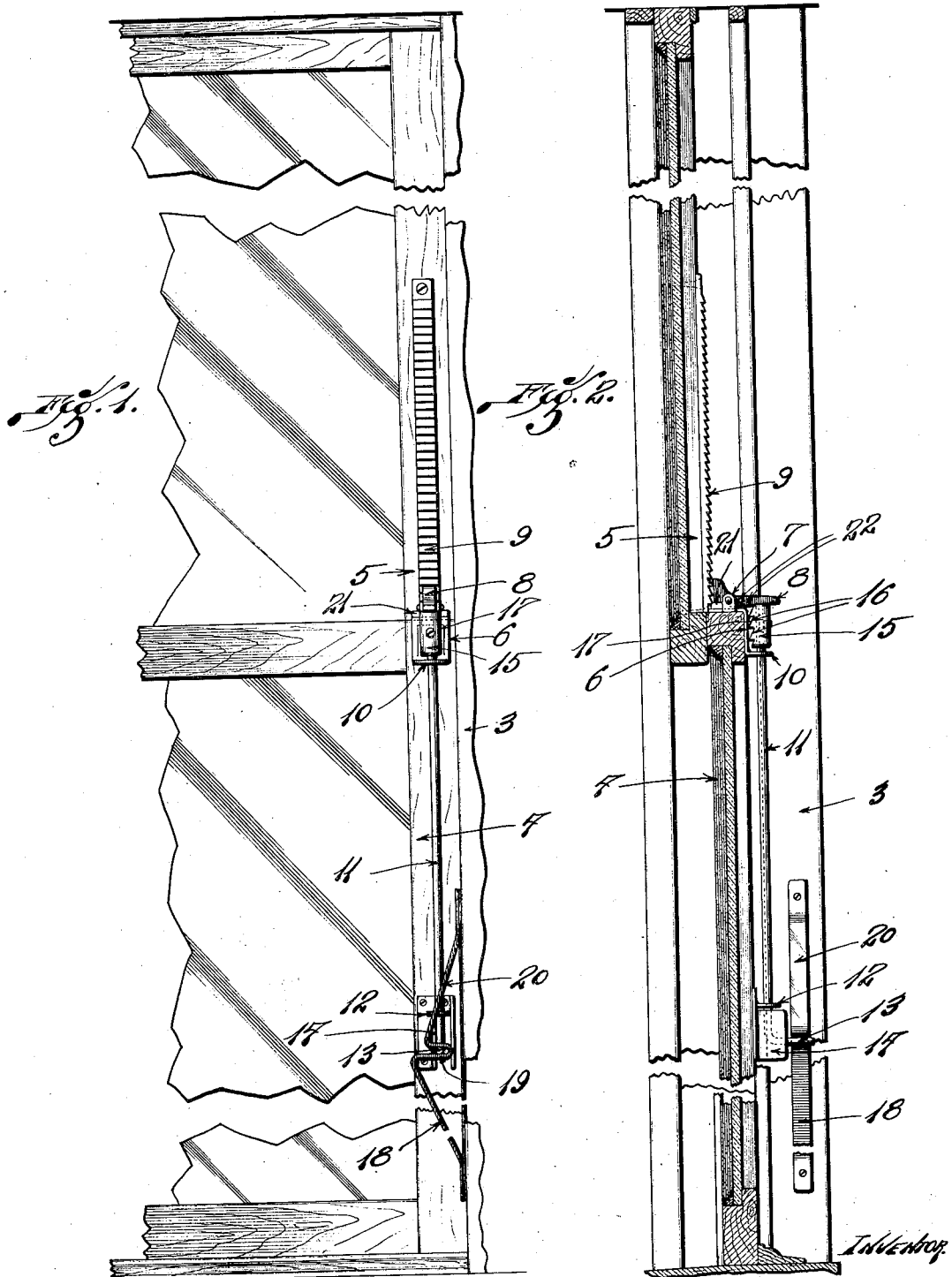


S. H. LACKLAND.
WINDOW SASH LOCK.
APPLICATION FILED JULY 1, 1912.

1,056,803.

Patented Mar. 25, 1913.



WITNESSES
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UNITED STATES PATENT OFFICE.

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WINDOW-SASH LOCK.

1,056,803.

Specification of Letters Patent.

Patented Mar. 25, 1913.

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To all whom it may concern:

Be it known that I, SAMUEL H. LACKLAND, a citizen of the United States, and resident of St. Louis, Missouri, have invented certain new and useful Improvements in Window-Sash Locks, of which the following is a specification containing a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

My invention relates to improvements in window sash locks, and the object of my invention is to construct an improved lock which will automatically lock the two sashes together, and to arrange the lock in such manner that the upper sash may be locked in a partially open condition in order to allow for ventilation at the top of the window.

