May 21, 1929. J. P. THORSLEY 1,713,935

WINDOW SUPPORT

Filed April 18, 1927

Fig. 1

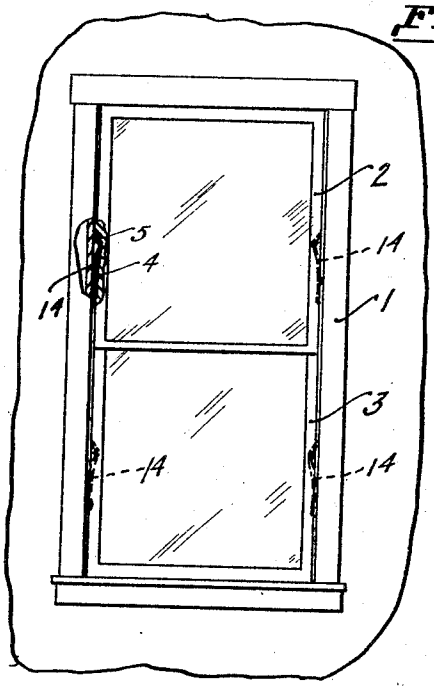


Fig. 2

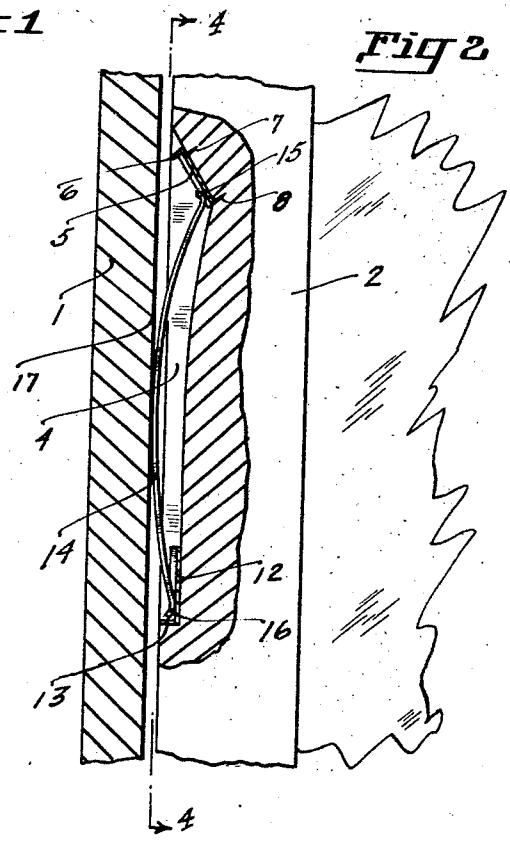


Fig. 3

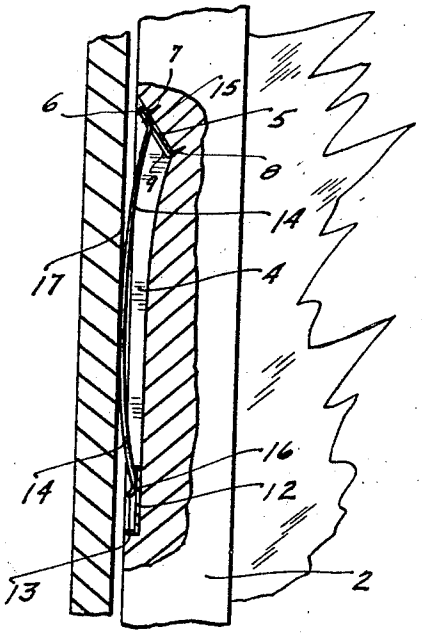


Fig. 4

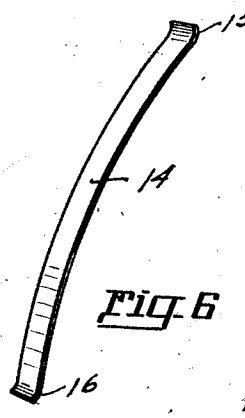
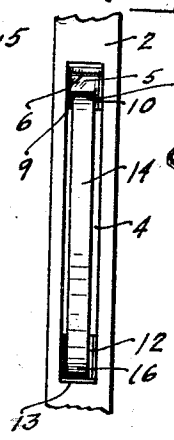


Fig. 6



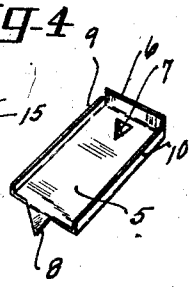


Fig. 5

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Patented May 21, 1929. 1,713,935

UNITED STATES PATENT OFFICE.

JOHN P. THORSLEY, OF PORTLAND, OREGON.

WINDOW SUPPORT.

Application filed April 18, 1927. Serial No. 184,623.

