

No. 614,212.

Patented Nov. 15, 1898.

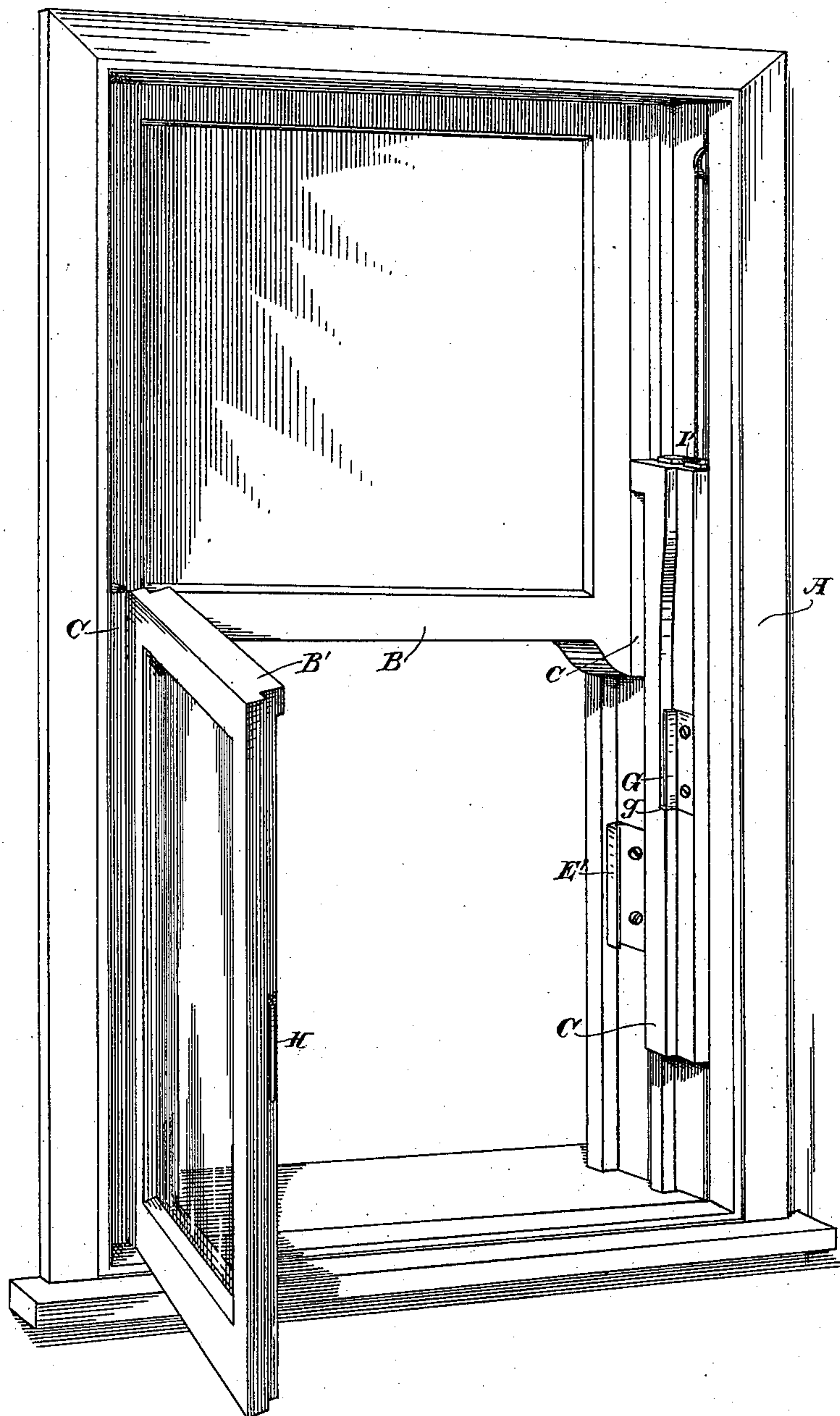
W. McCALL.  
SLIDABLE HINGED WINDOW.

(Application filed July 12, 1898.)

(No Model.)

2 Sheets—Sheet 1.

*Fig. 1.*



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Fig. 2.

