March 24, 1925. 1,531,207

H. L. MILLER

WINDOW

Original Filed April 18, 1922 2 Sheets-Sheet 1

Fig. 1.

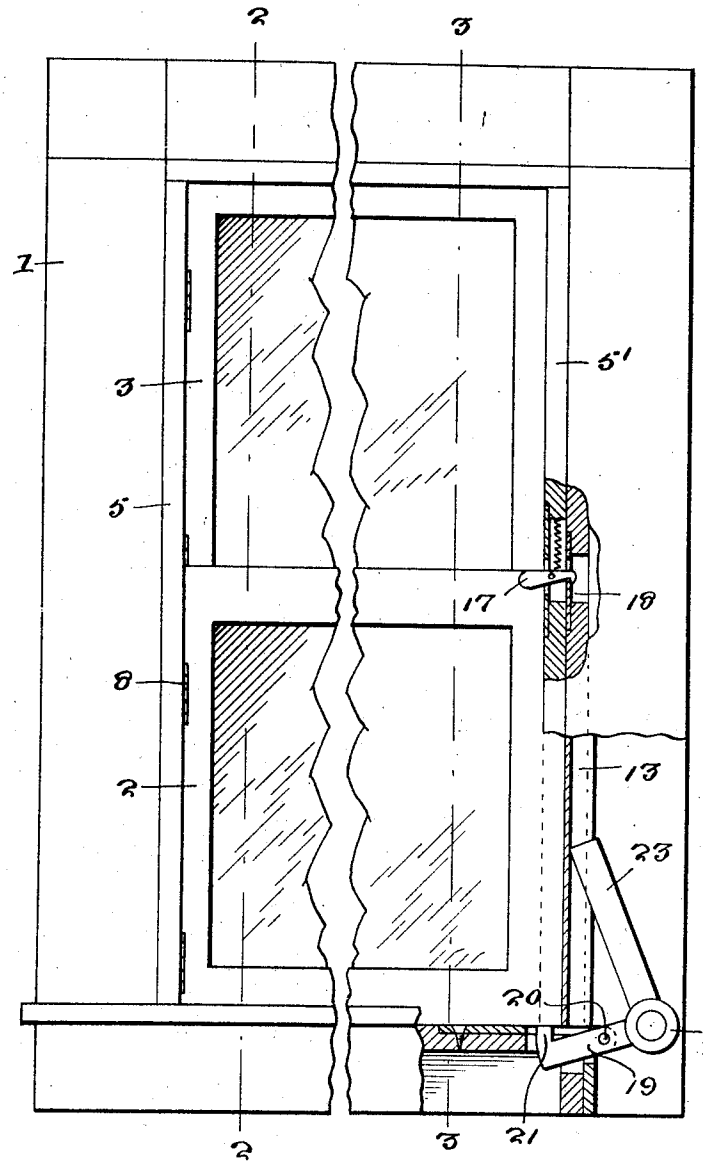
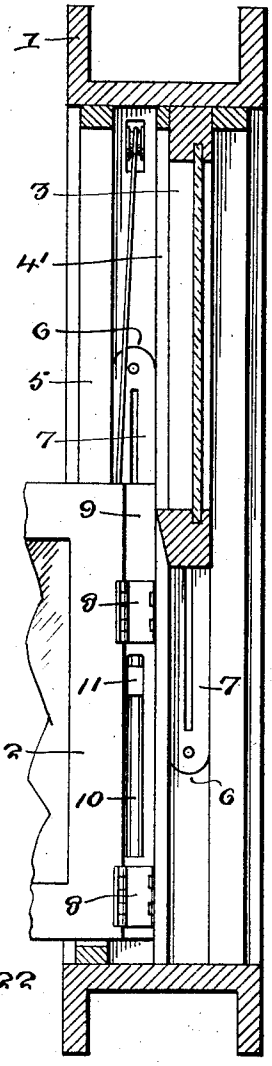


Fig. 2.



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Fig. 3.

