(No Model.) 3 Sheets—Sheet 1.

A. O. SHATSICK.

SASH FASTENER.

No. 418,323. Patented Dec. 31, 1889.

Fig. 1.

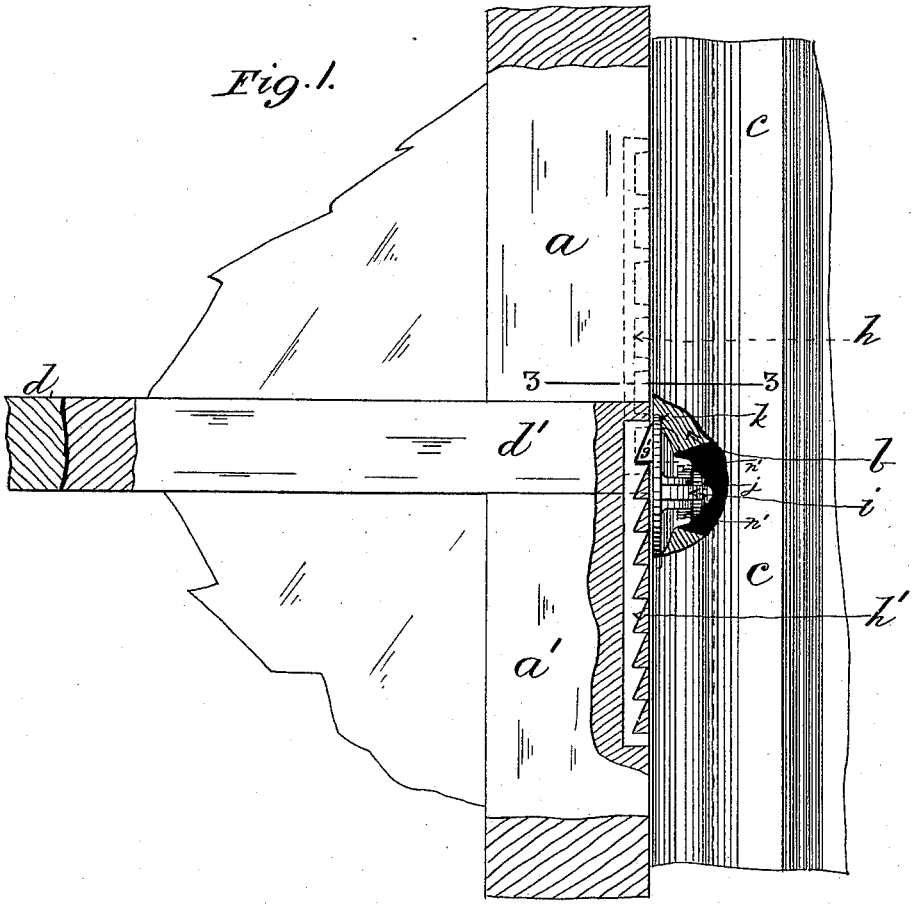
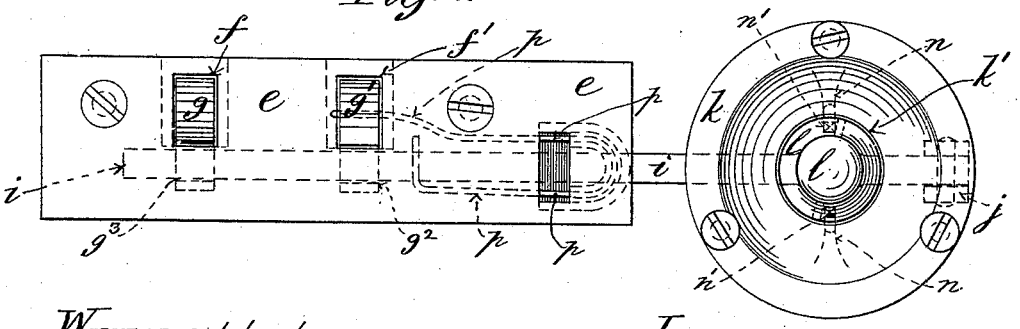


Fig. 2.



WITNESSES
Jos. W. Crooks
Wm. M. Byrne.

INVENTOR
Arthur O. Shatsick
Paul Bakewell by
his attorney

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Fig. 3.

