T. J. BLOSICK.

WINDOW SASH LOCK.

APPLICATION FILED JULY 7, 1915.

1,161,597.

Patented Nov. 23, 1915.

2 SHEETS—SHEET 1.

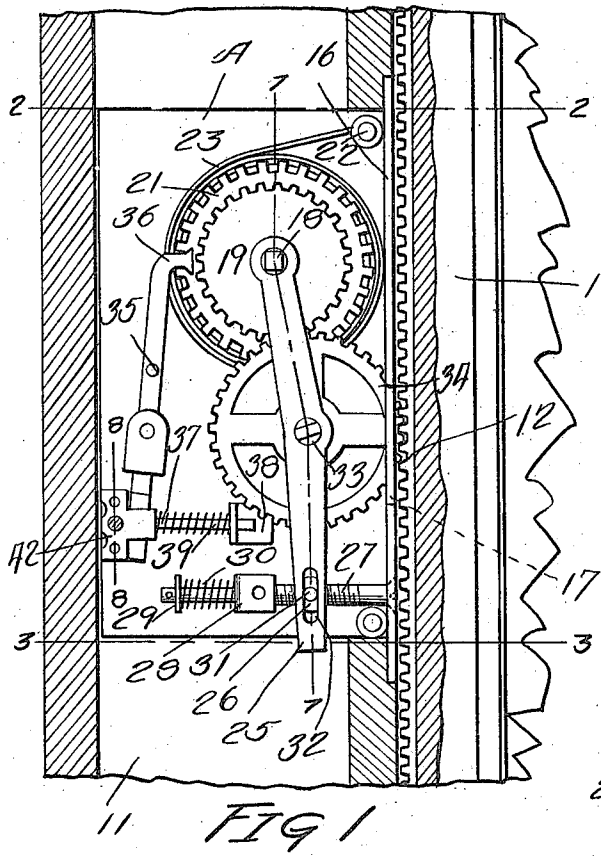



FIG 1

FIG. 5.

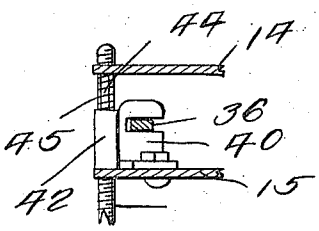
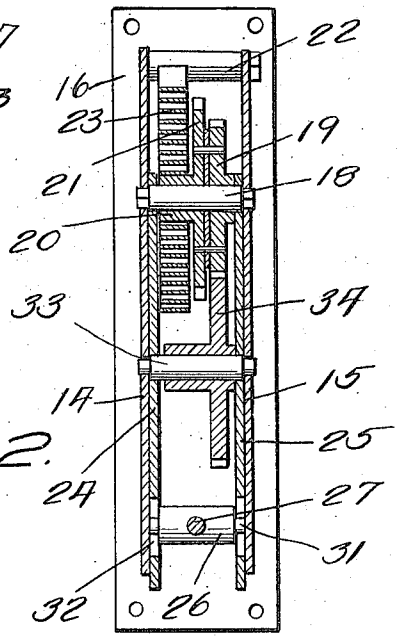



FIG. 7.



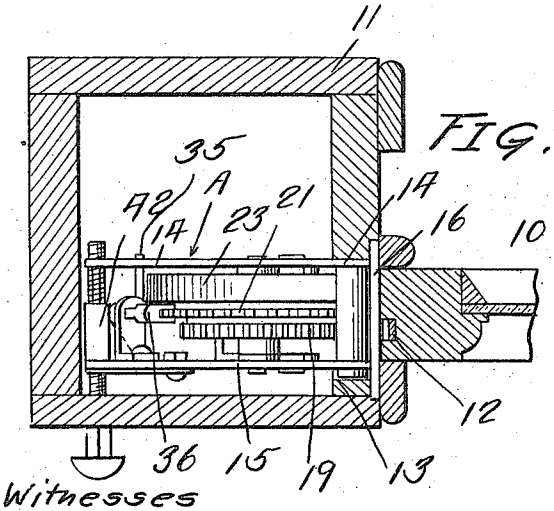




FIG. 2.

Witnesses

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2 SHEETS—SHEET 2.

FIG. 3.

