

No. 688,532.

Patented Dec. 10, 1901.

A. O. H. LEHMANN.
WINDOW.

(Application filed Mar. 27, 1901.)

(No Model.)

Fig. 1.

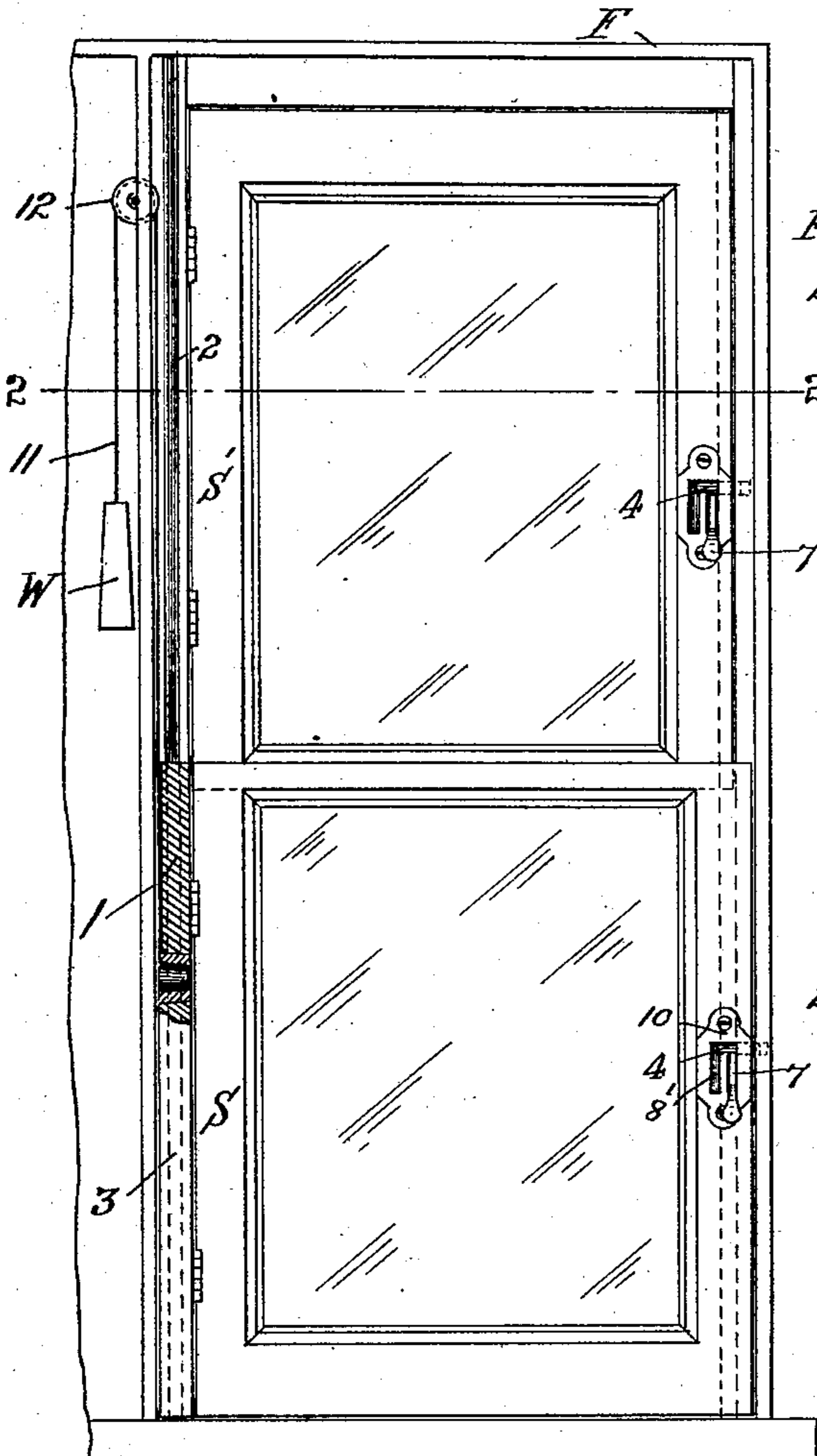


Fig. 2.

