

(No Model.)

2 Sheets—Sheet 1.

M. F. ROBINSON.
WINDOW FASTENER.

No. 565,300.

Patented Aug. 4, 1896.

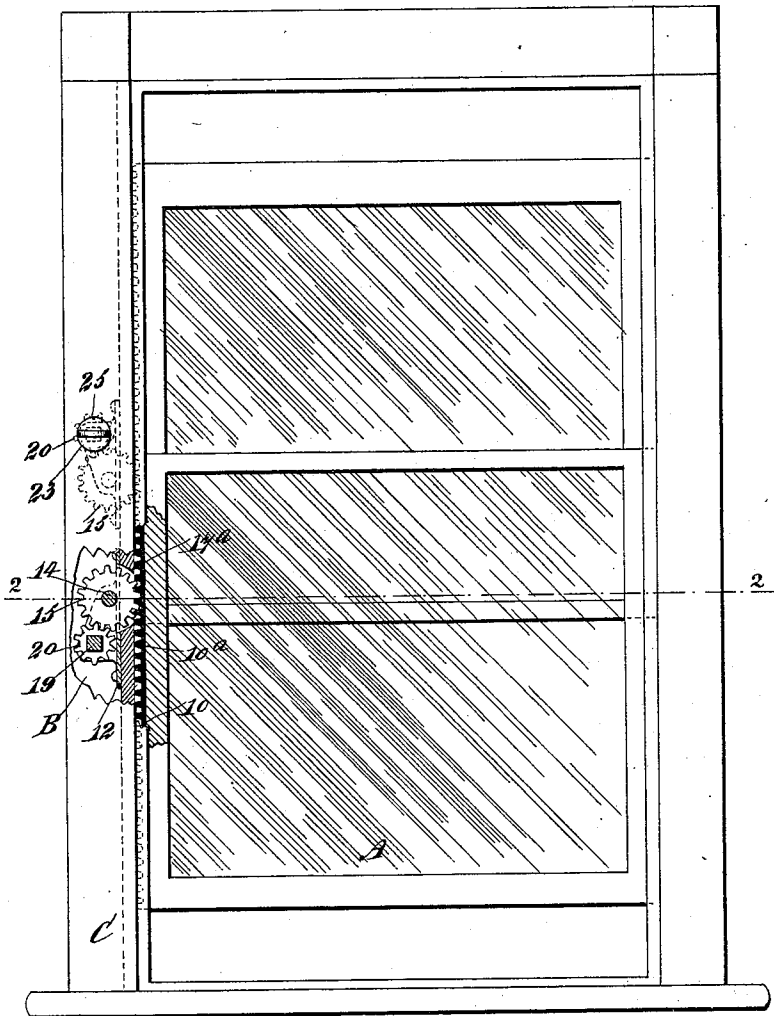


Fig. 1

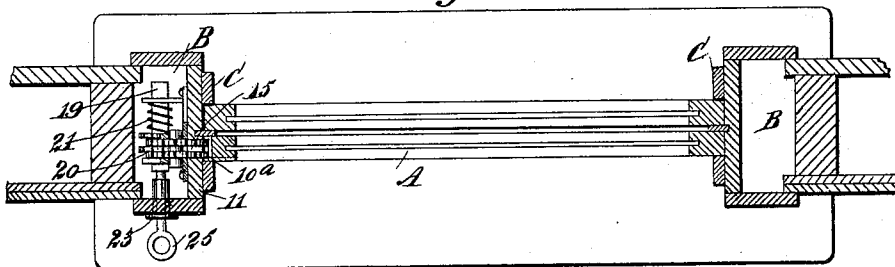


Fig. 2

WITNESSES:

J. B. Walker
J. B. Walker

INVENTOR

M. F. Robinson.

BY

Munn & Co

ATTORNEYS.

