J. P. WILLIAMS.

SASH HOLDER.

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1,138,823. Patented May 11, 1915.

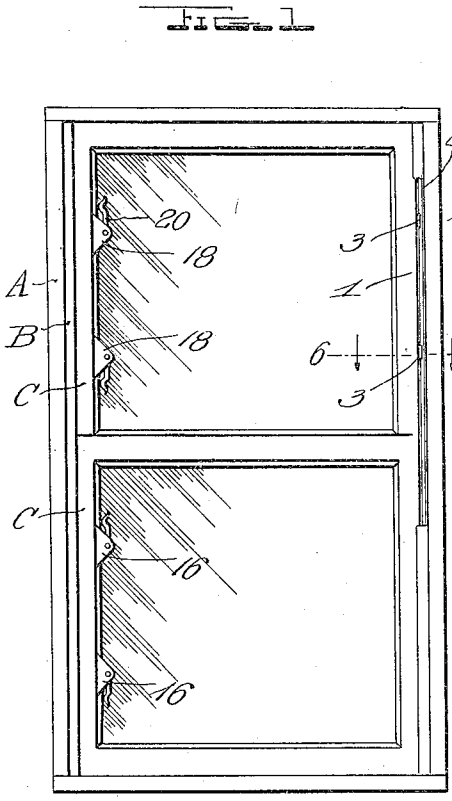


FIG. 1

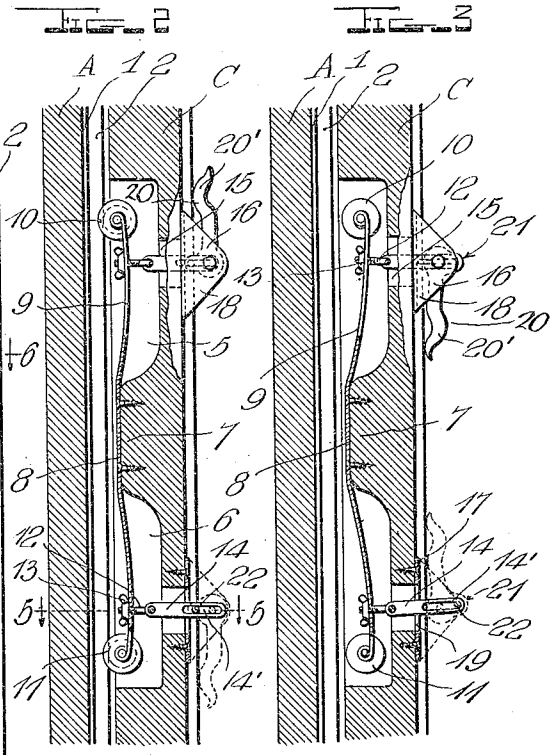


FIG. 2

FIG. 3

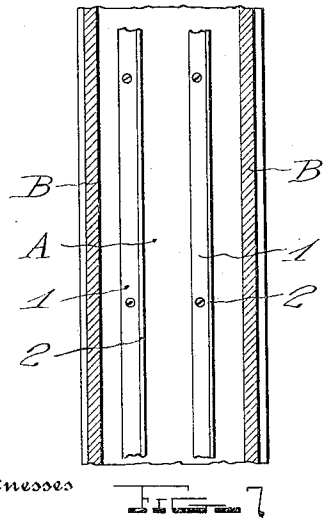
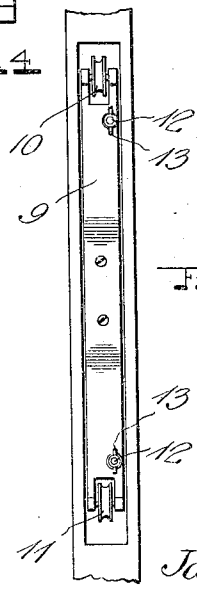


FIG. 4



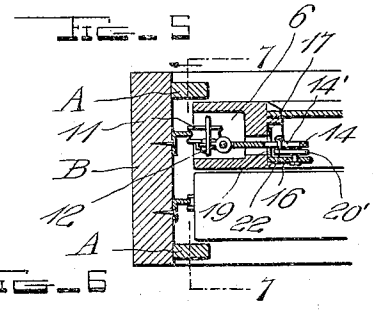


FIG. 5

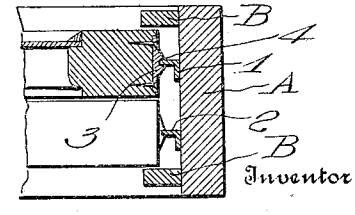


FIG. 6

FIG. 7

Witnesses

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SASH-HOLDER.

1,138,823. Specification of Letters Patent. Patented May 11, 1915.

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To all whom it may concern:

Be it known that I, JAMES P. WILLIAMS, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Sash-Holders; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in windows and more especially to sash holders.

The object of the invention is to provide simple and efficient means for permitting a window sash to be raised and lowered and to frictionally hold it in adjusted position.

Another object of the invention is to provide a simple and efficient device for positively retracting said sash holder and for holding it in retracted position.

With these and other objects in view the invention consists of certain novel features of construction and the combination and arrangement of parts as will be more fully described and claimed.

In the accompanying drawings, Figure 1 represents a front elevation of a window equipped with this improvement; Fig. 2 is a detail vertical sectional view on an enlarged scale showing more particularly the means for frictionally engaging the sash with the frame; Fig. 3 is a similar view with the holder in retracted inoperative position; Fig. 4 is an edge view of the sash showing more particularly the device for frictionally connecting the sash with the frame; Fig. 5 is a detail horizontal section taken on the line 5—5 of Fig. 2; Fig. 6 is a similar view taken on the line 6—6 of Fig. 1; Fig. 7 is a detail vertical section taken on the line 7—7 of Fig. 5.