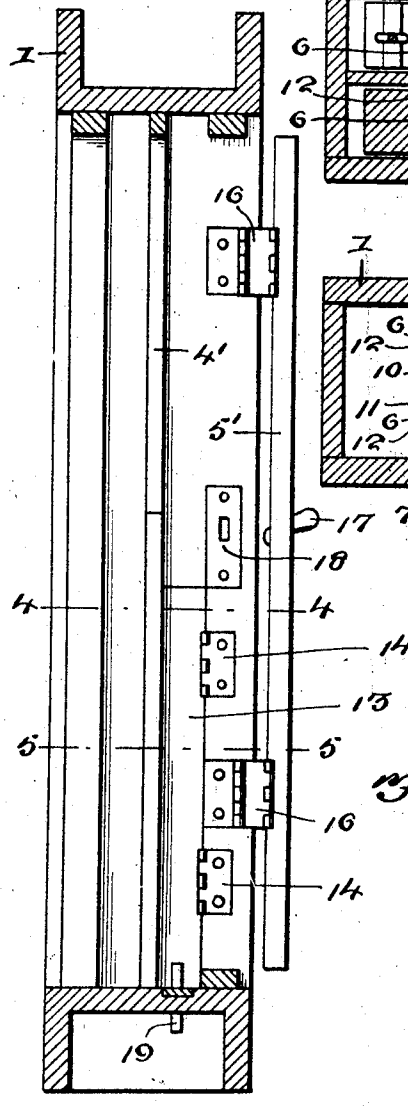


Fig. 4.

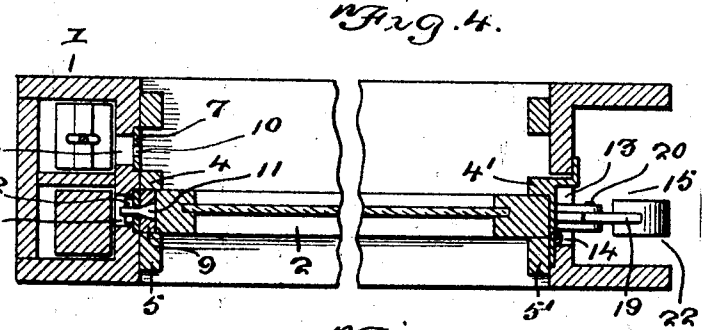


Fig. 5.

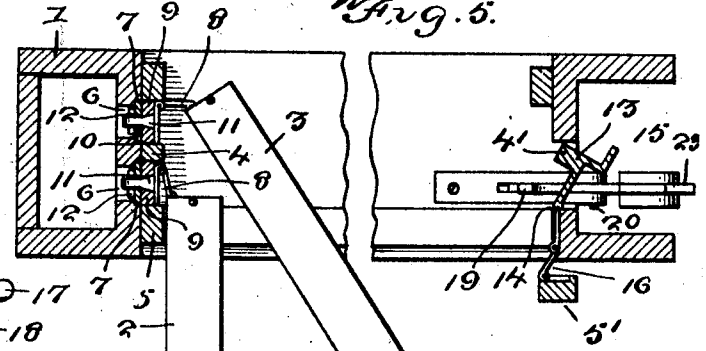
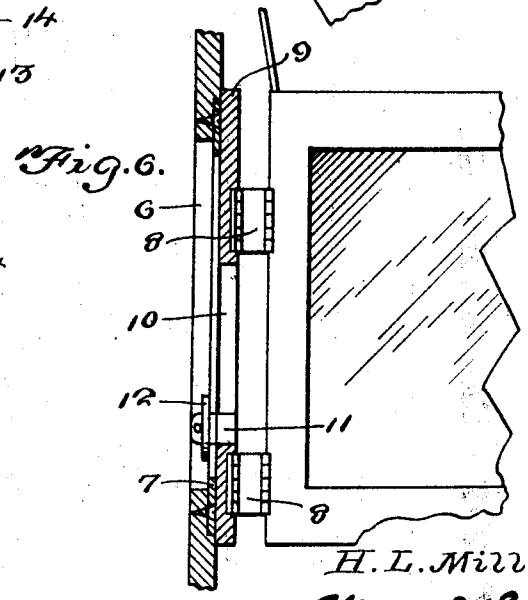


Fig. 6.



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Patented Mar. 24, 1925. 1,531,207

UNITED STATES PATENT OFFICE.

HERMAN LOUIS MILLER, OF CLEVELAND, OHIO.

WINDOW.

Application filed April 18, 1922, Serial No. 554,467. Renewed January 16, 1925.

To all whom it may concern:

Be it known that I, HERMAN L. MILLER, a citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented new and useful Improvements in Windows, of which the following is a specification.

This invention relates to improvements in window construction, the general object of the invention being to provide means for permitting the window sash to be swung inwardly so that the glass can be cleaned without necessitating the cleaner getting outside the window.

Another object of the invention is to provide means whereby the sash can be lowered and raised in the ordinary manner.

This invention also consists in certain other features of construction and in the combination and arrangement of the several parts, to be hereinafter fully described, illustrated in the accompanying drawings and specifically pointed out in the appended claims.

