

(No Model.)

3 Sheets—Sheet 1.

F. LOUGHRAN.
WINDOW CASEMENT.

No. 568,723.

Patented Sept. 29, 1896.

Fig. 1.

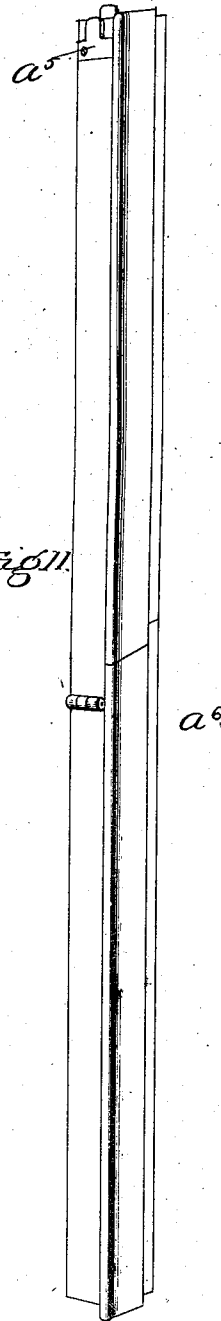
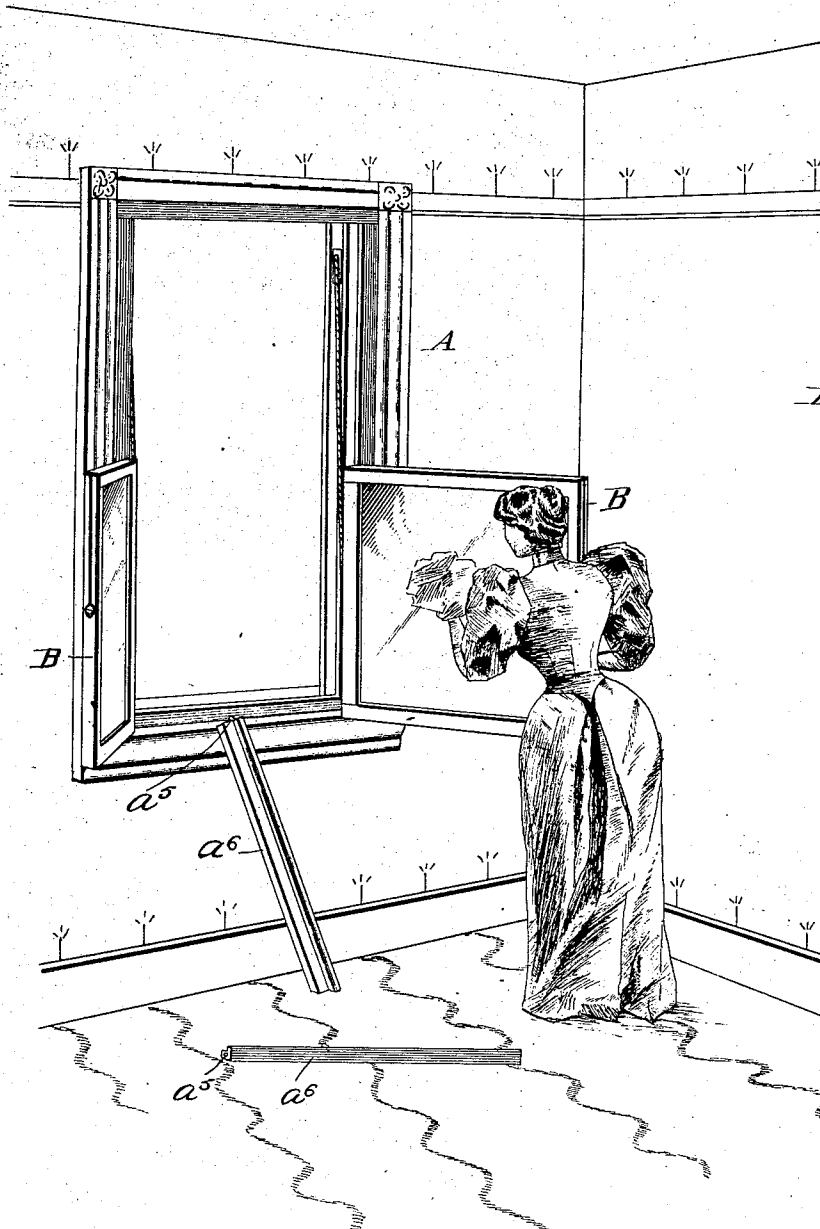


Fig. 11.



