D. S. REINHART.

WINDOW SASH FASTENER.

APPLICATION FILED OCT. 9, 1908.

926,077. Patented June 22, 1909.

Fig. 3.

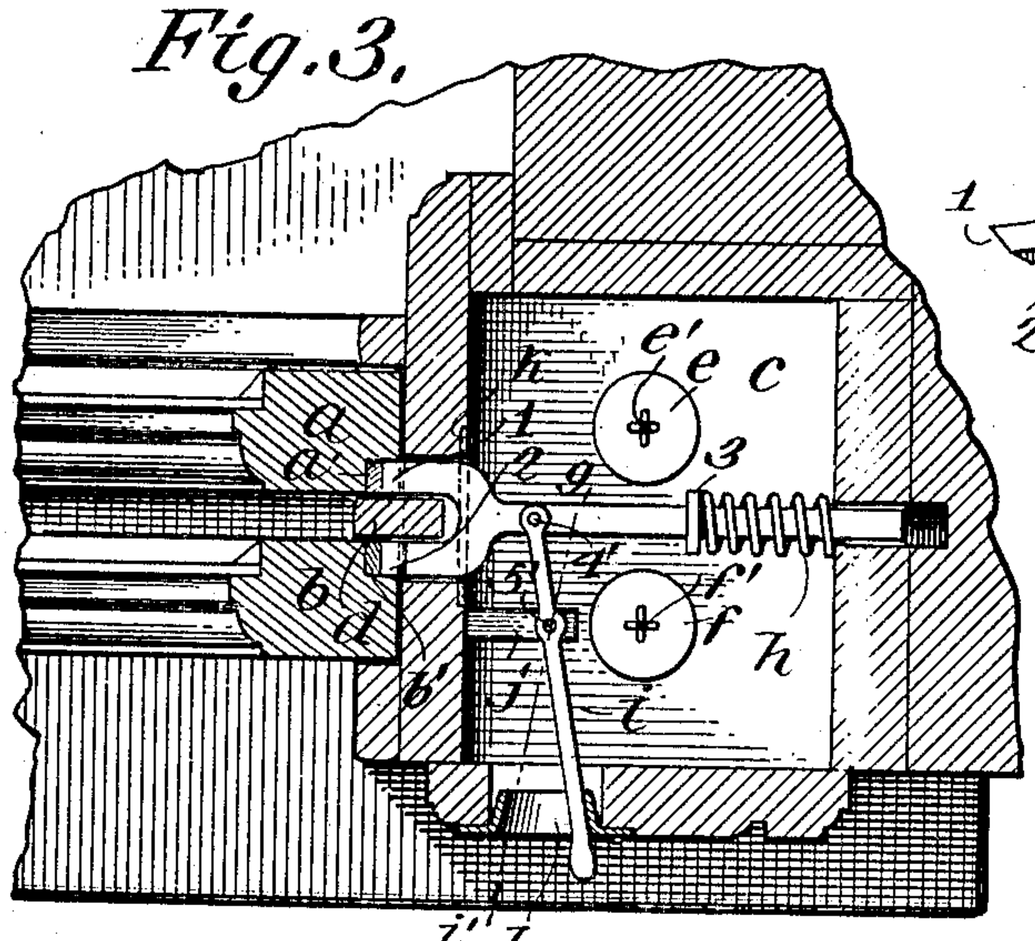


Fig. 2.

