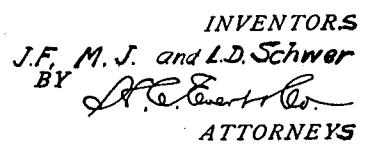


APPLICATION FILED MAR. 20, 1911.

2 SHEETS—SHEET 1.



J. F., M. J. & L. D. SCHWER.

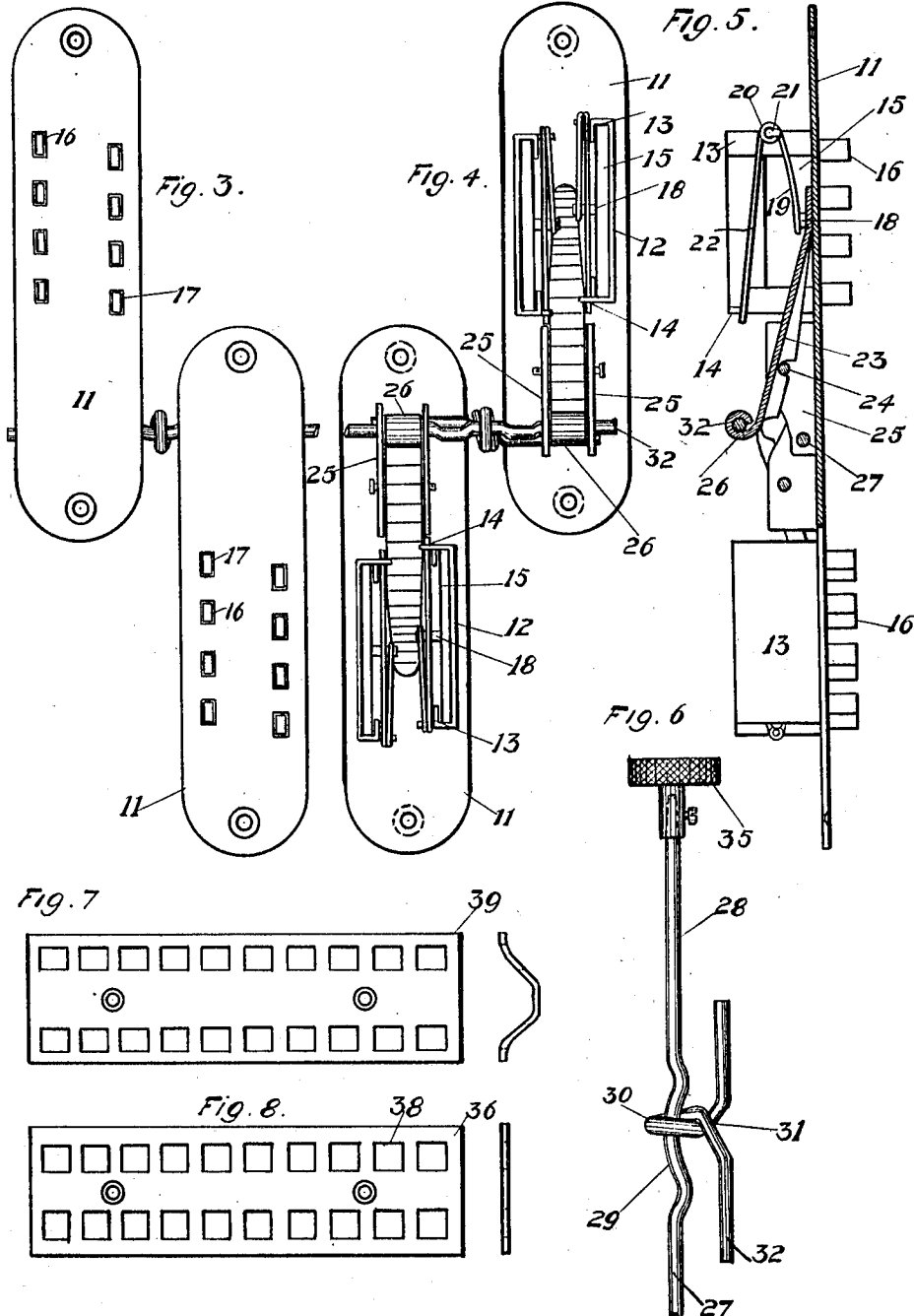
SASH LOCK.