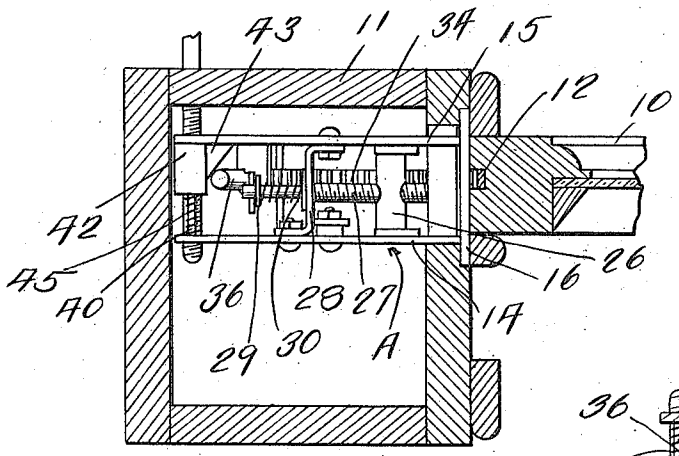



FIG. 6.

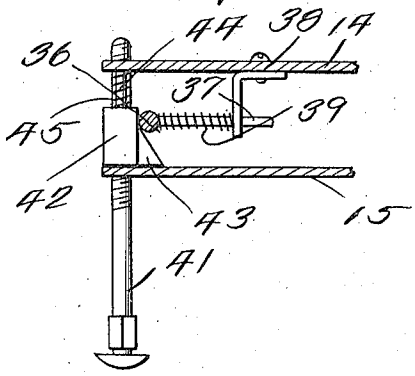



FIG. 4.

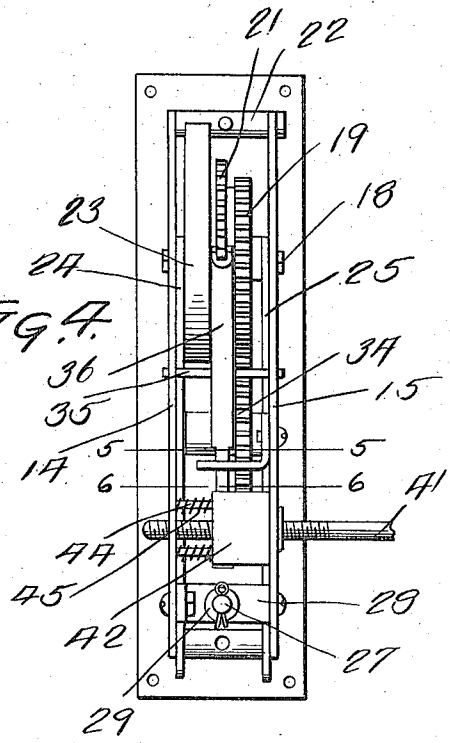
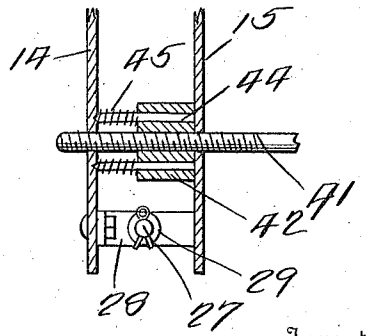



FIG. 8.




Witnesses

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# UNITED STATES PATENT OFFICE.

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## WINDOW-SASH LOCK.

1,161,597. Specification of Letters Patent. Patented Nov. 23, 1915.

Application filed July 7, 1915. Serial No. 38,551.

*To all whom it may concern:*

Be it known that I, THOMAS J. BLOSICK, a citizen of the United States, residing at Shaniko, in the county of Wasco, State of Oregon, have invented certain new and useful Improvements in Window-Sash Locks; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to window sash locks.

The object of the invention is to provide a window sash lock embodying an improved construction whereby the lock may be adjusted to conform to shrinkage of the window sash, and which will act as a balance to assist in raising the sash.

A further object of the invention is to provide a window sash lock which will be simple in construction, efficient in use, easily operated, and which can be manufactured at a comparatively small cost.

With the above and other objects in view the invention consists in the details of construction and in the arrangement and combination of parts to be hereinafter more fully described and particularly pointed out in the appended claim.

In describing the invention in detail reference will be had to the accompanying drawings wherein like characters of reference denote corresponding parts in the several views, and in which—

Figure 1 is a front elevation of a window sash showing the improved lock applied, the near side of the lock casing being removed and the sash being shown in section; Fig. 2, a section on the line 2—2 of Fig. 1; Fig. 3, a section on the line 3—3 of Fig. 1; Fig. 4, a rear view of the lock; Fig. 5, a section on the line 5—5 of Fig. 4; Fig. 6, a section on the line 6—6 of Fig. 4; Fig. 7, a section on the line 7—7 of Fig. 1; and Fig. 8, a section on the line 8—8 of Fig. 1.

Referring to the drawings 10 indicates the window sash and 11 the window frame. The edge of the sash adjacent the frame 11 has mounted thereon in any suitable manner a rack 12 which constitutes a part of the lock as will hereinafter appear. The portion of the lock carried by the window frame 11 is indicated generally at A and is shown mounted in a recess 13 formed in the frame for the purpose of receiving the lock.