My invention relates to window supports or window stops and consists primarily of a shoe and a stop to be oppositely disposed within a recess formed in the sash of a window and having associated therewith a spring actuator, the oppositely disposed ends of which engage with the shoe and stop and the mid-section being adapted to engagement with the side of the window frame, the spring actuator being made of elastic or spring material.

The primary object of my invention consists in providing simple and efficient means for maintaining the window sashes in desired and placed position within the frame.

A still further object of my invention consists in simple and efficient means for the prevention of rattle to the window sash caused by the elements and heavy traffic or other causes.

A still further object of my invention consists in providing suitable means for accomplishing the above stated results without the use of sash cords, pulleys, sash weights and other associated elements generally used for this purpose.

A still further object of my invention consists in providing elements that are easily installed and that may be easily replaced and renewed without the dismembering of the window sash and the window frame.

With these and incidental objects in view, the invention consists in certain novel features of construction and combination of parts, the essential elements of which are set forth in the appended claims, and a preferred form of embodiment of which is hereinafter shown in reference to the drawings which accompany and form a part of this specification.

In the drawings:—

Fig. 1 is a front elevation, partially in section, of a window sash in place in the window frame illustrating my device in place therein.

Fig. 2 is a fragmentary front elevation, partially in section, of the sash and frame illustrating my device in place therein in an enlarged view, the same being shown in position during the raising of the sash.

Fig. 3 is a fragmentary front elevation, partially in section of the mechanism illustrated in Fig. 2, but illustrating the spring element in position that the same assumes on the lowering of the sash.

Fig. 4 is an edge view, taken on line 4—4 of Fig. 2, looking in the direction indicated.

Fig. 5 is a perspective view of the shoe element shown removed from the sash.

Fig. 6 is a perspective view of the spring element shown removed from the sash.

Like reference characters refer to like parts throughout the several views.

In the drawings:—

1 is the window frame of usual form and construction in which sashes 2 and 3 are arranged. In the placing of my device I form a recess 4, within a side wall of the window sash disposed between its ends and place therein a shoe 5, disposed at an angle to the vertical and having an upturned front wall 6, against which the spring element may be made to engage and limit its lateral movement. The shoe is preferably made of sheet material and having downwardly disposed engaging points 7 and 8, shown adjacent either end of the same and centrally its side walls to facilitate the engagement of the shoe with the sash and to maintain the same in position. Side walls 9 and 10 are disposed on the upper side of the shoe to maintain the spring element in position. A stop is disposed in the opposite end of the recess 4, and has a surface 12 upon which the spring element is made to engage and having an upturned end 13 to limit the longitudinal movement of the spring element. A spring element 14 of length and width adapted to engage within the recess 4 and to ride upon the shoe 5 and the stop 10 the same having outwardly rounded end sections 15 and 16 where the same engages with the shoe and stop. Upon the upward movement of the sash the spring element 14 assumes the position, as illustrated in Fig. 3 wherein the central section of the spring element 14 engages the wall of the window frame, as shown at 17 in Fig. 3. The friction of the spring element against the window frame causes a lateral movement of the spring element relative to the recess 4 and the upper end 15 of the spring element riding upon the surface of the shoe 5 the same is caused to move laterally the shoe and in doing so an increased tension is placed within the spring 14. When it is found desirable to raise the sash a lateral movement of the spring element occurs in the opposite direction to that obtaining when the sash is lowered and the lower end of the spring element 14 engages

the stop 13 outwardly disposed at the end of the stop 10, and in doing so the tension is released in the spring element 14 because of the same moving inwardly along the surface of the shoe element 5, thereby lessening the tension or spring resistance of spring element upon the window frame. Sufficient frictional engagement should be provided between the spring element 14 and the window frame to maintain the sash under compression and to prevent rattle.

While the form of mechanism herein shown and described is admirably adapted to fulfill the objects primarily stated, it is to be understood that it is not intended to confine the invention to the one form of embodiment herein shown and described, as it is susceptible of embodiment in various forms, all coming within the scope of the claims which follow.

What I claim is:—

1. The combination in a device of the class described for mounting in a recess formed within a window sash, of a shoe placed at an angle to that of the window frame associated with said sash, said shoe having an upturned ledge end and two side wall upturned sections, and having downwardly disposed points formed thereon, a stop element disposed within the recess and oppositely disposed therein to that of the shoe and a spring element having rounded end sections adapted to ride on the shoe and stop.

2. In a device of the class described, the combination with a window sash provided with a recess formed in said sash having oppositely disposed end sections, one end of which is at an angle to that of the side wall of the window frame, a shoe disposed in said inclined end section of the recess, said shoe having outwardly disposed side walls and end section, a stop disposed on the oppositely disposed end of the recess and a spring element having curved end sections disposed within the slot with its ends in engagement with the shoe and stop and the intermediate portion bearing upon the said wall of the window frame.

JOHN P. THORSLEY.