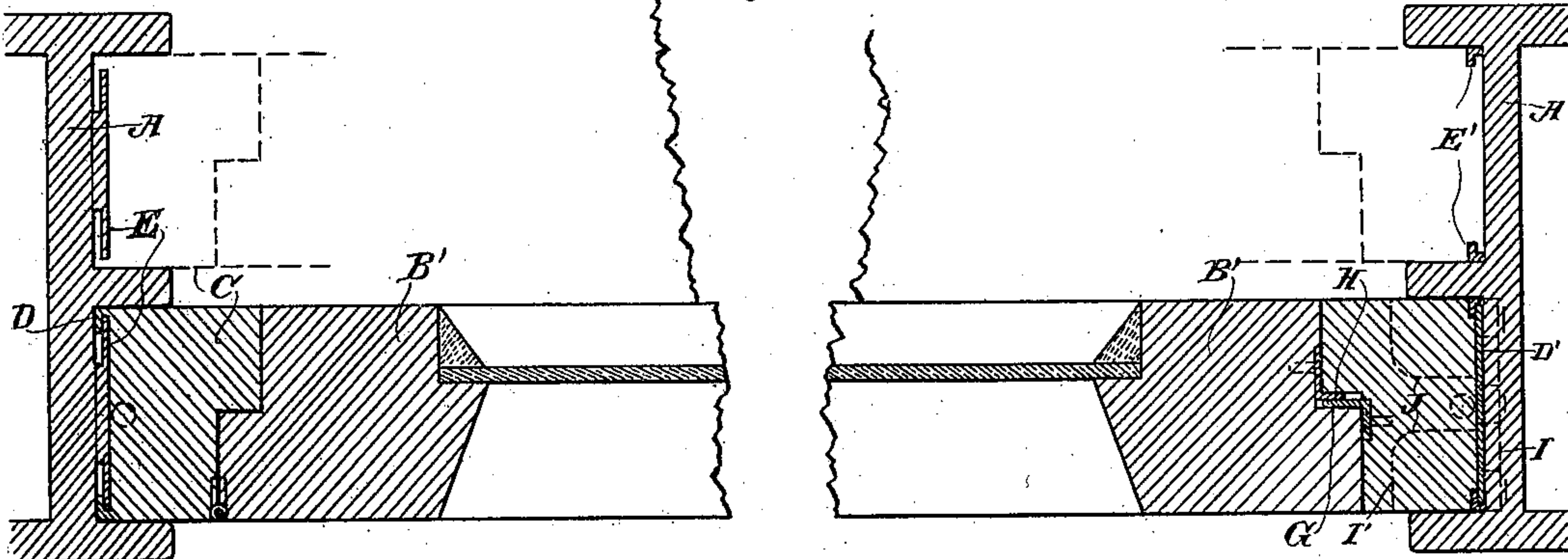


Fig. 3.

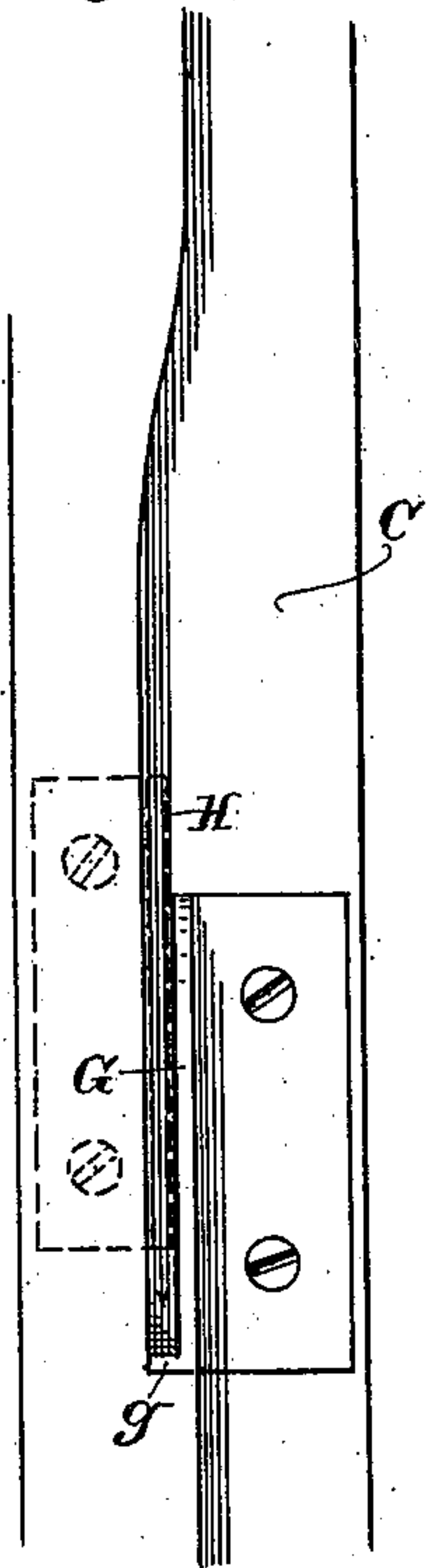


Fig. 4.

