No. 713,414. Patented Nov. 11, 1902.

O. A. ESSIG.

WINDOW.

(Application filed Feb. 15, 1901.)

(No Model.)

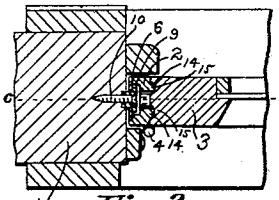


Fig. 2.

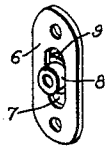


Fig. 3.

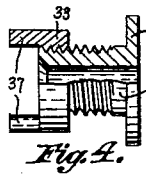


Fig. 4.

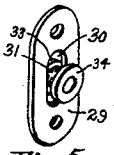


Fig. 5.

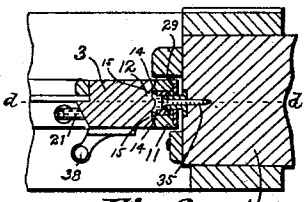


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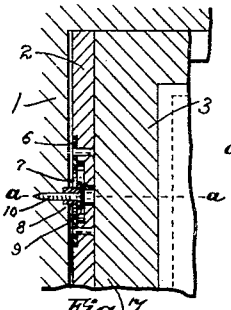


Fig. 7.

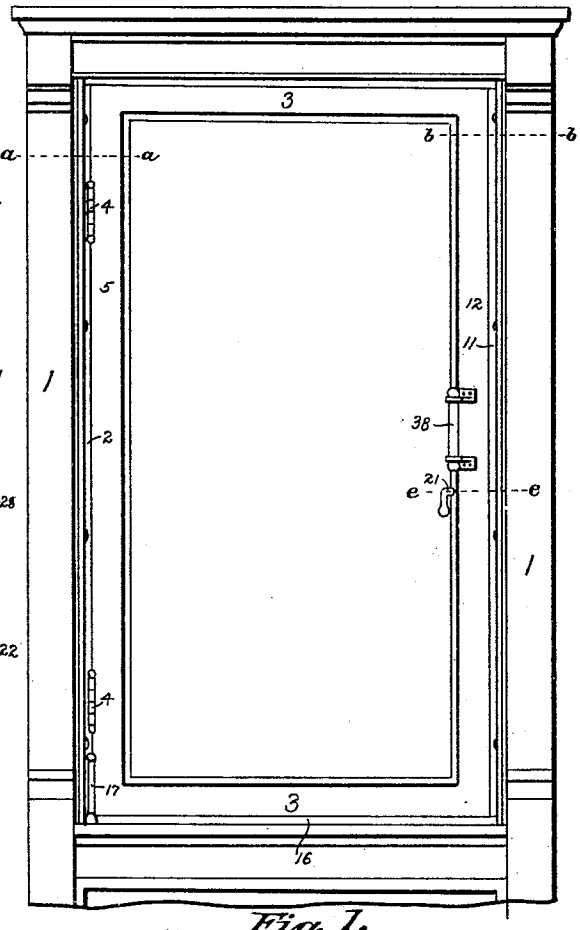


Fig. 1.

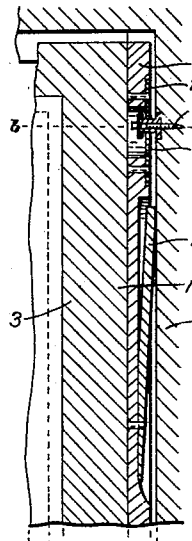


Fig. 8.

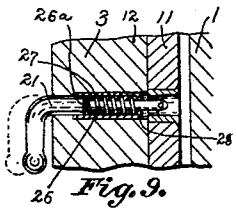


Fig. 9.

