R. O. BEACH.

SASH LOCK.

APPLICATION FILED JULY 27, 1914.

1,137,302. Patented Apr. 27, 1915.

Fig. 1.

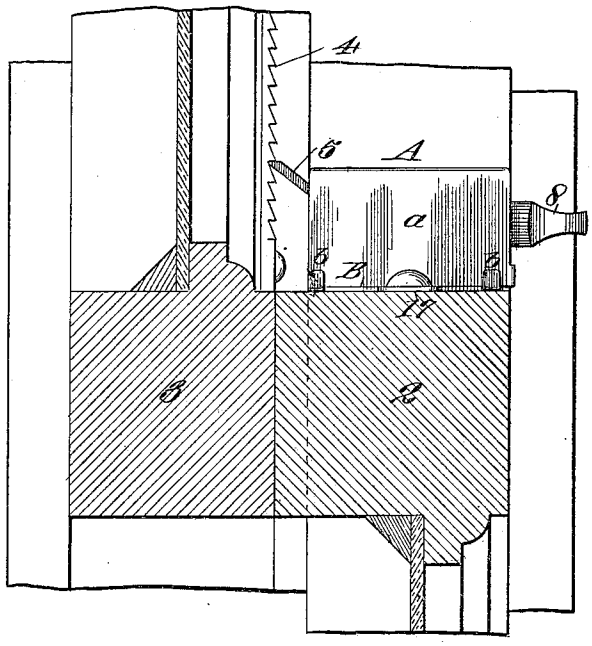


Fig. 2.

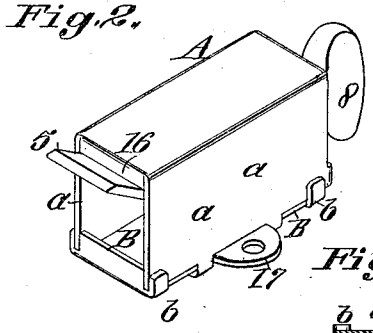


Fig. 3.

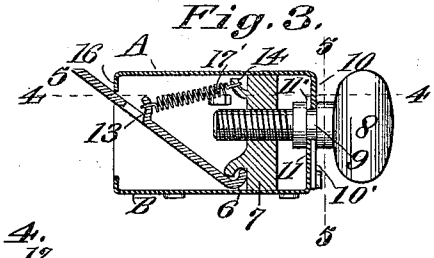


Fig. 4.

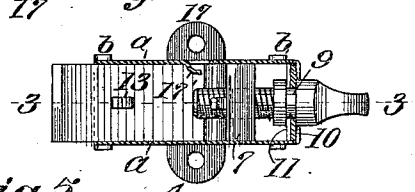
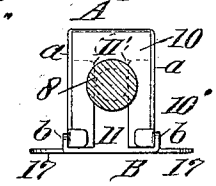


Fig. 5.



WITNESSES:

Charles Pickles

Irvine Sinnett.

INVENTOR

Robert O. Beach.

BY G. H. Strong

ATTORNEY

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

ROBERT O. BEACH, OF SAN FRANCISCO, CALIFORNIA, ASSIGNOR OF ONE-HALF TO EDWARD W. WEILAND, OF SAN FRANCISCO, CALIFORNIA.

SASH-LOCK.

1,137,302. Specification of Letters Patent. Patented Apr. 27, 1915.

Application filed July 27, 1914. Serial No. 853,267.

To all whom it may concern:

Be it known that I, ROBERT O. BEACH, a citizen of the United States, residing in the city and county of San Francisco and State of California, have invented new and useful Improvements in Sash-Locks, of which the following is a specification.

This invention relates to sash locks.

It is an object of the present invention to provide a sash lock constructed with a stamped, bent and interlocked sheet metal casing, thus providing a cheap and substantial housing for the lock.

A further object of the invention is to provide a sash lock comprising a bar attachable to one of the sashes, which coacts with a dog adjustably mounted in a lock housing; the sash bar and the dog coöperating to lock the sashes in any relative position against movement in either direction.

The invention consists of the parts and the construction and combination of parts as hereinafter more fully described and claimed, having reference to the accompanying drawings, in which—

Figure 1 is a vertical section through the meeting portions of the window sashes with the lock in place and applied. Fig. 2 is a perspective of the lock. Fig. 3 is a section on line 3—3 of Fig. 4. Fig. 4 is a section on line 4—4 of Fig. 3. Fig. 5 is a section on line 5—5 of Fig. 3.

2 indicates the top rail of an inner window sash, and 3 the bottom rail of an outer window sash; to the latter there being secured a toothed or rack bar 4 which is engageable by the adjacent end of a locking dog 5. This dog 5 is shown in Fig. 3 as pivotally related at 6 to a slide member 7 which is threaded upon an actuating screw 8. The shank of the actuating screw is provided with an annular groove 9 which is embraced by the overlapping rear walls 10 and 11 of the housing A of the lock.

