B. S. McCLELLAN.

ADJUSTABLE SASH CHAIN FASTENER.

APPLICATION FILED JUNE 15, 1910.

1,056,348. Patented Mar. 18, 1913.

Fig. 1

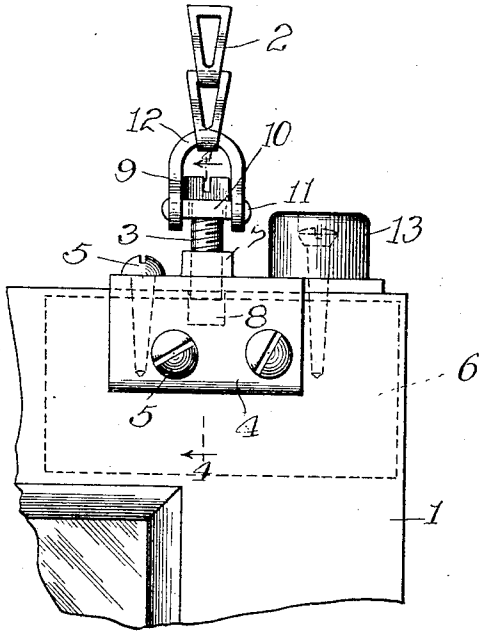


Fig. 2

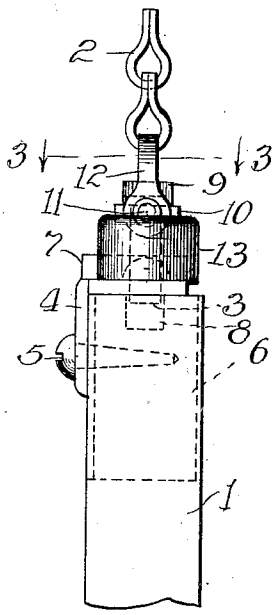


Fig. 3

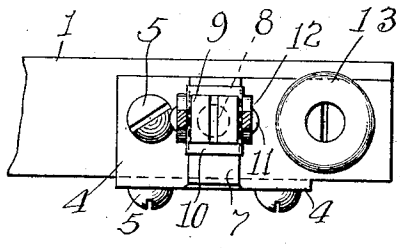
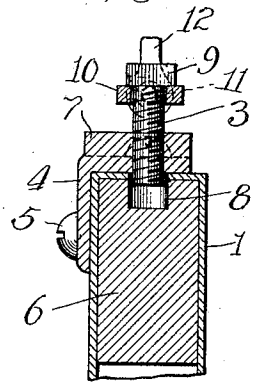


Fig. 4



Witnesses:
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UNITED STATES PATENT OFFICE.

BENJAMIN S. McCLELLAN, OF CHICAGO, ILLINOIS.

ADJUSTABLE SASH-CHAIN FASTENER.

1,056,348. Specification of Letters Patent. Patented Mar. 18, 1913.

Application filed June 15, 1910. Serial No. 566,895.

To all whom it may concern:

Be it known that I, BENJAMIN S. McCLELLAN, a citizen of the United States, and residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Adjustable Sash-Chain Fasteners, of which the following is a complete specification.

Passenger car bodies when built are slightly curved upwardly from their ends to the center of the car. As a result of this curvature the window sills are not level longitudinally of the car, but tend to slant downwardly from the center of the car toward the ends. When wooden window sash are employed in the car it is customary to plane off the bottom rail of the sash to cause it to seat squarely on the sill. Otherwise one lower corner of the sash would rest on the sill and the other corner would be raised more or less from the sill and permit dirt and air to enter.

Where metallic sash are employed the bottom of the sash is always formed at right angles to the sides, and it is impossible to dress off the bottom rail to fit the sill. It therefore becomes necessary to tilt the sash in its guideways between the posts sufficiently to let the bottom rail rest for its entire length on the sill, and, where roller sash balances are used it also becomes necessary to adjust the sash balance cords or chains to compensate for the tilting of the sash.