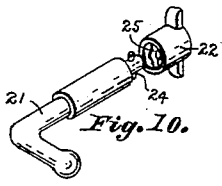
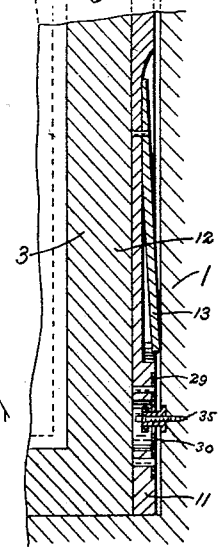


Fig. 10.



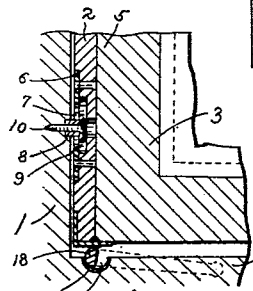


Fig. 11.

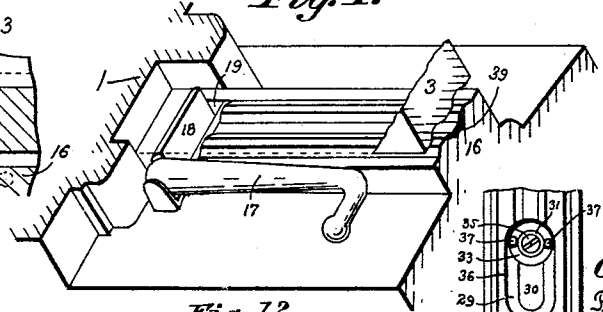


Fig. 12.

Fig. 13.

Witnesses;
Harry Grease.
J. A. Jeffers.

Inventor;
Ozia A. Essig,
By F. W. Brown
Attorney.

...EPS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

OZIA A. ESSIG, OF CANTON, OHIO.

WINDOW.

SPECIFICATION forming part of Letters Patent No. 713,414, dated November 11, 1902.

Application filed February 15, 1901. Serial No. 47,423. (No model.)

To all whom it may concern:

Be it known that I, OZIA A. ESSIG, a citizen of the United States, residing at Canton, in the county of Stark and State of Ohio, have invented certain new and useful Improvements in Windows; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, and to the figures of reference marked thereon, in which—

Figure 1 is a side elevation. Fig. 2 is a transverse section on line *a a*, Fig. 1. Fig. 3 is a view showing the connecting-plate detached and illustrating the connecting-thimble placed in proper relative position. Fig. 4 is a view showing the adjustable nut, illustrating the same partially in section. Fig. 5 is a detached view of one of the strip-connecting plates and illustrating the adjustable nut placed in proper relative position. Fig. 6 is a transverse section on line *b b*, Fig. 1. Fig. 7 is a longitudinal section taken on line *c c*, Fig. 2. Fig. 8 is a longitudinal section on line *d d*, Fig. 6. Fig. 9 is a section on line *e e*, Fig. 1. Fig. 10 is a detached view of the lock-bolt and its casing, also its connecting-thimble. Fig. 11 is a sectional view showing the bottom or lower portion of the window upon the hinged side thereof and illustrating the same elevated. Fig. 12 is a view showing a portion of the window-sill and illustrating the elevating-cam placed in proper relative position. Fig. 13 is a face view showing a portion of the adjustable strip and illustrating the opening or aperture for providing a means for connecting the adjustable portion or part of the adjustable nut.

The present invention has relation to windows designed to be swung upon hinges in substantially the same manner that doors are swung upon hinges for the purpose of providing a means for bringing the window proper into position to be cleaned upon the outside.

Similar numerals of reference indicate corresponding parts in all the figures of the drawings.

In the accompanying drawings, 1 represents the window-frame, which may be constructed in the ordinary manner and of any desired size.

