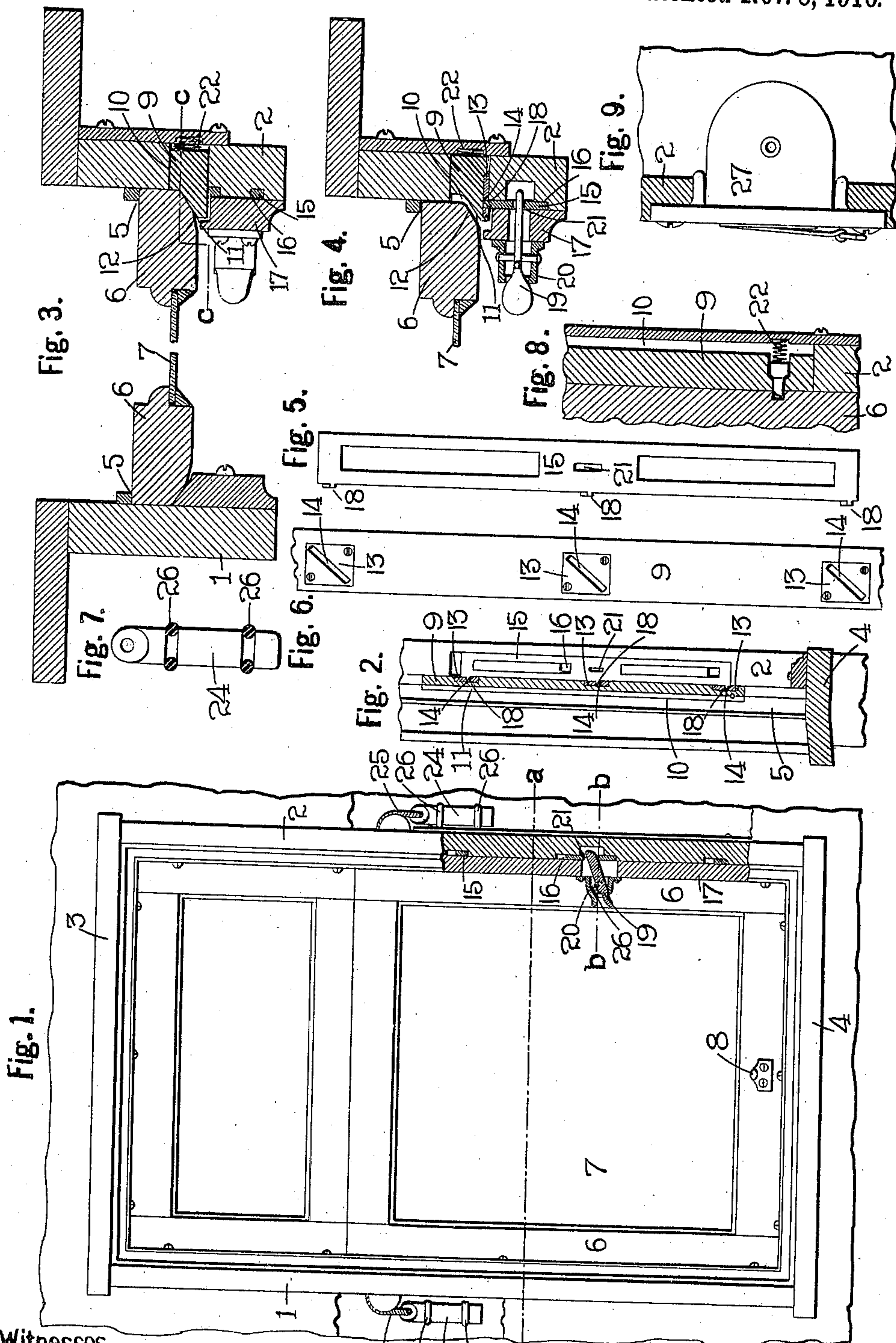


974,870.

W. A. FARMER,
WINDOW.
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Patented Nov. 8, 1910.



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UNITED STATES PATENT OFFICE.

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WINDOW.

974,870.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, WARREN A. FARMER, a citizen of the United States, residing at Arcade, in the county of Wyoming and State of New York, have invented a certain new and useful Improvement in Windows, of which the following is a specification.

This invention relates to improvements in windows and the objects of the invention are to enable the window to be easily opened and closed, to lock the window in any position to which it may be adjusted and to make the window as nearly dust tight as possible when closed.

