No. 850,147. PATENTED APR. 16, 1907.

J. C. FOSTER.

AUTOMATIC VENTILATING LOCK.

APPLICATION FILED APR. 10, 1906.

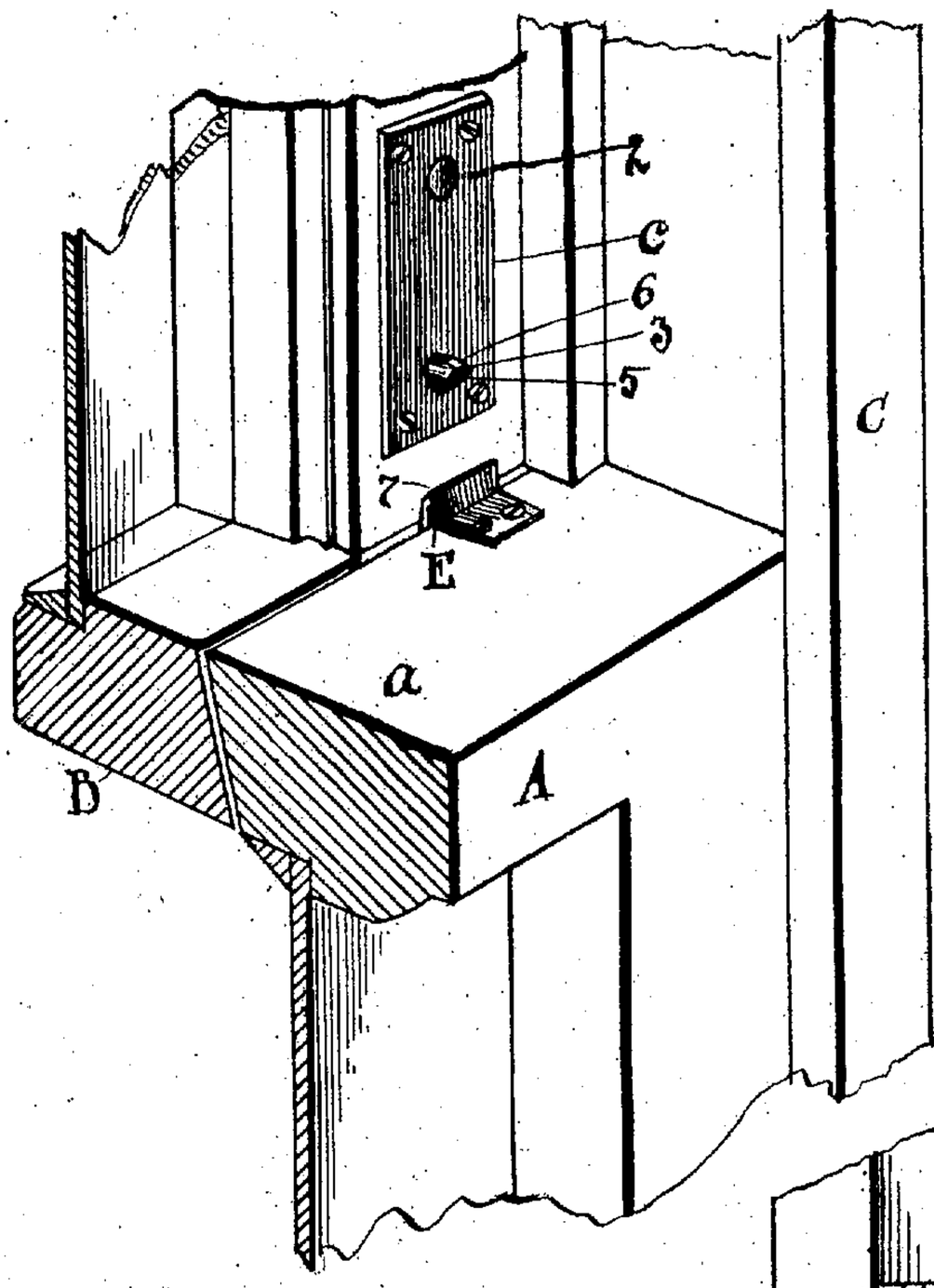
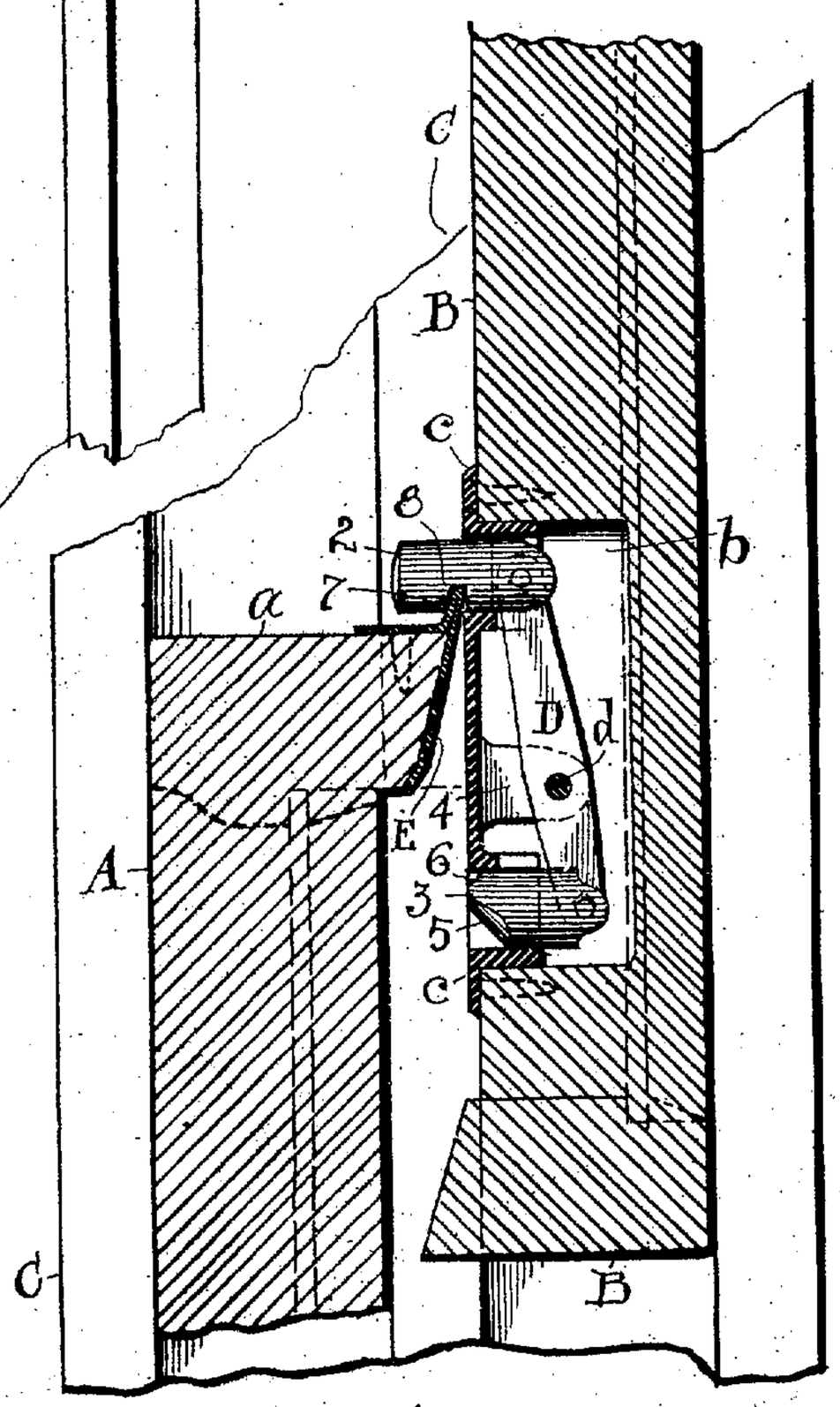