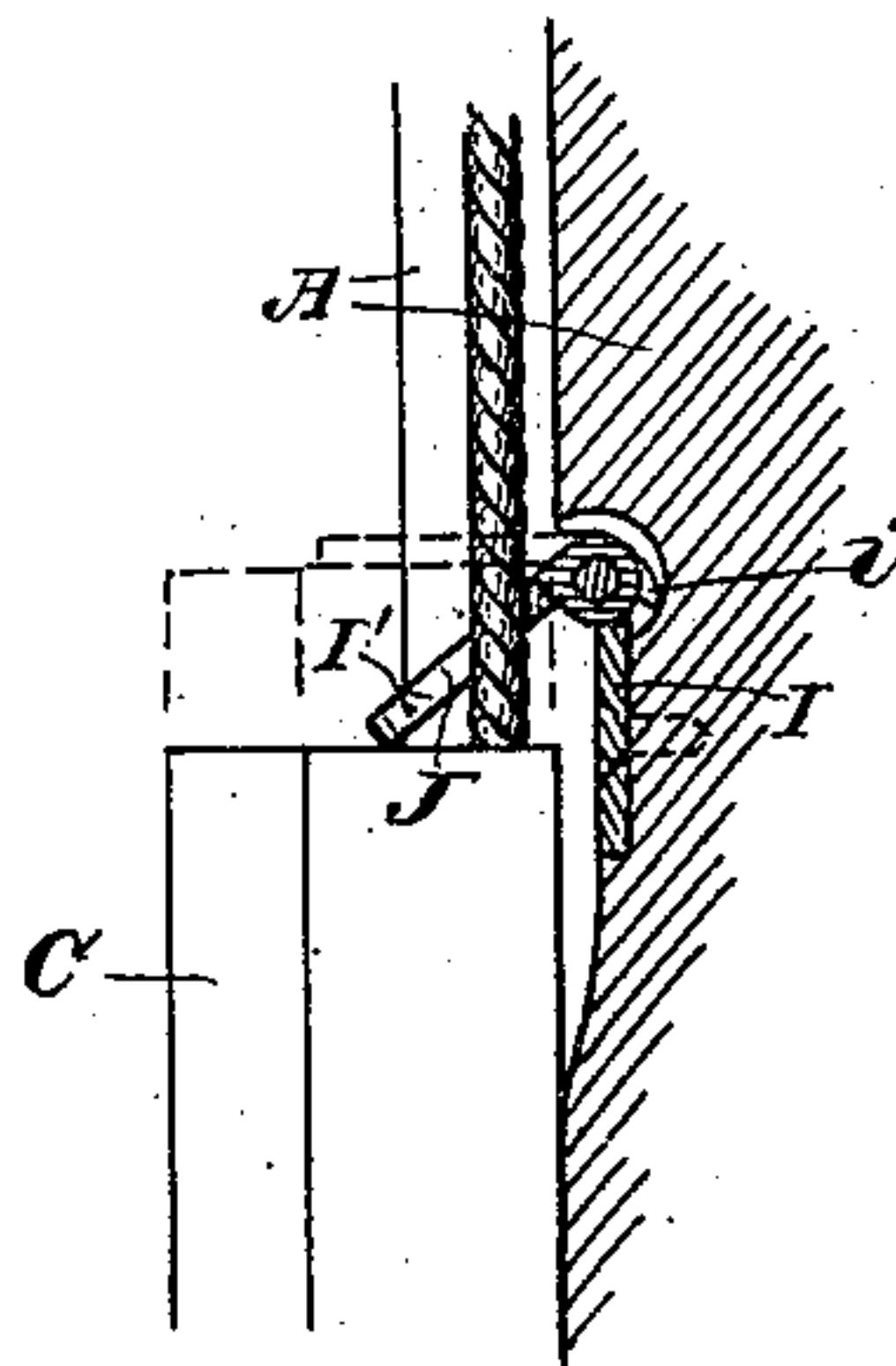
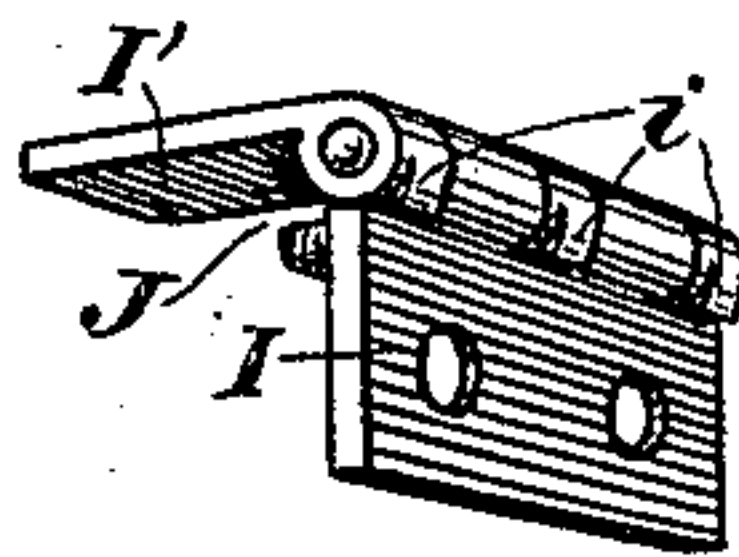


