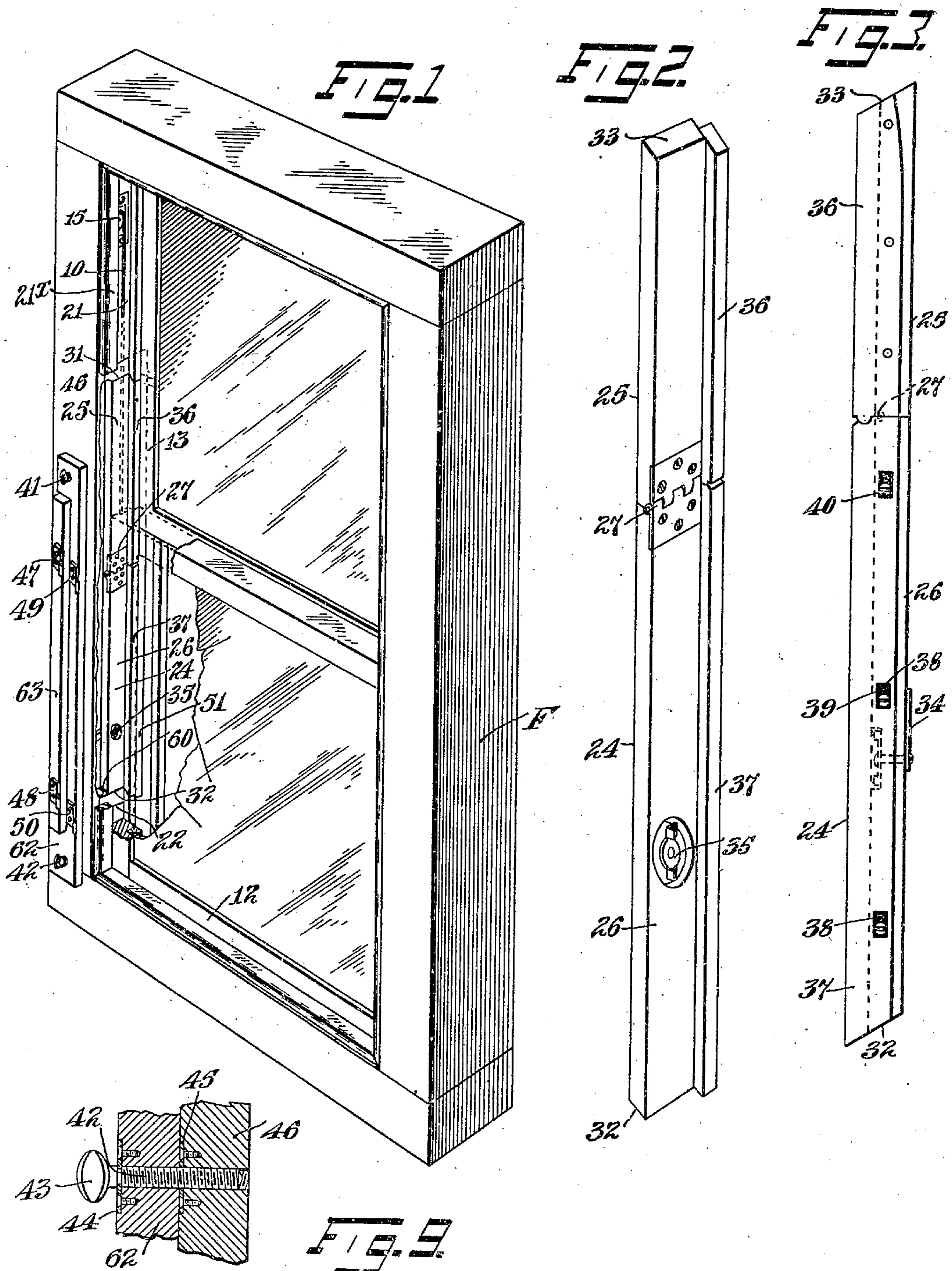


954,606.

J. Z. H. BAKER.  
WINDOW CONSTRUCTION.  
APPLICATION FILED MAR. 25, 1909.

Patented Apr. 12, 1910.

