

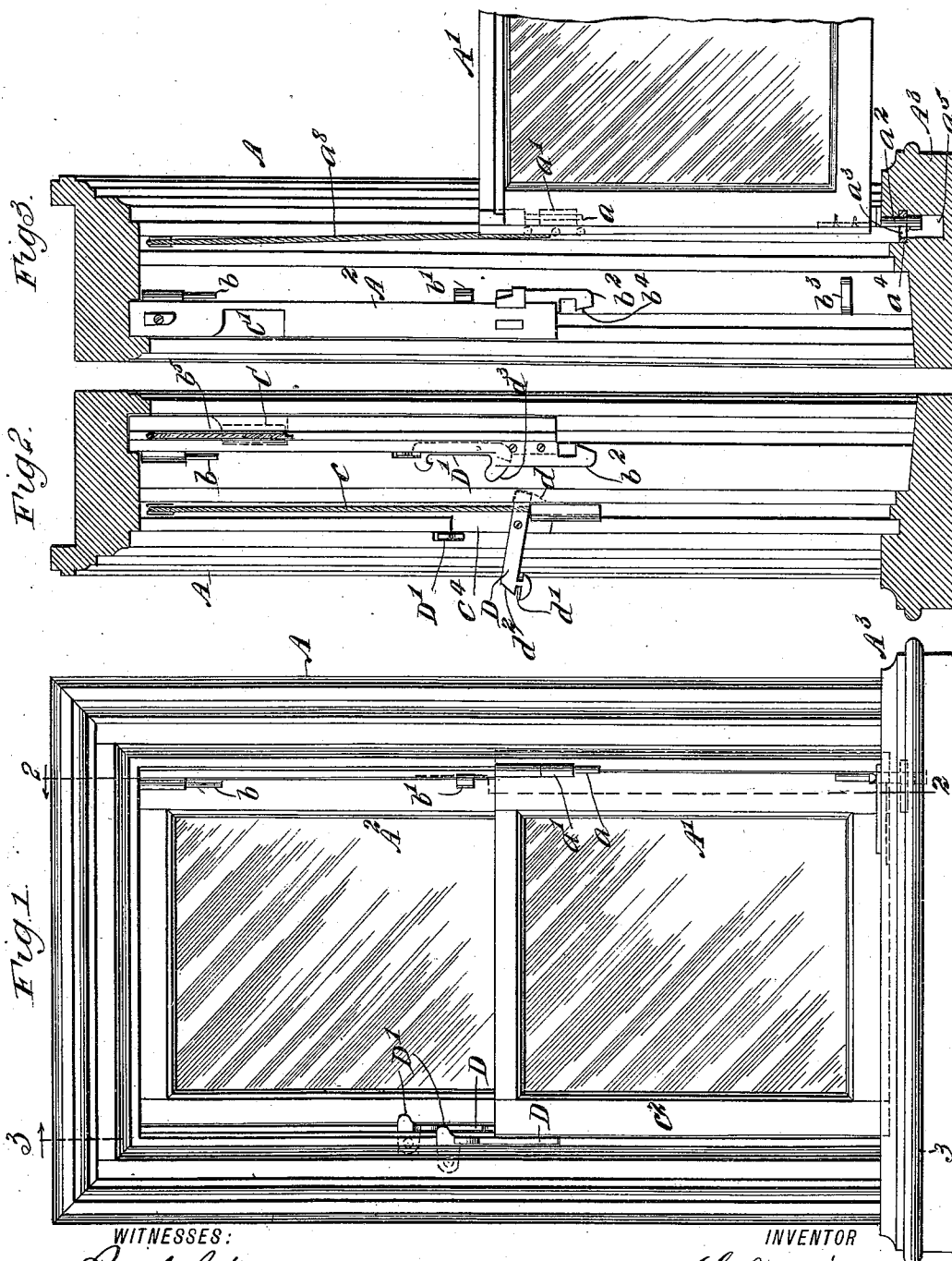
(No Model.)

2 Sheets—Sheet 1.

G. IRLAM.
SWINGING WINDOW.

No. 549,453.

Patented Nov. 5, 1895.



WITNESSES:

Paul J. Shot
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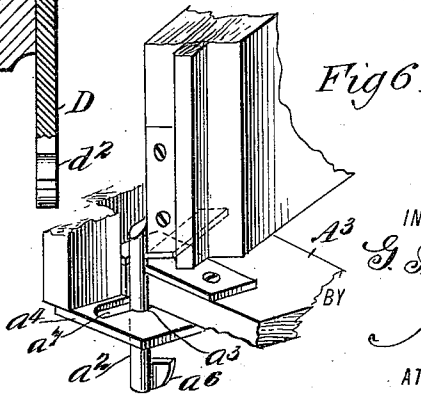
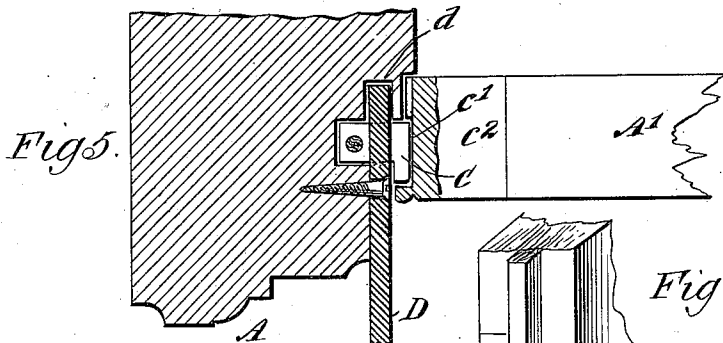
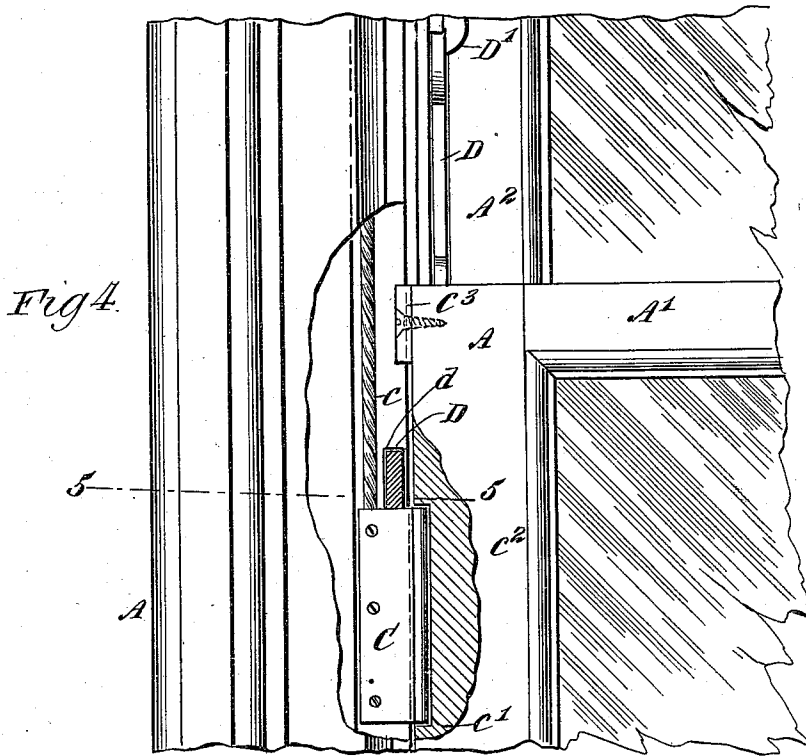
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2 Sheets—Sheet 2.

G. IRLAM.
SWINGING WINDOW.

No. 549,453.

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WITNESSES:

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GEORGE IRLAM, OF NEW YORK, N. Y.

SWINGING WINDOW.

SPECIFICATION forming part of Letters Patent No. 549,453, dated November 5, 1895.

Application filed August 2, 1895. Serial No. 557,967. (No model.)

To all whom it may concern:

Be it known that I, GEORGE IRLAM, of New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Swinging Windows, of which the following is a full, clear, and exact description.

This invention relates to vertically-sliding window-sash, having means whereby the same may be swung; inward and the object is to provide a simple and easily-operated means whereby the sash or window may be swung inward, so that the outer side of the glass may be cleaned by a person standing in a room, thus avoiding the danger incident to standing on the outside or on the window ledge.

I will describe a swinging window embodying my improvement, and then point out the novel features in the appended claims.

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 front or inside elevation of a window sash and frame embodying my invention. Fig. 2 is a section on the line 2 2 of Fig. 1. Fig. 3 is a section on the line 3 3 of Fig. 1. Fig. 4 is a view of a portion of the casing and sash, on an enlarged scale, with certain parts broken away to more clearly show other parts. Fig. 5 is a section on the line 5 5 of Fig. 4, and Fig. 6 is a perspective view showing a hinge mechanism employed.

Referring to the drawings, A designates the inner side of a window-casing, A' the lower sash, and A² the upper sash. These parts are substantially of the ordinary construction, and the sash are adapted to slide vertically in the casing. Each sash, however, is adapted to swing inward on hinge mechanism at one side of the sash. A hinge-pintle *a* is secured to the inner surface of a side rail of the sash A' near its top, and this pintle is adapted to engage in a socket or keeper *a'*, secured to the inner surface or on the stop-bead of the casing. At its lower end the side rail has attached to it a downwardly-extended pintle *a*², adapted to pass through a hole *a*³ in a plate *a*⁴, secured to the sill A³, and into a recess *a*⁵, formed in said sill. The lower end of the pintle *a*² has a lateral ex-

tension *a*⁶, which may pass through a slot-opening *a*⁷, extended laterally from the hole *a*³ in the plate *a*⁴.