APPLICATION FILED MAR. 20, 1911.

1,004,477.

Patented Sept. 26, 1911.

2 SHEETS—SHEET 2.



WITNESSES:

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UNITED STATES PATENT OFFICE.

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SASH-LOCK.

1,004,477.

Specification of Letters Patent. Patented Sept. 26, 1911.

Application filed March 20, 1911. Serial No. 615,702.

To all whom it may concern:

Be it known that we, JOSEPH F. SCHWER, MARK J. SCHWER, and LAWRENCE D. SCHWER, citizens of the United States of America, residing at Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Sash-Locks, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to sash locks, and the objects of our invention are to provide a lock that can be easily embodied in a window frame for locking the upper and lower sashes thereof in an adjusted position, and to furnish the sashes of a window frame with novel strips coöperating with the locks for obtaining a minute adjustment of the upper and lower sashes.

Other objects of the invention are to provide a sash lock that can be easily and quickly operated to lock either or both of the sashes in an open or closed position, and to provide a lock that will present a neat appearance in connection with the window frame.

Further objects of our invention are to provide a lock that is positive in its action and free from injury by ordinary use, and to accomplish the above results by a lock that is simple and inexpensive to manufacture.

With the above and other objects in view, the invention resides in the novel construction, combination and arrangement of parts to be hereinafter specifically described and then claimed.

Reference will now be had to the drawings, wherein like numerals of reference designate corresponding parts throughout the several views, in which:—

Figure 1 is a front elevation of a window frame, partly broken away and partly in section, showing our lock in connection with the upper sash, Fig. 2 is a plan of the window frame partly broken away and partly in horizontal section, Fig. 3 is an enlarged front elevation of a detached lock, Fig. 4 is an enlarged rear elevation of the same, Fig. 5 is a vertical sectional view of the lock, Fig. 6 is an enlarged plan of the operating shaft of the lock, Fig. 7 is a plan of a strip designed for the lower sash of the window frame, and Fig. 8 is a similar view of a strip designed for the upper sash of the window frame.

The reference numeral 1 denotes a window frame having side boards 2 and beads 3 for guiding a bottom sash 4 and an upper sash 5. The frame has the ordinary weight wells 6, pulleys 7, sash cords 8 and weights 9. The side boards 2 are provided with openings 10 approximately intermediate the ends thereof and in proximity to the meeting rails of the sashes 4 and 5, and in these openings are mounted locks. As the locks are identical in construction, we deem it only necessary to describe the lock for the upper sash and the manner in which said lock coöperates with the lock of the lower sash.

11 denotes a plate counter-sunk in the board 2 over the opening 10 and the rear side of this plate is provided with guides 12 arranged in parallelism, said guides having the upper ends thereof flanged, as at 13 and the lower ends thereof provided with projections 14. Movably mounted in the guides 12 are spring pressed locking members 15 having the lower edges thereof provided with teeth 16 adapted to extend through openings 17 provided therefor in the plate 11. The guide 12 at one side of the plate 11 is off-set relatively to the guide at the opposite side of said plate, consequently the member 15 at one side of the plate will be off-set relatively to the member at the opposite side of the plate, therefore the openings 17 at one edge of the plate 11 are off-set relatively to the openings at the opposite edge, whereby after the upper sash has been minutely adjusted, it can be locked, as will hereinafter appear.

18 denotes inwardly projecting pins carried by the confronting faces of the members 15 and engaging these pins are the ends 19 of springs 20 mounted upon hook-shaped pins 21, carried by the flanges 13 of the guides 12. The opposite ends 22 of said springs engage under the projections 14 of the guides 12, whereby said springs will normally maintain the members 15 against the plate 11 with the teeth 16 protruding through the openings 17 of the plate 11.

23 denotes an actuating member fulcrumed upon a transverse pin 24, carried by oppositely disposed bearings 25 of the plate 11, said actuating member having the upper end thereof engaging under the pins 18 and the lower end thereof provided with a barrel 26. The bearings 25 are apertured to accommodate the end 27 of an operating shaft 28, and

this shaft has a central crank portion 29 loosely connected to the loop 30 of a connecting member 31, said member having one end 32 thereof extending into the barrel 26 of the actuating member 23 of the lock of the upper sash and the opposite end thereof extending into the barrel of the actuating member of the lock of the lower sash. The operating shaft 28 is also journaled in the bearings 25 of the lock of the lower sash and said shaft extends through an escutcheon plate 33 and the facing board 34 at the inner side of the window frame. Detachably mounted upon the inner end of the operating shaft 28 is a knob or key 35 to permit of said shaft being rotated.

