

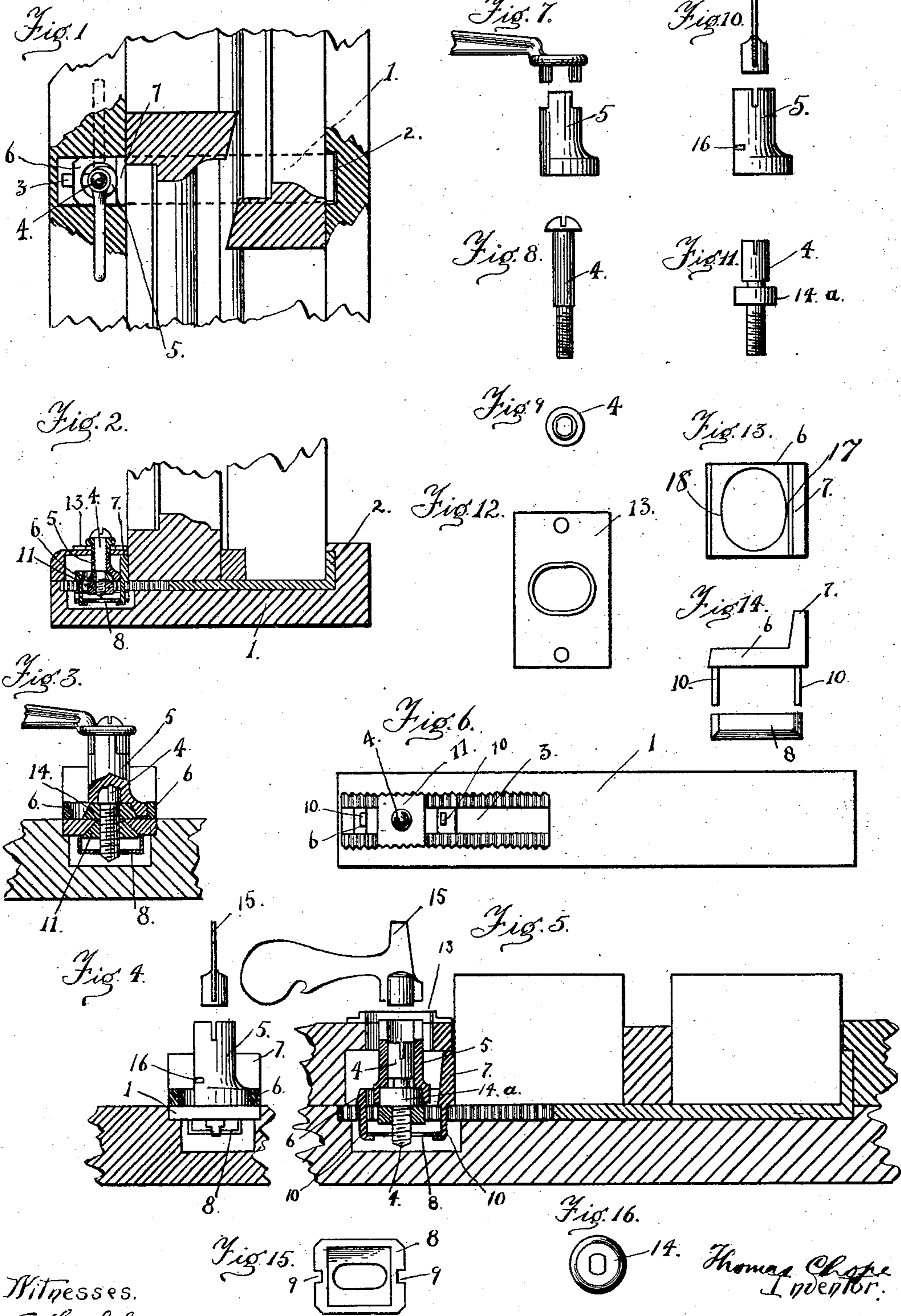
No. 715,731.

Patented Dec. 9, 1902.

T. CHOPE.
WINDOW LOCK.

(Application filed June 25, 1902.)

(No Model.)



Witnesses.
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UNITED STATES PATENT OFFICE.

THOMAS CHOPE, OF SAN FRANCISCO, CALIFORNIA, ASSIGNOR OF TWO-THIRDS TO SAMUEL J. BRUN AND E. JUNGGERMAN, OF SAN FRANCISCO, CALIFORNIA.

WINDOW-LOCK.

SPECIFICATION forming part of Letters Patent No. 715,731, dated December 9, 1902.

Application filed June 25, 1902. Serial No. 113,147. (No model.)

To all whom it may concern:

Be it known that I, THOMAS CHOPE, a citizen of the United States, residing in the city and county of San Francisco, State of California, have invented a new and useful Improvement in Window-Locks, of which the following is a specification.

My invention relates to an improvement in window-locks, especially to that class in which both sashes are locked in any position in which they may be placed.

My object is to provide a window-lock, both right and left handed, adapted to be placed on any-sized window, simple in construction, and which will lock the sashes readily and incidentally tend to prevent their rattling. I attain these objects by means explained in the following description and illustrated in the accompanying drawings.

Figure 1 is a plan or top view of the window-lock set in the sash. Fig. 2 is a longitudinal section of Fig. 1. Fig. 3 is an enlarged detailed sectional view of part of the lock. Fig. 4 is a full end view of the lock with a detachable finger-piece. Fig. 5 is a longitudinal section of Fig. 4. Fig. 6 is a bottom view showing the beveled toothed slot in the slide-bar for adjusting the lock to the various sizes of windows, showing the lock-nut 11 in its place. Figs. 7 to 16, inclusive, show various details of the device.