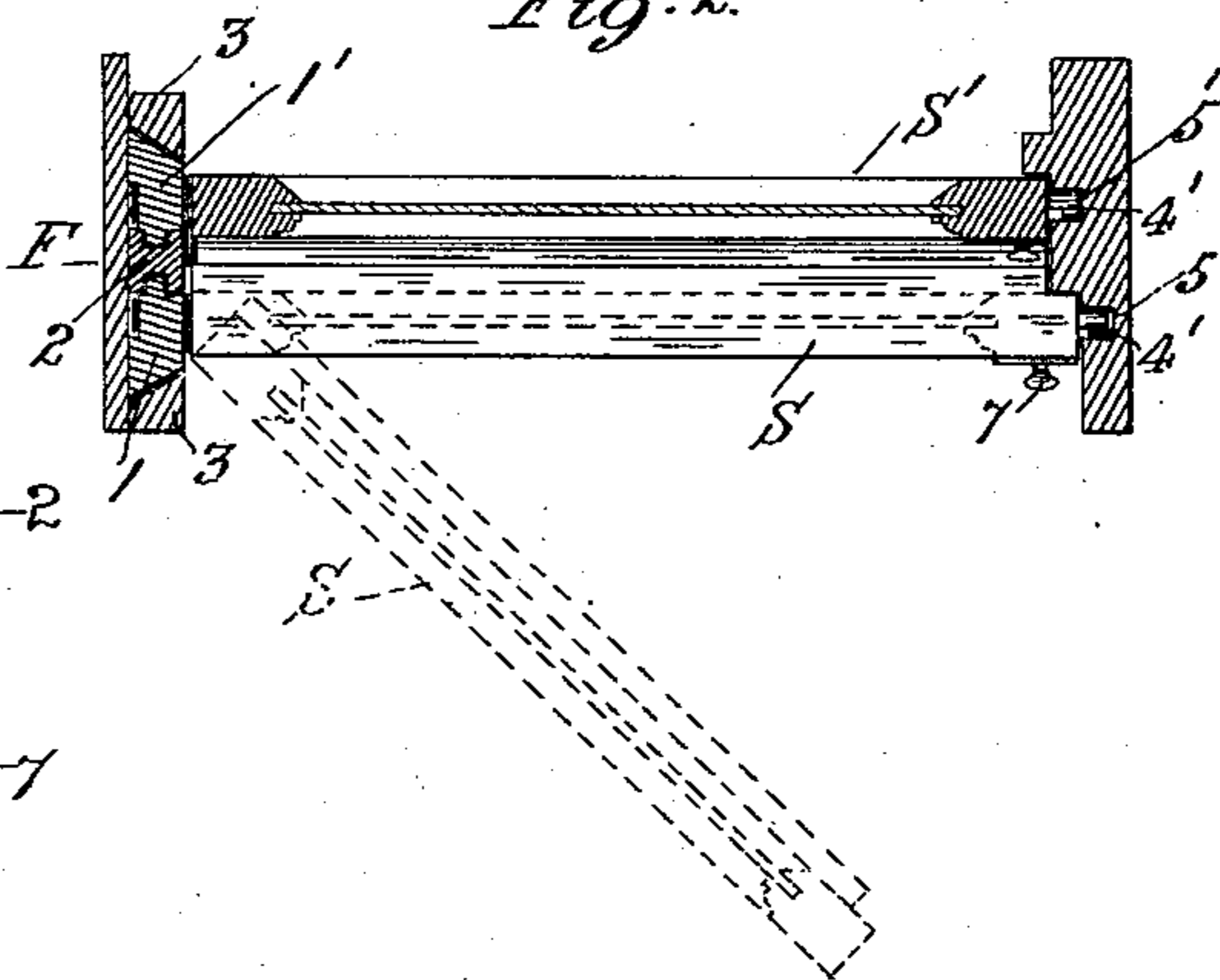


Fig. 3.

