(No Model.) 2 Sheets—Sheet 1.

W. WALLACE.

WINDOW.

No. 511,105. Patented Dec. 19, 1893.

Fig: 1.

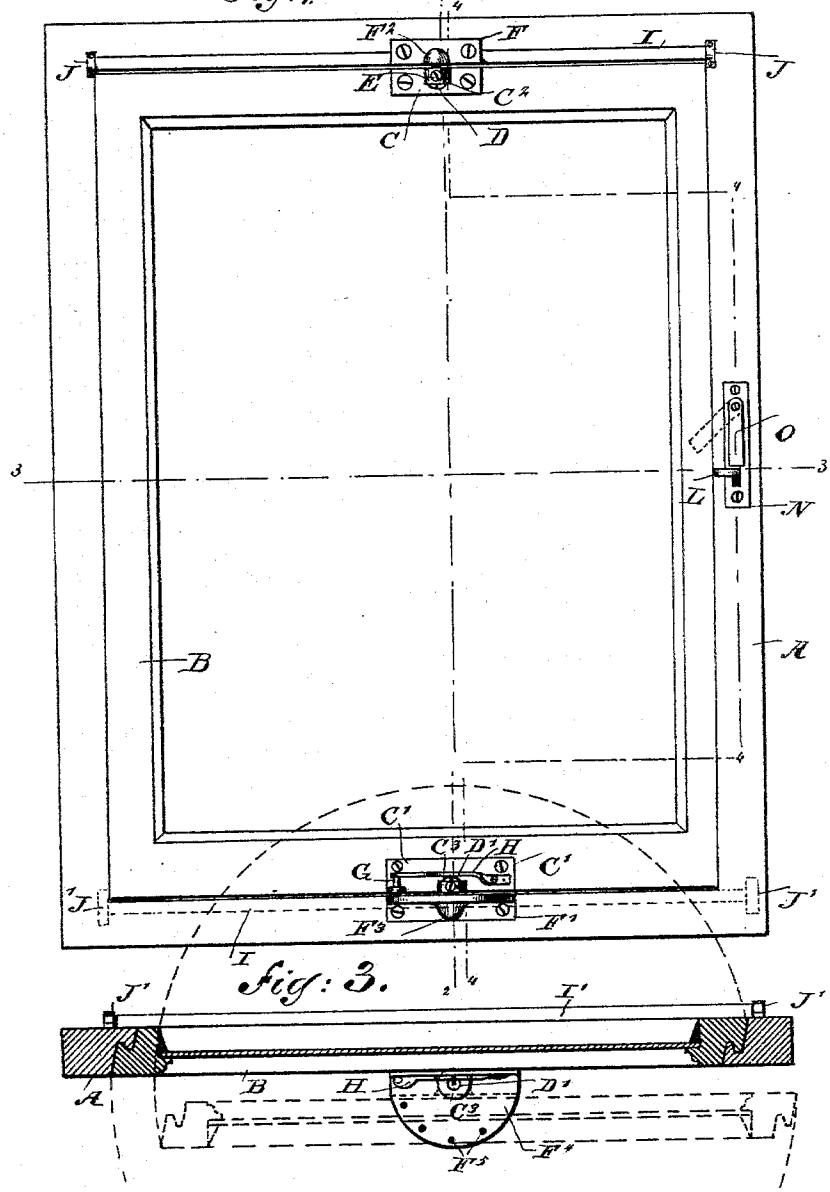

Fig: 2.

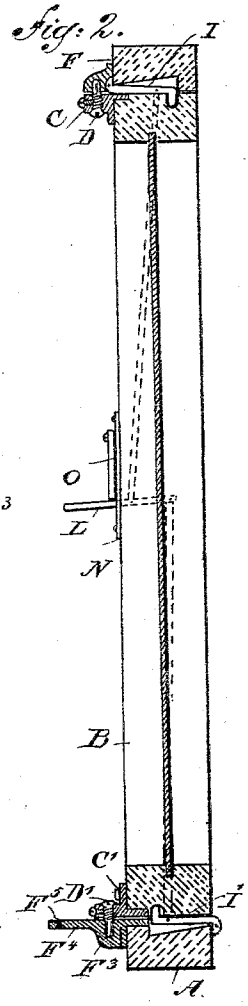

Fig: 3.

WITNESSES:

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INVENTOR

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ATTORNEYS

THE NATIONAL LITHOGRAPHING COMPANY,
WASHINGTON, D. C.

(No Model.) 2 Sheets—Sheet 2.

W. WALLACE.

WINDOW.

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Fig: 6.