Fig. 5.



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# UNITED STATES PATENT OFFICE.

WILLIAM McCALL, OF SAN FRANCISCO, CALIFORNIA, ASSIGNOR TO THE  
McCALL SLIDING HINGE-WINDOW COMPANY, OF SAME PLACE.

## SLIDABLE HINGED WINDOW.

SPECIFICATION forming part of Letters Patent No. 614,212, dated November 15, 1898.

Application filed July 12, 1898. Serial No. 685,794. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM McCALL, a citizen of the United States, residing in the city and county of San Francisco, State of California, have invented an Improvement in Slidable Hinged Windows; and I hereby declare the following to be a full, clear, and exact description of the same.

My invention relates to improvements in windows, and is applicable to the hinging of sashes to sliding strips, upon which they are carried, which strips are in turn connected with the cords of the counterbalance-weights and are vertically movable in the grooves or channels between the stops and parting-beads.

My invention consists in a novel means for engaging the sash with the slidable strip upon the side opposite to the hinge, so that it may be readily disengaged to allow the sash to be opened inwardly, and in a means for holding the slidable strip after the sash has been disengaged therefrom to prevent the strip from being carried up by the action of the counterweight. It also comprises details of construction which will be more fully explained by reference to the accompanying drawings, in which—

Figure 1 is an inside view of my window. Fig. 2 is a horizontal section through the center of the lower sash. Fig. 3 is a face view of the right-hand slide. Fig. 4 is a vertical section through the slide-stopping device. Fig. 5 is a view of the stop-plate.

A is a window-casing having the usual outside and inside stops and parting-strips, between which the upper and lower sashes B and B' are slidable. In order to allow these sashes to be opened inwardly, so that both outer and inner surfaces can be easily reached for cleaning or other purposes, the sashes are hinged upon one side to vertically-slidable strips C. These strips have a sufficient width in one direction to be equal to the thickness of the window-sashes and a sufficient thickness in the other direction so that when in position between the parting-strips and stops they project toward the sash sufficiently to clear the stops, and when the sashes are hinged to these strips they can be opened about their hinges without striking the stops. The slidable strips to which the sashes are

hinged are provided with clasps D, which engage with the projecting edges of metal plates E, which are fixed vertically in the face of the channels formed between a parting-strip and the stops, and the clasps upon the slidable strips hook over the free edges of these plates E, so that while they prevent the strips from being pulled away from their position in the grooves or channels they allow them to slide freely up and down.

The principal features of my present invention are the devices by which the sash is engaged with or disengaged from the strip against which it closes on the side opposite to the hinge and in a means for locking and holding this strip in position when the sash has been opened from it. The slidable strips C upon this side are retained in place for a portion of the vertical distance through which they slide by plates E', fixed on the face of the groove or channel, and clasps D', fixed to the rear sides of the strips and engaging these plates in the same manner as described for holding the strips C on the opposite or hinge side; but in the present case the plates do not extend upwardly the full length, and the clasps may consequently be disengaged from these plates when the strips have been allowed to move up near the top of the window. The strips can then be pulled out of their guide-channels for the purpose of repairing or renewing the cords. The means for uniting the sash with the strip consist of an angle-plate G, bent, as shown, and secured to the sliding strip C, with its surface flush with the inner side of the strip, and a corresponding plate H, secured upon the edge of the sash. These plates are both so set that a little channel equal in width to the thickness of each of the plates is left between the plates and the surfaces of the strip and the sash, which abut when the sash is closed against the strip. These plates are made of sufficient length to securely interlock when the sash is closed against and coincident in length with the strip C.