The window proper is hinged to the strip or bar 2 by means of the hinges 4, it being understood that the leaves of the hinges are securely connected to the strip or bar and to the vertical bar 5 of the window-sash, respectively. To the strip or bar 2 and upon the window-frame side thereof are securely connected the plates 6 by means of suitable screws or their equivalents, which plates are provided with the elongated slots 7. Through the elongated slots 7 are passed the thimbles 8, which thimbles are provided with the heads 9, said heads being for the purpose of holding the strips 2 in proper position laterally. The thimbles 8 are securely connected to one of the vertical members of the frame proper by means of the wood-screws 10, which wood-screws are passed through the thimbles and seated into the vertical member of the window-frame, as illustrated in Figs. 2 and 7.

It will be understood that by providing the elongated slots 7 in the plates 6 a limited vertical movement will be allowed to be given to the strip or bar 2, as hereinafter described. Upon the opposite side of the window-frame from that to which the strip 2 is attached the strip 11 is located, and for the purpose of normally holding the strip 11 against the vertical member 12 of the window-frame 3 the springs 13 are provided, which springs are connected to the strip 11 and are so constructed that they will force or crowd said strip 11 away from the window-sash, and thereby at all times hold said strip in close contact with the vertical member 12 of the window-strip 3. The strips 2 and 11 are each provided upon their inner sides with the ribs 14, and the outer edges of the vertical members 5 and 12 of the window-sash proper are provided with corresponding grooves 15, so that when the window is properly closed a tight joint will be formed between the strips and the outer edges of the window-sash.

The bottom or lower portion of the window-frame is provided with the grooved and ribbed sill 16, said grooves and ribs corresponding in shape and size with the grooved and ribbed lower member of the window-sash proper, and when the window-sash is in its normal position it rests upon the sill 16. When it is

desired to elevate the window, so as to bring it into proper position to turn the same upon its hinges and at the same time disengage the bottom sash-rail from the sill 16, the lever 17 is turned in the position illustrated in Fig. 12, by which movement the window is elevated by means of the semicircular bar 18, which semicircular bar rests in the groove 19, which groove is formed of a shape and size to correspond with the convexed edge of the semicircular bar 18.

For the purpose of preventing the semicircular bar 18 from wearing the wood away directly above said semicircular bar a wear-plate 20 is provided, which wear-plate is securely connected to the bottom or lower end of the strip 2 and extends under the lower rail of the window-sash, as illustrated in Fig. 11.

It will be understood that as the lever 17 is turned downward the strip 2, together with the window-sash, will be elevated, and it is preferable to detach the bolt 21 from the thimble 22 before the window-sash is elevated, by which arrangement the strip 11 will not move with the upward movement of the window-sash; but in order to provide against accident the plates 29 are provided with the slots 30, so as to allow a longitudinal movement of the strip 11 in case the bolt 21 should not be detached from its thimble 22 before lever 17 is turned down. When the bolt 21 is disengaged from the thimble and the window-sash elevated by means of the lever 17 and the semicircular bar 18, said window is free to be turned upon its hinges in substantially the same manner that a door is swung upon its hinges, and it will make no difference, so far as the swinging of the window is concerned, whether the bolt 21 is detached from its thimble either before the window has been elevated or afterward. It will be understood that as the ribs and grooves 14 and 15 pass each other the strip 11 is free to be crowded away from the outer edge of the sash-rail 12.

When it is desired to close the window, it is turned upon its hinges so as to bring the window-sash in the position illustrated in Fig. 1 and the bolt 21 connected to the thimble 22 by passing the pin 24 through the slot 25, said bolt being automatically connected by means of the spring 26, which spring is located in the thimble 27, said thimble being provided with the spring-retaining shoulders 28, after which the lever 17 is brought into the position illustrated in Fig. 1, which in turn brings the flat side of the semicircular bar up against the wear-plate and on a line level with the top of the groove 20.