In the embodiment illustrated a window frame A of ordinary construction is shown provided with the usual sash retaining strips B between which the sashes C are adapted to slide. At both sides of the frame sash guides are shown in the form of vertically disposed laterally spaced angle irons 1 on the laterally extending flanges 2 of which the sash are designed to travel. One side of the sash C is equipped with a plurality of longitudinally spaced grooved guide engaging members herein shown in the form of blocks 3 having grooves 4 therein and which are positioned to slidably engage the flanges 2 of the guides 1 on the adjacent side of the frame and which are designed to provide for the free vertical movement of this side of the sash on said guides and whereby the sash is held against lateral movement. The opposite side of the sash C has longitudinally spaced recesses 5 and 6 with a solid portion or block 7 between them which is cut away on its outer face as shown at 8 sufficiently to receive and house a portion of the holder constituting this invention and which will now be described.

This improved holder comprises a spring metal strap 9 secured intermediately of its ends preferably midway thereof to the outer face of the block 7 by screws or other suitable means. Peripherally grooved friction rollers 10 and 11 are pivotally mounted on the free ends of the strap 9 and are adapted when desired to be retracted and housed within the recesses 5 and 6 of the sash by means to be described. These rollers 10 and 11 are normally held by the resiliency of the strap 9 projected into frictional engagement with one of the flanges 2 of the guides 1 on the adjacent side of the frame A. The resiliency of this strap 9 is such as to cause said rollers to engage said flange with a sufficient amount of friction to support the sash to which the holder is attached in any desired position and yet which will yield to permit the rollers to travel on said flange when force is exerted on the sash to raise or lower it. Extending through said strap ends adjacent the rollers 10 and 11 are threaded eye bolts or ears 12 equipped on the ends adjacent the frame A with wing nuts 13. Slotted links 14 are connected to the outer ends of these eye bolts 12 and project through apertures 15 in the side members of the sash C as is shown clearly in Figs. 2 and 3. Disposed over these apertures on the inner face or edge of these side members of the sash are L-shaped brackets 16 one arm or plate 17 of which covers the aperture 15 over which it is disposed and the other arm 18 extends laterally out at right angles to said face. The arms 17 of the bracket 16 are apertured as shown at 19 to permit the passage therethrough of the slotted links 14.

Fulcrumed on the upper end of the laterally projecting arm 18 of each bracket 16 is an eccentric member 20 having an operating

arm 20′ and a cam portion 21. This eccentric member is pivoted to the outer end of the link 14 by a connecting pivot 22 located in the cam portion 21, and this pivot 22 is mounted in the slot 14′ of said link. (See Figs. 2, 3 and 5). Hence it will be observed that when the levers or arms 20′ are turned in one direction as shown in Fig. 2 the pivots 22 which connect the members 20 with the links 14 will be positioned near the inner ends of the slots 14′ which permits the force of the spring strap 9 to be exerted to force the rollers 10 and 11 carried on the free ends thereof outward into frictional engagement with the flanges 2 of the guides 1 on the adjacent side member of the window frame as is shown clearly in Fig. 2.

When for any reason it is desired to disengage the rollers 10 and 11 from the guide flanges the levers or arms 20′ are swung in the opposite direction as shown in Fig. 3 whereby the pivots 22 are forced into engagement with the outer ends of the slots 14′ in the links 14 and thereby move said links outwardly, carrying with them the rollers on the free ends of the strap and these rollers will be held in retracted position until the lever is again turned in the opposite direction. The wing nuts and eye bolts may be adjusted relatively to each other to vary the length of the links 14 and hence the extent of retraction of the rollers by said links.

From the foregoing description it will be obvious that when the levers 20′ are in the position shown in Fig. 2 to release the rollers and permit them to frictionally engage the guide flanges 2, the window sash to which this holder is attached may be raised or lowered by exerting an upward or downward pressure thereon as desired which will cause the rollers to travel on said flanges and the blocks 3 to travel on the flanges 2 at the opposite side of the frame and when pressure on the sash is removed the force of the spring 9 will exert sufficient pressure to hold the rollers in frictional contact with the flanges 2 against the weight of the sash.

I claim as my invention:

1. A sash holder comprising a resilient strap adapted to be fixed to the outer edge of one of the side bars of a window sash, a friction roller carried by said strap, and roller retracting means connected with said strap and comprising a slotted link, and an eccentric having a stud slidably engaged with the slot of said link.

2. The combination with a window sash having a recess in the outer edge of one of its side members, of a resilient strap fixed to said edge with its free end extending into said recess, a friction roller mounted on the free end of said strap, an eccentric pivoted on the opposite edge of said side member, and a link connecting said eccentric with said strap.

3. The combination with a window sash having spaced recesses in the outer edge of one of its side members, of a resilient strap secured intermediately of its ends to said edge between said recess with its ends disposed opposite said recesses, rollers on said strap ends, links adjustably connected with said strap ends, and having longitudinal slots therein, said side member having apertures extending through the rear walls of said recesses, brackets mounted on said side members over said apertures and having openings registering with said apertures, the slotted ends of said links extending through said apertures and openings, and members eccentrically fulcrumed on said brackets and pivotally connected with the slotted ends of said links at points remote from their fulcrums.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

JAMES P. WILLIAMS.

Witnesses:
E. D. JUNIOR,
SAML. REDFERD.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."