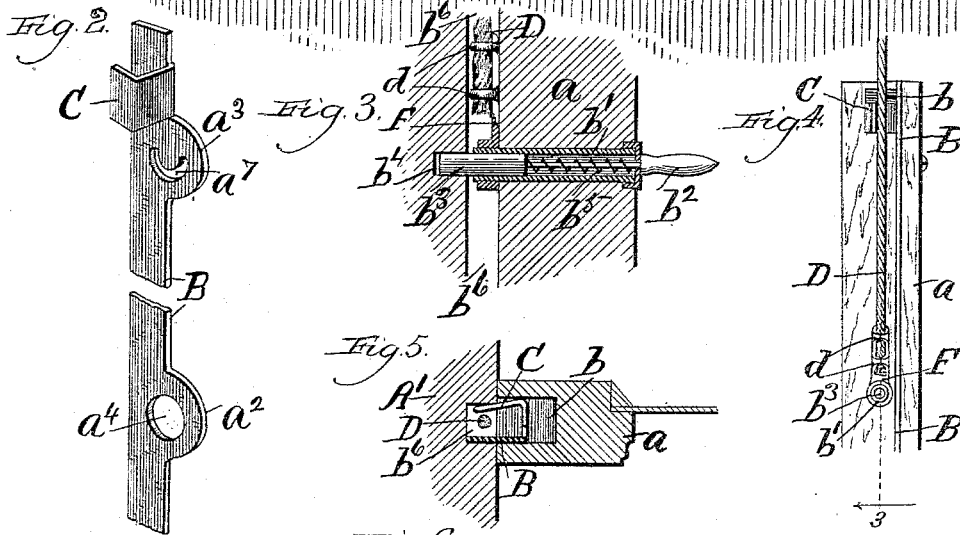
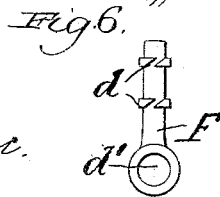


E. E. EDGERTON & R. METCALF.

No. 381,683.

[illegible]

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UNITED STATES PATENT OFFICE.

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WINDOW.

SPECIFICATION forming part of Letters Patent No. 381,683, dated April 24, 1888.

Application filed October 29, 1887. Serial No. 953,715. (No model.)

To all whom it may concern:

Be it known that we, EDWARD E. EDGERTON and ROBERT METCALF, of Chicago, county of Cook and State of Illinois, have invented certain new and useful Improvements in Windows, of which the following is a full, clear, and exact description, that will enable others to make and use the same, reference being had to the accompanying drawings, forming a part of this specification.

The object of this invention is to provide means whereby access may be conveniently had to all parts of a window for the purpose of cleaning and making repairs; and the same consists of certain novel features in the construction, arrangement, and operation of the several parts, as will be hereinafter set forth, and pointed out in the claims.

Figure 1 is an inside elevation and part section of the lower half of a window in place, which embodies our improved features; Fig. 2, a detached view of a clamping and adjusting plate; Fig. 3, a vertical sectional detail in the plane 3, Fig. 4. Fig. 4 is a back edge view of one of the stiles, showing the relative position of the counterpoise-cord and the clamping-plate B; Fig. 5, a transverse sectional detail of a portion of the stile and jamb near the top, showing the counterpoise or weight cord and the plate B in section; and Fig. 6, a detached view of a plate which removably secures the weight-cord to the window.

Referring to the drawings, A represents the lower half of a window, A' the jamb or frame, and A² the sill.

B is a clamping and fastening plate, (see Fig. 2,) which is adjustably inserted edgewise in the back of the stiles *a a* and extends the entire length of the same, as shown in Fig. 1. The grooves in the stiles are of a sufficient depth to receive the whole width of the plate B when the same is retracted to release the window from the jamb. This plate is provided on the edge embedded in the window-stiles with the rounded projections *a'* *a''* *a'''*. The projection *a''* is in the longitudinal center of the plate, which at this point is provided with the aperture *a'* for the insertion of the spindle or spindles *a⁵*, on which the cam-roller *a⁶* is eccentrically mounted, as shown in Fig. 1. These spindles have suitable bearings in the stiles, the inside ends being square, as shown

on the left in Fig. 1, for the reception of a key in rotating the same. The plate B is also provided near each end with the curved slots *a'*, into which projects one end of the riding or bearing pins *a³*, the other ends of said pins being rigidly inserted in the window-stiles. This plate is also provided near the ends with the angular projecting lugs C, as shown in Figs. 2 and 5, the lower half of the plate being broken away in Fig. 2. The outer ends of these lugs are bent slightly inward in the direction of the plate, (see Fig. 5,) so as to present an inclined surface and have the functions of a wedge when forced into the jamb and tighten the window against rattling, and also for the exclusion of dust.

