

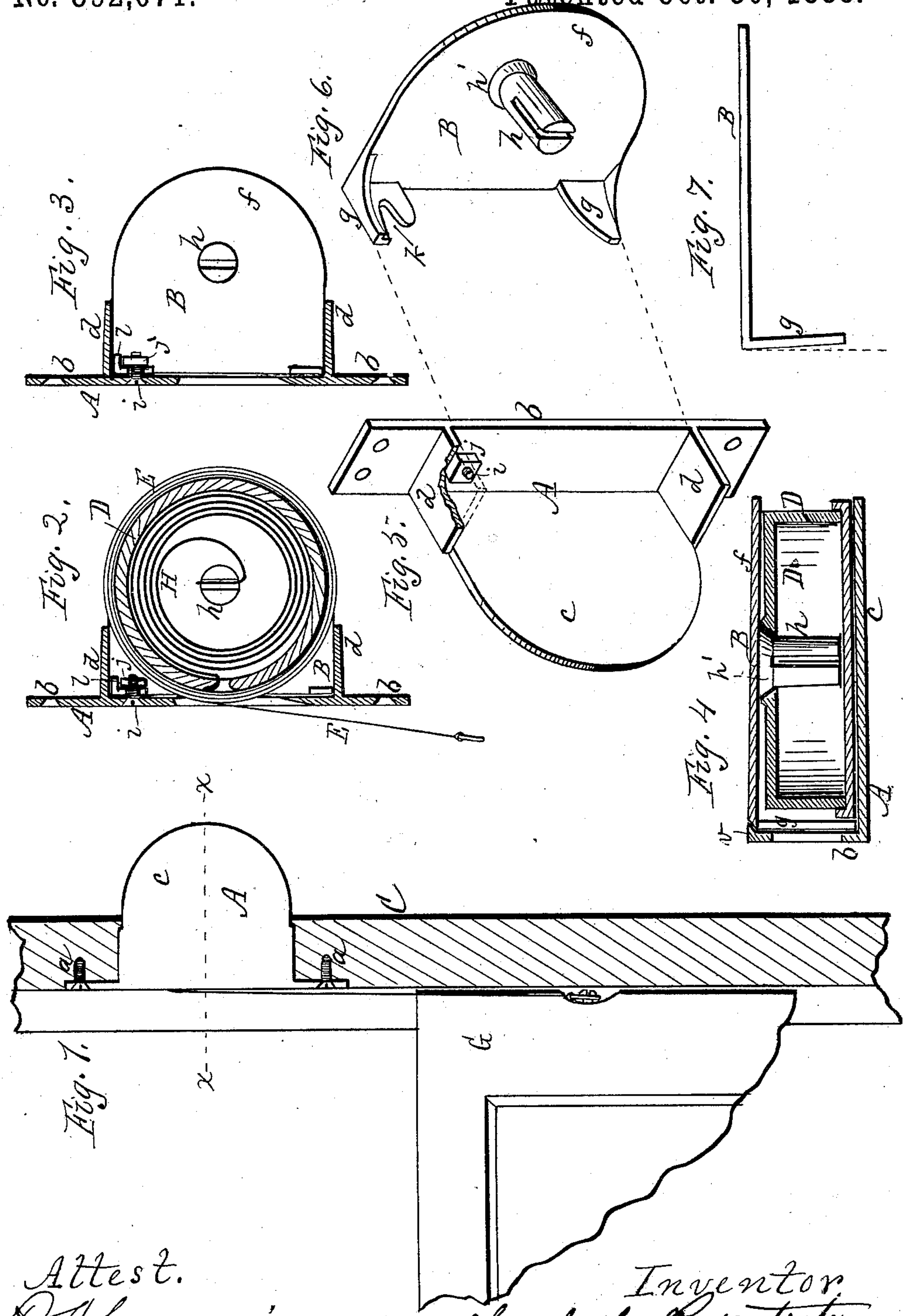
(No Model.)

F. L. ROSENTERER.

SASH BALANCE.

No. 392,071.

Patented Oct. 30, 1888.



Attest.  
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Att'y.



# UNITED STATES PATENT OFFICE.

FRANK L. ROSENTER, OF ROCHESTER, NEW YORK, ASSIGNOR OF ONE-HALF TO WILLIAM H. CALDWELL, OF SAME PLACE.

## SASH-BALANCE.

SPECIFICATION forming part of Letters Patent No. 392,071, dated October 30, 1888.

Application filed July 20, 1888. Serial No. 280,567. (No model.)

*To all whom it may concern:*

Be it known that I, FRANK L. ROSENTER, of Rochester, in the county of Monroe and State of New York, have invented a certain new and useful Improvement in Sash-Balances; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the drawings accompanying this application.

