sash in proper alignment in the frame and permit it to be readily raised or lowered,

also maintaining a close fit and eliminating any rattle or play. On the other hand, the plate 17 is under sufficient tension to resist the force of gravity upon the sash and hold it in elevated or adjusted position, at the same time permitting it to be moved up or down with relatively slight resistance. While spring-pressed friction plates may be substituted for the rollers 16, the window sash would not be as easily manipulated, as is the case with the rollers, as shown herein.

This device may be constructed as a unit for easy and ready installation upon the frame or sash, doing away with the usual pulleys, window cord and weights, and their accompanying expense and inconvenience in breakage. It will further eliminate the rattling of the weights on operating the window, and will take up all play which is otherwise ordinarily found in windows of the usual construction so as to eliminate the accompanying rattle due to the wind. It will also afford easier operation of the window since it will keep the sash in proper alignment with the frame so as to prevent its catching thereon, as has heretofore been the case.

The invention claimed is:

1. The combination with a window frame member, and a window sash member, of a frame countersunk in one of said members loosely and adapted to engage the other window frame member, a plurality of springs, one near each end of said frame adapted to yieldingly force said frame towards the other window frame member, and a plurality of keys secured to said frame fitting in holes of the window frame member in which it is mounted for guiding said frame, whereby the frame will be constantly and yieldingly forced towards the other window frame member.

2. The combination with a window frame member and a window sash member, one of said members being recessed, a yieldingly mounted frame in said recess adapted to be yieldingly forced towards the other window frame member, a friction plate fitting loosely in said frame, a pin secured centrally of said friction plate and slidably mounted in the wall of said frame, and a spring acting between the wall of said frame and said friction plate for yieldingly forcing the latter in frictional engagement with the other window frame member.

3. The combination with a window frame member, and a window sash member, of a frame countersunk in one of said members loosely and adapted to engage the other window frame member, a plurality of springs, one near each end of said frame adapted to yieldingly force said frame towards the other window frame member, a plurality of keys secured to said frame fitting in holes of the window frame member in which it is mounted for guiding said frame, a friction plate fitting loosely in said frame, a pin secured centrally of said friction plate and slidably mounted in the wall of said frame, and a spring acting between the wall of said frame and said friction plate for yieldingly forcing the latter to constantly engage it with the other window frame member.

4. The combination with a window frame member, and a window sash member, of an attachment therefor comprising a frame mounted upon one end of said members, a roller pivotally mounted on said frame adjacent each end thereof in position to engage the other member, and a spring pressed friction plate adapted to frictionally engage said other member under spring tension, whereby said sash member may be maintained in adjusted position.

5. The combination with a window frame member, and a window sash member, of an attachment therefor comprising a frame for frictionally engaging the other member, resilient means associated with the mounting of said frame for resiliently forcing said frame and friction means into engagement with the other member, whereby said sash member may be frictionally held in adjusted position with respect to the window frame member, and a roller mounted in said frame adjacent each end thereof for maintaining said members in alignment with each other.

6. The combination with a window frame member, and a window sash member, of a frame extending longitudinally therebetween, means for anchoring said frame to one of said members, resilient means associated with said frame and its mounting for resiliently forcing the same against the other member, a roller mounted on said frame adjacent each end thereof and positioned to engage said other member, and a friction plate included in said frame in engagement therewith, whereby said sash will be resiliently held against vibration and in adjusted position.

7. The combination with a window frame member, and a window sash member, of a channel frame adapted to extend therebetween, means for movably supporting said frame on one of said members, a roller pivotally mounted on said channel frame in position to engage the other member, a friction plate mounted within said channel frame between said rollers in position to frictionally engage said other member, a spring mounted in said channel frame in engagement with said plate for yieldingly forcing it into frictional engagement, and a spring associated with said channel frame and member upon which it is supported for yieldingly forcing it into frictional engagement, and a spring associated with said

channel frame and member upon which it is supported for yieldingly forcing said frame bodily against the other member.

8. The combination with a window frame member, and a window sash member, one of said members being provided with a channel having a plurality of recesses therein, of a channel frame adapted to be mounted in said channel, a plurality of pins on said frame adapted to slidably extend into said recesses, a spring mounted between said channel frame and supporting member adapted to resiliently force said frame bodily against the other member, a roller mounted in said channel frame adjacent each end thereof in position to engage said other member, and a friction plate resiliently mounted in said channel frame in position to frictionally engage said other member, whereby said window sash will be resiliently held against vibration and frictionally supported in adjusted position.

In witness whereof, I have hereunto affixed my signature.

HARPER A. BUSBY.