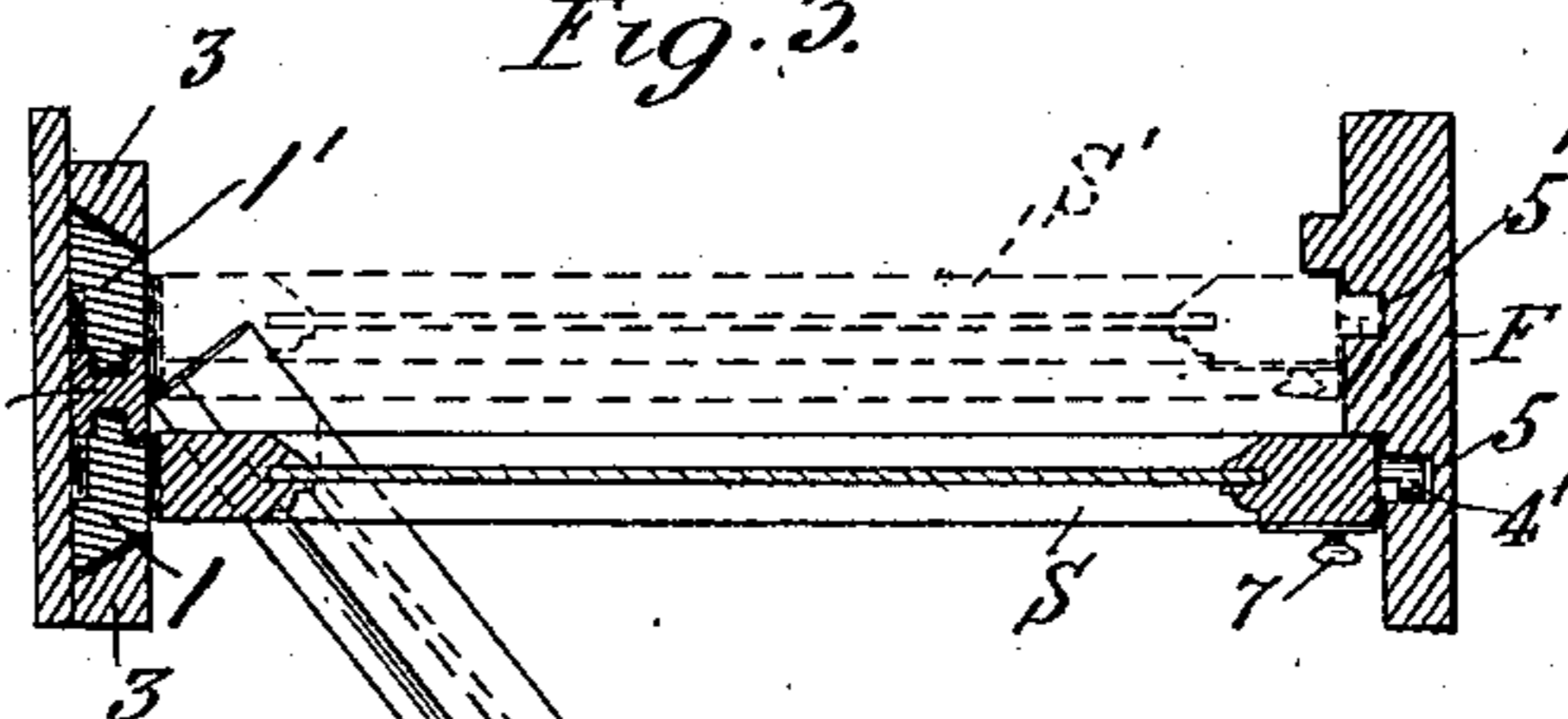


Fig. 8.

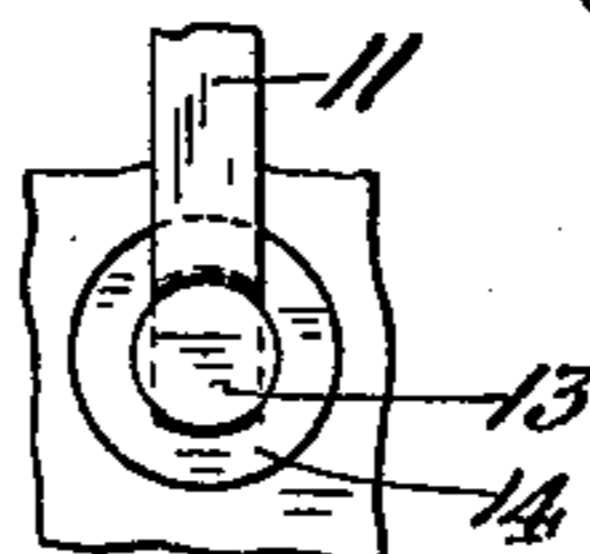


Fig. 4.

