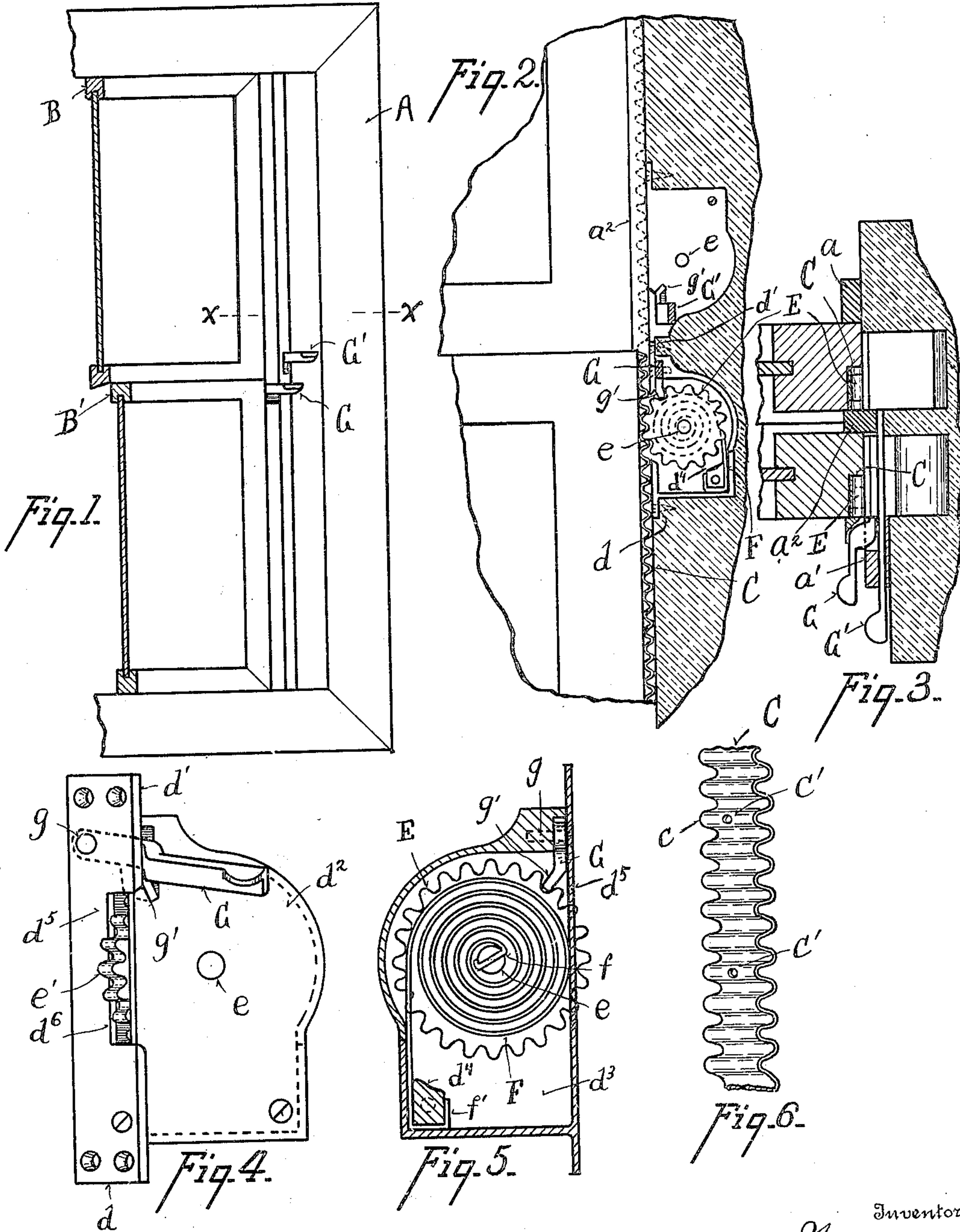


No. 822,498.

PATENTED JUNE 5, 1906.

W. A. WINTER.
SASH LOCK AND BALANCE.
APPLICATION FILED APR. 29, 1905.



Witnesses
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UNITED STATES PATENT OFFICE.

WILLIAM A. WINTER, OF CINCINNATI, OHIO.

SASH LOCK AND BALANCE.

No. 822,498.

