

C. H. ECCLESTON & LE ROY COVILLE.

Improvement in Sash-Holders.

No. 127,584.

Patented June 4, 1872.

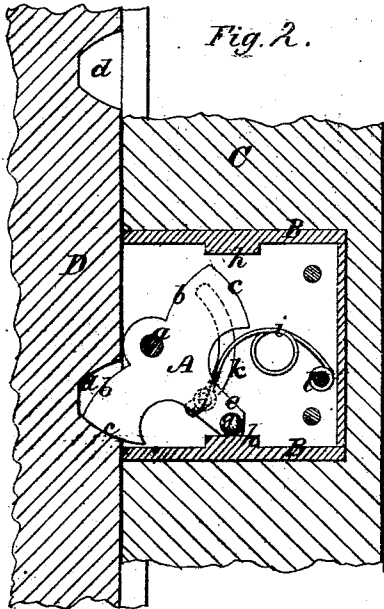


Fig. 2.

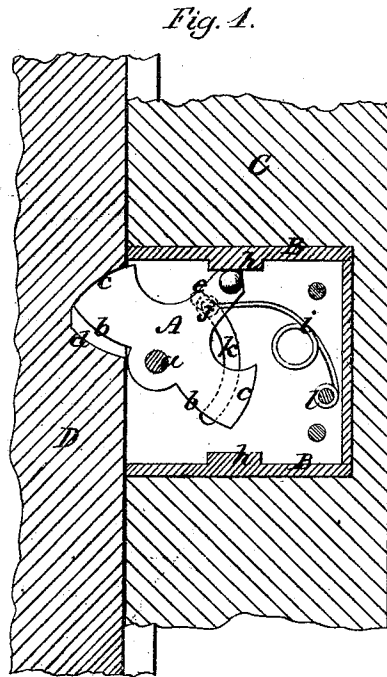


Fig. 1.

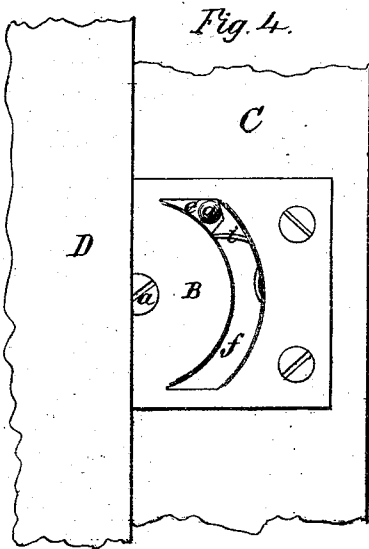


Fig. 4.

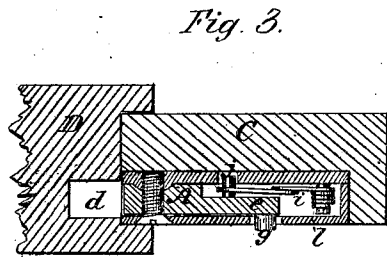


Fig. 3.

Witnesses.  
*Wm Hamilton Johnson*  
*L. N. Johnson*

*Charles H. Eccleston*  
*Le Roy Coville* } Inventors.  
 By Their Attorneys,  
*Wepferman & Johnson*

# UNITED STATES PATENT OFFICE.

CHARLES H. ECCLESTON AND LE ROY COVILLE, OF OXFORD, NEW YORK.

## IMPROVEMENT IN SASH-HOLDERS.

Specification forming part of Letters Patent No. 127,584, dated June 4, 1872.

*To all whom it may concern:*

Be it known that we, CHARLES H. ECCLESTON and LE ROY COVILLE, of Oxford, in the county of Chenango and State of New York, have invented a new and useful Improvement in Window-Sash Support and Fastener; and we do hereby declare that the following is a full, clear, and exact description of the construction and operation thereof.

Our invention relates to devices for supporting the sash of windows in any desired position when opened, and fastening them when closed; and it consists in the arrangement of the handle of a turning pivoted bolt in connection with stops so as to serve, first, as a handle by which to turn the bolt; second, an attachment for a laterally-thrusting traveling spring to throw the bolt; and, third, to limit the throw or projection of the bolt. Also, in constructing the arms of the bolt with cam-faces to retract the bolt in raising the sash to a higher position without having to turn the bolt by hand, and with concentric portions to project into the notches of the frame to lock the bolt in a position limited by the range of motion of the handle without having any direct horizontal pressure of the bolt against the frame.