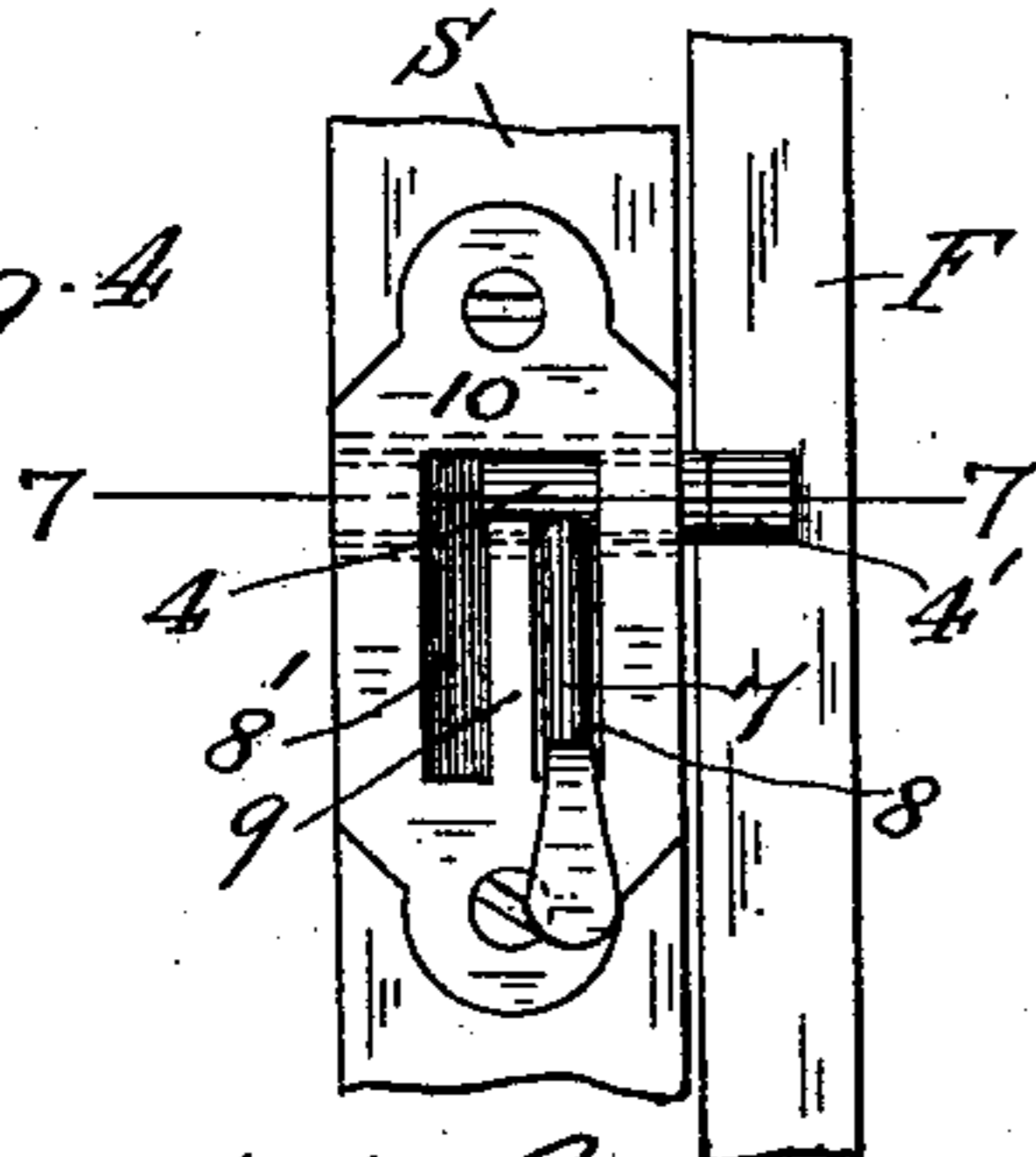


Fig. 5.