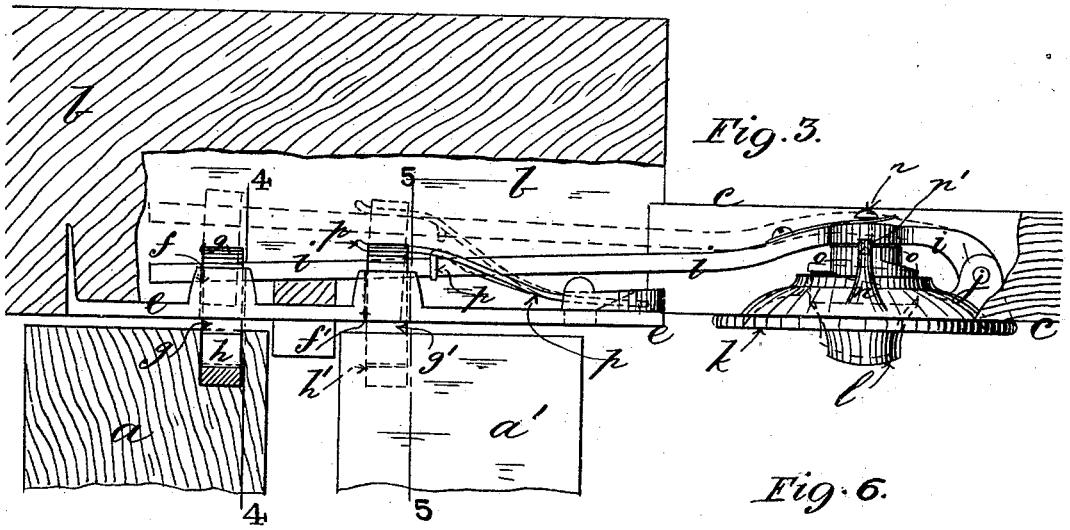


Fig. 4.

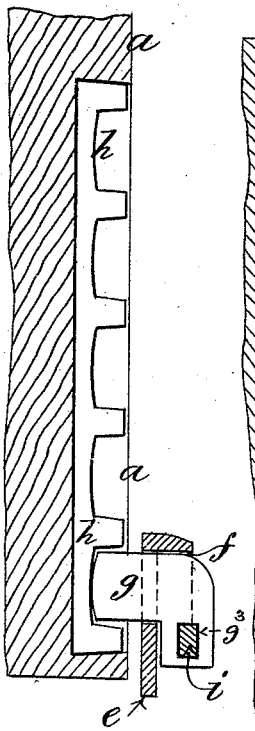


Fig. 5.

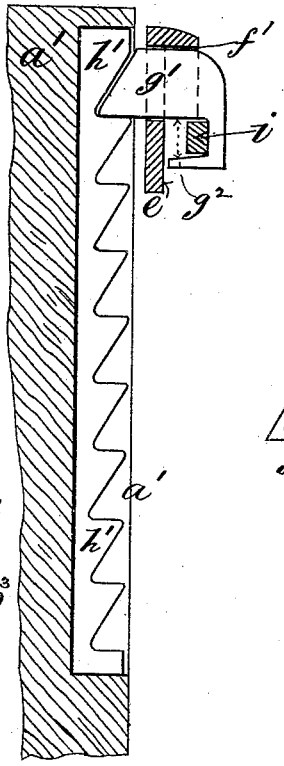


Fig. 6.

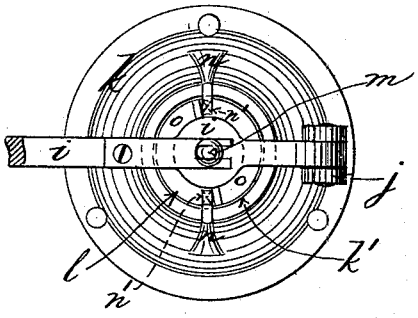


Fig. 7.

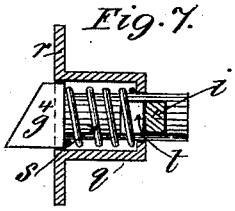


Fig. 8.