The housing A consists of a top portion with downwardly turned side walls *a*—*a* and the downwardly turned back wall 10, which is slotted at 10′ to receive the neck of the adjusting screw. To the bottom of the housing A is applied a bottom plate B which has, at its rear end, an upwardly turned portion 11 which is slotted at 11′ to fit the neck portion of the screw shank 8; the slotted walls 10 and 11 forming, as stated, a seat for embracing the screw to permit the latter to rotate but prevent its longitudinal movement. The top of the housing A and the bottom B are interlocked by foldable lugs *b*.

The dog 5 is normally swung upwardly about its pivot 6 on the member 7 by a contractile spring 12, one end of which is connected to a tongue 13 punched upwardly from the dog 5; the opposite end of the spring 12 being attached to a hook 14 on the adjacent side of the sliding member 7. The upward movement of the dog 5 under the action of the spring 12 is limited by an overhanging lip 16 at the end of the housing A. The bottom plate B is provided on opposite sides with ears 17 for the reception of screws whereby the lock may be securely fastened to the rail of the window sash.

In operation, with the locking toothed bar 4 securely fastened to the inner surface of a sash, as 3, and with the lock structure, including the housing and its mechanism secured to the top rail of the sash, as 2, the locking dogs is retracted from its projected position in front of the housing by means of the screw 8 which may be turned in its bearings formed by the overlapping back walls 10 and 11. When the dog 5 is retracted, the sashes 2 and 3 may be moved relative to each other freely without the dog engaging the rack bar 4. When it is desired to lock the sashes in any desired position, the screw 8 is turned so as to shift the actuating member 7 forwardly which tends to project the dog 5 outwardly into engagement with the toothed locking bar 4. When this engagement has been obtained neither of the sashes can be moved either way, owing to the reaction of the dog 5 at one end upon the locking bar 4 and at the opposite end against the member 7 which is held stationary by its screw 8. Undue forward movement of the actuating block 7 is prevented by a stop lug 17′ which is struck inwardly from one side of the housing, as shown in Figs. 3 and 4. Thus I have provided a window sash lock which is at once very inexpensive in cost of manufacture, which is compact and substantial, is readily applicable to any type of any window by the mere fastening of the locking bar 4 and the lock housing A to respective sashes, and which device effectually operates to lock the sashes at any position and against movement in any direction

of either and which may be quickly and easily locked and unlocked by any person and cannot be tampered with from the outside. The screw 8 may be of double pitch thread so that the sliding block will move forwardly and rearwardly rapidly for a small movement of the screw.

Having thus described my invention, what I claim and desire to secure by Letters Patent is—

1. A window sash lock comprising a toothed bar applicable to one of the sashes, a locking device applicable to the other sash, said device comprising a housing with a portion forming a seat and having an opening in its opposite end, an upwardly inclined, yieldably suspended locking dog projecting through said aperture, a slidable member on which the dog is pivoted and means including a screw turnably fitting said seat and held thereby against longitudinal movement for projecting and retracting said dog to and from engagement with said rack.

2. A window sash lock comprising a toothed bar applicable to one of the sashes, a locking device applicable to the other sash, said device comprising a housing with a portion forming a seat and having an opening in its opposite end, a locking dog projecting through said aperture, means including a sliding member and a screw turnably fitting said seat and held thereby against longitudinal movement for projecting and retracting said dog to and from engagement with said rack, and a spring for suspending said dog and permitting its pivotal movement.

3. A sash lock comprising the combination of a dog mounted upon one sash and engageable with a toothed surface on the adjacent opposite sash, a slidable member on which the dog is pivoted, a spring connecting the dog and the member for suspending the dog in an inclined position, and means for actuating said member so as to project the dog into locking engagement with said toothed surface and for disengaging the dog therefrom.

4. A sash lock comprising the combination of a dog mounted upon one sash and engageable with a toothed surface on the adjacent opposite sash, a slidable member for the dog, a spring for suspending same in an inclined position, and means for actuating said member so as to project the dog into locking engagement with said toothed surface and for disengaging the dog therefrom, said means comprising a screw mounted for non-longitudinal movement and threaded in said member.

5. A sash lock comprising the combination of a dog mounted upon one sash and engageable with a toothed surface on the adjacent opposite sash, a slidable member for the dog, a spring for suspending same in an inclined position, means for actuating said member so as to project the dog into locking engagement with said toothed surface and for disengaging the dog therefrom, said means comprising a screw mounted for non-longitudinal movement and threaded in said member, with means for limiting the swinging movement of the dog, and means for limiting the longitudinal movement of the sliding member.

6. In a sash lock, a two-part stamped metal housing with integral fastening lugs, one of said parts forming a box and the other forming the bottom thereof, each part having overlapping U-shaped end walls cooperating to form a circular aperture, a screw with a slotted shank in the aperture, a sliding member mounted upon the screw and non-turnably fitting in the housing, one end of which is open, and a locking dog connected to and actuated by said slide and projecting through said open end.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

ROBERT O. BEACH.

Witnesses:
W. W. HEALEY,
M. EWING.

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