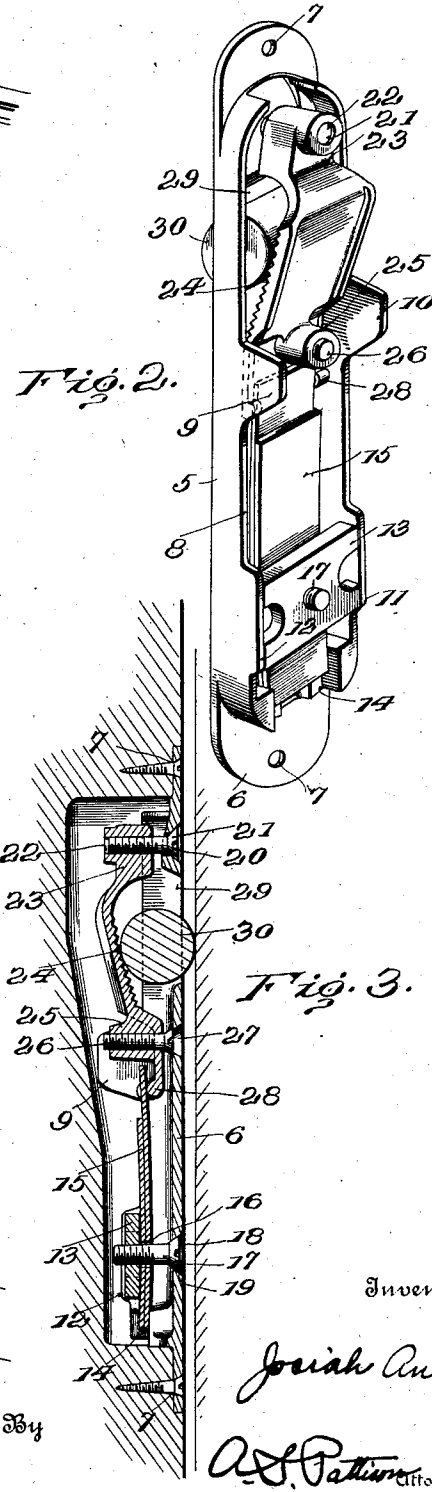
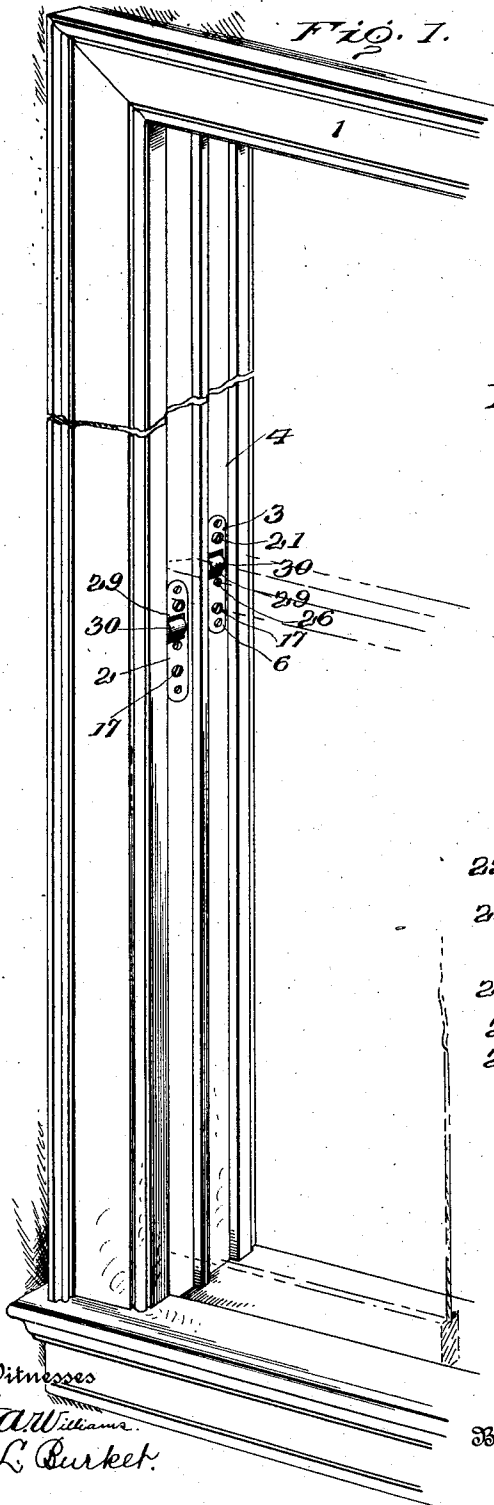


J. ANSTICE.
SASH HOLDER.

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UNITED STATES PATENT OFFICE.

JOSIAH ANSTICE, OF ROCHESTER, NEW YORK.