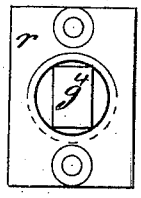
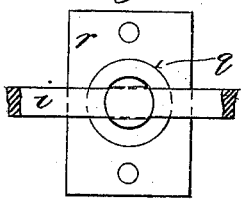


Fig. 9.



WITNESSES
Jos. W. Crooks.
Wm. H. Byrne.

INVENTOR
Arthur O. Shatsick
by Paul Bakewell
his attorney

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Fig. 10.

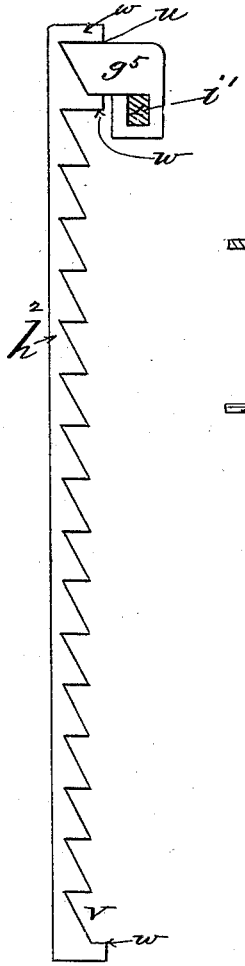
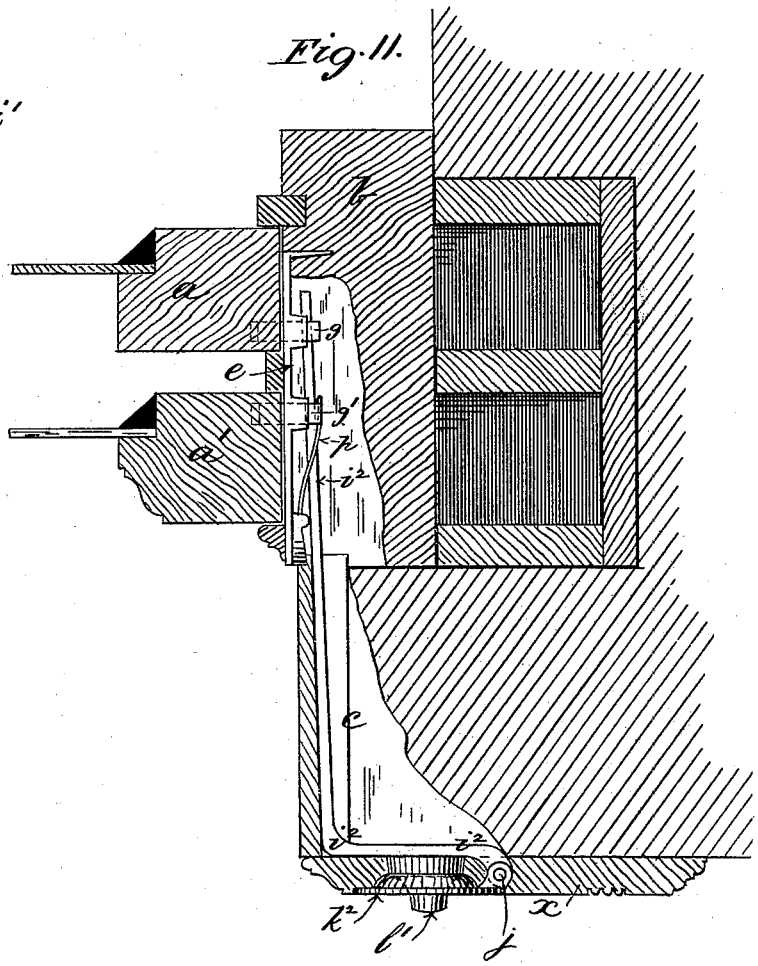


Fig. 11.



WITNESSES
Jos. W. Crooks.
Wm. M. Byrne.

INVENTOR
Arthur O. Shatsick by
Paul Bakewell
his attorney

UNITED STATES PATENT OFFICE.

ARTHUR O. SHATSICK, OF ST. LOUIS, MISSOURI.

SASH-FASTENER.

SPECIFICATION forming part of Letters Patent No. 418,323, dated December 31, 1889.

Application filed October 24, 1889. Serial No. 328,007. (No model.)