The invention also relates to certain details of construction which will be fully and clearly hereinafter described and claimed reference being had to the accompanying drawings in which,—

Figure 1 is an inside elevation of the improved window partially in section to disclose the construction thereof. Fig. 2 is an end elevation of a portion of the frame of the window with the window sash and weather strip removed, the wedge being shown in section and a transverse section being taken through the bottom of the window frame. Fig. 3 is an enlarged horizontal section on line *a a*, Fig. 1, showing the window wedge locked in place. Fig. 4 is an enlarged cross section on line *b b*, Fig. 1, showing the window released from the wedge locking device. Fig. 5 is a detached view of the metal strip provided with diagonal lugs. Fig. 6 is a detached view of the movable wedge. Fig. 7 is a detached view of the weight showing the buffer rings in cross section. Fig. 8 is a fragmentary section on line *c c*, Fig. 3. Fig. 9 is a fragmentary section of the window showing the spring lift.

In referring to the drawings in detail like numerals designate like parts.

The casing in which the window is supported consists of two vertical side members 1 and 2, horizontal top member 3, and horizontal bottom member 4. The side members 1 and 2, are provided with slideways or vertical grooves 5, in which the window is slidably fitted. The window comprises a frame 6 and a pane 7 of transparent material such as glass fitted in the frame. A lifting piece 8 is attached to the lower por-

tion of the window frame and is adapted to be grasped by an operator to raise or lower the window in the casing. 55

A locking device is secured to one side of the casing and operates against one side of the window and by pressure frictionally locks it in closed position or at any point to which it is opened and also by forcing the window laterally against the side of the casing opposite the wedge locking device renders it practically dust and weather proof. The locking device consists of a wedge 9 which is slidably fitted in a longitudinal slot 10 in one of the vertical side members 1 and 2 of the casing and has a beveled inner side 11 which coöperates with the beveled edge 12 of the window frame as shown in Fig. 4 and means for moving the wedge in the slot to lock or release the window. 60 65 70

The wedge 9 has a horizontal movement toward or from the window side in the slot 10 and metal plates 13 are fastened to the outer face of the wedge at suitable distances apart and are provided with diagonal slots 14. 75

A metal strip 15, is slidably mounted in a recess 16, between the vertical side member of the casing and the weather strip 17, fastened to the vertical side member, as shown in Fig. 4, and is provided with lateral extending diagonal lugs 18, which project into the diagonal slots 14, in the plates 13. The strip 15, is moved in a vertical direction by an arm 19, which is pivotally mounted in a metal frame 20, and has an inner end projecting into an opening 21, in the strip 15, and its outer end arranged to be grasped by the fingers of an operator; see Figs. 1 and 5. 80 85 90

The wedge 9, is normally maintained in frictional engagement or locking position with respect to the window by spiral springs 22, which are located on the outside of the wedge and serve to force it toward the window frame and the arm 19, is likewise held in its depressed or locking position by a spiral spring 23, mounted in the metal frame 20. 95 100

While the window may be raised solely by hand, it is desirable to provide counterweights or springs to at least partially take the weight off of the hands and render the labor of raising the window less laborious. 105

Two forms are shown in the accompanying drawings.

In Figs. 1 and 7, a counter-weight 24, is illustrated which is connected to the window 5 by a sash cord 25, which passes over a pulley located in the top of the casing. Rings 26, of rubber or similar material are fitted around the counter-weight to render the same noiseless in operation.

10 In Fig. 9, a spring counterbalance 27, is shown which is fitted in the top of the casing and connected to the window.

The operation of this improved window is as follows: To raise the window when closed 15 lift the outer end of the arm 19, which slides the metal strip 15, downward and through the movement of the lugs 18, in the diagonal slots 14, moves the wedge 9, outward away from the window. The window 20 is now free to be lifted by the other hand or if the counter-weight or spring be heavy or strong enough, is automatically raised without assistance.

The great advantage of this construction 25 aside from its simplicity, comparative cheapness, and strength of structure resides

in the fact that the window will be securely held at any point, that it will not rattle and it is dust and weather proof when closed.

I claim as my invention.

In a device of the class described, the combination with a casing having a longitudinal slot in one of its side members and a window in said casing having a beveled side edge, of means for locking the window in 30 said casing consisting of a horizontally movable wedge having a beveled surface corresponding to the bevel side edge of the window and adapted to contact with same, 35 springs interposed between the back of the wedge and the casing, metal plates fastened to the inside of the wedge provided with diagonal slots, a vertically slidable metal strip having lugs on the edge thereof, adapted to project into said slots, and a 40 pivotal arm having one arm connected to the strip, substantially as set forth. 45

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Witnesses:

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