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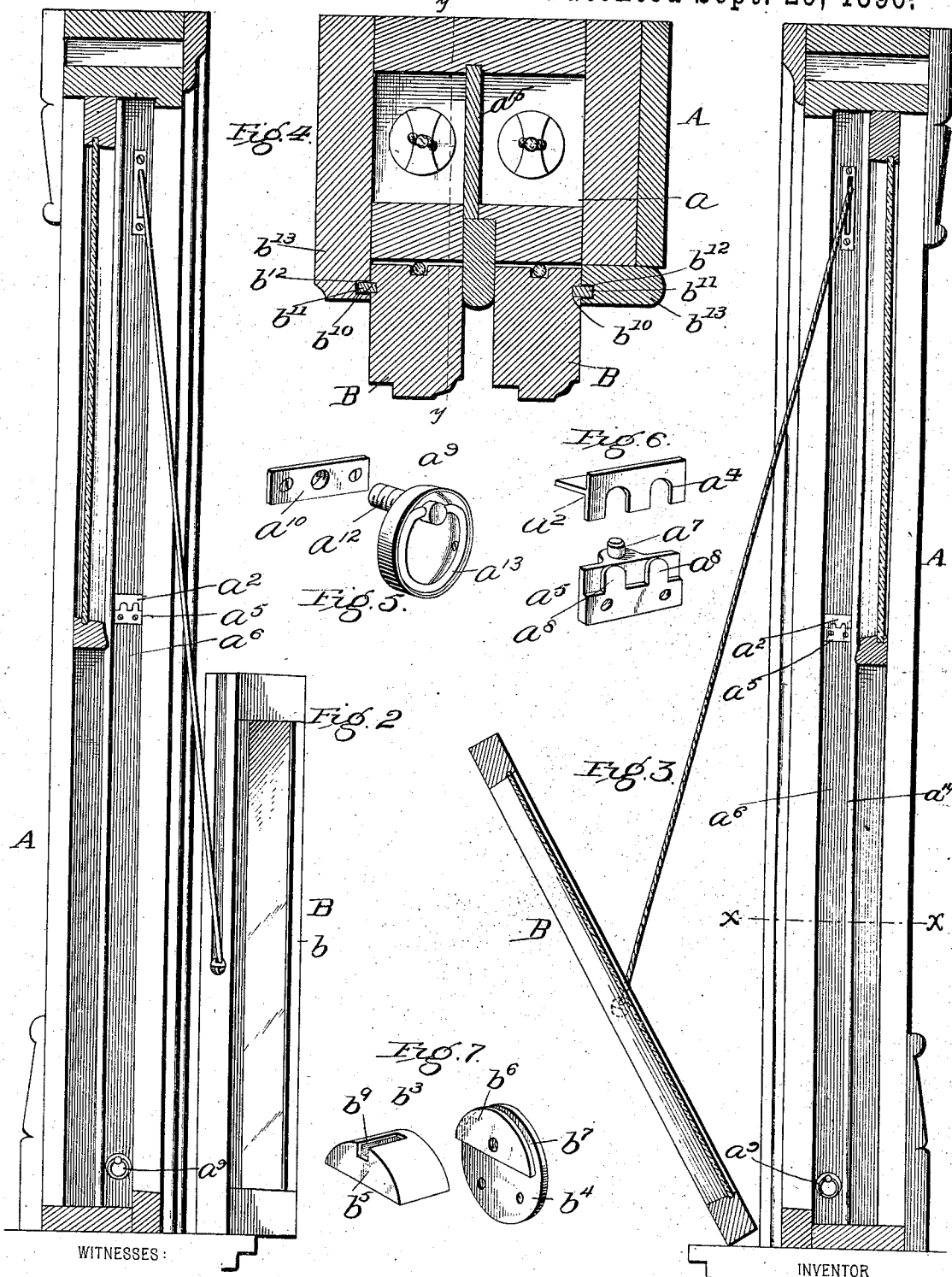
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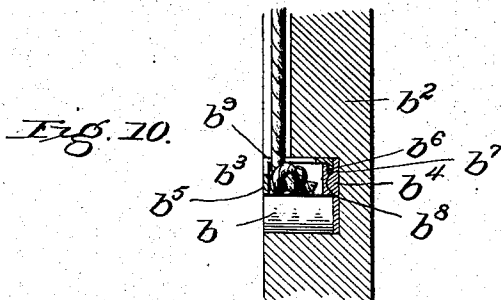
