

R. B. HUGUNIN.
Sash-Holders.

No. 158,495.

Patented Jan. 5, 1875.

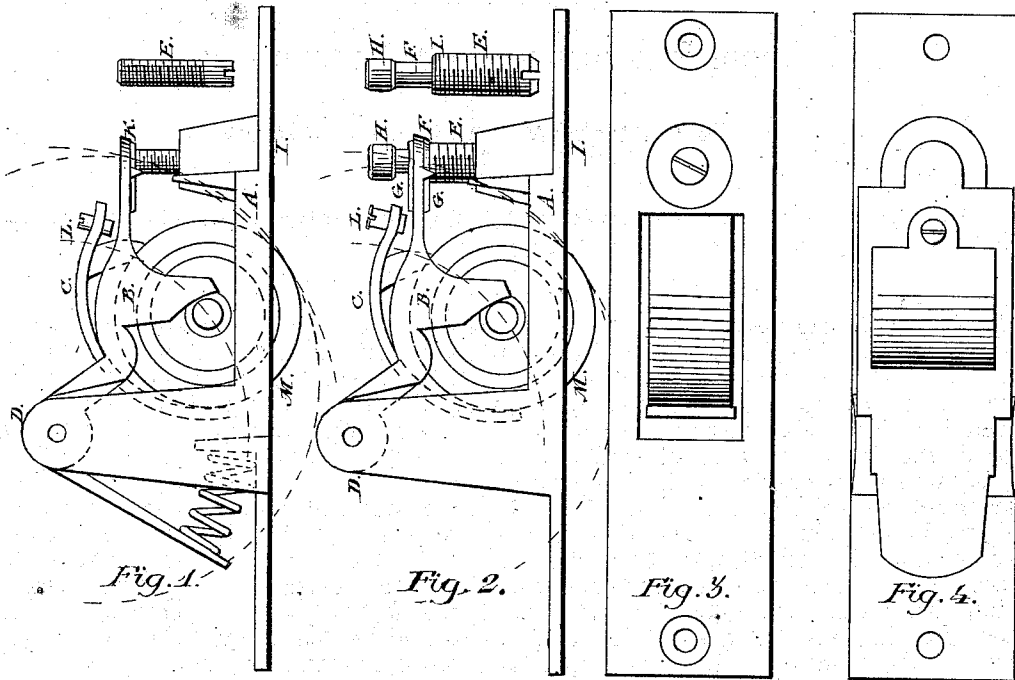


Fig. 5.

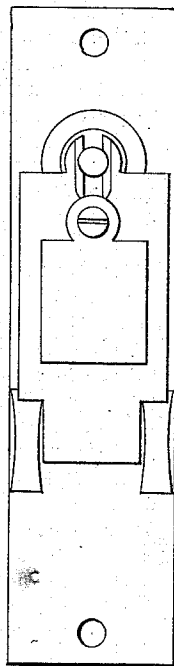
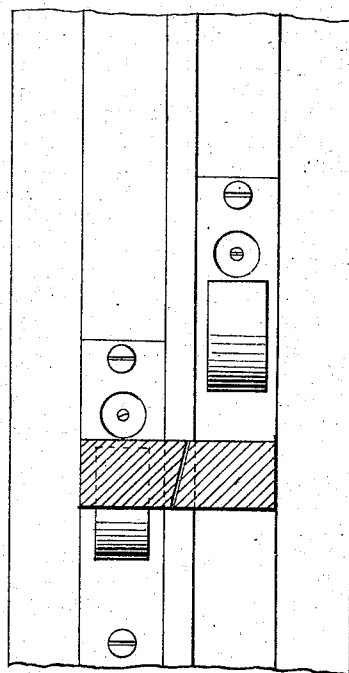


Fig. 6.



Witnesses:

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UNITED STATES PATENT OFFICE.

ROBERT B. HUGUNIN, OF NEW YORK, N. Y.

IMPROVEMENT IN SASH-HOLDERS.

Specification forming part of Letters Patent No. **158,495**, dated January 5, 1875; application filed December 30, 1874.

To all whom it may concern:

Be it known that I, ROBERT B. HUGUNIN, of New York, county and State of New York, have invented certain new and useful Improvements in Sash-Balances or Sash-Holders, of which the following is a specification:

My invention consists in the combination, arrangement, and use of an adjusting-screw, E, working through the fastening-plate A, against the roller-arm B, operated by a spring (see Fig. 1) in such manner as to limit the forcible projection of the roller onto the edge of the sash, the object being to obtain an adjustment of the pressure of the spring upon the roller against the sash, according to the weight of the sash to be held, after fastening the device into its working position in the window-casing. My invention further consists in combining and using on and near the front end of the adjusting-screw E a narrowed neck, F, working through a slot, G, in arm B, see Fig. 2, the neck terminating in a bearing or head, H, on the rear side of the slot, the object being to control by the bearings of the screw on each side of the slot the back and forward movements of the roller-arm B with the screw E, and allow the adjustment of the roller to the holding and working of any sash without the use of a spring. My invention also consists in using an adjusting-screw, L, working through the upper arm of the balance-clamp C, and resting onto the roller-arm B, the object being to limit the forward clamping-throw of the upper arm of the double-armed balance-clamp and roller against the sash by the otherwise too great rocking motion of the balance-clamp on its pivot from the weight of the sash exerted on the lower arm of the same, preventing additional clamp-pressure from the roller upon the sash while lowering the sash.