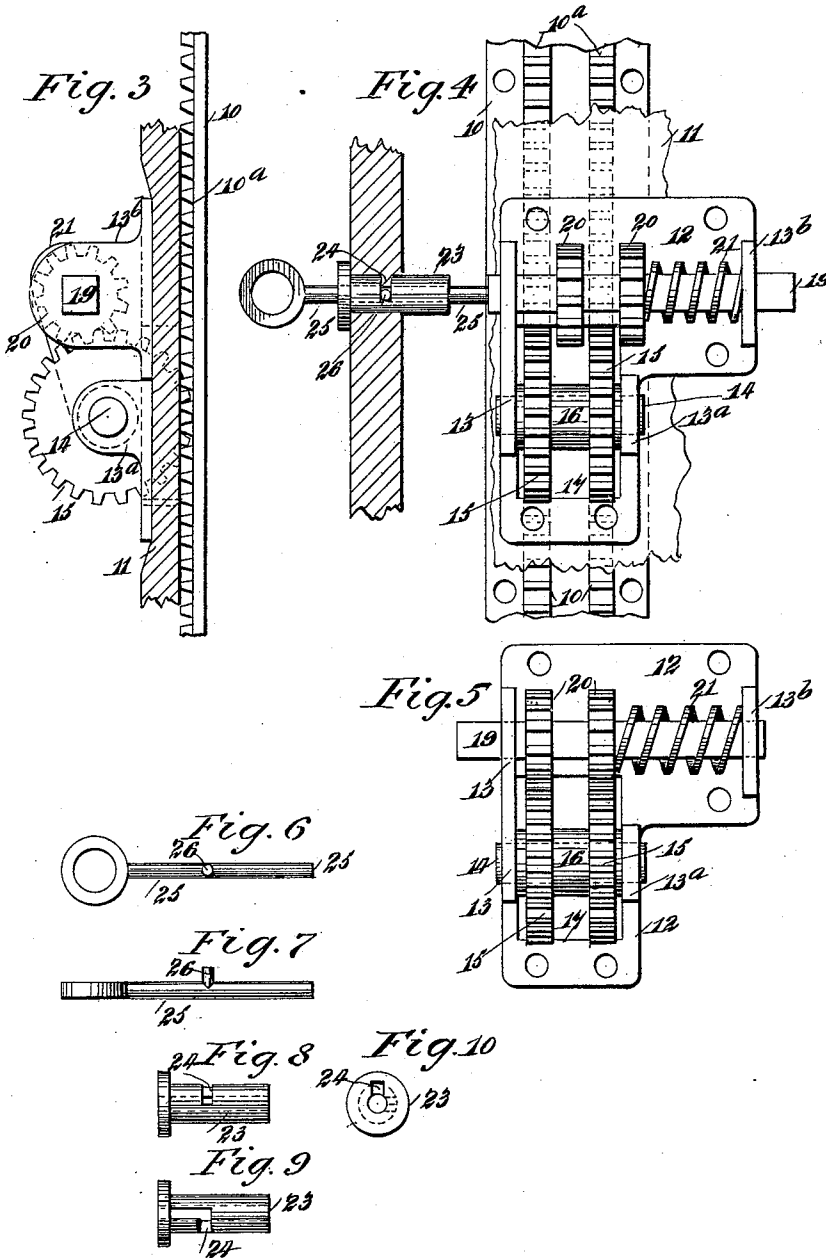
(No Model.)

2 Sheets—Sheet 2.

M. F. ROBINSON.
WINDOW FASTENER.

No. 565,300.

Patented Aug. 4, 1896.



WITNESSES:

J. B. Walker.
J. B. Walker.

INVENTOR

M. F. Robinson.

BY

Munn & Co.

ATTORNEYS.

UNITED STATES PATENT OFFICE.

MICHAEL F. ROBINSON, OF NEW YORK, N. Y., ASSIGNOR OF TWO-THIRDS
TO PATRICK M. CULLINY, OF SAME PLACE.

WINDOW-FASTENER.

SPECIFICATION forming part of Letters Patent No. 565,300, dated August 4, 1896.

Application filed October 7, 1895. Serial No. 564,828. (No model.)

To all whom it may concern:

Be it known that I, MICHAEL F. ROBINSON, of New York city, in the county and State of New York, have invented a new and Improved Window-Fastener, of which the following is a full, clear, and exact description.

My invention relates to window-fasteners adapted for use in connection with either an upper or a lower sash; and the object of the invention is to provide a fastening device of the character above described which will comprise but few parts and which will be exceedingly durable and capable of convenient and ready manipulation.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claim.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a side elevation of a window-frame and an upper and a lower sash, a portion of the lower sash and adjacent part of the window-frame being in section, likewise the window-fastener for the said lower sash, the fastener in the upper sash being shown in dotted lines. Fig. 2 is a horizontal section taken substantially on the line 2 2 of Fig. 1. Fig. 3 is a side elevation of the window-fastener and side elevation of a portion of the rack adapted for engagement with the window-sash, a portion of the window-frame being in section. Fig. 4 is an outer face view of the window-fastener, an outer face view of a portion of the rack adapted for attachment to the window-sash, and likewise a vertical section of a portion of the window-frame, the window-fastener being shown in unlocked position in this view. Fig. 5 is an outer face view of the window-fastener in its locked position. Figs. 6 and 7 are a side elevation and plan view, respectively, of the key employed. Figs. 8 and 9 are a side elevation and a plan view, respectively, of the ferrule adapted to receive the key; and Fig. 10 is an end view of the said ferrule.