2 SHEETS—SHEET 1.



Witnesses:  
G. G. Fess.  
H. O. Penney

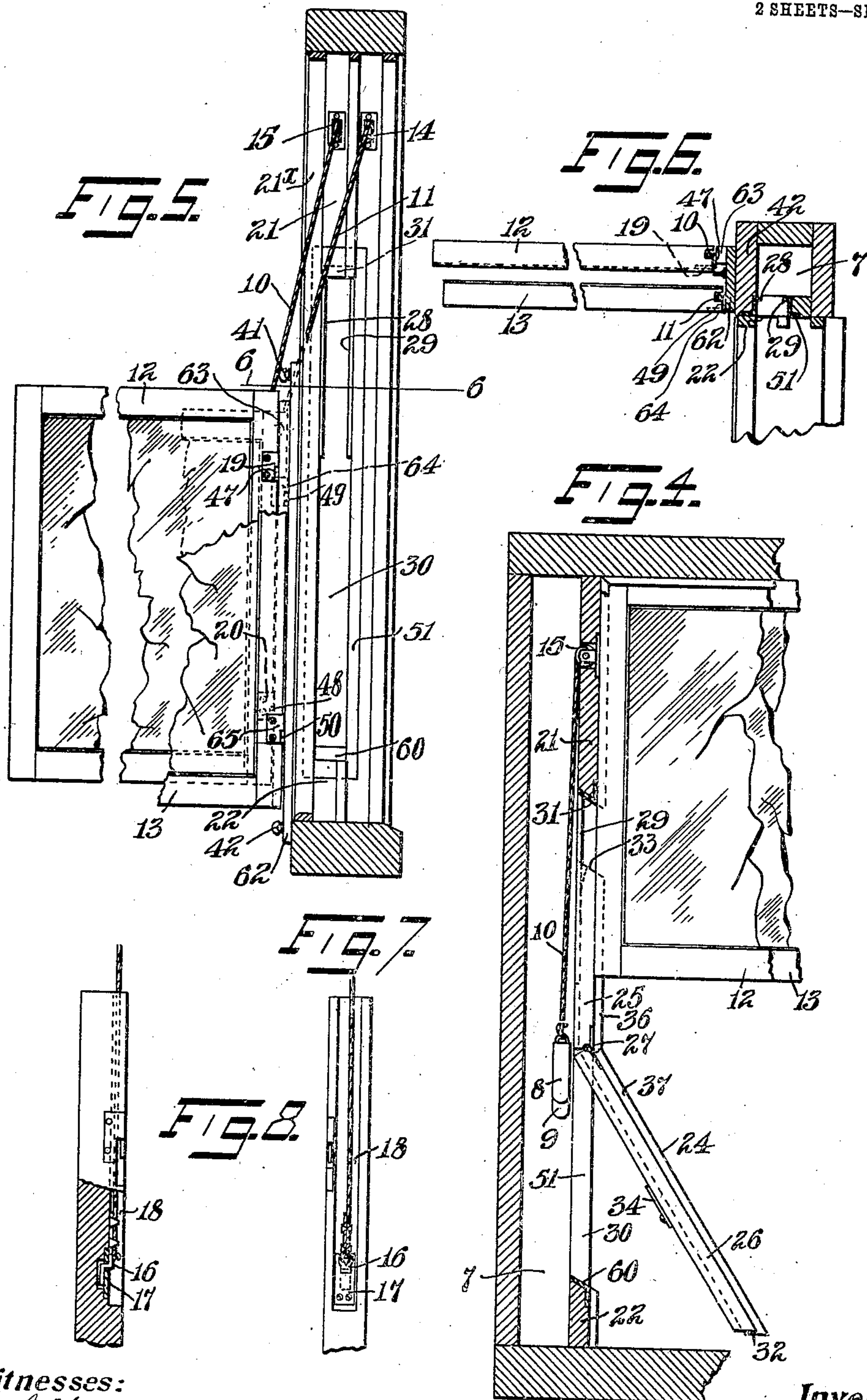
Inventor:  
James Z. H. Baker,  
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James Z. H. Baker,  
By his Attorney,  
F. H. Richards.