Fig. 1.

Fig. 2.



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AUTOMATIC VENTILATING-LOCK.

No. 850,147. Specification of Letters Patent. Patented April 16, 1907.

Application filed April 10, 1906. Serial No. 310,968.

To all whom it may concern:

Be it known that I, JOHN C. FOSTER, a citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Automatic Ventilating-Locks for Window-Sashes; and I do declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same.

My improvement relates to automatic ventilating-locks for window-sashes; and the invention consists in the construction of a lock which will permit either the lower or the upper sash to be raised or lowered within a limited distance in respect to the other sash, so as to provide a ventilating-opening at the top or the bottom of the window and yet prevent such an opening to be formed as will be large enough for a person to enter the window through the opening thus provided, all substantially as shown and described, and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a perspective view of a section of a window with its sashes in cross-section and showing my automatic locking mechanism in working position thereon as it appears when the sashes are closed. Fig. 2 is a vertical sectional elevation of the two sashes of the window and a portion of the casing therefor and the locking mechanism as it appears when the upper or outer sash has been lowered and is locked on the lower sash also, as hereinafter more fully described.

In the drawings, A represents the lower sash, B the upper sash, and C the window-casing, all of which parts may be regarded as in usual form. The locking mechanism proper is recessed into the side rail of the upper sash, a recess *b* being shown for this purpose, and *c* represents a plate which is set over said recess and has a preferably smooth surface or exterior which may be made flush with the said rail if preferred. This plate or part *c* is provided with holes or openings at its top and bottom or ends adapted to operatively support the locking-bolt 2 and the controlling-plunger 3, and said holes have deepening flanges inside to form bearings for the parts mounted therein. A lever D is pivotally supported on ears 4 on the rear of plate *c*, and bolt 2 and plunger 3 are pivotally connected with the end thereof. Said lever is pivoted nearest plunger 3 at its lower end, so as to give the greater outward throw to the bolt, and the said lever D is free to tilt on its pivot according as one position or another of the respective parts at its ends may require.

It will be noticed that plunger 3 is faced off at 5 and 6, below and above upon its outer or exposed end where it is contacted by the rear portion of the lower sash or the locking projection E thereon, according as said plunger is raised or lowered past said projections, or the projection passes said plunger. It will also be noticed that plate E, which forms projection 7 at its top, is fitted upon the outer edge of the meeting-rail *a* of the lower sash and that projection 7 stands above the said meeting-rail *a*, where it is adapted to engage in a notch 8 on the under side of locking-bolt 2. Now having these parts arranged substantially as shown and described it will be seen that if the sashes are in position, Fig. 1, and it is desired to lower the upper sash for purposes of ventilation from the top of the window the said upper sash is pulled down in the usual way, and as this occurs plunger 3 is struck by projections 7 on its bottom beveled edge 5 and forced back in its casing. This in turn throws bolt 2 forward in the path of stop projection 7 and the lower sash and forms a limit to the downward movement of the rear sash. At its limit the stop 7 enters recess 8 in said bolt and effectually locks the bolt from being withdrawn or pressed back. This then constitutes the limit to downward movement of the upper sash, and presumably the locking mechanism is placed in such position upon the said sash that there can be only a limited movement of either sash and not sufficient to form an opening for any one to crawl through into the house, either above or below. On the other hand, assuming that the sashes are in position, as in Fig. 1, and ventilation is desired from the bottom of the window, the lower sash is raised and the locking mechanism automatically assumes locking position as before, projection 7 on said lower sash engaging plunger 3 and forcing it back, and it in turn throws out bolt 2 at the top, and thereby limits the upward movement of the lower sash. The effect upon the stop mechanism is the same, therefore, whether one or the other of said sashes is

moved to ventilating position, and its position upon the upper sash determines the distance either sash may be opened. It will be noticed, also, that the locking mechanism is recessed into the side rail of the upper sash from the inside, and the recess therefore is not exposed to the outside of the window nor accessible therefrom, and that effectual locking will automatically occur in any case without attention from any one when either sash is raised or lowered. When the sashes are closed, the usual locks can be applied.

If it is desired to open either sash to their full extent, disengagement between projection 7 and bolt 2 is effected and said bolt pressed in, thus allowing projection 7 to pass the bolt.

What I claim is—

1. As a new article of manufacture, an automatic ventilating-lock for window-sashes, comprising a pivoted lever, a locking-bolt pivotally connected with one end of said lever and a plunger pivotally engaged with the other end thereof, and a casing carrying said parts and constructed with flanged openings for said bolt and plunger, whereby bolt and plunger are guided and firmly held in working position.

2. In automatic ventilating-locks for windows, an upper sash and a plunger and a bolt pivotally connected in a recess therein and a face-plate over said recess having openings through which said plunger and bolt operate, in combination with a lower sash and a projection thereon adapted to press against the end of said plunger and thereby throw the bolt forward into the path of said sash.

In testimony whereof I sign this specification in the presence of two witnesses.

JOHN C. FOSTER.

Witnesses:
R. B. MOSER,
C. A. SELL.