SASH-HOLDER.

1,011,006.

Specification of Letters Patent.

Patented Dec. 5, 1911.

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To all whom it may concern:

Be it known that I, JOSIAH ANSTICE, a citizen of the United States, residing at Rochester, in the county of Monroe and State of New York, have invented certain new and useful Improvements in Sash-Holders, of which the following is a specification, reference being had therein to the accompanying drawing.

My invention relates to improvements in sash balances.

The object of my invention is to provide a sash balance of this character which can be readily applied to the ordinary window casing, and which will hold the sash in its adjusted position and at the same time allow for the ready up and down movement of the sash.

Another object of my invention is to provide a balance of this character having adjustable means to allow for the wear of the sash or shrinkage between the sash and the window-frame, whereby the device will readily hold windows which are not tightly fitted. The said adjusting means is so arranged that it can be operated without removing the balance from the window frame.

A still further object of my invention is to provide a simple, cheap and effective balance of this character having certain details of structure hereinafter fully set forth.

In the accompanying drawings—Figure 1 is a perspective view of a window-frame, showing my improved balance applied in such a position that both the upper and lower sashes are held thereby. Fig. 2 is an enlarged perspective view of the balance removed. Fig. 3 is a vertical sectional view of my improved balance applied and showing the window sash in engagement with a friction roller.

Referring now to the drawings, 1 represents the window frame, and 2 my improved sash balance. This balance as shown is applied in the guide-way of the window-frame, and Fig. 1 being a perspective view of the inside of the window, the inside balance is placed below the center of the frame, so that it will at all times be in engagement with the inner sash. In the guide-way 4 is a second balance 3, which is adapted to cooperate with the outer sash, and said balance is arranged above the center of the frame so that it will at all times be in a position to engage the outer sash. While I have shown the balances in this position, it

will be understood that they can be arranged in any other part of the window-frame and they can also be arranged upon the edge of the window sash, so as to engage the window-frame without departing from my invention.

My improved balance consists of a case 5, formed of an outer flat plate 6, having at its upper and lower ends the opening 7, through which screws are adapted to pass and by means of which the case is secured within the frame or sash, as clearly shown in Fig. 3. This plate, as shown, is mortised into the window-frame or sash so that the outer face thereof is flush with the frame. The case 5, heretofore referred to, consists of side walls 8, having intermediate their ends the inwardly projecting ears 9 and 10, forming a guide-way for the roller engaging jaw 24, as will be hereinafter described. Adjacent the lower end, the casing is provided with outwardly extending ears 11 and 12, between which the block 13 snugly fits and is held against rotation. The lower end of the case 5 is cut away, forming a shoulder 14, upon which rests a double leaf spring 15, said spring having an opening 16, through which the screw 17 passes, and said screw having its inner end threaded through the block 13. The head 18 of said screw is counter-sunk in an opening 19 in the outer face of the plate 6, so as to form the plate 6 with an outer unbroken surface. The screw 17 being screwed through the block 13 and said block engaging the ears 11 and 12, it will be seen that by turning the screw 17 with a screw-driver, the spring 15 is drawn inwardly or outwardly to increase the tension of the spring.

The upper end of the plate 6 is provided with a tapering opening 20, in which is embedded the head 21 of the screw 22. Carried by the inner end of the screw 22 is a gripping jaw 23, said gripping jaw having an inclined serrated portion 24, terminating in an enlarged portion 25 into which is screwed a screw 26. The said screw 26 has its head arranged opposite an opening 27 in the plate 6, said head being of a diameter greater than the opening 27 so that the head is at all times engaging the inner face of the plate 6, so that the jaw 23 may be adjusted in or out as desired.

The extreme lower end of the jaw 24 is provided with an outwardly turned portion 28, upon which rests the outer free end of

the spring 15, said spring exerting an inward pressure upon said jaw and holding the screw 26 against the inner face of the plate 6. The plate 6, opposite the serrated portion of the jaw 23, is provided with an elongated recess 29 and within said recess is a friction roller 30, said roller engaging the serrated portion 24 of the jaw 23 and frictionally held against rotation.

From the foregoing description it will be seen that should the distance between the outer face of the plate 6 and the window sash be of greater or less width, the roller 30 can be adjusted in or out so that my improved balance is practicable to windows that have become worn, or that do not fit tightly. This adjustment is accomplished by screwing the screw 22 in or out which draws the jaw 23 in or out and, therefore, throws the roller 30 a greater or less distance beyond the outer face of the plate 6. Should the inclined serrated portion 24 of the jaw be of too great an angle, the screw 26 is turned by a screw-driver and the lower end of the jaw is forced in or out so as to allow the roller to move in or out as desired.