36 denotes a metallic strip secured to one of the side rails 37 of the upper sash, and this strip is provided with a plurality of openings 38 to receive the teeth 16 of the locking members 15, the openings 38 being equally spaced and arranged in longitudinal alinement. The strip 36 is located at the lower edge of the rail 37 and another strip 39 is arranged at the upper edge of the rail of the lower sash 4, the strip 39 being channel-shaped to provide clearance for the weight cord 8 attached to the lower sash.

When the operating shaft 28 is rotated, the connecting member 31 is moved to shift the actuating members 23, whereby the teeth 16 of the locking members 15 will be retracted to permit of the sashes 4 and 5 being moved or to permit of the springs 20 shifting the members 15 whereby the teeth 16 will engage in the openings 17.

It is thought that the operation and utility of the lock will be apparent without further description, and while in the drawings we have illustrated a preferred embodiment of the invention, it is to be understood that the structural elements thereof can be varied or changed without departing from the scope of the appended claims.

What we claim is:—

1. A sash lock comprising a member adapted to be carried by the side rail of the sash adjacent to its lower rail and having rows of openings, a plate adapted to be secured in the window frame, a pair of oppositely disposed guides arranged upon the inner face of said plate, one of said guides being off-set with respect to the other, a locking member mounted in each of said guides and provided with teeth normally projecting through said plate and adapted to engage in the openings of said member thereby arresting movement of the sash, pins carried by the locking members and projecting toward each other, means carried by the guides and engaging said pins for maintaining the locking members in operative position, an actuating member fulcrumed upon said plate and extending between the pins

and the plate, and an operating shaft for said actuating member.

2. A sash lock comprising a member formed with a plurality of openings and adapted to be secured to the side rail of a sash adjacent to the meeting rail thereof, a plate mounted in the window frame and provided with a series of openings, a pair of guides projecting from the inner face of said plate and each including a flange and a projection, locking members mounted in said guides and each provided with a series of teeth normally projecting through the openings of said plate and engaging in the openings of said member for locking the sash, each of said locking members provided with a pin, means carried by said flanges and engaging said projection and abutting against the pins for normally maintaining said locking members in operative position, an actuating member fulcrumed upon said plate and extending between the pins and the plate and adapted when operated in one direction to release the locking members, and means for operating the actuating member.

3. A sash lock comprising a strip adapted to be fixed to the side rail of a sash and provided with openings, a plate adapted to be mounted in a window frame and formed with a series of openings, a pair of guides projecting from the inner face of said plate, a locking member mounted in each of said guides and having a series of teeth projecting through the openings in the plate and adapted to engage in the openings of said strip for locking the sash, pins carried by the locking members and projecting toward each other, springs carried by the guides and engaging the pins for normally maintaining said members in locking position, an actuating member fulcrumed upon said plate and having one end extending between the pins and the plate and adapted when actuated to shift the locking members into inoperative position, and means for operating the actuating member.

4. A sash lock comprising a strip adapted to be carried by the side rail of a sash and formed with rows of openings, a plate adapted to be mounted in the window frame and formed with two rows of openings, one of which is off-set with respect to the other, a pair of guides projecting from the inner face of said plate, one of said guides off-set with respect to the other, a locking member mounted in each of said guides and provided with a plurality of teeth adapted to extend through one of the rows of openings of said plate and engage in one of the rows of openings of said strips thereby locking the sash, pins projecting toward each other and carried by said locking members, springs carried by the guides and engaging the pins for normally maintaining the teeth

of the locking members projected through
said openings of the plate, an actuating
member fulcrumed upon said plate and hav-
ing one end extending between the pins and
the plate and adapted when actuated in one
direction to shift the teeth out of engage-
ment with the openings of said strip, and
means for operating said actuating member.

In testimony whereof we affix our signa-
tures in the presence of two witnesses.

JOSEPH F. SCHWER.

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LAWRENCE D. SCHWER.

Witnesses:

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,
Washington, D. C."