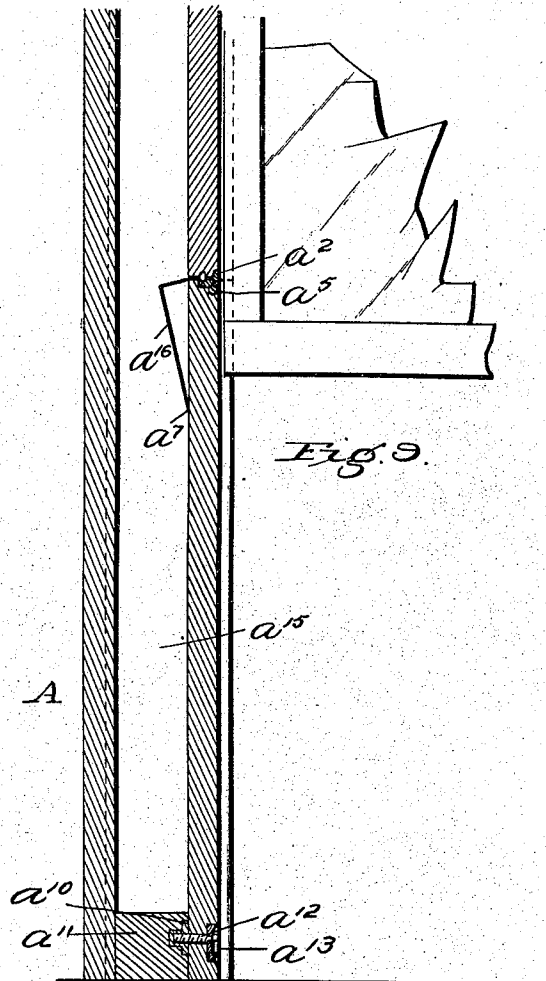
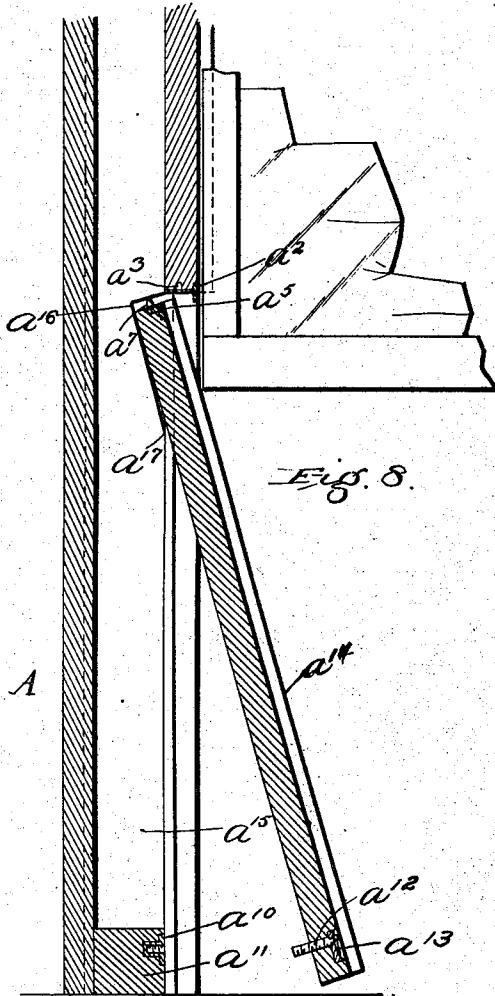
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WINDOW-CASEMENT.

