J. HOLBROOK.

Device for Adjusting Windows.

No. 231,319. Patented Aug. 17, 1880.

Fig. 1.

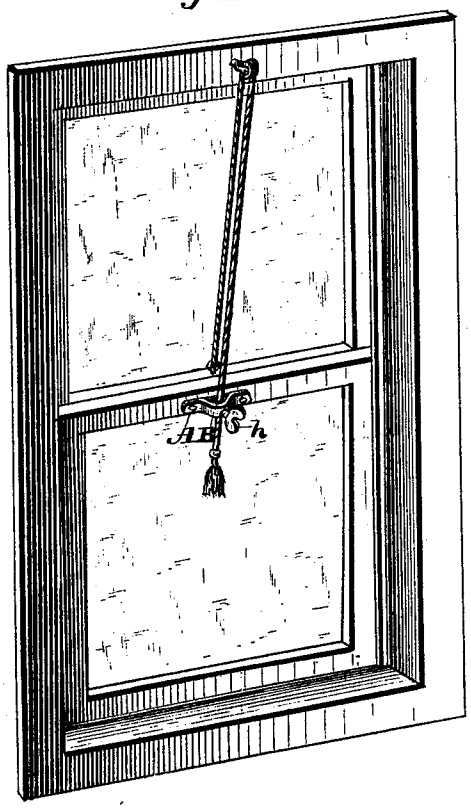


Fig. 2.

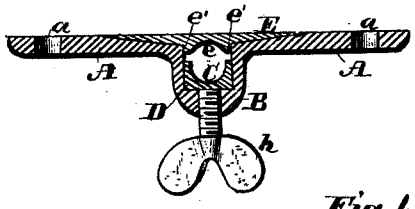


Fig. 3.

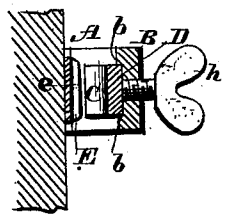


Fig. 4.

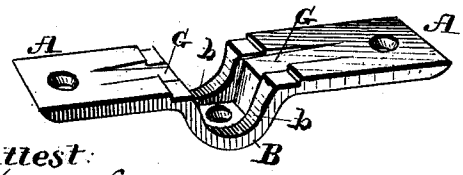
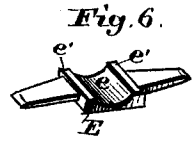


Fig. 5.



Fig. 6.



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UNITED STATES PATENT OFFICE.

JOSIAH HOLBROOK, OF LEBANON, OHIO.

DEVICE FOR ADJUSTING WINDOWS.

SPECIFICATION forming part of Letters Patent No. 231,319, dated August 17, 1880.

Application filed December 18, 1879.

To all whom it may concern:

Be it known that I, JOSIAH HOLBROOK, a citizen of the United States, residing at Lebanon, in the county of Warren and State of Ohio, have invented certain new and useful Improvements in Devices for Adjusting Windows; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

This invention relates to an improvement in devices for holding and permitting the adjustment of the cord connecting two balanced sashes, its object being to provide a neat, simple, and cheap device of this class, in which the parts will be securely connected together when the device is attached to a sash, whether the cord is or is not inserted, and which parts, with the exception of a clamp-screw and its socket, are, from their shape, enabled to be formed by casting the same of metal.

In this class of cord-holders as heretofore constructed a follower is arranged to bear upon and hold the cord between itself and a suitable cord-seat, the said follower being held in position by a clamp-screw, and liable to escape from its guides or bearings and be lost when the screw is loosened.

In the accompanying drawings, Figure 1 is a perspective view of a window with my improved cord-holder attached to the top rail of the lower sash. Fig. 2 is a longitudinal central section of the cord-holder. Fig. 3 is a cross-section of the same. Fig. 4 is a bottom perspective view of the main plate. Fig. 5 is a view of the follower, and Fig. 6 a view of the cord-seat plate.

The letter A indicates an oblong plate, preferably of cast metal, provided with screw-holes *a* and a boss or projection, B, having a recess formed transversely through it and opening into a passage formed through the plate A. The boss B is provided with flanges *b*, projecting inwardly and forming rims around the end openings of the recesses. The plate A is rabbeted or cut away, as shown at G, on its under surface in both directions from the edges of the walls of the recess.

It will be observed from the description and drawings that the plate A, with its boss, flanges, and recess, is of such configuration that it may be readily cast in metal.

In the recess of the boss B a movable follower, D, fits between the flanges *b*, and is provided with a curved seat or recess, C, to partially embrace a sash-cord.

The letter E indicates a plate provided with a projecting cord-seat, *e*, the walls *e'* of which are adapted to be inserted between the ends of the flanges *b* on the opposite sides of the recess, while the opposite ends of said plate are formed to fit the rabbeted or cut-away surface G of the plate A, the bottoms of the plates E and A being flush with each other. Through the top of the boss B is tapped a screw-hole, in which fits a thumb-screw, *h*, arranged to act upon the follower D.

It will now be observed that when the parts are assembled together, as shown in Figs. 2 and 3, and attached to a sash-rail, as shown in Fig. 1, none of the parts will become detached, whether the cord is inserted or not, as the flanges *b* effectually prevent the escape of the follower D and plate E.

It would, of course, be desirable to have the plate E formed in one piece with the plate A; but that is impracticable, from the fact that such a construction would involve coring of the molds in casting, and the expense of manufacture would be very greatly increased. It is for the purpose of permitting the casting of the plate A with the flanged recess in its boss B that the said plate E is formed separately.

The operation of the invention will be understood by reference to Fig. 1, in which the cord is shown attached to the upper sash, passed over a pulley secured to the top of the window-frame, and thence downward through the holder between the follower D and cord-seat *e*. When the screw is driven inward the follower D will be caused to bear upon the cord and hold it firmly between said follower and the seat *e*. The cord may, of course, be so adjusted that when one sash is in its lowest the other will be in its highest position, or that when one is in its lowest position the

other will be only partially raised or in any other desired relation.

I am aware of the patent of W. K. Azbill, No. 202,324, of April 16, 1878, and do not claim anything shown in said patent.

What I claim is—

In a sash-balance cord-fastener, the combination, with the plate A, having a recessed boss, B, the follower C, and a set-screw, of the seat *e*, made separate from the plate A, and fitted between said plate and the sash, and held in position by the sash, substantially as herein set forth, and for the purpose specified.

In testimony whereof I affix my signature in presence of two witnesses.

JOSIAH HOLBROOK.

Witnesses:

A. C. BAKER,

W. S. DILATUSH.