Figure 1, elevation view, showing the application of my invention to a sash-holder using a spring for operating the roller-arm B; Fig. 2, elevation view, showing the application of my invention to a sash-holder using no spring for operating the arm B, the back and forward movements of the roller being regulated by the different bearings on either side of the neck of the adjusting-screw E, located on each side of the slot G; Fig. 3, plan view, showing the application of my invention,

the adjusting-screw E, and screw-socket J, as arranged on the front side of the plate A; Fig. 4, plan rear view, showing the rear application of my invention to a sash-holder using a roller-arm operated by a spring, Fig. 5 showing a rear view of the application of my invention, by the use of which the spring becomes unnecessary in the operation of the roller-arm B; Fig. 6, plan view of the jamb of the window, showing the positions in which the sash-holders are placed with reference to the meeting-rails of the sashes, so as to allow the adjustment of the rollers to the weight of the sash without removing the sash. The lower sash, when closed down, allows the reaching of the adjusting-screws, which then stand above the top of the sash, and the rollers of the back sash are reached by lowering the back sash to a point below the heads of the adjusting-screws.

A, fastening-plate, through which the adjusting-screw E works onto the roller-arm B in regulating the pressure of the roller onto the sash; B, arm, operating the roller by means of a spring, and adjusted by the screw E, as shown in Fig. 1; also, the arm operating the roller by the adjusting-screw alone, without the use of a spring, as shown in Fig. 2; C, a double-armed balance-clamp, pivoted either by a bearing cast on arm B, or to the pivot-pin D, as preferred; D, pivot or hinge pin for securing arm B to the plate A; E, an adjusting-screw, used for regulating the arm B, and through it the roller, to the pressure required for holding a light or heavy sash. This screw passes through plate A from the front side, it in this way being more readily reached after the device is secured to the casing. When this screw is used in combination with a sash-holder whose arm B is operated by a spring, only a plain machine-screw is required; but if no spring be used in connection with the arm B it will be necessary to have near the front end of the screw a narrowed neck, F, working through a slot, G, in arm B, the neck terminating in a head or bearing, H, on the rear side of the slot, so as to enable the screw to hold the arm B from being pressed back by the sash. The screw-bearing I on the front side of the slot will prevent the arm from being drawn too far forward by the

clamping throw of the upper arm of the double-armed balance-clamp under the influence of the weight of the sash carried by the lower arm of the same. By making the neck F of the adjusting-screw E longer than the thickness of the metal in arm B, through which the slot G is made, sufficient play will be allowed to the arm to relieve the roller in raising the sash, and this play will be overcome by the forward action of the balance-clamp and roller in holding the sash. J, adjusting-screw cavity on the face of the plate A, being a depression of the metal of sufficient width and depth to allow the proper working of the screw E within the face-line of the plate, and having a thickness of metal at the bottom to allow of an efficient thread being cut through the same for the screw E; K, bearing on arm B for point of adjusting-screw E to rest; L, an adjusting-screw working through the upper arm of the double-armed balance-clamp C, the point resting on the surface of arm B. This screw, with the arm-holding screw E, adjusts or regulates the pressure of the upper arm of the balance-clamp against the roller and sash in holding and lowering the same. M is a sash-roller.

By the use of the adjusting-screw E I am enabled to employ the heaviest spring, as in Fig. 1, and regulate the direct pressure of the same upon the roller, so as to obtain at once the required amount of holding power for either a light or heavy sash; and, further, by using the adjusting-screw L between the upper arm of the balance-clamp and the arm B, I can so limit the forward clamping throw of the roller as to obtain no additional pressure from the same while lowering the sash. I am also enabled, in the same way and at the same

time, to adjust the working of the device to the degree of adhesion of any elastic roller that may be used; and, by using the narrowed neck F on the screw E, working through the slot G, with the bearing H, I am enabled, by a lock or forward movement of the screw, to regulate the pressure of the roller to any required degree, and to any required sash, without the use of a spring. If, from the shrinking of the sash or other cause, additional pressure be required from the roller, by drawing back the screw E such additional pressure can be at once obtained without removing the sashes.

I claim—

1. The combination of plate A with rocking arm B, roller M, and the arm-adjusting screw E, substantially as and for the purposes specified.

2. The combination of plate A with rocking arm B, roller M, arm-adjusting screw E, and the double-armed balance-clamp adjusting-screw L, substantially as and for the purposes specified.

3. The combination of plate A with roller-arm B, roller M, arm-adjusting screw E, and depression extending inwardly from the plate furnished with screw-thread at its deepest point, substantially as and for the purposes specified.

4. The combination of plate A, roller-arm B, roller M, and the arm-adjusting screw E, having a neck, F, and a bearing, H, and working through a slot or opening, G, in arm B, substantially as and for the purposes specified.

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Witnesses:

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