With the above purposes in view my invention consists in certain novel features of construction and arrangement of parts as will be hereinafter described, pointed out in the claims and illustrated by the accompanying drawings, in which—

Figure 1 shows in elevation a sash lock constructed according to my invention; and Fig. 2 is a sectional elevation of a window equipped with one of my improved sash locks.

Referring by numerals to the accompanying drawings: 3 designates the window frame, 4 the lower sash and 5 the upper sash, the frame and sash all being of common construction and forming no part of my invention.

The numeral 6 indicates a bracket which is secured to the top rail of the lower sash adjacent one of the jambs of the window frame. Formed integral with the bracket and projecting upwardly from the upper face of the rail is a pair of perforated ears 7, forming a support for a pivoted dog 8 arranged for engagement with a rack 9 secured to the stile of the upper sash 5. Projecting laterally and formed integral with the bracket 6 there is a bearing 10 for the upper end of a rod 11, the lowermost end of the rod 11 being held in a bearing 12. Formed integral with the rod 11 beneath the bearing 12 there is a right angled arm 13. The bearing 12 is preferably formed from sheet metal, and integral therewith is a leaf spring 14 which bears against the arm 13 for purposes hereinafter more fully explained. At the upper end of the rod 11 there is a

metallic block 15 having on one of its faces teeth 16 which are to be engaged at times by a locking tooth 17 struck from the body of the bracket 6.

The numeral 18 designates a sheet metal strap having a horizontal slot 19 and an inclined plane 20 above the slot. This strap is secured to the face of the jamb of the window frame adjacent its lower end. Secured to the bracket 6 between the ears 7 and the rack 9 is an elastic block 21, such as rubber, which normally bears upwardly against the dog 8 to prevent the engagement of the dog with the rack 9. In order to provide for different thicknesses of window sash there is formed in the dog 8 a number of holes 22, to permit of a shifting of the pivotal point of the dog.

As shown in the drawings, the lock is in a position holding both sashes fully closed. In this position the arm 13 is held in the slot 19 so that the block 15 is raised to bear against the dog 8 and hold it in engagement with the rack 9 against the pressure of the elastic block 21. The leaf spring 14, holding the arm 13 within the slot 19, prevents the block 15 from being rotated so that the locking tooth 17 will engage in the teeth 16 of the block. It is to be observed that there is a number of the teeth 16 and the function of these teeth is to provide an automatic adjustment which will take care of any vertical play of the sashes after the lock has been placed in position. If it were not for such an adjustment, the entire strap 18 would have to be moved vertically at times to take up this play.

The operation of unlocking the device in order that either of the sashes may be moved is as follows. The arm 13 is turned laterally against the tension of the leaf spring 14 so that said arm will be freed from the slot 19. This turning of the arm and the entire rod 11 turns the ratchet face of the block 15 out of engagement with the locking tooth 17, whereupon the block 15 will be disengaged from the bracket 6 and will drop a slight distance, the block of elastic material 21 freeing the dog 8 from the rack 9. In this manner either sash may be freely moved.

On account of the length of the rack 9 the upper sash 5 may be locked when the lower sash 4 is fully closed in a position leaving some considerable space between the

top rail of the upper sash and the upper part of the window frame in order to provide ventilation at the top of the window.

I claim:

5 1. In a window sash lock, a rack secured to the stile of the upper sash, a dog, a vertical rod rotatably carried by the lower sash, a toothed block carried by said rod in engagement with said dog, a right angled arm carried by the rod, a spring acting on said rod for rotating it in one direction, and means secured to the window frame arranged to turn said rod in one direction against the tension of said spring and arranged to hold said rod against vertical movements.

2. The improved window sash lock, comprising a rack secured to the upper sash, a dog secured to the lower sash and arranged to engage said rack, an elastic element normally acting on said dog to hold it out of engagement with the rack, a rod rotatably mounted upon the lower sash, a toothed block carried by the said rod in engagement with said dog, a locking tooth carried by the lower sash and arranged for engagement with said toothed block, an arm carried by said rod, a leaf spring acting on said arm for rotating it in one direction, and a strap secured to the window frame, arranged to rotate the rod against the tension of said

leaf spring and also arranged to engage the arm and hold the rod against vertical movement.

3. In a window sash lock, a rack fixed to the stile of the upper sash, a dog pivotally secured to the rail of the lower sash and arranged for engagement with said rack, means for normally holding said dog out of engagement with said rack, bearings carried by said lower sash, a rod rotatably mounted in said bearings and capable of movements vertically relative said bearings, a toothed block secured to rotate with said rod, a locking tooth for engagement with said toothed block, a right angled arm carried by the end of the rod opposite said block, a spring for engagement with said arm for the rotation of said rod in one direction, and means secured to the window frame for engagement with said arm for turning said rod in a direction, against the tension of said spring and for holding said arm against vertical movements.

In testimony whereof, I have signed my name to this specification, in presence of two subscribing witnesses.

SAMUEL H. LACKLAND.

Witnesses.

E. L. WALLACE,
N. G. BUTLER.