In carrying out the invention the window-sash A is provided with a plate 10, secured to one of its vertical side edges, and the said

plate is provided upon its outer face with two parallel vertical rows of teeth 10^a, constituting two rack-surfaces for each plate.

At a desired point in the inner vertical member of the window-frame, or the inner vertical member of the boxing B of the said frame, an opening 17^a is made, which exposes the racks 10^a on the window-sash. The fastener itself consists of a plate 12, which in the drawings is shown as of angular or L shape. This plate is screwed or otherwise fastened to the outer side of the aforesaid vertical member 11 of the window-frame, and the plate is provided with an opening 17, which registers with the opening 17^a in the window-frame. At one side of the plate a long bearing 13 is made upon the outer surface thereof, while at the opposite side two bearings 13^a and 13^b are constructed, both of them being opposite the bearing 13. In one portion of the bearing 13 and in the opposing bearing 13^a a shaft 14 is journaled, and on the said shaft two gears 15 are secured, being spaced by washers 16 or their equivalents, and these gears extend through the opening 17 in the plate and engage with the racks 10^a on the window-sash.

A polygonal or a square shaft 19 is held to slide in the long bearing 13 and in the opposing bearing 13^b, and the aforesaid square shaft 19 has two pinions 20, firmly secured thereon, capable of engaging with the gears 15, as shown in Fig. 5, said pinions forming stops to engage the teeth of the gear-wheels when the shaft 19 is moved endwise, whereby said gear-wheels are held against rotative movement, and the pinions are normally held in this position by a spring 21, which is preferably coiled around the said shaft, being in engagement with the bearing 13^b and the contiguous pinion 20, as shown in both Figs. 4 and 5.

A ferrule 23 is preferably introduced into the boxing B of the window-frame through the front or inner vertical member thereof, as shown in Fig. 2, and the aforesaid ferrule is provided with a flange at its outer end, and is so placed that its inner end will be opposite one extremity of the sliding shaft 19. This ferrule is further provided with a key-hole-slot 24, as shown in Figs. 4, 8, 9, and 10.

A key 25 is adapted to enter this ferrule, being provided with a stud 26, capable of sliding in the longitudinal member of the keyhole-slot 24 of the ferrule and of entering the transverse member thereof, as illustrated in Fig. 4. In the operation of this fastener, when the key is withdrawn from the ferrule 23 the spring 21 of the sliding shaft will force the pinions 20 to a meshing engagement with the gears 15, and consequently the window-sash will be locked in the position in which it had been placed prior to the withdrawal of the key, since the said gears will be in mesh with the racks 10^a.

When it is desired to raise or to lower the window, the key 25 is placed in the ferrule a sufficient distance to engage with the sliding shaft 19 to force the pinions 20 out of engagement with the gears 15, as shown in Fig. 4, and this position of the pinions will have been attained when the stud 26 of the key is opposite the transverse member of the keyhole-slot 24 in the ferrule. Therefore, by turning the key so as to carry its stud into the said transverse member of the keyhole-slot, the pinions will be held out of locking engagement with the gears, and the window may be readily raised and lowered and operated in

substantially as free a manner as though a fastener were not applied thereto.

In Figs. 1 and 2 the locking-pinions 20 are shown as being below the gears 15, while in Figs. 3, 4, and 5 the locking-pinions are illustrated as above the gears. It is immaterial in which of the two positions the pinions may be placed.

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

A window-fastener, comprising a supporting plate or casing, a gear mounted rotatively thereon, a rack meshing with the gear and adapted to be secured to a window-sash or the like, said casing being provided with square openings, a squared shaft arranged to slide in the squared openings in the casing, a stop carried by the shaft and arranged when the same is moved endwise to be engaged with and disengaged from the teeth of the gear, and a spring arranged to hold said shaft in the normal position, substantially as set forth.

MICHAEL F. ROBINSON.

Witnesses:

J. FRED. ACKER,

PATRICK M. CULLINY.