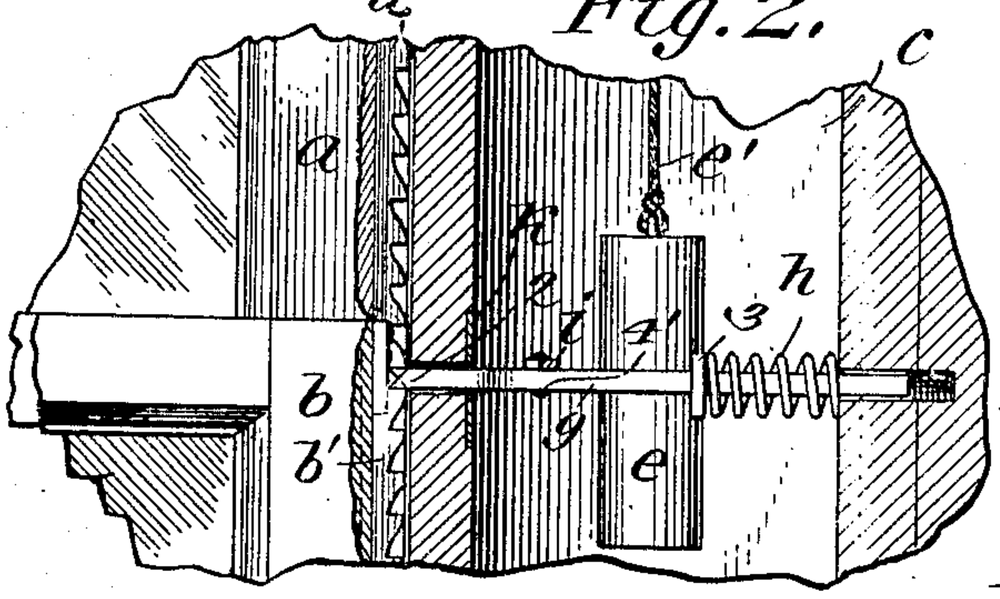
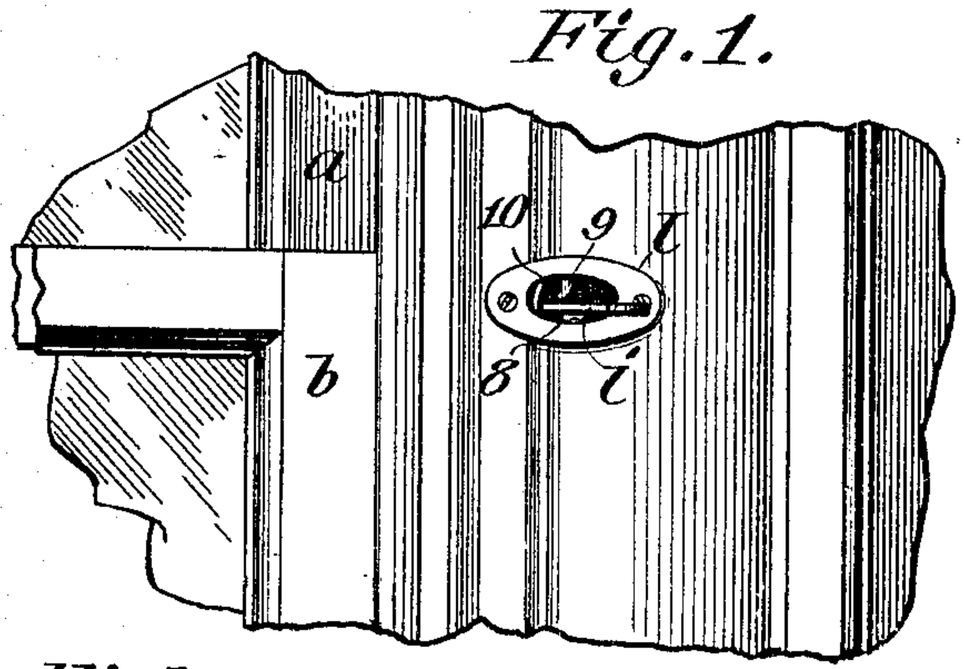


Fig. 1.



Witnesses:

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M. E. Smoot.

Fig. 4.

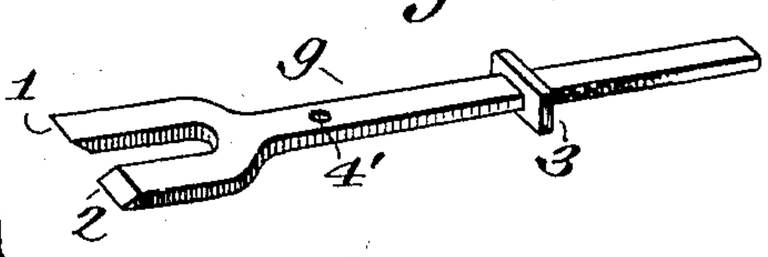

Fig. 5.

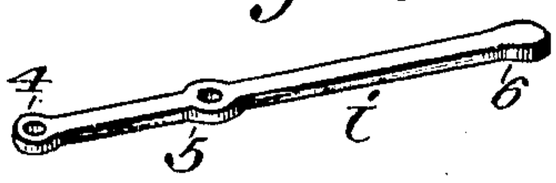

Fig. 6.

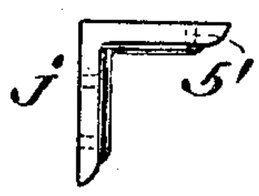

Fig. 7.

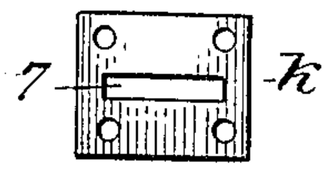

Fig. 8.