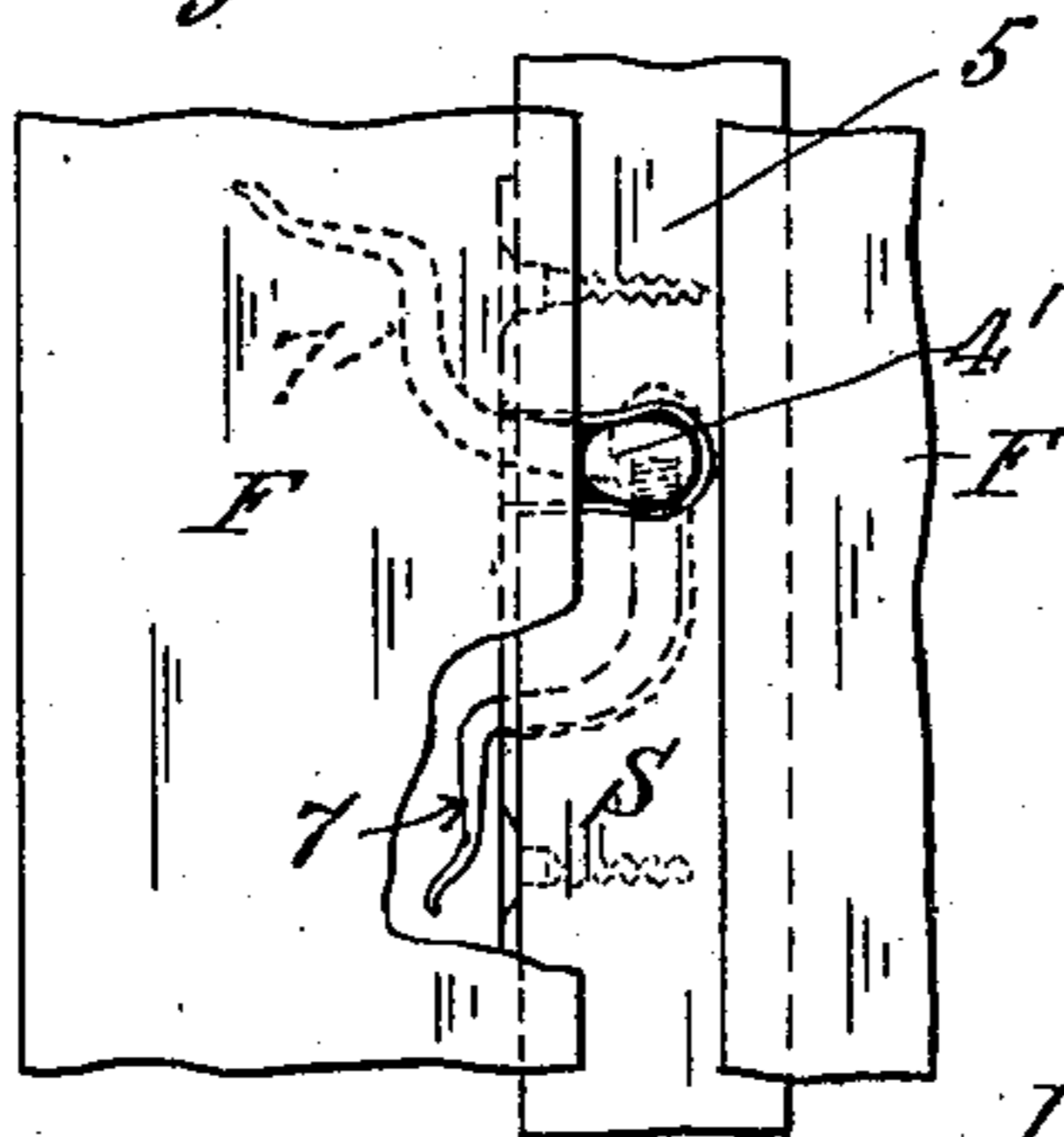
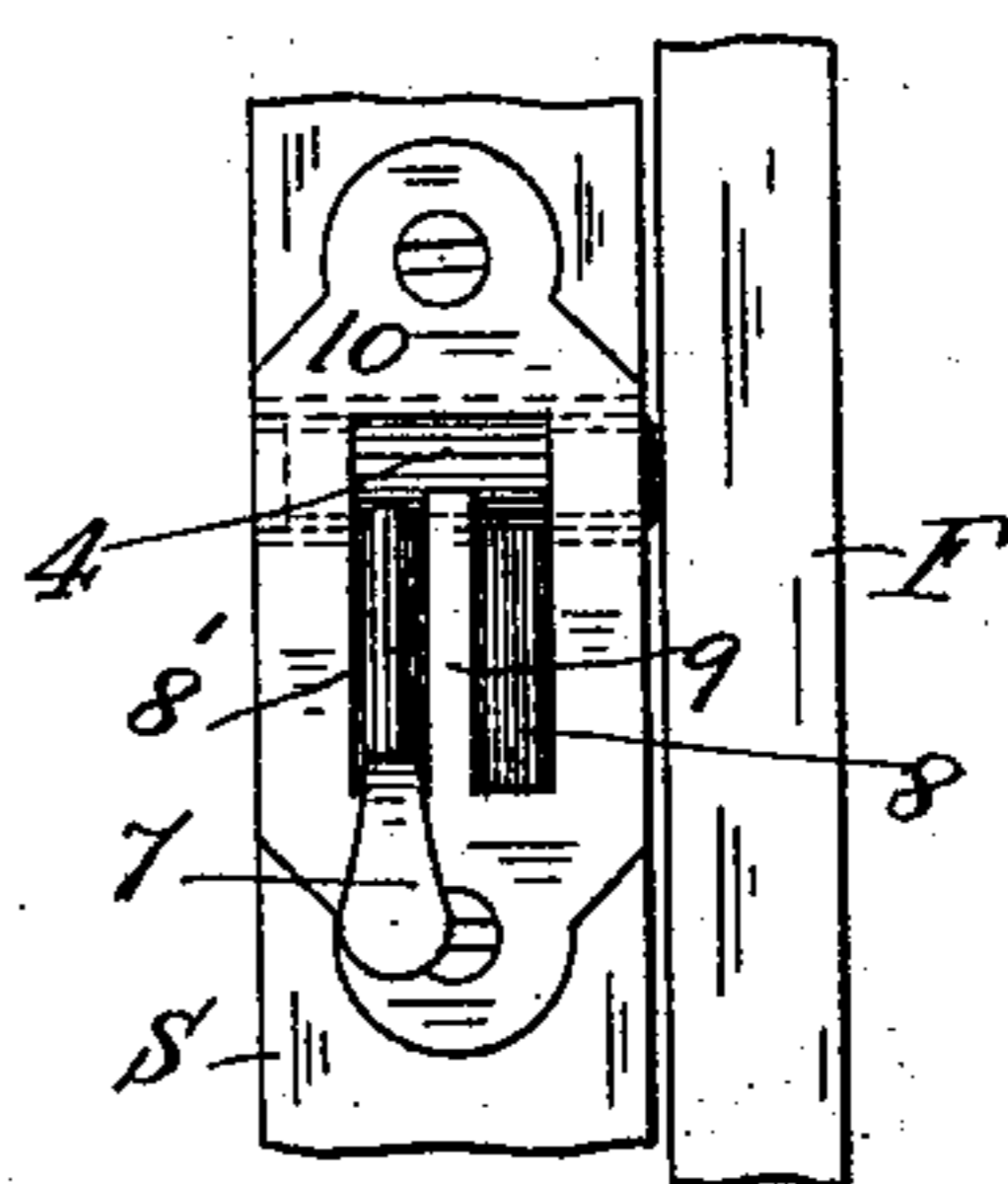


