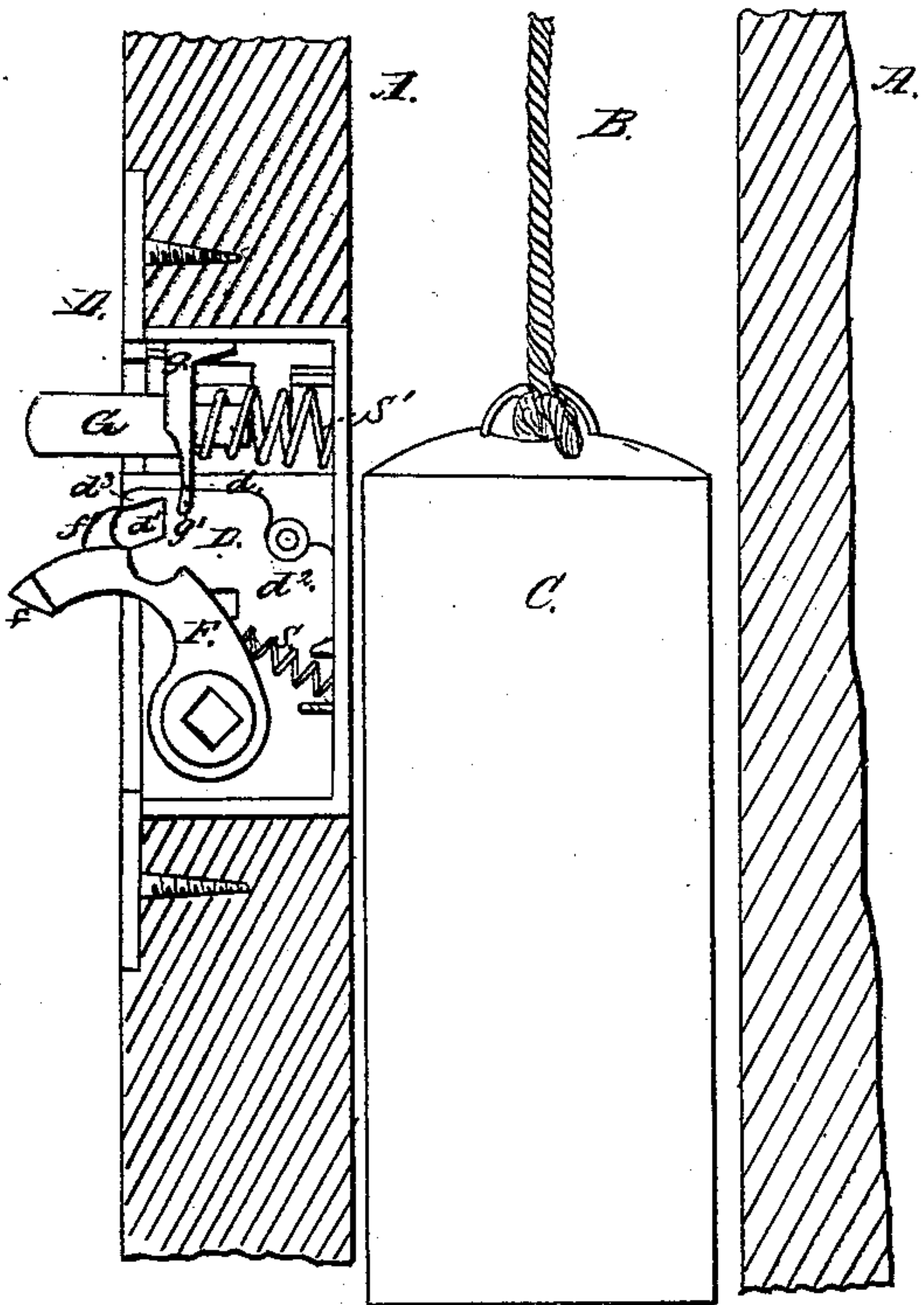
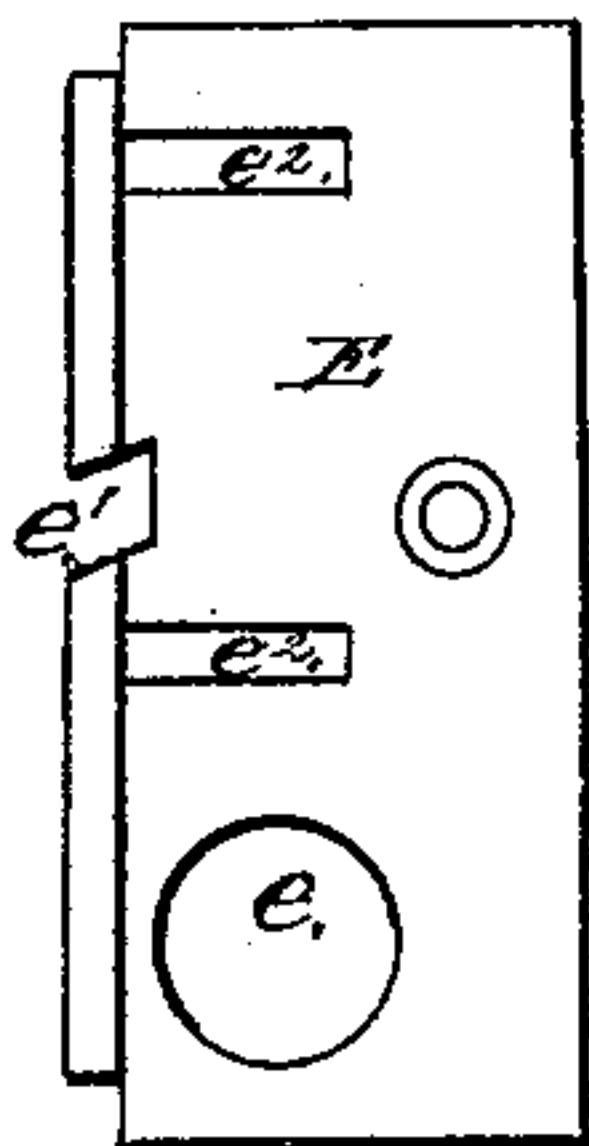