The upper sash A² has a pintle *b* attached to one of its side rails, adapted to engage in a socket *b'*, secured to the parting-bead of the casing at a point slightly above the top of the lower sash when said lower sash is in its downward closed position, and to the lower end of said side rail is secured a downwardly-extended pintle *b*², adapted to engage in a socket or keeper *b*³, secured to the lower portion of the parting-bead. This socket or keeper *b*³ is provided with a lateral slot-opening for the passage of the lateral extension *b*⁴ on the lower end of the pintle *b*². The pintles of the sash A' are sufficiently long to allow a slight upward movement of the sash to clear its bottom rail from the sill without disengaging the pintles from the sockets or keepers.

The hinge edge of the sash A' has a sash-cord *a*⁸ secured to it, and this cord passes over a pulley to a sash-weight in the usual manner, and the hinge edge of the upper sash has attached to it a sash-cord *b*⁵, extended over a pulley to a weight.

C is a block adapted to slide in the channel of the casing formed by the stop and parting beads of the casing at the side opposite the hinge edge of the sash, and this block is attached to the sash-cord *c*. The block extends outward beyond the surface of said beads, and this extended portion is adapted to engage in a recess *c'*, formed in the side rail *c*² of the sash, and this recess opens or extends to the outer surface of the rail. When the block C is within the recess *c'*, its upper end will engage with the upper end wall of the recess *c'*, as indicated in Fig. 4, and then the sash may be moved up and down in the usual manner. The recessed edge of the rail *c*² has a block *c*³, designed to engage between the stop and parting beads in order to properly retain and guide the sash in its vertical movements, and to allow the sash to swing outward the stop-bead is cut away, as at *c*⁴, to allow the passage of the block *c*³.

I will now describe means for retaining the sliding block C against the draft of the sash-weight when it is desired to swing the sash inward.

D is a latch pivoted between its ends to the window-casing and adapted when turned in a substantially horizontal position to extend its lower end above and across the line of movement of the block C and to engage the upper end wall of a recess d , formed in the parting-bead. The latch D has a notch d' formed in its upper end, into which a pivoted locking-plate D' may pass when the latch is in its vertical or out of its engaging position with the sliding block. The end of the latch is cam-shaped, as indicated at d^2 , to automatically raise the locking-plate by engaging therewith when the latch is turned to its vertical position. After the cam-surface shall have passed the locking-plate the said plate will fall by gravity into the notch d' .

The several retaining and locking devices for the upper sash are like said parts just described, excepting that the latch D for the sliding block of the upper sash is shown as provided with a cam-shaped lower or inner end d^3 to engage over the sliding block.

In operation, when the sash A' is in its lowest position, the latch D is to be turned on its pivot to the position shown in Fig. 2. Then the sash is raised sufficiently to clear its lower rail from the sill and bring the upper end of the block C against the latch. When the parts are in this position, the sash may be swung inward on its hinges, and the extension a^6 on the pintle a^2 , by engaging the under side of the plate a^4 , will prevent the upward movement of the sash under the influence of the weight. The upper sash may be swung inward in the same manner after engaging the pintles b b' with the sockets b^2 b^3 .

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

1. The combination with a casing, of a sash adapted to slide vertically therein, a detachable hinge connection between the casing and sash, a sliding block attached to a weighted sash cord and adapted to engage with the upper end wall of a recess formed in the sash, and means for holding said block when the sash is out of engagement therewith, substantially as specified.

2. The combination with a casing, of a sash adapted to slide vertically therein, and also adapted to have a laterally swinging connection with said casing, a sliding block attached to a weighted sash cord at the side of the sash opposite the hinge side and adapted to engage directly with the sash, a latch movable above and across the line of movement of said block and a guide block secured to the sash adapted to engage between the stop and parting bead of the casing at the side engaged by the sliding block, substantially as specified.

3. The combination with a casing, and a sash adapted to slide and to swing therein, of the sliding block attached to a weighted sash cord, the latch for securing said block pivoted between its ends to the casing and having the cam shaped and notched end, and the locking plate for said latch when the latch is in its vertical position, substantially as specified.

4. The combination with a casing, of a sash movable vertically therein, a hinge pintle secured to the sash and having a lateral extension, and a socket for receiving said pintle having a lateral opening through which said extension may pass, substantially as specified.

5. The combination with a casing, of a sash having a detachable hinge connection at one side with the casing, a weighted sash cord having direct connection with the sash at its hinge edge, the opposite side rail of said sash having a recess formed in it, the stop bead having a recess formed in it, the sliding block attached to a sash cord and movable between the stop and parting beads and projected beyond the surface thereof to engage in the recess in the sash, the latch pivoted to the stop bead and movable across the line of movement of the sliding block and into the recess in the parting bead, and a locking plate for the latch, substantially as specified.

GEORGE IRLAM.

Witnesses:

S. S. NEITT,
JOHN HODDER.