Fig. 6.



WITNESSES
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Fig. 7.



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ALFRED O. H. LEHMANN, OF ST. LOUIS, MISSOURI.

WINDOW.

SPECIFICATION forming part of Letters Patent No. 688,532, dated December 10, 1901.

Application filed March 27, 1901. Serial No. 53,127. (No model.)

To all whom it may concern:

Be it known that I, ALFRED O. H. LEHMANN, a citizen of the United States, residing at St. Louis, State of Missouri, have invented certain new and useful Improvements in Windows, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

My invention has relation to improvements in windows; and it consists in the novel construction of window, more fully set forth in the specification and pointed out in the claims.

In the drawings, Figure 1 is a front elevation of my device, a part of the frame and sash being broken away. Fig. 2 is a cross-section on line 2 2 of Fig. 1, showing in dotted lines the open position of the lower sash.

Fig. 3 is a similar section, taken, however, when the lower sash is fully raised and the upper sash fully lowered, the full lines showing the open position of the upper sash under the circumstances. Fig. 4 is an enlarged detail showing front view of guiding and locking bolt and its casing. Fig. 5 is a side view of Fig. 4, showing the bolt and its lever in two positions. Fig. 6 is a similar view to Fig. 4, showing the bolt in its retracted position. Fig. 7 is a cross-section on line 7 7 of Fig. 4, and Fig. 8 is a detail showing face view of plug by which the band or cord which suspends the sash is connected to the sash.

