

H. SCHAFER.
SASH LOCK.

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1,046,110.

Patented Dec. 3, 1912.

FIG. 1.

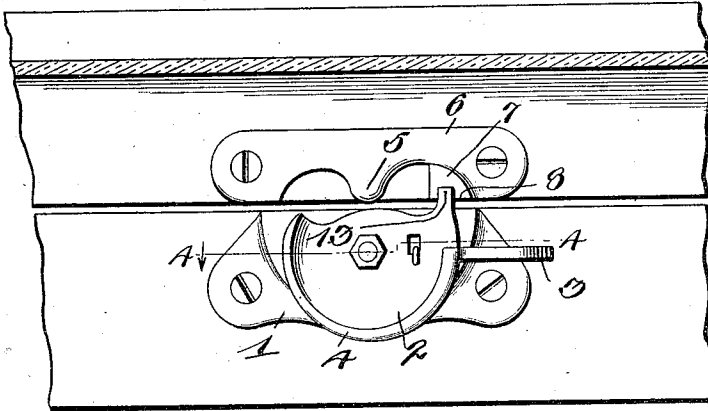


FIG. 2.

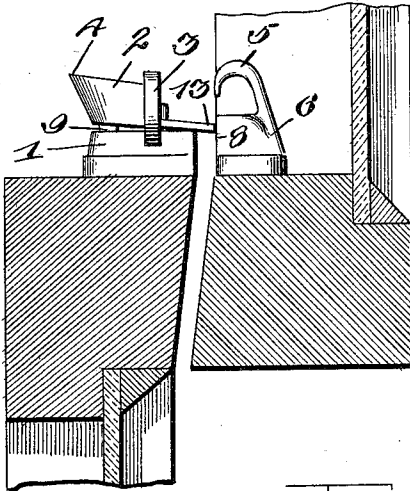
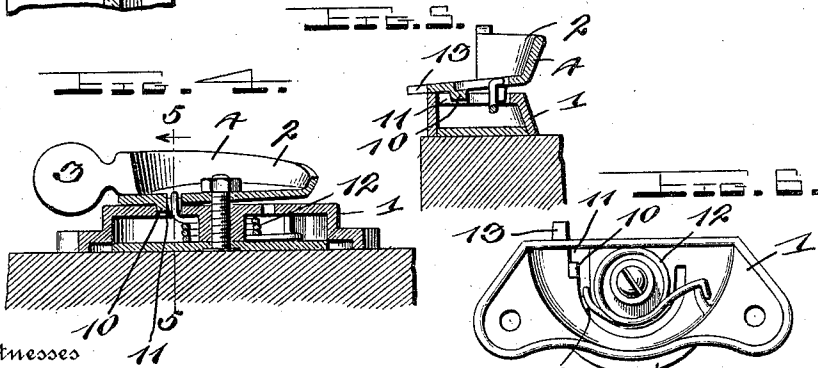
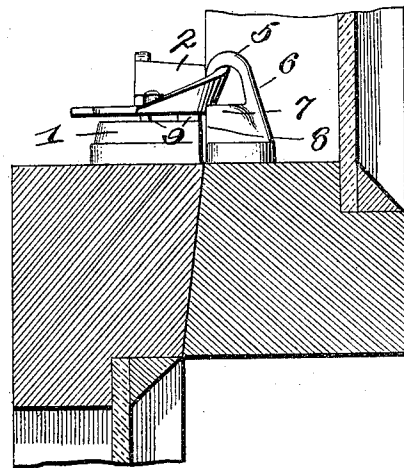


FIG. 3.



Witnesses

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UNITED STATES PATENT OFFICE.

HENRY SCHAFER, OF AKRON, OHIO.

SASH-LOCK.

1,046,110.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, HENRY SCHAFER, a citizen of the United States, and a resident of Akron, county of Summit, and State of Ohio, have invented new and useful Improvements in Sash-Locks, of which the following is a specification.

This invention relates to improvements in sash locks, and the object is to provide a very simple and effective form of lock having a small number of parts, which when not locking the two sashes together, will permit of the free movement of both sashes, and which, when the sashes are brought to position closing the window, will automatically lock them together.

With the above object in view, the invention consists in the novel features of construction hereinafter fully described, particularly pointed out in the claims, and clearly illustrated by the accompanying drawing, in which—

Figure 1 is a top plan view showing the position of the parts just before the lower sash has been closed far enough to trip the lock; Fig. 2, a vertical sectional view through the meeting-rails of the two sashes showing the position of the parts when the lock has been operated to release the sashes and before either of the sashes has been moved; Fig. 3, a similar view showing the two sashes locked together; Fig. 4, a sectional view through the locking-member of the sash-lock; Fig. 5, a sectional view of the same taken on the line 5—5 of Fig. 4, and Fig. 6, a bottom plan view of the locking-member.