To all whom it may concern:

Be it known that I, ARTHUR O. SHATSICK, a citizen of the United States, residing at the city of St. Louis, State of Missouri, have invented a certain new and useful Improved Lock for Window-Sashes, of which the following is a full, clear, and exact description.

My invention relates to an improved device for locking window-sashes in the closed position, and also has for its object to prevent a window-sash when partially open for ventilation from being further opened from the outside of the window.

It consists in a spring-bolt (or bolts) mounted in the sides of the window-frame and caused to engage with a toothed bar on the window-sash, combined with the features of novelty hereinafter claimed.

In the accompanying drawings, Figure 1 represents an inside elevation of a portion of an upper and lower window sash, frame, and jamb fitted with my improved locking device; Fig. 2, a front view of that portion of the device mounted in the side of the window frame and jamb looking to the right of Fig. 1; Fig. 3, a sectional plan taken on line 3 3 in Fig. 1, broken away; Figs. 4 and 5, transverse sectional views through the upper and lower sashes and portions of the device, taken on lines 4 4 and 5 5, respectively, in Figs. 3, broken away; Fig. 6, a rear view of that portion of the device appearing to the right in Fig. 3; Figs. 7, 8, and 9, sectional elevation, front and rear views, respectively, showing a modification of the spring-bolts seen in Figs. 4 and 5; Fig. 10, a modified form of the toothed bar seen in Figs. 1 and 5, and Fig. 11 a sectional plan showing a modification of the parts of the device seen in Fig. 3.

Like letters of reference denote like parts in the respective figures.

a a' represent the upper and lower sashes, respectively, *b* the window-frame, and *c* the jamb, all constructed and arranged in the ordinary and well-known manner.

In the side of the window-frame *b*, immediately opposite to the ends of the meeting-bars *d d'* of the upper and lower sashes *a a'* when these are closed, is fixed a horizontal face-plate or bracket *e*, through which are formed openings *f f'*, the opening *f* facing the upper sash *a* and the opening *f'* facing the lower sash *a'*. Through the openings *f f'* are caused to slide bolts *g g'*, the outer end or nose of the bolt *g* being preferably square-shaped and that of the bolt *g'* beveled for engaging respectively in a square-toothed bar *h*, fixed vertically along the side edge of the upper sash *a*, and in a bevel-toothed bar *h'*, fixed along the side edge of the lower sash *a'*, the two bars *h h'* being so arranged that when the sashes *a a'* are closed, as shown in Fig. 1, the bolt *g* will be opposite to and in engagement with the bottom notch of the upper-sash bar *h* and the bolt *g'* with the top notch of the lower-sash bar *h'*. The bolts *g g'* are operated by a lever *i*, preferably of the third kind, which is located behind the plate *e*, within a space formed therefor in the window-frame *b c*, its free end portion passing through a slot g^2 in the shank of the bolt *g'*, and through a hole g^3 in the shank of the bolt *g*, (see Figs. 4 and 5,) the slot g^2 being open in front, so that while on a backward movement of the lever *i* a corresponding and simultaneous withdrawal of the bolts *g g'* in their openings *f f'* will be thereby caused, an independent backward movement of the bolt *g'* is permitted by the slot g^2 without affecting the bolt *g*, as hereinafter mentioned. The other end of the lever *i* is fulcrumed at *j* to the back of the circular plate *k*, which is fixed on the face of the jamb *c* and formed with a central circular passage *k'*, within which is fitted, so as to be capable of being moved longitudinally and partially rotated, a pusher-button *l*, having its outer end projecting beyond the front of the plate *k* within reach from the inside of the window and its rear end projecting beyond the back of the plate *k*, where it is swiveled (or otherwise adjustably secured) by a pin *m* to the operating-lever *i* at a suitable distance from the fulcrum *j*.

From the back of the plate *k* project two opposite lugs *n*, having depending studs *n'*, which respectively engage in two oppositely-inclined recesses *o*, formed circumferentially on the rear end portion of the pusher-button *l*, so that when the latter is turned in one direction the narrow ends of the recesses *o* are brought against the studs *n'* and the pusher-

button l thereby locked or prevented from being pushed inward from the front of the plate k, and when the pusher-button l is turned in the opposite direction the wide ends of the recesses o are brought opposite to the studs n' and the pusher-button l thereby allowed to be pushed inward to its fullest extent, as hereinafter more particularly referred to.