Similar numerals refer to similar parts throughout the drawings.

1 is a bar provided with a jaw 2 at one extremity, said jaw resting normally in a recess in the casing, and said bar being adapted to slide in a mortise cut in the casing, as shown in Figs. 1 and 2. The face of the jaw next the outer sash is serrated to engage the surface of the sash. At the other end of the bar is a longitudinal slot 3, provided with beveled toothed edges adapted to mesh with similar teeth on the lock-nut 11, which holds the lower extremity of the stud 4. Slidable on the bar is a movable piece 6, provided with an oval slot. (Shown in Fig. 13.) This movable piece has a jaw 7, the surface being serrated like that of the jaw 2 at the other extremity of the bar 1 and adapted to engage the surface of the inner sash. Within the oval slot of the movable piece 6 and sur-

rounding the stud 4 is an eccentric or cam 5, rotatable by a key or finger-piece. (Shown rigidly attached thereto in Figs. 1 and 3 and separable in Figs. 4 and 5.) The cam is normally in such a relation to the movable piece that its longer diameter is parallel with the longer diameter of the oval slot. In this position the sashes may move freely. The upper part of the cam rotates within the slightly-oval slot in the cap 13, which is screwed to the outside of the window-stop, as shown in Fig. 5.

When it is desired to lock the windows, the key or finger-piece is moved to such a position as to bring the longer axis of the eccentric parallel with the shorter axis of the oval slot in the movable piece 6, the face of the cam being directed against that face of the oval slot nearest the sash, as at 17. The piece is moved in this manner, and the serrated face of the inner jaw engages the face of the inner sash. Hence arises resistance by the sash to its movement and to the rotation of the cam, which resistance, reacting on the stud, imparts movement to the lock-nut 11 and bar 1, the jaw at the other extremity of which consequently engages the surface of the outer sash. The pair of jaws thus grip the two sashes and tend to hold them rigidly against the parting-bead.

When it is desired to unlock the window, the movement of the key or finger-piece is reversed and the cam moves against the opposite face of the movable piece, as at 18. The movable piece is thus moved back to its seat in the window-stop. It is there held rigidly by the resistance of the rear wall of the said seat.

The pressure of the cam against the opposite face of the oval slot, as at 18, moves the cam and slidable bar outwardly and releases the jaw of said bar from the outside sash.

The stud 4 is shouldered, as shown in Fig. 8, and has two flattened faces along its lower length, as shown in Fig. 9, over which slips the collar 14, Fig. 16, having a squared aperture to fit the stud. The collar bears on one surface of the bar 1, being held strongly against it by the shoulder on the stud 4 as the stud is turned in the lock-nut 11. In this manner the stud, collar, bar, and lock-nut are

bound rigidly together, and the bar necessarily moves with the movements of the stud under the action of the cam, as hereinbefore shown.

5 The edges of the slot 3 in the bar 1 are beveled and supplied with teeth. The corresponding faces of the lock-nut 11 are correspondingly beveled and toothed. The beveling of the faces prevents the slipping of the nut through
10 the slot along the length of the stud. The toothed arrangement enables the lock-nut to be set in any position along the slot of the bar, thus rendering the lock adjustable to wider or narrower casings.

15 By placing the lock in position under the meeting-rail of each sash its use is always available against some part of the sash-surface regardless of the position of the sashes, and the bar is never in sight when the sashes
20 are in the frame.

The movable piece 6 may carry two legs, Fig. 14, which would pass through the bar-slot 3 and engage a cap, Fig. 15, below the lock-nut. The legs tend to keep the lock-nut
25 in such a position that it may readily be restored to engagement to move with the toothed slot in the bar whenever during the process of adjustment the nut is loosened. The cap acts to prevent the nut from falling
30 away from the stud altogether during the adjusting process.

Figs. 4 and 5 show the lock provided with a separable key, which may be desirable in certain situations. The key shown in Fig. 5
35 has a projection 15 to be used as a screw-driver in tightening and loosening the lock-nut and collar against the bar in adjusting the lock to a window.

As shown in Fig. 11, the collar 14^a may be rigidly attached to or formed of one piece 40 with the stud. A feather in the slot 16 enters the space between the collar and shoulder, Fig. 11, and prevents the upward slipping of the cam.

To change the position of the key or finger- 45 piece from right to left, throw the cam partly off, unscrew the stud 4, throw the lever over into the reversed position, and screw the stud firmly down on bar.

I do not claim the cam movement broadly, 50 as that has been used by other inventors; but

What I do claim as new, and desire to secure by Letters Patent, is—

1. A window-lock, having a slidable bar provided with a serrated jaw, a movable piece 55 also provided with a serrated jaw, said jaws being adapted to grip the window-sash, a toothed nut, a cam revolving on a stud, said stud being secured to said slidable bar by said toothed nut, and adapted to give movement 60 to the movable piece and slidable bar, and means of imparting movement to the cam.

2. A window-lock, having a slidable bar provided with a serrated jaw and a toothed slot, a toothed lock-nut meshing with the 65 teeth of said slot, a movable piece provided with a serrated jaw, and means for imparting movement to the movable piece and to the slidable bar through the lock-nut.

In testimony whereof I have hereunto 70 signed my name in the presence of two subscribing witnesses.

THOMAS CHOPE.

Witnesses:

GUSTAVE J. MCGREGOR,
A. H. MEDINA.