# UNITED STATES PATENT OFFICE.

JAMES Z. H. BAKER, OF HASBROUCK HEIGHTS, NEW JERSEY.

## WINDOW CONSTRUCTION.

954,606.

Specification of Letters Patent. Patented Apr. 12, 1910.

Application filed March 25, 1909. Serial No. 485,603.

*To all whom it may concern:*

Be it known that I, JAMES Z. H. BAKER, a citizen of the United States, residing in Hasbrouck Heights, in the county of Bergen and State of New Jersey, have invented certain new and useful Improvements in Window Construction, of which the following is a specification.

This invention has for its object to provide an improved means whereby the usual pair of sliding sashes in a window can be released from their guiding channels and brought out into the room for the purpose of cleaning the glass in the sash, which means permits this change of position of the sash without shifting the stop piece in any manner, and hence without disfiguring the window frame.

In the accompanying drawing representing embodiments of my invention Figure 1 shows in perspective a window frame. Fig. 2 shows in perspective the removable bottom member. Fig. 3 is a side elevation of the same. Fig. 4 is a vertical section through the frame with one of the sashes removed. Fig. 5 is a vertical section taken transversely through the frame, with the two sashes swung to the open position for cleaning. Fig. 6 is a horizontal section on the line 6—6 of Fig. 5. Fig. 7 is an elevation of a portion of the sash showing the hinge plate and the detachable cord connection. Fig. 8 is an end view of the latter; and Fig. 9 is a section of the screw bolt connection of the supporting piece.

The usual form of window frame F is shown having on one side the well or shaft 7 in which slide the weights 8 and 9, connected by cords 10 and 11 to the upper and lower sash 12 and 13, passing over the usual pulleys 14 and 15. These cords are shown provided with a readily detachable connection in the sash, in the form of a hook plate 16 adapted to enter a slotted plate 17 in the channel 18 of the sash member. The sash on one side can have hinged plates 19 and 20 secured in socket portions on the inner edge of the sash, that will not be visible in the normal position of the sash in its channel, and at the same time will not interfere with the sliding action of the sash. Hereto-

fore, in such construction it has been customary to remove all or a portion of the stop plate 21\* forming a slide wall of the channel in which the sash slides. With the present invention a portion of the bottom wall member 21 of the channel is made removable, whereby the sash can be advanced farther into the channel to clear the opposite edge of the sash from its stop piece and free the sash, so that it can be swung outward and hinged to a suitable member.

In the construction shown, the bottom part 21 has a removable member 24 shown separately in Figs. 2 and 3. This is shown as comprising two portions 25 and 26 hinged together at 27. Cleats 28 and 29 are provided at the back of the opening 30 in the member 21, against which rests the upper portion 25 of the removable member when inserted. This member has its end 33 beveled, and a corresponding beveled end 31 is provided in the member 21. The inclined surfaces extending downward prevent entrance of water or dirt. The lower end of the lower member 26 is also beveled at 32, and the upper portion of the channel 22 is similarly shaped, for the same reason. The cleats and beveled end will hold the upper member in position, and the engaging ends of the lower member will limit the insertion of the member in its opening; which is retained therein by a latch 34 on the inside of the member 26, operated by a handle 35 secured to the latch, and recessed in the member 24, to prevent interference with the sliding of the sash. To facilitate the removal of the other sash, this bottom channel member 24 has secured thereto a portion of the parting bead whereby the removal of the member 24 will leave the rear sash free to be moved forward and advanced into the opening. The member 25 has the rib portion 36 secured thereto, while the portion 26 of the channel member has the rib portion 37 secured thereto. In order to prevent an opening at the meeting ends of these two bead portions 36 and 37, that would be necessary in order to admit of the hinge action, one of these beads is made slidable endwise in order to constantly engage the other member. The bead portion 37 is pressed toward



the other member by springs 38 in sockets 39 that engage screw bolts 40 attached to the member 25. It will be observed that the opening 30 is made of a width equal to the width of the channel of one frame plus the width of the parting bead, that is carried by the said removable bottom member at such portion.