The bolts g g' are normally held outward, or so that their noses engage, respectively, with the toothed bars h h' when the sashes a a' are closed or partially open, or against the side edges of the sashes at other times, as the case may be, by a spring p, which is preferably fulcrumed at one end to the plate or bracket e, its free end pressing partly upon the back of the lever i and partly upon the rear edge of the bolt g', as shown in Figs. 2 and 3; or in lieu of the spring p, arranged as described, the shank of each bolt g^4 (see Figs. 7, 8, and 9) may slide through a box q, formed on the back of the plate r, (corresponding to the plate e of Figs. 3, 4, and 5,) a spiral spring s being placed around the shank between a shoulder on the outer end portion of the bolt g^4 and the inner closed end of the box q, in which case the lever i, in passing through the slot t in the shank of the bolt g^4, acts as a stop to the outward projection of the latter by the spring s, the length of the slot t at the same time allowing of the independent backward movement of the bolt g^4, as in Fig. 5.

In operation, assuming the window to be closed and locked by the bolts g g', and it being desired to open the upper and lower sashes a a' to a small extent for the purpose of ventilation, a person inside the room, after partially rotating the pusher-button l into the unlocked position with relation to the studs n' on the back of the plate k, forces inward the pusher-button l, which throws back the lever i on its fulcrum j into the position indicated by dotted lines in Fig. 3, and thereby withdraws the bolts g g' clear of the toothed bars h h', which leaves the sashes a a' free to be lowered and raised, respectively, to the desired extent, or, say, a distance equal to that between the top and bottom notches of the bars h h', when, on releasing the pusher-button l, the spring p returns the lever i and bolts g g' to their normal position, or so that the latter engage with the said notches of the bars h h' of the upper and lower sashes a a', which are thereby locked and cannot be opened farther from the outside of the window, nor until the bolts g g' are again withdrawn from the bars h h', as before. Although the lower sash a' cannot be further raised from the outside of the window without unlocking the bolt g', it may be entirely or partially closed without unlocking, owing to the bevel shape of the toothed bar h', which on the descent of the sash a' forces back the bolt g' without affecting the bolt g of the upper sash a.

In applying my invention to a railroad-car window sash the beveled top and bottom notches u v of the bar h^2 (see Fig. 10) are formed with square shoulders or offsets w, so as to form lock-stops to the bolt g^5 when the sash is fully opened or closed.

For rendering the device practically inaccessible from the outside of the window, the plate k^2 (see Fig. 11) may be fixed to the face of the upright wainscot x within the room, the shape of the lever i^2 being modified accordingly, in which case the recesses o and studs n', previously described, for locking and unlocking the pusher-button l are dispensed with and the lever i^2 acted upon directly by the pusher-button l'.

I claim as my invention—

1. In a locking device for window-sashes, the combination of the bolts g g', projected through openings f f' in the side of the window-frame b by a spring p and adjustably secured to a lever i, located within the window-frame b c and fulcrumed at j to a plate k, fixed to the face of the jamb c, and a pusher-button l, projecting through the plate k and adjustably secured to the lever i, with toothed bars or racks h h', fixed to the upper and lower sashes a a', respectively, substantially as shown, and for the purpose described.

2. In a locking device for window-sashes, the combination of the plate e, fixed to the side of the window-frame b and having openings f f', bolts g g', projected through the said openings by a spring p and adjustably secured to a lever i, located within the window-frame b c and fulcrumed at j to a plate k, fixed to the face of the jamb c, and a pusher-button l, projecting through the plate k and adjustably secured to the lever i, with toothed bars or racks h h', fixed to the upper and lower sashes a a', respectively, substantially as shown, and for the purpose described.

3. In a locking device for a window-sash, the combination of a lever i, located within the window-frame b c and fulcrumed at j to a plate k, formed with projecting studs n' and fixed to the face of the jamb c, and a pusher-button l, projecting through the plate k and adjustably secured to the lever i, said pusher-button l having circumferential recesses o, substantially as shown, and for the purpose described.

In testimony whereof I have affixed my signature, in presence of two witnesses, this 19th day of October, 1889.

ARTHUR O. SHATSICK.

Witnesses:

JOS. W. CROOKES,

J. L. HORNSBY.