The object of my invention is to construct a window in which either sash while susceptible of an up-and-down or reciprocating motion may be swung into the room, so as to facilitate the cleaning of the window and eliminating the danger of cleaning the same from the outside of the window-frame, as is necessary with the sashes of the old form of construction.

In detail the invention may be described as follows:

Referring to the drawings, F represents the window-frame, S the lower sash, and S' the upper sash. One of the vertical members of each shaft is hinged to a vertically-reciprocating strip 1 1', traveling in a guideway formed between a central I-beam 2 and outer bevel-strips 3, secured to the frame F, the free or swinging ends of the sashes being

guided by the projecting end of a longitudinally-movable bolt 4, traveling in guideways or grooves 5 5', formed in the opposite vertical wall of the frame, the bolt being rotatable about its axis for a purpose presently to appear. The bolt is mounted in a casing 6 and is provided with an operating-lever 7, projecting from the peripheral wall thereof, provision being made to allow for the oscillation of said lever during the rocking of the bolt by the longitudinal openings 8 8', formed on each side of a central tongue 9 of the casing, the latter being secured to the sash by screws passing through the outer plate 10 of said casing, the wood being suitably cut away to allow insertion of the latter into the sash. The outer end of the bolt is provided with a cam-head 4', which when the bolt is rocked to a position to cause the eccentric portion of the cam to engage the outer wall of the groove 5 (referring now to the lower sash) has a tendency to force the lower sash against or toward the upper sash, and thereby (when both sashes are closed) to bring the meeting-rails of the two sashes close together and form an air-tight joint, which dispenses with the necessity of a weather-strip at that point. Each sash is weighted, as usual, the weight W being secured to one end of a steel tape 11, passing over a pulley 12, the opposite end of the tape being frictionally held to the sash by a conical plug 13, inserted into a corresponding opening of a metal disk 14, let into the strip carrying the sash, the tape passing around the plug 13, as best seen in Figs. 1 and 8.

To freely move the sash up and down, the lever 7 is raised to rock the bolt to a position to cause the cam 4' to become disengaged from the wall of the groove 5, (or 5',) as seen by dotted position in Fig. 5, the sash being free to reciprocate up and down along the frame. To open the lower sash, the bolt is rocked to a position to enable the base of the lever 7 to clear the upper edge of the tongue 9, when the bolt is retracted into its casing, by which time the lever comes opposite the inner opening 8'. If now the lever is oscillated to bring the lever behind the tongue, (see Fig. 6,) the bolt will remain in its retracted position and permit the sash to swing open on its hinges. (See Fig. 2.) Of course

the same operation applies to the upper sash, except that it is impossible to open the upper sash until it is fully lowered and the lower sash fully raised. (See Fig. 3.) In Fig. 5 the base of the groove in which the bolt travels is removed to show the bolt and its cam-head to better advantages, said figure virtually representing an end view of the bolt and its casing.

10 It will be seen from the foregoing that the outside of the window may be cleaned in the room, and the house-cleaner need not resort to the dangerous practice of sitting on the window-sill and turning his back to the street and running the risk of falling from the window under the circumstances. It is apparent, of course, that I may resort to minor changes in the details without departing from the spirit of my invention.

20 Having described my invention, what I claim is—

1. A window comprising a frame, a hinged sash movable up and down along said frame, a longitudinally-movable bolt adapted to rock about its axis, carried at the free edge of the sash, a groove in the frame for the reception of the bolt, the latter being capable of retraction from the groove to permit the inward swinging of the sash about its hinges, and a cam at the free outer end of the bolt adapted

upon the rocking of the latter in the proper direction, to bear against the outer wall of the groove and force the lower sash firmly against the upper one thus forming a tight joint between their meeting-rails when the sashes are closed, substantially as set forth.

2. A window comprising a frame, a strip movable longitudinally up and down along one side of the frame, a sash hinged to the strip, a longitudinally-movable rocking bolt at the free edge of the sash, a casing for said bolt, a lever projecting from the bolt, openings formed in the sash for the reception of the lever, a tongue separating said openings, a groove formed in the frame for the reception of the outer end of the bolt, the latter being capable of retraction into the casing to allow for the inward swinging of the sash about its hinges, and means carried by the bolt for forcing the lower sash firmly against the upper one upon the oscillation of the bolt in the proper direction, substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

ALFRED O. H. LEHMANN.

Witnesses:

EMIL STAREK,
GEO. L. BELFRY.