In describing my invention in detail, reference will be had to the accompanying drawings wherein like characters denote like or corresponding parts throughout the several views, and in which:—

Figure 1 is a face view of a window, with parts in section, constructed in accordance with my invention.

Figure 2 is a section on line 2—2 of Figure 1 but with the lower sash in open position.

Figure 3 is a section on line 3—3 of Figure 1 with the strip 5 in open position.

Figure 4 is a section on line 4—4 of Figure 3 but with the parts in close position.

Figure 5 is a section on line 5—5 of Figure 3, with the parts in open position.

Figure 6 is a detail sectional view showing the means for hinging the sash to the strip and slidably connecting the strip to the frame.

In these views 1 indicates the window frame, 2 the lower sash and 3 the upper sash. The parting strips are shown at 4 and 4′ and the inner strips at 5 and 5′, these strips forming guideways for the sash. Slots 6 are formed in the bottoms of the guideways at one side of the window, these slots being covered by slotted strips 7. One side of each sash is hinged, by a double hinge 8, to a plate 9, these plates being movable in the slotted guideways and each plate is provided with a longitudinally extending slot 10 having beveled walls and a shoe 11 slidably connects each plate with a slotted strip 7 by passing through the slots in the plate and the strip and having its detachable part 12 located in the slot 6 in the frame. By this construction each plate 9 can move a distance equal to the entire length of its guideway. After the shoe is engaged by the end of a slot in the plate the shoe will move in the slot in the strip so that the extent of movement of the plate 9 is equal to the combined lengths of the two slots. By having the sash hinged to the plates the sash can be swung inwardly in order that the outer faces of the panes of glass can be washed without the cleaner leaning out of the window and by making the plates 9 longitudinally movable in the guideways the sash can be raised and lowered in the ordinary manner. I prefer to use but one weight for each sash, this weight being connected with the hinged side so as not to interfere with the horizontal swinging movement of the sash.

The parting strip 4′ has its lower half carried by a door 13 which is hinged to the frame, at 14, so that by swinging this door into the space 15 at the side of the frame the lower half of the parting strip is moved away from the upper sash, when the same is in its lowered position, so that this sash can be swung outwardly upon its hinge. The inner strip 5′ is also hingedly connected with the frame, the hinge being a double one, as shown at 16, so that the strip can be swung against the inner face of the frame and thus permit both sashes to be swung outwardly upon the hinges. A latch 17 and keeper 18 holds the strip 5′ in operative position. The door 13 is normally held closed by the weight of the lower sash through means of the lever 19 which is pivoted, at 20, to a part of the window frame and has an upward projection 21 which is engaged by the lower edge of the bottom sash, when the same is closed. This lever also carries a weight 22 and an arm 23, said arm engaging the door when the lever is moved downwardly by the weight of the bottom sash, the weight 22 being provided for moving the part 21 of the lever upwardly and the arm 23 outwardly away from the door when the sash is raised.

This construction is such that the door will always be closed when the bottom sash is in its lowered position.

From the above it will be seen that the sashes can be raised and lowered in the ordinary manner but when they are to be cleaned or it is desired to swing them inwardly it is simply necessary to swing the strip 5′ inwardly and open the door 13 and then the sashes can be swung inwardly upon the hinges.

It is thought from the foregoing description that the advantages and novel features of my invention will be readily apparent.

I desire it to be understood that I may make changes in the construction and in the combination and arrangement of the several parts, provided that such changes fall within the scope of the appended claims.

What I claim is:—

1. A window construction comprising a frame having guideways therein, said guideways having slots therein, a slotted plate in each guideway, a shoe passing through the slot in each guideway and in each plate for slidingly connecting the plate with the frame and a sash hinged to each plate.

2. A window construction comprising a frame having slotted guideways in one side thereof, a slotted plate in each guideway, shoes passing through the slots for slidingly connecting the plates with the frame, a sash hinged to each plate, a hinge door at the other side of the frame and carrying the lower half of the parting strip, means for hingedly connecting the inner strip to this side of the frame and locking means for said inner strip and locking means for said door.

3. A window construction comprising a frame having slotted guideways in one side thereof, a slotted plate in each guideway, shoes passing through the slots for slidingly connecting the plates with the frame, a sash hinged to each plate, a hinge door at the other side of the frame and carrying the lower half of the parting strip, means for hingedly connecting the inner strip to this side of the frame and locking means for said inner strip and locking means for said door comprising a pivoted lever having an upwardly extending arm engaging the door, a weight at the junction of the arm with the lever and a projection on the lever, which is engaged by the lower sash when the same is in lower position to hold the locking means in operative position.

In testimony whereof I affix my signature.

HERMAN LOUIS MILLER.