R. H. JONES.

SASH OPERATING AND LOCKING MECHANISM.

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928,767.

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Fig. 4.

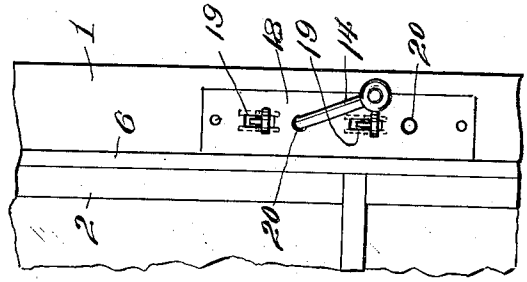


Fig. 1.

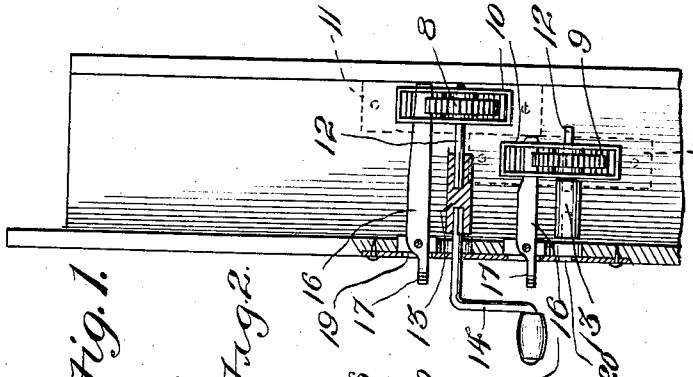


Fig. 2.

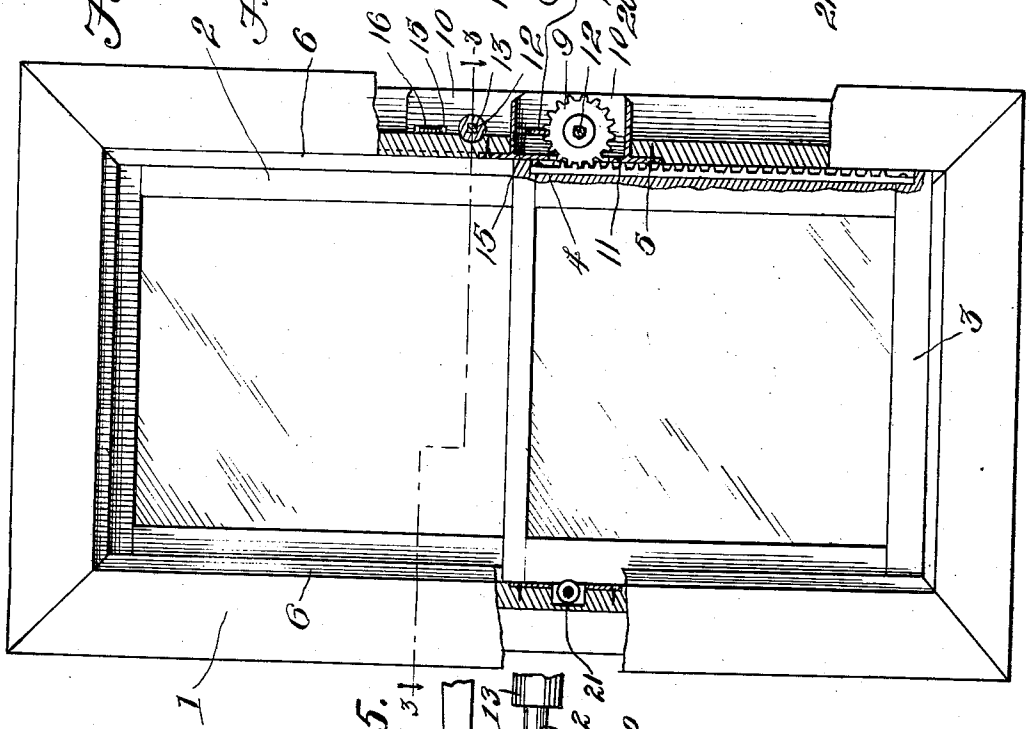


Fig. 3.

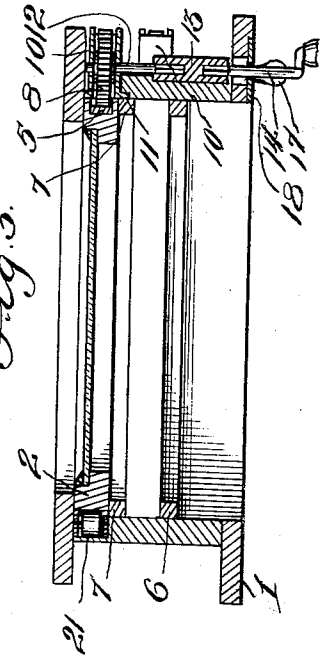
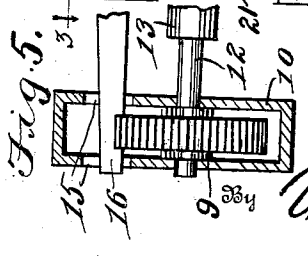


Fig. 5.