The main objects of the invention are to provide improved means for adjusting window sash to the window sills; to provide an improved attachment for sash balances which is adapted to be adjusted to tilt the sash in its guideways; to provide improved mechanism for quickly and accurately adjusting metallic window sash to the window opening to exclude dirt and air; and to provide means for adjustably attaching the sash balance chains or cords to the sash and which will not be thrown out of adjustment by reason of one corner of the sash first striking the abutment at the upper limit of the sash.

A specific construction embodying the invention is illustrated in the accompanying drawings, in which:

Figure 1 is a fragmentary side elevation of a window sash provided with an adjustable support embodied in this invention. Fig. 2 is a fragmentary end elevation of the same. Fig. 3 is a section taken on line 3—3 of Fig. 2. Fig. 4 is a section on line 4—4 of Fig. 1.

In the construction shown, the window sash 1 is supported from sash balance chains 2, or other flexible members which extend downwardly from the sash balance roller, not shown, to the sash.

For the purpose of adjustably attaching the sash balance chain 2 to the sash, the chain is provided with an adjusting bolt 3 which is connected to the top and near the upper corner of the sash, and is adapted to be moved into and out of the sash dependent upon whether the chain is to be shortened or lengthened. Any desired means may be provided to form an anchorage for the bolt to the sash, but as shown, an angle plate 4 is secured to the top of the sash by means of screws 5 which extend through the walls of the sash rail and into an abutment block 6 contained within the rail. The angle plate 4 is provided on its top with an internally threaded boss 7 in which the bolt 3 has threaded engagement, and the block 6 has a recess 8 therein to receive the inner end of the bolt. The head 9 of the bolt is angular, and swiveled on the bolt beneath the head 9 is a collar 10 having oppositely disposed trunnions 11 thereon. A bail or forked link 12 is pivoted on said trunnions and is connected to the chain 2.

The rubber buffer 13 may be secured on the plate 4 in position to limit the upward movement of the sash in the usual manner.

The operation of the construction shown is as follows: When the sash is placed in its guideways between the posts the sash balance chains or cords 2 are connected to the top of the sash, one near each upper corner. The sash is then suspended by the chains, and if the bottom of the sash does not seat for its entire length upon the window sill, one or both of the bolts 3 are so adjusted as to tilt the sash edgewise until it contacts for its entire length upon the sill. The bail or forked link 12 normally assumes an upright position when the chain is taut, and since it then straddles the angular head 9 of the bolt 3, it holds the bolt from rotation. When, however, it is desired to adjust the bolt the bail is turned downwardly on the trunnions 11 and the bolt may then be turned into or out of the plate to shorten or lengthen the chain.

Only one of the sash balance chains need

be connected to the sash by the adjustable attachment, and the other chain may be connected directly to the sash, but it is preferred to employ an attachment for each chain.

This invention permits of each chain being adjusted as to length independently of the other, and entirely obviates the danger of the sash being thrown out of adjustment by contacting with the buffer or abutment at the upper limit of its movement, as sometimes happens where a continuous sash balance chain or cord is employed.

While but one specific embodiment of the invention has been shown it will be understood that various details of the construction shown may be varied or omitted without departing from the spirit of the invention.

I claim:

1. In a device of the character described, in combination with a window sash, a flexible supporting member, an attaching member provided with a flat-sided head and having screw-threaded engagement with the upper rail of the sash and projecting above the top face of the same, a connecting member connecting said flexible member with said attaching member and having rotative connection with the latter, said connecting member being adapted to normally engage the head of the attaching member to prevent the rotation of the latter about a vertical axis, and means providing pivotal connection between said attaching member and said connecting member permitting the latter to be turned on a horizontal axis and swing out of engagement with the head of said attaching member.

2. In a device of the class described the combination with a sash, of a flexible supporting member, a bolt having threaded connection with the sash, a collar on said bolt, and a yoke on the supporting member hinged to the collar.

In witness whereof I have hereunto subscribed my name in the presence of two witnesses.

BENJAMIN S. McCLELLAN.

Witnesses:

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