Referring now more particularly to the drawing, the numeral 1 designates the base of the lock-member which is in the form of a casing having the usual perforated ears or lugs by means of which it may be secured to the upper rail of the lower sash and a flat segmental top which is provided with a vertical bearing centrally arranged to receive the pivotal screw or bolt by which the lock-plate 2 is pivotally secured thereon. This lock-plate has the usual lateral finger-piece 3 by means of which it is swung on its pivot, and the cam-rib 4 to engage beneath the hook-shaped member 6 of the lock. This member 6 has formed at one side of the retaining-lug 5, a shoulder 7 which constitutes a tripping device for effecting the release of the locking-plate when the sashes are brought together. This member 6 also has

a vertical bearing-surface or contact-portion 8 directly beneath the shoulder 7 for the purpose to be set forth hereinafter, and it also is provided with the usual perforated ears by means of which it may be attached to the lower rail of the upper sash.

The lock plate is formed on its lower surface with two spaced lugs 9 which ride on the flat segmental top of the base-member, and a third lug or detent 10 which, when the lock-plate is moved to unlock the sashes, is adapted to engage in a slot 11 formed in the top of the base member and hold said lock plate in that position until tripped.

A spring 12 is coiled about the central bearing and is attached to the lock-plate from the under side and to one side of the pivotal point thereof so as to have a tendency to pull that side of the lock-plate toward the top of the base-member. This spring performs two functions, namely, that of effecting the movement of the lock-plate to bring its cam-rib into engagement with the keeper-hook when tripped, and to force the detent into the slot of the top of the base-member when the lock-plate has been moved to unlock the sashes.

The lock-plate is provided adjacent to the detent with a tripping-lug 13 which, when the lock is held under tension of the spring in position unlocking the sashes, projects beyond the outer side of the upper rail of the lower sash in position to contact with the shoulder 7 of the keeper-member.

The operation of my invention is as follows:—To unlock the sashes, the lock-plate is swung on its pivot until the cam-rib thereof disengages the keeper-member. When the detent is above the slot in the top of the base-member, the spring forces it thereinto, the lock-plate rocking on one of the lugs 9. The lock-plate is thus held with the spring under tension. In this position, the tripping-lug 13 engages the contact portion 8 on the keeper-member and forces the upper rail of the lower sash slightly apart, as shown in Fig. 2. The lower sash may then be raised, the tripping-lug 13 slipping over the shoulder 7, thereby causing the two sashes to spring together again. In closing the window, the tripping lug 13 descends upon the shoulder 7, thereby lifting the detent out of the slot and permitting the spring to act to swing the lock-plate to cause the engagement of the cam-rib thereof beneath the hook-member of the keeper and

thus automatically locking the two sashes together. It will thus be seen that it is impossible to close the window without automatically locking it.

5 Having thus fully described my invention, what I claim as new and desire to secure by Letters Patent of the United States, is:

1. An automatic lock for window-sashes, comprising a keeper-member carried by one
10 of the sashes, a member carried by the other sash formed with a slot, a lock-plate pivoted on said member adapted to engage the keeper-member to lock the two sashes together and carrying a detent adapted to en-
15 gage in said slot when the lock-plate is out of engagement with the keeper-member, a spring for effecting the movement of said lock-plate to engage the keeper-member when the detent is disengaged from the slot, and
20 means carried by the keeper-member for effecting the disengagement of the detent from the slot when the sashes are brought together.

2. An automatic lock for window-sashes, comprising a keeper-member carried by one
25 of the sashes, a base-member carried by the other sash formed with a slot, a lock-plate pivoted on said base-member adapted to engage the keeper-member to lock the two
30 sashes together and carrying a detent adapted to ride on said base-member during the pivotal movement of said lock-plate, a spring adapted to force said detent into the slot when the lock-plate has been moved out of
35 engagement with the keeper-member and to effect the movement of the lock-plate to engage the keeper-member when said lock-plate is tripped, and means carried by the
40 keeper-member for tripping the lock-plate when the sashes are brought together.

3. An automatic lock for window-sashes,

comprising a keeper-member carried by one of the sashes, a base-member carried by the other sash having a flat top formed with a slot, a lock-plate pivoted to swing on said
45 top of the base-member and formed with depending spaced lugs, which ride on the top, one of which is positioned above the slot when the lock-plate has been moved to dis-
engage the keeper-member, a spring carried
50 by the base-member adapted to be placed under tension by the movement of the lock-plate to disengage the keeper-member and connected to the lock-plate in such manner
55 as to cause the lug to engage in the slot, and tripping-means carried by the keeper-member for effecting the movement of the lock-plate to disengage the lug carried thereby from the slot of the base-member when the
60 sashes are brought together.

4. An automatic lock for window-sashes, comprising a keeper-member carried by one of the sashes formed with a tripping-shoulder, a pivoted locking-member having a pro-
65 jection adapted to extend in position to contact with said shoulder when the sashes are unlocked, a detent for holding the locking-member in this position, and a spring for effecting the movement of the locking-member to engage the keeper-member, said pro-
70 jection of the locking-member adapted to force the sashes apart sufficiently when the locking-member is moved out of engagement with the keeper-member to permit free slid-
75 ing-movement of said sashes.

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

HENRY SCHAFFER.

Witnesses:

F. H. STUART,
E. R. GLADWIN.