Witnesses

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UNITED STATES PATENT OFFICE.

REECE H. JONES, OF TUSTIN, MICHIGAN.

SASH OPERATING AND LOCKING MECHANISM.

No. 928,767. Specification of Letters Patent. Patented July 20, 1909.

Application filed January 10, 1908. Serial No. 410,205.

To all whom it may concern:

Be it known that I, REECE H. JONES, a citizen of the United States, residing at Tustin, in the county of Osceola and State of Michigan, have invented new and useful Improvements in Sash Operating and Locking Mechanism, of which the following is a specification.

This invention relates to sash operating and locking mechanism, the object of the invention being to provide simple and reliable mechanism for raising and lowering ordinary window sashes and securely locking the same at any point of elevation desired, the operating mechanism for raising and lowering the sashes forming also part of the locking mechanism.

A further object of the invention is to so construct and arrange the sash operating and locking mechanism that the same may not be tampered with by unauthorized persons.

With the above and other objects in view, the invention consists in the novel construction, combination and arrangement of parts as herein fully described, illustrated and claimed.

In the accompanying drawings:—Figure 1 is a front elevation of a window showing the invention applied thereto. Fig. 2 is a side or edge view of the same. Fig. 3 is a horizontal cross section taken on the line 3—3 of Fig. 1. Fig. 4 is a broken elevation of the window frame and casing, showing the fastening escutcheon plate and a portion of the operating and locking mechanism. Fig. 5 is a sectional view on the line 5—5 of Fig. 1, showing more clearly the slots in the opposite sides of the housing and the latch lever operating therein.

Referring to the drawings, 1 designates a window frame or casing of any suitable construction, 2 the upper sash and 3 the lower sash, said sashes being mounted to slide up and down in the usual manner.

In carrying out the present invention, each of the sashes is provided in one of its side edges with a groove or longitudinal recess 4 in which is secured a rack bar 5 the teeth of which are thereby contained within the plane of the side edge of the sash, the two sashes operating between the usual stops 6 and parting beads 7.

At one side of the frame, there is provided a pair of spur gear wheels 8 and 9 arranged at different elevations and on opposite sides of the horizontal line of the meeting rails of the sashes as shown in Fig. 1, the upper wheel 8 meshing with the teeth of the inlaid rack 4 of the upper sash and the lower wheel 9 meshing with the teeth of the inlaid rack of the lower sash. Each of said wheels is mounted in a flanged metal housing 10 provided with a suitable base 11 whereby it is secured by suitable fasteners such as screws to the side of the window frame or casing. The housing 10 also forms bearings for a spindle 12 which projects toward the front of the window frame and is provided with a crank socket 13 the socket of which is formed in the front end thereof adapting it to receive the squared inner end of a detachable supporting crank 14. The housing 10 is also provided in its opposite side walls with slots 15 in which works one arm of a latch lever 16 which projects through the front of the window frame, the other or shorter and outwardly projecting arm thereof constituting a depressible finger or thumb piece 17, which is preferably located just above the plane of the operating crank 14 as shown in Figs. 1, 2 and 4.

At the front, the window frame or casing is provided with a face plate or escutcheon 18 having openings 19 for the latch levers 16 and other openings 20 into which the operating crank 14 is insertible in order that the inner squared end thereof may be connected to and disconnected from the crank socket 13 of either gear wheel spindle 12. Just opposite and in horizontal alinement with each of the spur gear wheel spindles 12 there is arranged a bearing roller 21 against which the adjacent side rail of the sash bears in its up and down movement, said roller serving to prevent the sash from becoming clamped or jammed as it is raised and lowered by the mechanism previously described.

In operation, the crank 14 is inserted into the socket of the upper spindle and turned to the left to lower the upper sash. To raise the lower sash, the crank is inserted in the crank socket of the lower spindle and turned to the right. Before turning the crank to raise or lower either of the sashes, the latch lever 16 is operated so as to throw the rear end thereof out of interlocked engagement with its respective gear wheel 8 and 9, as the case may be. After the sash has been raised or lowered to the desired point, the latch is released and the crank withdrawn. The latch falls by gravity into interlocked engagement with the teeth of its wall and thereby prevents the sash from being raised or

lowered. It will be apparent that either sash may be locked at any point whatever in the whole length of its up and down movement.

Having thus described the invention, what is claimed as new, is:—

In combination with a window comprising a casing, upper and lower sliding sashes, each sash having a vertically arranged rack bar in the edge facing the adjacent jamb, gear wheels in mesh with the respective rack bars, a flanged housing for each gear wheel and slots in the opposite walls thereof, spindles for the gear wheels mounted in the walls of the housing, crank sockets fitted to the projecting ends of the spindles and arranged wholly within the jamb of the window frame, transversely disposed latch levers pivoted near their outer ends to the window frame and having their inner ends passed through the slots of the respective flanged housings, and adapted to engage the gear wheels, a plate fitted to the window jamb and having slots to receive the projecting ends of the latch levers, and having openings opposite the crank sockets, and a crank adapted to be fitted to either of the said crank sockets.

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

REECE H. JONES.

Witnesses:
MAE ANDERSON,
MILDRED LOVENE.