SPECIFICATION forming part of Letters Patent No. 568,723, dated September 29, 1896.

Application filed May 7, 1895. Renewed March 2, 1896. Serial No. 581,572. (No model.)

To all whom it may concern:

Be it known that I, FRANK LOUGHRAN, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented a new and useful Improvement in Window-Casements; 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.

The invention relates to window-casements.

The object is to provide a casement from which the upper or lower sash may be readily removed without requiring change in either the construction or operation or in any manner disfiguring the facing and finish of the window, and, further, to render the window tight when closed and thereby insure against the entrance of dust or air and at the same time not interfere with the free action of the sashes.

With these and other objects in view the invention consists in certain novel features and arrangements of parts hereinafter described and claimed.

In the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in the several views, Figure 1 is a view in perspective of one embodiment of the invention applied, showing the upper and the lower sashes removed from the frame and each held by a single cord, they being swung inward in opposite directions to present both sides of the glass. Fig. 2 is a view in central vertical section, showing the upper sash in its normal position and the lower sash swung inward, as in Fig. 1. Fig. 3 is a similar view showing the sash resting upon the window-sill and suspended by its cords, it being tilted inward for convenience in cleaning. Fig. 4 is a fragmentary view in horizontal section, taken on the line $x x$ of Fig. 3, showing the sashes in position. Fig. 5 is a detail view in perspective of the lower fastening for the pocket-closing piece, showing the members thereof separated. Fig. 6 is a similar view of the upper fastening. Fig. 7 is a similar view of the sash-cord holder. Figs. 8 and 9

are fragmentary views in section, taken on the line $y y$ of Fig. 4, showing the lower sash raised and the manner of guiding and seating the pocket-closing pieces. Fig. 10 is a detail sectional view of the sash-cord holder, showing it applied. Fig. 11 is a view of a modified form of pocket-closing piece.

In the drawings, A represents a window-casement of well-known construction and such as is now in common use. The pockets or openings a in the pulley-stiles are given an increased length, so that the sashes may enter the weight-box a distance sufficient to permit the opposite sides to be swung outward clear of the frame and held suspended by the cords or entirely removed, as will be described later on. At or near the upper end of each pocket a casting a^2 is seated, flush with the face of the pulley-stile, and is provided with one or more openings or sockets a^3 , also with notches a^4 , which latter serve as cord-holding racks, by being adapted to receive the knotted ends of the cords, when they are detached from the sash. A second casting a^5 , fixed to each pocket-piece a^6 , is provided with one or more rigid or spring-seated studs or dowel-pins a^7 , designed to enter the sockets or openings of the cord-rack casting, also with a series of projections a^8 , which enter and fill notches of the racks when the pocket-pieces are seated. These pocket-pieces are detachably locked in position by fastenings a^9 , which in their preferred form consist in part of a socketed plate a^{10} , secured to or in a block a^{11} , arranged at or near the bottom within the weight-box. A ring-bolt a^{12} serves as the other member of the fastening and is swiveled in the pocket-piece, so as to become aligned and locked into the socket by a screw-thread connection therewith, the outer ring-heads a^{13} of the bolts being let in or countersunk to avoid interference with the sashes. Each parting-bead or the adjoining section a^{14} thereof is attached to or forms part of the pocket-closing piece and being removable therewith permits the top sash when lowered to be moved inward.

In window-frames as now commonly made the lower sash can be raised only to a cer-

tain height, in which position its bottom rail lies below the meeting-rail of the upper sash and so covers a portion of the pocket or opening in the pulley-stile. To facilitate entering the pocket-closing piece, the parting-strip a^{15} , which divides the weight-box, is notched, as at a^{16} , to permit the piece to be inserted at an angle, (see Fig. 8,) and upon bringing it into vertical position it rides upon a shoulder a^{17} , which is formed at the bottom of the notch, and the upper end of the piece is thereby guided until the members of the fastenings engage.