*R. R. Ball*  
*Sash Fastener*  
*N<sup>o</sup> 89,272.*      *Patented Apr. 27, 1869.*

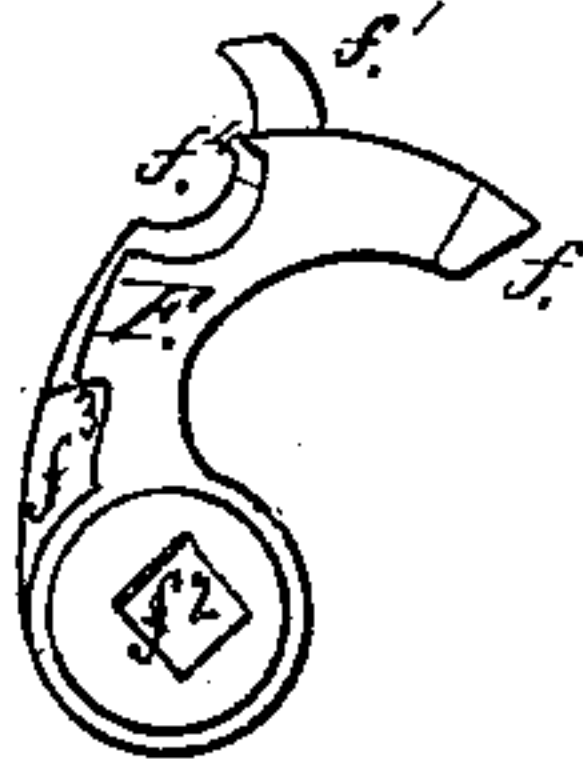
*Fig. 1.*



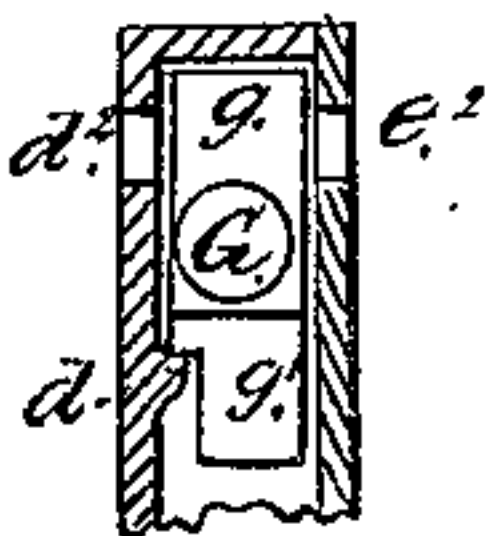
*Fig. 2.*



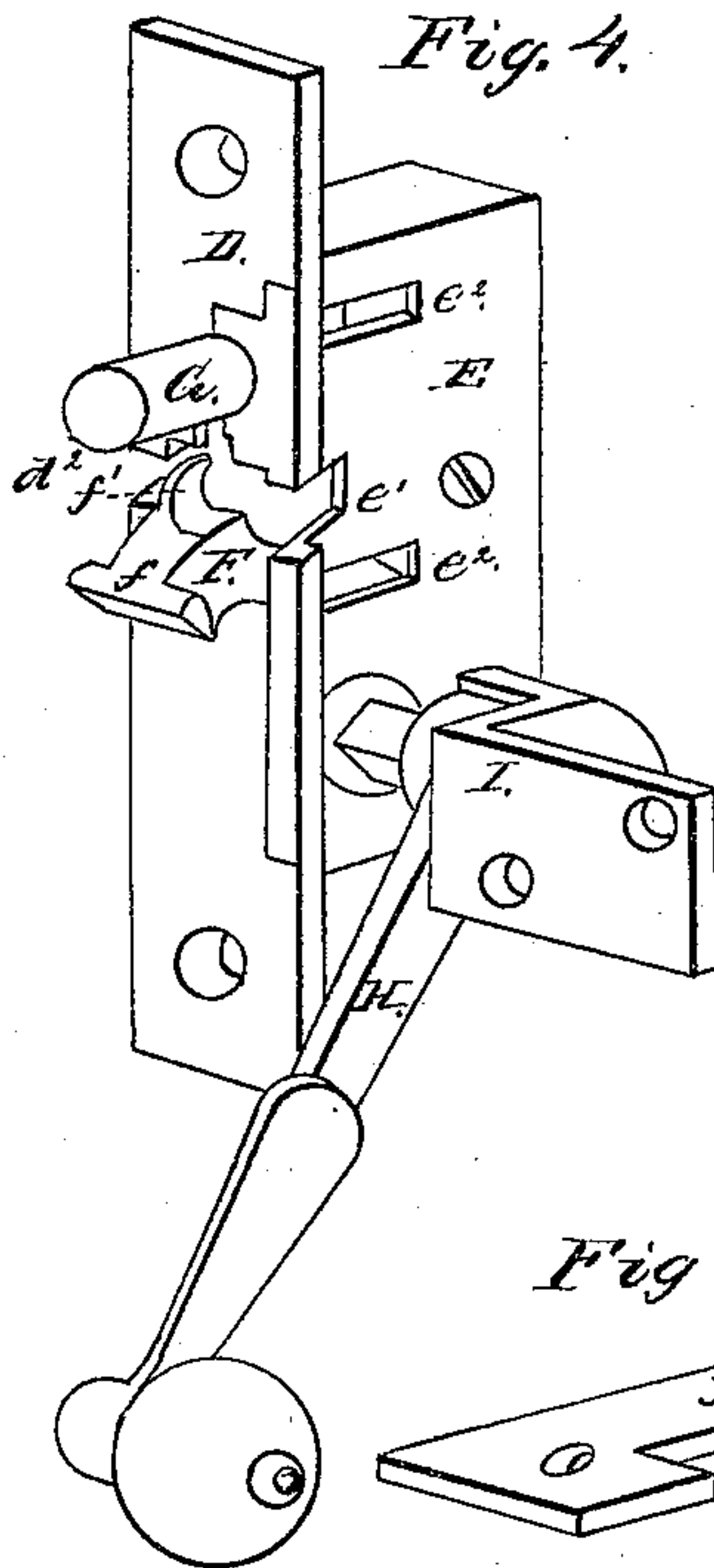
*Fig. 3.*



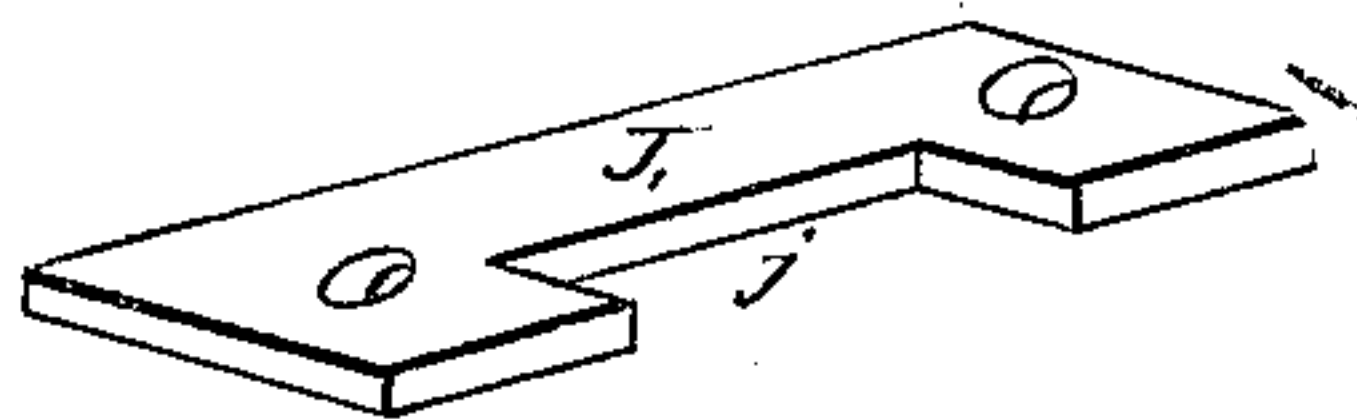
*Fig. 7.*



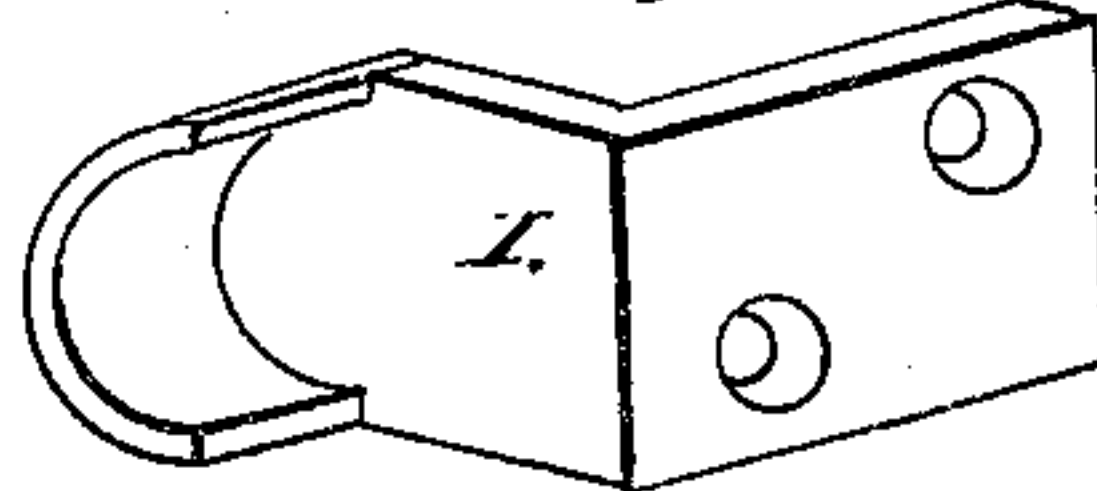
*Fig. 4.*



*Fig. 5.*



*Fig. 6.*



*Witnesses.*

*W. B. Denning*  
*Wm H. Brenton Jr.*

*Inventor.*

*Robert R. Ball*  
*By King & Co*  
*Attys*



# United States Patent Office.

ROBERT R. BALL, OF WEST MERIDEN, CONNECTICUT.

Letters Patent No. 89,272, dated April 27, 1869; antedated April 24, 1869.

## IMPROVEMENT IN SASH-LOCKS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, ROBERT R. BALL, of West Meriden, in the county of New Haven, and State of Connecticut, have invented a new and improved Sash-Lock and Supporter; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings, which are made a part of this specification, and in which—

Figure 1 represents an elevation of my improved sash-lock and supporter (with one side-plate removed) in position within the window-casing.

Figure 2 is a detached view of the side-plate.

Figure 3 is a view of the rear side of the tumbler.

Figure 4 is a perspective view of the lock and supporter complete.

Figure 5 is a perspective view of an external escutcheon or plate to be applied to the window-stop or bead within a notch in which the operating-crank works.