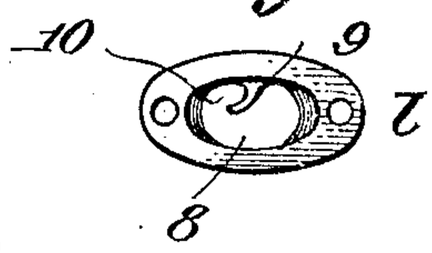

Fig. 10.

Fig. 9.

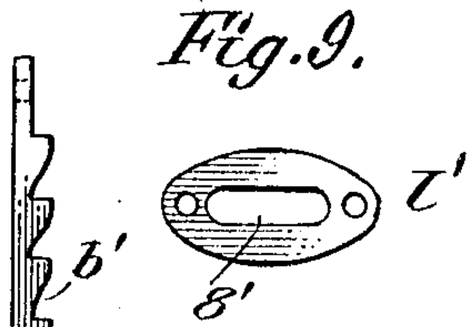

Fig. 11.

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WINDOW-SASH FASTENER.

No. 926,077. Specification of Letters Patent. Patented June 22, 1909.

Application filed October 9, 1908. Serial No. 456,859.

To all whom it may concern:

Be it known that I, DAVID SOUTHERLAND REINHART, a citizen of the United States of America, and a resident of Richmond, in the State of Virginia, have invented a new and useful Improvement in Window-Sash Fasteners, of which the following is a specification.

This invention relates to those sliding-bolt window-sash locks or fasteners which are designed and adapted for use in connection with sash weights or their equivalent to perform the functions of parting-rail locks in ordinary sliding-sash windows, and at the same time to provide for fastening both sashes with the window partly open for ventilation at top or bottom or at both top and bottom to any desired extent.

The present invention consists in certain novel combinations of parts, some of the parts being of peculiar construction, as hereinafter more particularly described and claimed.

The leading object of this invention is to perform the functions above stated by means of a very simple mechanical device having a single bolt and a single spring, and that can readily be added to sliding sashes and box frames of ordinary construction.

Other objects will be set forth in the general description which follows.

A sheet of drawings accompanies this specification as part thereof.

Figure 1 is a fragmentary view of adjacent portions of a pair of sliding sashes and their frame, representing the external appearance of the fastener; Fig. 2 represents a view from the same standpoint of the same fragmentary portions with the frame and parting bead of the window and the lever of the fastener broken away; Fig. 3 represents a horizontal section in the plane of the fastener with both sashes moved; Figs. 4 and 5 are perspective views respectively of the bolt and lever of the fastener detached; Fig. 6 is an edge view of the fulcrum bracket; Fig. 7 is a face view of the slotted plate through which the effective end of the bolt slides; Figs. 8 and 9 are face views of the escutcheon, shown in Figs. 1 and 3, through which the lever projects, and of a substitute for the same; and Figs. 10 and 11 are fragmentary edge views of the respective ratchet racks which interact with the bolt.

Like reference characters refer to like parts in all the figures.

A window adapted to be provided with my improved fastener includes upper and lower sashes, *a* and *b*, vertically slidable within a box frame, *c;* with the customary pair of parting beads, *d*, between the sashes at their respective lateral edges, and counterweights, *e* and *f*, within the box frame connected by sash cords, *e'* and *f'*, with the sashes *a* and *b*, respectively; all as represented in Figs. 1, 2 and 3. In providing the same with the improved fastener, a pair of ratchet racks, *a'* and *b'*, are attached to the respective sashes *a* and *b*, at one and the same edge, within rabbets adjoining the parting bead *d;* said racks when attached having their teeth or notches reversely beveled so that the square shoulders of the upper rack *a'* are at the tops of its interdental notches, and the shoulders of the lower rack *b'* are at the bottoms of its interdental notches, as shown in Fig. 2.

A horizontally slidable bolt, *g*, Figs. 2, 3 and 4, is supported and guided within the adjacent side of the box frame *c*, and is constructed with a flat bifurcated head forming a pair of rigid catches, 1 and 2, reversely beveled to match the racks *a'* and *b'*, respectively, the square shoulder of the catch 1 being at top, and that of the catch 2 at bottom as in Fig. 4. The other end of the bolt *g* is preferably and conveniently surrounded by the coils of a helical spring, *h*, Figs. 2 and 3, which is compressed between a collar, 3, on the bolt and the opposing wall of the frame, and tends to hold the catches 1 and 2 of the bolt in mesh with the racks *a'* and *b'*.