The stiles *a a* are provided at each end with the enlarged recess *b* (see Figs. 4 and 5) for the reception of the angular wedging-lugs C when the plate B is entirely withdrawn from the jamb or frame-work.

b' is a sleeve (see Fig. 3) inserted in the stiles *a a*, at each side of the window, for the reception and movement of the spring locking bolt or catch *b²*. The inner end of this bolt is provided with the enlarged end *b³*, which fills the inner part of the sleeve *b'* and engages with the recess *b⁴* in the jamb. The spring *b⁵*, coiled around the smaller part of the bolt between the enlarged ends, serves to automatically throw the same into a locking position.

In this improvement the groove *b⁶*, forming a passage for the counterpoise-cord D, is in the jamb or frame inclosing the window proper instead of in the stiles, as is ordinarily the case, whereby the window may be turned end for end without disconnecting the same from the weight-cord.

The cord plate F, Fig. 6, forms a detachable and pivotal connection between the sash-cord and the window. This cord-plate is provided with the rings *d*, securing one end of the sash-cord, and is provided in the lower end with the aperture *d'*, so as to slip over and engage loosely with the end of the sleeve *b'*, extending into the cord groove, as shown in Figs. 1, 3, and 4.

When the window is to be placed in position, the plate B should be drawn into the stiles by rotating the spindles *a⁵*, having the cam-roller *a⁶* mounted thereon, in the proper direction, then slipping the perforated end of

the cord-plate F over the inner end of the sleeve *b'* and setting the window in place. Next rotate the spindles *a⁵* in the right direction to throw one edge of the plate B partially into the cord-groove in the jamb, and as the plate advances the angular lugs on the same will gradually wedge into place as the cam-spindles are rotated and until about the right tension is secured that will permit the window to move up and down freely.

The plate or plates B have a slight endwise or longitudinal movement as well as a lateral one, the endwise movement being limited by the curved slots *a'* and the riding pins *a⁸*, engaging with the same. It will be noted that the plates B may be set so tight that they will prevent the window from rattling.

By having the grooves for the weight-cords in the jamb instead of in the stiles, the window may be turned vertically end for end, so as to bring the outside of the window on the inside, the inner enlarged end of the spring locking-bolts *b²* serving as pivots on which the window turns. The weight-cord requires no attention when turning the window, as it occupies relatively the same position no matter what the position of the window may be.

Thus it will be seen that both sides of the window may be cleaned or repaired with the same facility by a person standing on the inside, and the opening closed and cold air excluded when the window is in a reversed position. This arrangement not only permits of the outside of the window being made to change place with the inside, but the relative position of the upper and lower half as well, thus bringing the upper half of the window down, when it may be reversed and conveniently reached in the same manner as the lower half.

Only the lower half of the window is illustrated in the drawings; but the upper half will be arranged and supported in the same manner as that described for the lower part. It will be seen, also, that the window may be entirely taken out without removing any portion of the frame-work by simply retracting the locking-plate and slipping the cord-plate off from the sleeve in the stiles.

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. The combination, with a window, of the clamping plate or plates B, provided with the

angular lugs C, the central aperture, *a'*, and the curved slots *a'*, the spindle *a⁵*, the cam-roller *a⁶*, and the bearing-pins *a⁸*, engaging with said curved slots, whereby said plate is adjustably retained in proper position relative to the window and inclosing-frame, substantially as and for the purpose set forth.

2. In a window, the combination, with the stiles, of the clamping plate or plates B, adjustably inserted in said stiles and provided with the angular wedging-lugs C and the aperture *a'*, the spindle or spindles *a⁵*, having a cam-roller mounted thereon and inserted in said aperture, the pins *a⁸*, and the grooved jambs recessed to receive the wedging-lugs, whereby said plate may be made to engage with or disengage from the jamb, substantially as and for the purpose set forth.

3. In a window, the combination, with the stiles, of the clamping plate or plates B, provided with the central aperture, *a'*, and having the curved slots *a'* near each end, the cam-roller *a⁶*, working in the opening *a'*, and the riding pins *a⁸*, rigidly inserted in said stiles and loosely engaging with said slots, substantially as and for the purpose set forth.

4. The combination, with a window and the inclosing-jamb provided with a longitudinal groove, of a clamping-plate provided with the angular wedging-lugs C, the aperture *a'*, and the curved slots *a'*, the riding or bearing pins *a⁸*, adapted to engage with said slots, and the spindle having a cam-roller mounted eccentrically thereon and inserted in said aperture *a'*, whereby the rotation of the same adjusts said plate with reference to the stile of the window and the inclosing-jamb, substantially as and for the purpose set forth.

5. The combination, with a window, of the sleeve or sleeves *b'*, inserted in the stiles of said window and projecting into the sash-cord groove in the jamb, the cord-plate F, loosely engaging with the inner projecting end of said sleeve, and the sash-cord secured to the upper part of said plate, and the locking-bolt *b²*, moving in said sleeve or sleeves and forming a pivot on which the window may be turned, as described, and for the purpose set forth.

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Witnesses:

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