Suitable means are provided for swinging the sashes upon hinges when removed from the channels in which they slide. Heretofore it has been customary to provide hinged plates or brackets on the outside of the window frame. But in the present invention a separate detachable strip 62 is provided that is removably attached to the face of the window frame, as shown in Figs. 1 and 5, by screws 41 and 42, the latter being shown in section in Fig. 9. The latter comprises a threaded bolt 43 revoluble in a plate 44. The bolt screws into a threaded plate 45 secured to the window frame member 46. This plate 62 carries hinges 49 and 50 at one edge that coöperates with the hinge plates 64 and 65 on the sash member 13, so that when the sash is removed from the channels, and one weight cord disconnected on the opposite side, the sash can be hinged to this plate 62 and swung out into the room to be cleaned. In order to form a support for both sashes the plate 62 is provided with an additional plate 63 carrying hinge plates 47 and 48 similar to said hinge plates 49 and 50 that will engage with hinge plates secured to the lower sash in the same manner as the said hinge plates are secured to the lower sash. These pairs of hinge plates on the removable piece being offset from each other will permit both of the sashes to swing out into the room without interference.

In the operation of the device, the lower sash is raised the full distance as shown in Fig. 4, and the bolt 35 is turned to free the removable bottom piece, when the lower portion 26 of this member is swung outward, which is permitted since the hinge portion is below the bottom of the sash in its raised position. Thereupon the member is pulled downward to slide the upper part 25 between the sash and the cleats 28 and 29, until the part 25 is clear of both, when the member can be entirely removed. Then the sash is lowered until opposite the opening 30, when it can be advanced into this opening to clear the opposite side of the sash from the channel in which it slides, and the sash will now be entirely free of the window except for the cords. The sash can have its hinge plates 19 and 20 connected with the two hinge plates on the removable piece 40 that has been just previously secured in position. Preferably this sash is attached to the hinge plates of the outer strip 63 of the re-

movable supporting piece. Then the sash cords or one only are disconnected. The other sash can now be lowered until it is opposite the opening 30 then being brought forward it can be advanced into this opening, and freed from the window channels in the same manner as the other sash; the sash is hinged to the inner pair of hinge plates on the supporting plate and the sash cord disconnected. This operation is very simple and can be done in a minute. Both sashes are now free to be swung out into the room and can be very easily cleaned. To return the sashes to their former position is practically the reverse of the described operation. Thereupon the removable member is returned by first inserting the shorter portion 25 in the socket between the sash edge and the cleats 28 and 29 and pushing the same upward to its final position. Then the lower member is swung back into place and the latch turned to secure it in position. It will thus be seen that this invention is applicable to any of the usual forms of window frames by simply cutting out the opening 30 and providing the removable member 24, and attaching the cleats 28 and 29. When this removable piece is in position there is practically nothing visibly different from the ordinary construction with the exception of the hinge 27 and the latch head 35. The supporting plate being removable nothing is shown except possibly one or two screw sockets for attachment of this plate. The removable bottom member can fit very snug in position its two ends being beveled to prevent the admission of rain or dust, and the mid-rib portion of this member being endwise movable will effectually close the opening at their ends.

Instead of simply making an opening 30 in the bottom member 21 of the channel, a frame member 51 may be provided having its side bars flanged or angle-shape as indicated in the section of Fig. 6, and set into rabbet portions in the engaging portions of the frame. If desired this frame member may be one integral piece of metal, such as a casting in iron or brass, and will have the rabbet strips 28 and 29 a part thereof.

Having thus described my invention, I claim:

1. A window frame being provided in one of the channels for the sash with a removable bottom member, said member being in two parts hinged together, means for securing the member in the frame, said bottom member having on each piece a parting bead, which beads aline when the member is in position, the parting bead on one of the portions being slidable to normally engage the bead of the other when the bottom member is in position.



2. A window frame being provided in one of the channels for the sash with a removable bottom member, said member being in two parts hinged together, means  
5 for securing the member in the frame, said bottom member having on each piece a parting bead, which beads aline when the member is in position, the parting bead on one of the portions being slidable and provided with a spring to normally press it against 10 the bead on the other portion.

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Witnesses:

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