Specification of Letters Patent.

Patented June 5, 1906.

Application filed April 29, 1905. Serial No. 257,989.

To all whom it may concern:

Be it known that I, WILLIAM A. WINTER, a citizen of the United States of America, and a resident of Cincinnati, county of Hamilton, State of Ohio, have invented certain new and useful Improvements in Sash Locks and Balances, of which the following is a specification.

My invention relates to that class of sash-balances wherein the sash carries a rack 10 which intermeshes with a spring-controlled pinion mounted in the frame.

The object of my invention is to simplify the construction of the same, especially that of the means for locking the sash in any position desired. This object is attained by the means described in the specification and illustrated in the accompanying drawings, wherein—

Figure 1 is a perspective sectional view of a 20 window supplied with a sash balance and lock embodying my invention. Fig. 2 is a detail view, upon an enlarged scale, showing the sashes in elevation, the frame in longitudinal vertical section, and the balance with one of its sides removed. Fig. 3 is a detail horizontal sectional view, upon an enlarged scale, of the sash and frame, taken upon line xx of Fig. 1. Fig. 4 is a perspective view of the sash balance and lock. Fig. 5 is a sectional view 30 looking at the device from the opposite side from that shown in Fig. 4. Fig. 6 is a perspective view of the rack which is attached to the sashes.

The frame A and the sashes $B B'$ are of ordinary construction, the frame being supplied 35 with the ordinary moldings $a a'$ and the parting-strip a'' , and the sashes sliding in the ways formed thereby. The sides of the sashes have attached to them a rack C , which is made from a strip of hoop-steel fluted to form the teeth c and having perforations c' at intervals to receive the nails for securing the same to the sides of the sashes. Mounted in 40 recesses of the frames adjacent to the central part thereof are the housings D of the sash-balance embodying my invention, the housings having flanges $d d'$ to receive screws to secure them in the frame. The flat sides $d'' d'''$ of the housing have circular perforations 45 forming bearings for the axle e of the pinion E . The axle e has a central slot at one end thereof, into which fits the inner end f of a

spring-coil F , the other end f' of which is attached to a post d^4 upon the interior of the casing D . The straight front face d^5 of the casing has a vertical perforation d^6 , through 55 which the teeth e' of the pinion E project to engage the teeth c of the rack C . A lever G is pivoted at its end g in the casing D and has a lateral pawl g' , which may be brought into contact with the teeth e' of the pinion by 60 throwing the lever G . When the pawl g' engages the teeth e' , it is seen that the pinion is locked against rotation. The lever G of the sash-lock adjacent to the lower sash projects out in front of the molding a' . The lever G' 65 of the lock adjacent to the upper sash is made longer than the lever G and projects through the parting-strip and the molding in a plane at the rear of the way in the frame for the lower sash, so that it does not interfere with 70 the movement of the lower sash in its ways. The springs F are to be adjusted to a tension such that they will balance the weight of the sashes. When the sash is brought to the position desired, it may be locked by throwing 75 the lever G to bring its pawl into contact with the pinion E . It is seen, then, that the pinion being locked against rotation its teeth engaging the rack C hold the sash locked in position and that the construction of the locking device is simple and strong. 80

What I claim is—

1. In a sash-balance a window frame and sashes, the window-frame having recesses adjacent to the ways for the sashes, vertical racks secured to the sashes, housings secured in the recesses having slotted front flat faces flush with the ways in the frame and having flat sides, pinions journaled upon the shafts 85 between the sides of the housing and projecting through the slot in the front face of the housing to engage the racks, levers journaled at one end upon the interior of the front flat face and having pawls projecting inward to engage the teeth of the pinions, one of said levers projecting in front of the frame-molding and the other and longer lever projecting through the parting-strip and said molding for locking or freeing the pinions and coiled 90 springs secured to the housings and engaging the shafts of the pinions. 95

2. In a sash-balance the combination of a housing adapted to be secured to a window-

frame, a pinion journaled in the housing and
having an axle centrally slotted at one end, a
coiled spring one of whose ends is seated in
the said slot and the other end of which is se-
5 cured to the housing, a lever journaled in the
housing and adapted to be brought into en-
gagement with the pinion, and a rack to en-

gage the teeth of the pinion and adapted to
be secured to the sash of a window.

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Witnesses:

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