Figure 6 is a perspective view of an escutcheon to be applied to the stationary part of the window-frame, and employed to support the heel of the operating-crank.

Figure 7 represents a vertical transverse section of the upper part of the lock.

My improvement consists in an improved construction, combination, and arrangement of the bolt, tumbler, and other parts, to render the lock more easy of operation, and adapt it for use in box-framed windows; and further, in so applying the operating-crank that it may assist in throwing out the tumbler.

In the drawings, A A may represent parts of the stationary window-frame or jamb, B, the weight-box, and C, the sash-weight playing therein.

The lock-case D has a movable side-plate, E, made with a perforation, *e*, to form a bearing for the tumbler F, a notch, *e'*, for the reception of the head *f*, of the tumbler F, and two slots, *e'' e''*, to adapt the tumbler F and bolt G to be operated by a slide, as I have described in a separate application for Letters Patent.

In order to adapt the lock and sash-holder to be applied to windows with box-frames, and hung with cords, weights, and pulleys, I construct the case of the lock D about one inch deep from the face to the back, or of sufficient depth to pass through the jamb-casing of the window-frame, and of any desirable width. By this construction the lock does not project into the box, and permits the weight to play behind it, when in position, without touching or interfering with it.

I have constructed the lock-bolt G so as to fit squarely into the case of the lock D, and provided it with a transverse arm, *g g'*, the flanged head, *g*, of which works against the top of the lock-case, while the lower part, *g'*, is notched, so as to rest on a rib or rail, *d*, projecting from the interior of the lock-case. While thus riding on the rail *d*, and with the lid E fastened on, the bolt G is supported on all sides, rendering it strong in its position, and compelling it to work smoothly in this contracted case.

When the tumbler F is retracted, a projection, *f'*, from the centre of the crown of the tumbler F engages with the downwardly-projecting arm *g'*, of the bolt G,

in such a manner as to push it back into the case of the lock evenly.

I also make an opening, or notch, *d'*, in the face of the lock-case, that permits the projection *f'*, on the tumbler, to play close to the lock-bolt G, thus bringing an even central force against it while pushing it back into the lock-case.

The spindle *h*, of the operating-crank H, fits an angular key-hole, *f''*, in the hub or axis of the tumbler, and is so applied as by its gravity to hold the tumbler out with greater force against the window-sash.

From the above description, it will be understood that by pressing up the free outer end of the gravitating lever-crank H, the tumbler F will be retracted, and thus acting on the arm *g'*, will at the same time retract the bolt G.

When not so retracted, the tumbler F and bolt G are thrown out by the springs S and S' respectively, so that the tumbler F may support the sash at any height at which it is placed, and when the sash is down, the bolt will engage in a suitable socket in the sash, to prevent it being raised from outside.

The tumbler F is formed with a socket, *f''*, for the reception of the spring S, and a cavity, *f'*, to prevent obstruction to the tumbler from the screw which secures the side-plate E to the lock.

*d' d'* are slots, in the rear side of the lock-case, similar to the slots *e'' e''* in the side-plate E, and for the same purpose, so that the lock may be applied on either the right or left side of the window.

The lever-crank is supported in its position at its axis by the escutcheon or supporter I, which is mortised into the jamb-casing, and held by screws.

The gravitating-lever H, and the escutcheon or supporter I, may be lengthened or shortened, so as to be adapted to any sized lock.

J, (fig. 5,) represents a plate, to be applied to the face of the movable bead or window-stop, the said plate having a notch, *j*, for the crank-lever H to work in.

Having thus described my invention, the following is what I claim as new, and desire to secure by Letters Patent:

1. I claim, in a sash-lock, as an improvement on the patent granted to me, as assignee of D. P. Lacy, on the 18th of August, 1868, providing the bolt G with lateral arms *g g'*, and the guide *e*, for the purpose specified.

2. I also claim constructing the tumbler E, with its central projection *f'*, socket *f''*, and cavity *f'*, to be used in combination with the bolt G, for the object described.

3. In combination with the above, I claim the arrangement and construction of the gravitating-crank H, with the tumbler F, and shield I, when employed in the manner, and for the purposes stated.

To the above specification of my improvement in sash-locks and supporters I have signed my hand, this 8th day of September, A. D. 1868.

Witnesses:

O. KNIGHT,

J. E. M. BOWEN.

ROBT. R. BALL.