The lower end of the plate G has a lug g, turned outwardly, which arrests the edge of the plate H when the latter has been interlocked with it, and when the sash is thus interlocked with the strip and the strip is not



otherwise arrested the counterweight pulling upon the strip will maintain the sash and strip in engagement whether the sash be pushed up or pulled down.

5 When it is desired to disengage the sash in order to open it about its hinges, it is necessary to stop and hold the sliding strip C at some suitable point. This is effected by means of a hinge-plate I, which is set trans-  
10 versely across the face of the channel in which the strip C slides, and it has a leaf I', which may be normally turned down into the depression which is made for this plate, and when thus turned down it is flush with the  
15 face of the channel and presents no obstruction to the sliding of the strip C. When the leaf I' is turned up, it can only be turned to a position at right angles with the part I and is then arrested by stop-lugs i, which abut  
20 against the back of the plate I when the leaf has been thus opened. These lugs may be stamped out with the plate when it is formed. In this position the leaf presents an obstruction against which the upper end of the slid-  
25 ing strip C will be arrested whenever the leaf is turned outwardly. The leaf has a slot or channel J cut away in its central portion to allow the weight-cord to move freely through  
30 it when the leaf is turned out to stop the strip C.

The operation will then be as follows: The sash having been drawn to the bottom, the leaf is turned so as to obstruct the upward movement of the strip C, and when the sash  
35 is raised the strip C will be stopped against the leaf, and a further upward movement of the sash disengages the locking-plate H from the plate G by passing above the edge thereof, when the sash can be freely opened about  
40 its hinges. When again closed, so that the plate F is above the plate G, the sash is first pulled down until the plates are interlocked, and the strip C will then be locked to the edge of the sash. By pulling the two down  
45 a little way the leaf I' of the stop-plate can be turned down to its normal position, and the sash is then slidable in the usual manner.

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

1. In a window, vertically-slidable strips movable in the channels formed in the casing, plates fixed on the face of the channels and clasps upon the edges of the sash-strips  
55 engaging said plates and slidable thereon whereby the strips are prevented from being withdrawn from the channels, sashes hinged to said strips so as to be opened or closed about the hinges, corresponding slidable  
60 strips upon the opposite side of the window against which the sash is closable and angle-plates fixed to the strip and to the sash re-

spectively to form channels between the plates and the adjoining surfaces, said plates provided with vertical flanges adapted to  
65 enter said channels and interlock when the sash has been closed against the slidable strip.

2. In a window having vertically-sliding sashes, independent strips slidable in the vertical channels formed by the window-stops,  
70 one of said strips having slidable plates and clasps by which it is maintained within its channel, and hinges by which the adjacent edge of the sash is attached to the strip so as to open and close about its hinges, verti-  
75 cally-disposed plates fixed respectively to the meeting edges of the opposite strip and the corresponding edge of the sash, said plates having vertical flanges adapted to interlock by sliding them together after the sash has  
80 been closed against the strip whereby the sash and strip are normally movable in unison, and a hinged stop-plate fixed in the channel in which the strip slides, having a leaf which can be turned outwardly so as to  
85 arrest the strip in its upward movement and allow the sash to be slipped upwardly and disengaged from the strip for the purpose of opening.

3. In a hinged and slidable window of the character described, slidable strips and guides  
90 by which the strips are retained in their channels, corresponding strips upon their opposite sides against which the free edges of the sashes close and vertical interlocking plates  
95 by which the said edges of the sashes are connected with the slidable strips, hinged plates fixed in the channels in which the strips slide, said plates having outwardly-turnable leaves with lugs whereby the leaves are ar-  
100 rested at right angles with the main plates so as to form a stop against which the upper ends of the strips are arrested, and having central slots through which the counter-  
105 weight-cord is movable.

4. In a hinged and slidable window, sashes hinged to strips vertically slidable in guides in one side of the frame, other strips slidable in the opposite side of the frame, guides by which the strips are engaged and retained  
110 when at the lower part and from which they disengage at the upper part of their travel, vertical interlocking plates upon the free edges of the sashes and the corresponding sliding strips, and foldable stops by which  
115 said strips may be arrested and the sashes raised and disengaged therefrom.

In witness whereof I have hereunto set my hand.

WILLIAM McCALL.

Witnesses:

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JESSIE C. BRODIE.