A horizontal hand-lever, *i*, Figs. 1, 3 and 5, is pivotally coupled at its inner end, 4, to the bolt *g* at 4'; is pivoted at 5 to a fulcrum bracket, *j*, Figs. 2 and 6, at 5' within the frame; and its handle end, 6, protrudes through an opening in the front of the frame. A wear plate, *k*, having a slot, 7, Fig. 5, fitted to the flat head of the bolt *g*, is attached to that side of the frame which is slotted for the protrusion of the catches 1 and 2. And an escutcheon, *l*, Figs. 1, 3, 8 and 9, is attached to the front of the frame to interact with the protruding end 6 of the lever *i*. This escutcheon is constructed with a horizontal slot, 8, Figs. 1 and 8, and with a downwardly projecting spur, 9, within the same, forming a detent notch, 10, into which the lever *g* may be readily sprung when it is moved into the position represented by the dotted line *i'* in Fig. 3. In this position of the lever *i*, the

spring *h* is compressed, and the bolt *g* is retracted so as to free the racks *a'* and *b'*, and therewith the respective sashes *a* and *b*, which can then be moved up and down without noise or interference on the part of the fastener.

To fasten the sashes partly open as in Fig. 3, so as to open the window for ventilation at top or bottom, or at both top and bottom as aforesaid, it is only necessary to free the lever *i* after moving the respective sashes to the desired position. Either or both of the sashes can then be closed more or less without touching the fastener, the bolt *g* yielding to the pressure of the inclines of the moving ratchet rack or racks. Or by retracting the bolt *g* temporarily by means of the lever *i*, either or both of the sashes may be opened more or less. But from outside the window it is only possible to close the fastened sashes, supposing them to have been left partly open; or if they are left fully closed, as in Fig. 2, it is impossible to move either of the sashes from outside. In some cases an escutcheon *l'*, Fig. 9, may be substituted for the escutcheon *l* above described, such substitute escutcheon having a single horizontal slot 8' through which the lever *i* protrudes, so that it is impossible to accidentally leave the sashes unfastened. It will be obvious that the sashes may be counterbalanced by springs instead of weights, and that the spring *h* may be of other known or improved forms; and other like modifications will suggest themselves to those skilled in the art.

Having thus described said improvement, I claim as my invention and desire to patent under this specification:

1. The combination with a window having counter-balanced vertically slidable sashes and a box frame of a pair of oppositely beveled ratchet racks attached to the respective sashes at one and the same edge, a horizontally slidable bolt having a flat bifurcated head forming oppositely beveled catches arranged to interact simultaneously with the respective racks, a spring pressing said bolt toward said racks, and means for retracting the bolt to free both sashes.

2. The combination with a window having counter-balanced vertically slidable sashes and a box frame of a pair of oppositely beveled ratchet racks attached to the respective sashes at one and the same edge, a horizontally slidable bolt having a flat bifurcated head forming oppositely beveled catches arranged to interact simultaneously with the respective racks, a spring pressing said bolt toward said racks, and means for retracting the bolt to free both sashes, said means including a horizontally movable lever pivoted to said bolt and protruding through an opening in the front of said frame, and a fulcrum bracket within said frame to which said lever is pivoted.

3. The combination with a window having counter-balanced vertically slidable sashes and a box frame of a pair of oppositely beveled ratchet racks attached to the respective sashes at one and the same edge, a horizontally slidable bolt having a flat bifurcated head forming oppositely beveled catches arranged to interact simultaneously with the respective racks, a spring pressing said bolt toward said racks; means for retracting the bolt to free both sashes including a horizontally movable lever pivoted to said bolt at its inner end and protruding through an opening in the front of said frame and a fulcrum bracket within said frame to which said lever is pivoted, and means for fastening back said bolt in its retracted position.

4. The combination with a window having counter-balanced vertically slidable sashes and a box frame of a pair of oppositely beveled ratchet racks attached to the respective sashes at one and the same edge, a horizontally slidable bolt having a flat bifurcated head forming oppositely beveled catches arranged to interact simultaneously with the respective racks, a spring pressing said bolt toward said racks, means for retracting the bolt to free both sashes including a horizontally movable lever pivoted to said bolt at its inner end and protruding through an opening in the front of said frame and a fulcrum bracket within said frame to which said lever is pivoted, and means for fastening back said bolt in its retracted position, such fastening means including an escutcheon attached to the face of the frame and constructed with an opening within which the protruding end of the lever is movable horizontally, and a detent notch in communication with said opening into which the lever can be sprung when the bolt is retracted, substantially as hereinbefore specified.

DAVID SOUTHERLAND REINHART.

Witnesses:
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E. C. REINHART.