(No Model.)

W. L. BELLINGER.

SASH HOLDER.

No. 551,430. Patented Dec. 17, 1895.

Fig. 1.

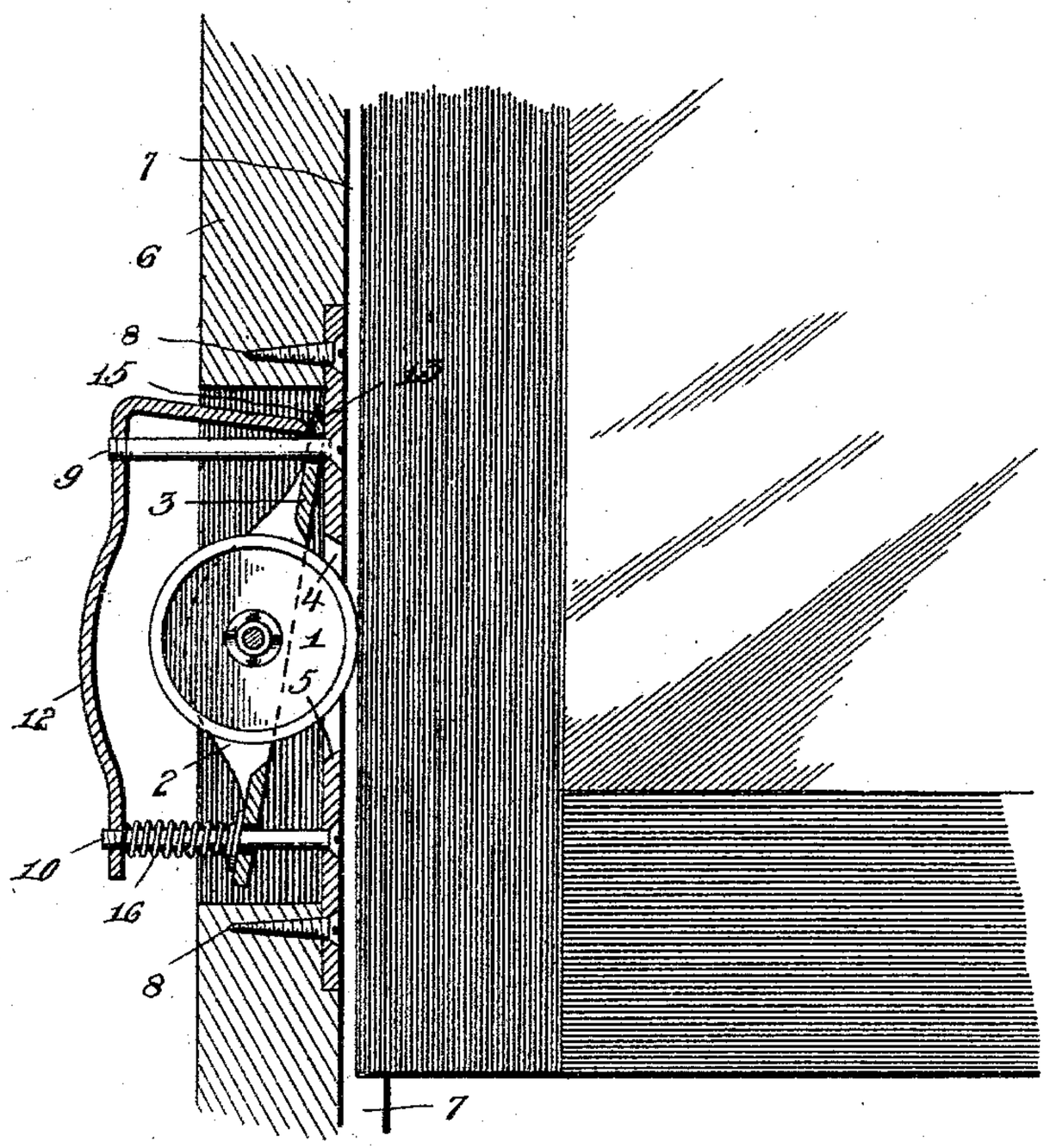
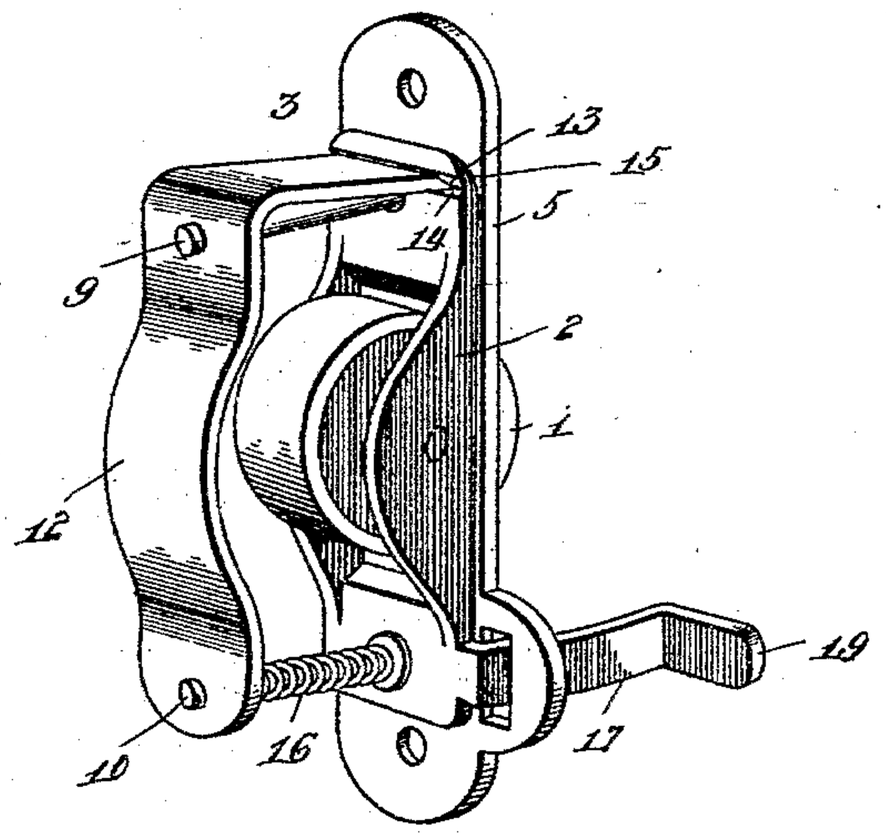