My improvement relates to that class of sash-balances in which a spring-case is secured to the window-casing, and a tape extending therefrom is attached to the sash, the winding of the tape on the spring-roller drawing up the sash and holding it suspended at any desired height.

The invention consists in the construction of the case hereinafter described, whereby one side acts as the brake on the roller, as will be more fully set forth.

In the drawings, Figure 1 is a diagram showing a sectional side elevation of the attachment applied to a window. Fig. 2 is an enlarged central longitudinal section of the device. Fig. 3 is a view similar to Fig. 2, but showing the case with the spring-roller and its attachments removed from place. Fig. 4 is a horizontal cross-section of the case in line *xx* of Fig. 1. Figs. 5 and 6 are perspective views of the halves of the case separated. Fig. 7 is a diagram showing an edge view of the half of the case that forms the brake.

A and B indicate the two plates forming the case. These plates, when attached one to the other, are adapted to fit into a mortise in the casing C of the window, and are secured by screws *a a*, which pass through the face-plate *b*. The plate A, which forms the main body of the case, consists of the face-plate *b*, the side plate, *c*, and two flanges, *d d*, one at the top and the other at the bottom, which form a boxing to cover a portion of the roller. The plate B, which forms the clamp or brake, consists simply of the side plate *f*, two angular flanges, *g g*, at the top and bottom, and a projecting pintle, *h*, on which the spring-roller turns loosely. The flanges *g g* do not stand at a right angle, but incline somewhat inward, as shown in the edge view, Fig. 7, so that when said flanges are fitted into the plate A and drawn tightly against the back by the screw, hereinafter described, the front edge of the plate *f* will be

drawn in toward the other side plate, *c*, and out of parallelism therewith, as shown in Fig. 4. One or both of the flanges *g g* has a slot, *k*, Fig. 6, which fits over a screw, *i*, and behind a nut, *j*, thereon in the face-plate *b*. The screw simply passes through the face-plate, and the nut is prevented from turning by striking an offset, *l*, of the flange. When the parts are fitted together, with the flange embracing the screw, and the screw is turned up, then the face-plate *f* will be drawn in at the outer edge, as above described.

D is the spring-roller, on the outside of which winds the metallic tape E, that is attached at its lower end to the edge of the sash G. This roller is fitted between the side plates, *f c*, and turns loosely on the pintle *h*.

H is a flat coiled spring inside the roller, attached at one end to the stationary pintle *h* and at the other to the roller. When the sash is drawn down, the spring will be wound up, and vice versa. When the sash is raised, the spring will be unwound. Its action is such as to hold the sash suspended at any given height.

The great advantage of this invention consists in the construction of the case, whereby one of the side plates B forms the clamp or brake to prevent the roller running too freely. By turning the screw *i* the outer edge of plate *f* is drawn forcibly against the side of the roller D, thereby clamping it against the fixed side plate *c* and holding it with any desired tension. The adjustment is made before the fixture is applied to the window-casing, and will rarely require any change. It, however, can be tightened or loosened at any time, as the head of the screw stands outside. By this construction the case itself acts as the brake, thereby avoiding the attachment of a special brake, which is generally used in this class of sash-balances. The cost is thereby greatly lessened and the device is simpler in action. Two of these fixtures are used to each sash, one on each side.

In some instances the pintle *h* is provided at its inner end with an enlarged bevel, *h'*, and the hole in the plate of the roller which fits it is also formed with an incline, as shown in Fig. 4. As the sash is drawn, the tension of the spring increases, and the pressure on the roller is such as to cause the inclined side of



the hole to draw down or slide forward on the bevel  $h'$ , thus forcing the face of the roller to bear with greater friction against the plate A and increase the brake - power. In heavy sashes this is of special advantage. The plate A at the rear has a small projecting flange,  $v$ , Fig. 4, which holds the rear edge of plate B in position and prevents it from slipping out of place. If desired, two of the screws  $i$  may be used—one at each corner—to draw plate B to place to produce the brake action.

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

15 1. In a sash-balance, the combination, with the spring-roller, of the case consisting of two parts with side plates, one of which is stationary, the other movable, and a fastening device connecting the fixed plate with the movable plate, whereby when it is operated said movable plate will clamp the roller, as shown and described, and for the purpose specified.

2. In a sash-balance, the combination, with the spring-roller, of the case consisting of two parts with side plates, one of which is stationary, the other movable, and a screw connecting the fixed plate with the movable plate, whereby when it is turned said movable part will clamp the roller, as shown and described, and for the purpose specified. 25

3. In a sash-balance, the combination of the case consisting of the side plates, A B, one fixed and the other movable to form a clamp, the plate B being formed with a pintle,  $h$ , having a beveled inner end,  $h'$ , and the roller D, fitting on said pintle within the case, as shown and described, and for the purpose specified. 30

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

FRANK L. ROSENTERTER.

Witnesses:

R. F. OSGOOD,  
Z. L. DAVIS.