That portion of the lock mounted in the recess 13 is shown as comprising spaced side plates 14 and 15 and a face plate 16 provided with an opening 17 for a purpose that will presently appear. Mounted between the side plates 14 and 15 is a non-rotatable shaft 18 upon which is rotatably mounted a gear 19. Fixed to the gear 19 at one side of the latter and provided with an extended hub 20 is a ratchet wheel 21. Encircling the hub 20 and having one end thereof secured to the hub 20 and its other end to a bar 22 mounted between the side plates 14 and 15 is a spiral spring 23. By this construction it will be obvious that rotation of the gear 19 in one direction will energize the spring 23. Pivotally mounted on the shaft 18 are arms 24 and 25 and the free ends of these arms are connected by a bar 26 which is rotatably mounted between the arms. Rotatably engaged through the face plate 16 and threaded in the bar 26 is a screw 27. This screw is also slidably engaged through a bracket 28 mounted between the side plates 14 and 15. The inner end of the screw 27 has mounted thereon a washer 29 and encircling the screw is a spring 30 one end of which bears against the washer and the other end against the bracket 28. This spring serves to normally hold the screw 27 at the limit of its movement inwardly of the face plate. By rotating the screw 27 it will be obvious that the arms 24 and 25 can be swung on their pivots. The swinging movement of the arms 24 and 25 is limited by means of extensions 31 of a bar 26 rotatably mounted in the arms 24 and 25 and engaged in slots 32 formed respectively in the arms 24 and 25. Fixed on the bar 26 is a gear 34 which meshes with the gear 19. This gear 34 works through the opening 17 during swinging of the arms 24 and 25 and is adapted to mesh with the rack 12 on the window sash. By providing for the adjustment of the gear 34 in the manner previously described it will be obvious that the coöperative engagement between said gear and the rack 12 can be maintained even though the window sash should shrink or the proper relation between the sash and frame be destroyed by settling of the building.

Rotatably mounted within the side plates 14 and 15 is a shaft 35 which has fixed thereon a pawl 36 the upper end of which is

adapted for coöperation with the ratchet wheel 20 to lock said ratchet wheel and of course the gears 19 and 34 against rotation. Secured to the lower end of the pawl 36 is one end of a rod 37 which is slidable in a bracket 38 secured to the side plate 14. Encircling the rod 37 is a spring 39 one end of which bears against the lower end of the pawl 36 and the other end against the bracket 38. This spring constantly tends to hold the pawl 36 in locking relation to the ratchet wheel 20 as will be obvious. Movement of the pawl 36 under the influence of the spring 39 is limited by means of a guide bracket 40 secured to the side plate 15.

In order to move the pawl 36 to released position against the influence of the spring 39 there is slidably mounted in the plates 14 and 15 a member 41 and fixed upon this member is a block 42 having a beveled projection 43 adapted for coöperation with the lower end of the pawl 36. This block 42 is slidably engaged on guide rods 44 and encircling each rod 44 is a spring 45 one end of which bears against the side plate 14 and the other against the block 42. These springs 45 constantly tend to hold the block in position to permit the pawl 36 to be disposed normally in locked position with respect to the ratchet wheel 20. By forcing the member 41 longitudinally against the influence of the springs 45 the beveled projection 43 will engage the lower end of the pawl 36 and move said pawl to release position against the influence of the spring 39.

In operation it will be noted that when the window sash is down the spring 23 will be energized so as to act as a balance and assist in raising the sash. Normally the sash is locked owing to the fact that the pawl 36 normally locks the ratchet wheel 20 against rotation. If it is desired to raise the sash it is only necessary to move the member 41 longitudinally and operate the pawl 36 to release position. The sash can then be raised. Upon release of the member 41 the sash is automatically locked in the desired position. In lowering the sash the spring 23 is again energized so as to be ready to assist the next raising of the sash.

What is claimed is:—

In a sash lock the combination with a window frame and sliding sash, of a rack mounted on the sash, a casing mounted in the frame, a non-rotatable shaft mounted in the casing, a gear rotatably mounted on said shaft, a ratchet wheel secured to the gear for rotation therewith, spaced arms pivotally mounted on said shaft, means for pivotally adjusting said arm, a pinion rotatably mounted between the arms and meshing with the gear and rack, a pawl mounted in the casing and normally engaging the ratchet wheel to lock the latter against rotation, and means for disengaging said pawl from said ratchet wheel.

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

THOMAS J. BLOSICK.

Witnesses:
ROY R. WHEELER,
HOWARD M. WEISE.

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