The turning of the screw 17 with a screw-driver moves the plate 13 in or out and increases or decreases the tension of the spring. The tension of this spring should be sufficient to cause the serrated portion 24 of the jaw 23 to bear upon the roller 30 with sufficient force to hold the weight of the sash, but yet allow the sash to be readily raised or lowered as desired.

It will be seen from the foregoing description that I have produced a sash balance which can be readily adjusted by a screw-driver so that the tension of the spring can be varied so as to allow the sash to be more easily moved up or down or to provide for a larger or smaller space between the sash or frame and also to allow for wear of the sash and roller.

Having thus described my invention what I claim and desire to secure by Letters Patent is—

1. A sash balance comprising a case, a friction roller within the case and extending beyond the outer face thereof, an inclined jaw having a loose adjustable connection with the upper end of the case and engaging the friction roller, a spring tension device for the lower end of the jaw and forcing the same outward, and means for limiting the outward movement of the lower end of the jaw.

2. A sash balance comprising a case, a friction roller within the case and extending beyond the outer face thereof, a jaw having a loose adjustable connection with the upper end of the case and having an inclined portion engaging the friction roller, a spring engaging the lower end of the jaw and forcing the same outward, adjustable means for

limiting the outward movement of the lower end of the jaw, and means for varying the tension of the spring on the lower end of the jaw.

3. A sash balance comprising a case, a friction roller within the case and extending beyond the outer face thereof, a jaw having an adjustable loose connection with the upper end of the case and engaging the friction roller, a spring engaging the lower end of the jaw and forcing the same outwardly, adjustable means carried by the jaw for limiting the outward movement of the lower end thereof.

4. A sash balance comprising a case, a friction roller within the case and extending beyond the outer face thereof, a jaw loosely and adjustably supported at its upper end to the case and engaging the friction roller, and a spring for engaging the lower end of the jaw and forcing the same outwardly.

5. A sash balance comprising a case, a roller within the case and extending beyond the outer face thereof, a jaw loosely and adjustably supported at its upper end by the case and engaging the roller, a spring engaging the lower end of the jaw and forcing the same outwardly, and adjustable means for limiting the outward movement of the lower end of the jaw.

6. A sash balance comprising a case, a friction roller within the case and extending beyond the outer face thereof, a jaw loosely and adjustably supported at its upper end to the case and engaging the roller, a spring engaging said jaw, a screw carried by the lower end of the jaw and engaging the inner face of the case, said case having an opening opposite the head of the screw and of a diameter less than that of the screw, substantially as shown and described.

7. A sash balance comprising a case, a roller within the case and extending beyond the outer face thereof, a jaw loosely supported at its upper end to the case, means whereby the said upper end of the jaw may be moved in or out from the outer face of the case, a screw carried by the lower end of the jaw and engaging the inner face of the case, said case having an opening opposite the head of the screw and of a diameter less than that of the screw-head, a spring engaging the lower end of the jaw and normally holding the jaw outwardly, and means operated from the outer face of the case for varying the tension of the spring on the lower end of the jaw.

8. A sash balance comprising a case, a friction roller within the case and extending beyond the outer face thereof, a jaw having a screw threaded loose connection with the upper end of the case and having an inclined serrated portion engaging the friction roller, a spring engaging the lower end of said jaw and forcing the same outwardly,

adjustable means for limiting the outward movement of the lower end of the jaw and means for varying the tension of the spring on the lower end of the jaw.

5 9. A sash balance comprising a case, a friction roller within the case and extending beyond the outer face thereof, a jaw having a screw-threaded opening at its upper end, a screw passing through the case from the
10 outer face and screwed into the said jaw, a screw carried by the lower end of the jaw and engaging the inner face of the case, said case having an opening opposite the head of said screw and of a diameter less than that
15 of the screw head, a spring engaging the lower end of the jaw, a screw passing through the outer face of the case and adapted to vary the tension of the spring on the lower end of the jaw.

20 10. A sash balance comprising a case, having an opening in its outer face, a friction roller within the case and extending through the opening, a screw passing through the upper end of the outer face of

the case and having its head counter-sunk 25 therein, a jaw screwed upon the inner end of said screw, said jaw having an inclined serrated surface engaging the friction roller, a screw carried by the lower end of said jaw and having its head engaging the inner face 30 of the case, the said case having an opening opposite the said screw and of a diameter less than the head of the screw, a leaf spring engaging the lower end of the jaw, ears carried by the case, a rectangular block be- 35 tween the ears and bearing on the spring; a screw passing through the case and the spring and screwed into the rectangular block snugly fitting within the case whereby the turning of the screw varies the tension 40 of the spring on the lower end of the jaw.

In testimony whereof I hereunto affix my signature in the presence of two witnesses.

JOSIAH ANSTICE.

Witnesses:

MOLLIE KERSNER,
CHAS. LITTLE.