Fig. 2.



Witnesses
John C. Shaw.
R. M. Smith.

Inventor
Willard L. Bellinger
By his Attorneys,
C. A. Snow & Co.

UNITED STATES PATENT OFFICE.

WILLARD L. BELLINGER, OF ST. JOHNSVILLE, NEW YORK.

SASH-HOLDER.

SPECIFICATION forming part of Letters Patent No. 551,430, dated December 17, 1895.

Application filed September 19, 1895. Serial No. 562,993. (No model.)

To all whom it may concern:

Be it known that I, WILLARD L. BELLINGER, a citizen of the United States, residing at St. Johnsville, in the county of Montgomery and State of New York, have invented a new and useful Sash-Balance, of which the following is a specification.

My invention relates to sash balances and holders, particularly to spring-pressed rollers fixed in the window-frame to bear against the window-sash.

The objects of my invention are to provide a friction wheel or roller so arranged within a box or casing mortised into the window-frame that it will bear against the movable sash with a constant tension sufficient to hold the sash in adjusted position and yet permit of easy movement thereof up or down over the roller; also to provide an adjustable tension device for the roller, and also means whereby the roller may be entirely disengaged from the sash, as occasion may demand.

With these and other objects in view, the invention consists of the details of construction and the combinations thereof, as hereinafter set forth by description and claims.

In the accompanying drawings, Figure 1 is a detail vertical section through a portion of a window-casing, showing the application of the improved sash-balance. Fig. 2 is a detail perspective view of the device.

Similar numerals of reference designate corresponding parts in both figures of the drawings.

Reference-numeral 1 designates the friction wheel or roller, which is of the ordinary type and is journaled in horizontal bearings provided in the rearwardly-projecting parallel ears or lugs 2 of hanger 3, and projects through a slot 4, provided in the face-plate 5. Plate 5 is mortised in the window frame or casing 6, so that its outer face will be flush with the bottom of the sash-groove 7, and properly secured at either end by screws 8. Adjacent to the screws 8, perforations are provided in the face-plate 5 to receive the hinge-bolt 9 therethrough at the upper end and the tension-bolt 10 at the lower end. These bolts secure at their inner threaded ends the back bearing plate or strap 12 of the roller-box. This strap is bent over at its upper end, parallel to bolt 9, and provided with a knife-edge 13 to receive the V-groove 14 of the upper end of the hanger 3. Hanger 3 is loosely threaded over bolt 9 and beveled at its outer upper end 15. Thus hanger 3 is free to swing on knife-edge 13, which forms a hinge-bearing therefor.

A spiral tension-spring 16 is threaded over bolt 10 between the hanger 3 and strap 12 to hold the roller 1 normally projected through slot 4. The tension of spring 16 may be regulated by means of bolt 10 and strap 12. Secured to the lower end of hanger 3 is thumb-post 17, which may be formed integrally therewith or in a separate piece. This post 17 projects outwardly in a groove in the window-frame and is bent over at its outer end to form a head or thumb rest 19. The parts of the roller box or casing may be made of brass, malleable or gray iron, or any other suitable material.

In use the window is raised against the resistance of roller 1. When raised sufficiently, the roller holds the window safely in its adjusted position by reason of the frictional contact therewith, caused by the tension-spring 16. If this is not sufficient, the pressure of the spring is increased by turning up the bolt 10.

If it is desired to raise or lower the window without any frictional resistance, the operator presses in the thumb-post 17, which thereby swings the hanger 3 on its hinge-bearing 13 and removes the roller 1 out of contact with the sash.

Many changes in the form, proportion, and minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of this invention.

What I claim is—

1. The combination with a window frame, of a face plate secured thereto in the path of the sash, a slot therethrough to receive a friction roller, a back plate or strap bent over at its upper end and secured at its upper and lower ends respectively by a threaded bolt passed through said face plate, a hanger loosely threaded over said bolts and carrying a friction roller pivoted therein to project through said slot, said hanger bearing at its upper end against the bent over upper end

of said back plate, and a tension spring encircling the lower bolt between the back plate and hanger, substantially as described.

2. The combination with a window frame, of a face plate secured thereto in the path of the sash, a slot therethrough to receive a friction roller, a back plate or strap bent over at its upper end and secured at its upper and lower ends respectively by a threaded bolt passed through said face plate, a hanger loosely threaded over said bolts and carrying a friction roller pivoted therein to project through said slot, said hanger bearing at its upper end against the bent over upper end of said back plate and provided at its lower end with an outwardly projecting thumb post, and a tension spring encircling the lower bolt between the back plate and hanger, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

WILLARD L. BELLINGER.

Witnesses:

JULIUS SANDERS,

AUGUSTUS L. RUMPFF.