B represents the sashes, and inasmuch as they are provided with duplicate attachments a description of one will suffice to give a clear understanding of construction and arrangements of parts. Seated in each of the knot-receiving sockets b , formed in the sash-stiles b^2 , is a cord-engaging device b^3 , which consists of two members $b^4 b^5$. One of the members, a circular base-plate, is made a fixture by being secured in the socket, preferably with screws, and has an outward-projecting approximately semicircular lug b^6 , whose radius is slightly less than that of the disk. The curved face of this lug is grooved, as at b^7 , to receive a similarly-curved flange b^8 of the other member, which latter is inverted upon insertion, then by being partially rotated its flange is caused to lock into the groove. The member last mentioned is a hollow shell of semicylindrical shape, closed at its outer end and provided with an opening b^9 , extending longitudinally thereof for the greater portion of its length. The sash-cord is entered through the opening and the knotted end drawn up into the shell, which is adjustably secured, as above described. In the outer opposite faces of the sash-stiles grooves b^{10} are formed and receive draft strips or tongues b^{11} , which are secured therein and project to enter similar grooves b^{12} in the facings b^{13} of the frame.

In use, when it is desired to remove the sashes the pocket-piece with the attached bead-section are taken out by disengaging the fastenings, and the lower sash is then moved inward until the draft-strips clear the grooves, and by being pushed into either pocket the opposite side is cleared and free to swing inward. The cords may be detached from the sash and their knotted ends held in the rack, or the sash may be suspended thereby, as may be found desirable.

As the members of the cord-attaching device are locked together in a manner to turn one within the other they will automatically adjust themselves to the position of the sash, should it be tilted either inward or outward, and so avoid twisting the cords, tapes, or chains.

To remove the upper sash, it is first lowered, then drawn inward from one side until it enters the open pocket, when the opposite side is swung around, as above described. In this manner the glass may be thoroughly

washed from inside the room without unnecessary labor or risk of life or limb.

For facility in removing or replacing the pocket-closing pieces and to dispense with notching the dividing-strips in the weight-boxes it is at times found convenient to construct these pieces with a central joint, such as is shown in Fig. 11, and is particularly desirable for use in "Gothic windows."

Among the many advantages of the invention may be mentioned the extreme simplicity and inexpensiveness of construction and the resulting convenience in enabling a person to remove or hang a sash and to replace a cord, secure a weight, or make any necessary repair without in any manner defacing the finish of the window-casement.

Having thus fully described my invention, what I claim as new is—

1. A cord-holding device, comprising two members one being a base-plate having a grooved approximately semicircular projection thereon, and the other a semicylindrical shell adapted to receive the knotted ends of the cords and provided with a flange for engagement with the grooved projection, for the purpose described.

2. The combination with a pocket-piece, of a fastening therefor, comprising two angle plates or members, one being seated and secured at the top of the pocket with its face flush with the outer surface of the pulley-stile, the lower portion of said flush face being notched to serve as a holder for the knotted ends of the cords, and the other member being fixed to the upper end of the pocket-piece and provided with a vertically-projecting stud or pin designed to enter a socket of the first-mentioned member also with lugs or tongues adapted to fit into and fill the cord-engaging notches, when the members are united, as and for the purpose described.

3. The combination with a pocket-piece, of fastenings therefor, one of the fastenings being a bolt having an engaging projection, and the other comprising two angle plates or members one of the plates or members being seated and secured at the top of the pocket with its face flush with the outer surface of the pulley-stile, the lower portion of said flush face being notched to serve as a cord-holder for the knotted ends of the cords, and the other plate or member being fixed to the upper end of the pocket-piece and provided with a vertically-projecting stud or pin designed to enter a socket of the first-mentioned member also with lugs or tongues adapted to fit into and fill the cord-engaging notches when the members are united, as specified.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

FRANK LOUGHRAN.

Witnesses:

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EDWARD W. FARRELL.