In window-sash fastenings in which springs have been employed the catch or cam has been operated so as to bite into or be released from the sash by overcoming a sliding frictional resistance of direct contact, and also a direct tensional force exerted by one and the same spring in changing the position of the supporting or locking device to raise or lower the sash. This double resistance renders such devices difficult to turn in a proportion due to the strength of the spring and the extent of its surface over and against which the catch must move.

To avoid the frictional resistance of the spring in changing the position of the locking device in raising and lowering the window, and also to dispense with a fixed bearing-spring, are, among other things, the object of our invention; and these advantages are fully attained by connecting the handle of a double-armed bolt with a slender traveling spring—that is to say, a spring that travels back and forth the whole range of the motion of the handle without the latter having the least

frictional resistance from said spring. One end of this, therefore, is free to move with the arm, and acts upon it only to give it a lateral thrust the moment the connecting-point of the spring passes a horizontal line through the pivot of the bolt. Moreover, by our construction of bolt and its connection with a laterally-thrusting spring it is made to operate like a direct-acting bolt, without pressure, against the window-frame, and without depending upon the weight of the sash to retain the hold of the bolt, by arranging the handle by which the bolt is operated so as to act as a stop to limit the range of its motion, and consequently the projection of the bolt in either direction, and thus relieve the pivot of the catch of that strain which a cam or eccentric would produce in forcing the sash laterally to bind it against the opposite side of the frame. The handle and spring, thus connected, allow the bolt to be turned to raise or lower the window with the greatest ease, and render any projection of the handle beyond the case entirely unnecessary, so that it can be applied to the upper sash without having to cut the upper bar of the lower sash to pass a projecting knob.

The accompanying drawing represents the support and fastener as applied to a portion of the sash-stile and frame of a window, and in which—

Figure 1 shows the device adjusted to lock the window when closed. Fig. 2 shows the device adjusted to support the window when open; Fig. 3, a horizontal section, and Fig. 4 an elevation of the same.

The bolt A is pivoted within a case, B, mortised within the stile C of the window-sash. The bolt has two arms equidistant from its pivot *a*, one side, *b*, of each being slightly curved, and the other, *c*, concentric or nearly so, and presenting a triangular projection when thrown out into the notches *d* of the window-frame D. The concentric portion *c* locks the bolt to the frame whether the sash be open or closed, and the radial portion *b* forms a cam, which, by contact with the frame, forces the arm of the bolt within its case in raising or lowering the sash. The handle *e* projects inward from the arms of the bolt a suitable distance, and serves three purposes—viz., a handle by which to turn the bolt upon its pivot; a stop, in connection with the case, to limit

the projection of either arm of the bolt; and a direct attachment for a spring which travels with said handle. A segmental slot, *f*, is made in the face-plate of the case, and a small button, *g*, is attached to the end of the handle *e* so as to work in the slot to turn the bolt. The projection of the arms of the latter is limited by the contact of the handle *e* with stops *h* within the case, thus making a pivoted bolt in effect a double direct-action one, without depending for its locking action upon its pressure to bind the sash or its eccentric cam-like action to bite into or against the sash. The spring *i* is attached by one end to a pin, *j*, on the inner side of the handle *e* of the bolt, and moves with it in a slot, *k*, in the case, and thus holds the spring on the pin between the case and arm, as shown in Fig. 3, while its other end is attached to a pin, *l*, in said case. The spring, therefore, travels back and forth with the handle of the bolt in such manner as to avoid all frictional resistance with the movement of the bolt by causing it to act with a side force to throw the handle over against its stop as soon as the pin *j* passes a center line through the pivot of the bolt. The notches *d* may be suitably arranged to lock the window when closed or support it when opened, and the device may be applied to the frame instead of the sash.

From the foregoing description it will be seen that the window can be raised and lowered without having to hold the bolt away from the frame, or to adjust it so as to hold it by the spring in a retracted position and then to bring it into action against the frame, as heretofore done. By our construction of bolt the window can be raised by simply turning the bolt so as to withdraw the upper concentric portion *c* within the case and bring the cam-portion *b* of the lower arm against the frame, so that its lower concentric portion *c* may be projected into the notch *d* in the frame, and thus hold the sash up, and vice versa in lowering the sash.

Having described our invention, we claim—

The two automatic reverse-locking arms *c c* and the arm *e*, with its handle, and pivoted at *a*, combined, as described, with a pendulous double-acting spring, *i*, and a slotted case, all constructed, arranged, and adapted for application to a window-sash, and operating as and for the purpose specified.

In testimony whereof we have hereunto set our names.

CHARLES H. ECCLESTON.  
LE ROY COVILLE.

Witnesses:

SAML. S. STAFFORD,  
D. M. LEE, M. D.