It will be understood that the strip 11 will move up and down with the window when the bolt 21 is connected to the thimble 22, and in order to provide for this longitudinal movement the plate 29 is provided with the slot 30, through which slot the screw-threaded bolt 31 is passed. Upon the screw-threaded bolt 31 is located the nut 33, which nut can be adjusted to or from the flange 34, thereby limiting the lateral movement of the strip 11 by reason of the plate 29 having room to come and go between the flange 34 and the screw-threaded nut 33. The screw-threaded bolt 31 is held in proper relative position by means of the wood-screw 35, which wood-screw is seated into the window-frame proper. In order to provide a means for properly locating the screw-threaded nut 33 upon the bolt 31, the strip 11 should be provided with an aperture, such as 36, to allow room to place the nut 33 in position and to adjust the same from time to time, and for the purpose of adjusting the nut 33 the tangs 37 are provided.

It will be understood that the nut 33 should be so located that the ends of the tangs 37 will not project beyond the inner face of the strip 11. In order to carry the bolt 21 away from the thimble 22 when said bolt is detached, the spring 26 is so arranged that it will have a tendency to force the bolt 21 away from the thimble when it is detached therefrom, and when attached to said thimble it will have a tendency to pull the strip 11 up against the edge of the window-sash 12.

For the purpose of providing a means for swinging the window a handle, such as 38, may be provided. It will be understood that the top of the frame should be so formed that the window-sash will have room to be moved up and down, as hereinafter described.

For the purpose of preventing dust from finding its way between the window-frame proper and the window-sash the strips 2 11 and the sill 16 may be provided with gaskets 39, formed of rubber or like material, which gaskets are located between the ribs of the sill and the vertical strips, by which arrangement the window can be opened without interfering with the gaskets.

For the purpose of insuring the spring 26 to act upon the bolt 21 when the cross-pin 24 is released from the slot 25 said bolt is provided with a reduced portion, thereby forming a shoulder, such as 26^a.

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

1. The combination of a window-frame, a window-sash normally located in the window-frame, a strip adjustably secured to the window-frame and the sash hinged to the adjustable strip, a semicircular bar located below the adjustable strip to which the sash is hinged and provided with an operating-lever, and a trough or groove formed of a size and shape to correspond with the semicircular bar, and said semicircular bar located in the groove or trough, substantially as and for the purpose specified.

2. In a window of the class described, a window-frame, a sash normally located therein, adjustable strips located upon opposite vertical sides of the window-frame, a lifting-bar provided with an operating-lever, said

lifting-bar located below the vertical strip to which the sash is hinged, all arranged, substantially as and for the purpose specified.

3. The combination of a window-frame, strips provided with beads and grooves upon their faces, one of said strips adjustable laterally to and from the edge of one vertical member of the window-sash, springs adapted to force the lateral adjustable strip against the edge of one of the vertical members of the window-sash, and means for lowering the window-sash and the window-sash hinged to one of the adjustable strips, substantially as and for the purpose specified.

4. The combination of a window-frame, strips adjustably connected thereto, plates having elongated slots, a screw-threaded bolt having located thereon a nut said nut provided with tangs, and a window-sash hinged to one of the adjustable strips and adjustable with said strips, and means for elevating and lowering the window-sash and strip, substantially as and for the purpose specified.

5. The combination of a window-frame, a strip adjustably attached to the window-frame, a window-sash hinged to the adjustable strip, a wear-plate located at the lower end of the adjustable strip, and means for elevating the strip and sash, substantially as and for the purpose specified.

6. The combination of a window-frame, vertical strips adjustably connected thereto and provided upon their inner faces with beads and grooves, and lower sash-rails provided with beads and grooves and a gasket located between the ribs of the strips and sill, substantially as and for the purpose specified.

7. In an adjustable window a bolt located in a casing, said casing fixed to one of the vertical rails of the window-sash, a spring located in the casing and said casing provided with a shoulder at one of the ends of the casing, a thimble provided with a slot and said thimble secured to one of the adjustable strips and a cross-pin secured to the bolt located in the casing, substantially as and for the purpose specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

OZIA A. ESSIG.

Witnesses:
J. A. JEFFERS,
WILLIAM A. HAMMERLY.