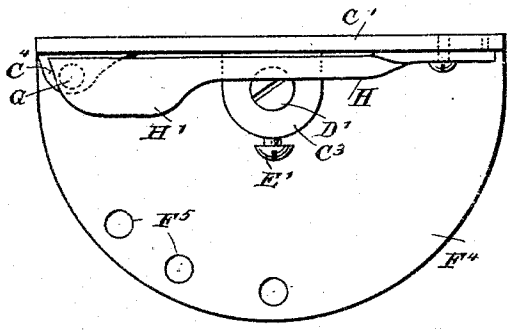


Fig: 7.

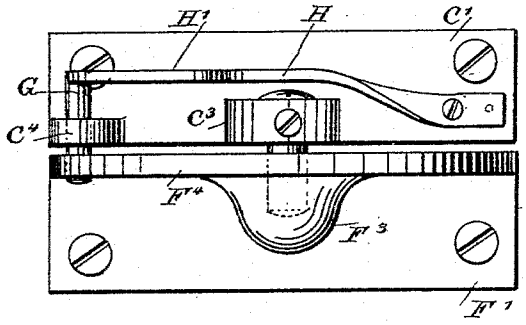
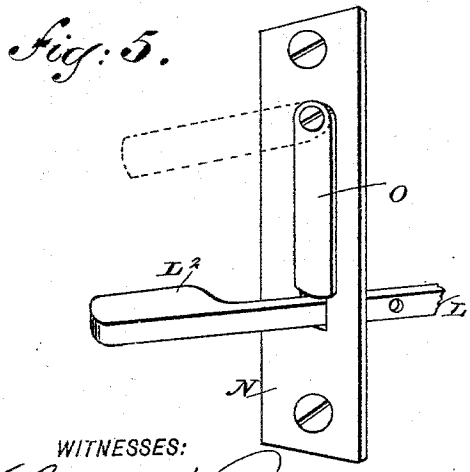


Fig: 5.



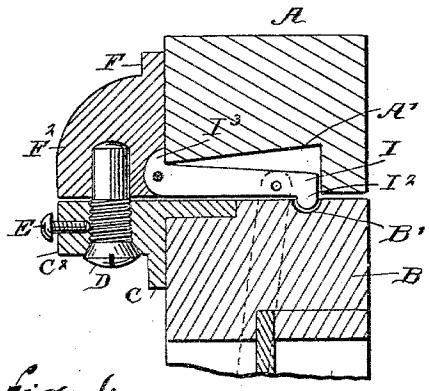
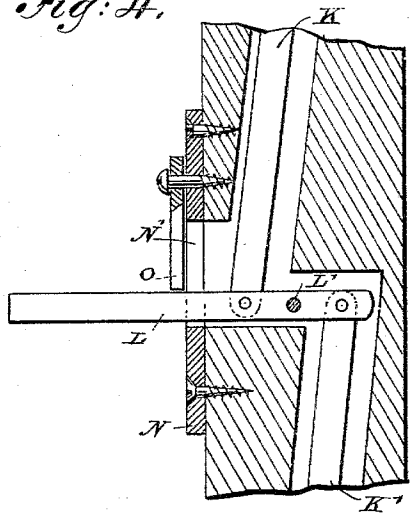
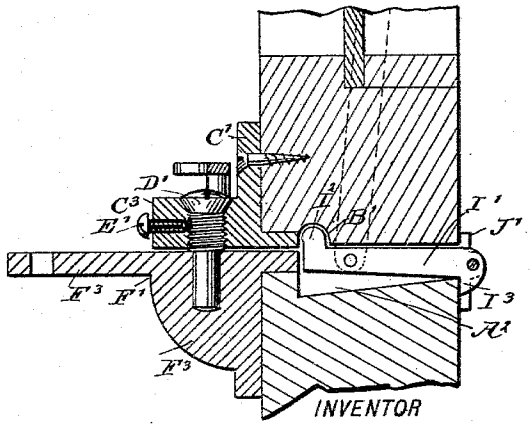


Fig: 4.





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UNITED STATES PATENT OFFICE.

WILLIAM WALLACE, OF NEW YORK, N. Y.

WINDOW.

SPECIFICATION forming part of Letters Patent No. 511,105, dated December 19, 1893.

Application filed February 11, 1893. Serial No. 461,880. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM WALLACE, of the city, county, and State of New York, have invented a new and Improved Window, of which the following is a full, clear, and exact description.

The object of the invention is to provide a new and improved window which is simple and durable in construction, rendered perfectly air, water and burglar proof, and arranged for readily opening the window to move it in a position for conveniently cleaning the window from within the room.

The invention consists of certain parts and details, and combinations of the same, as will be hereinafter described and then pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a face view of the improvement. Fig. 2 is a cross section of the same on the line 2—2 of Fig. 1. Fig. 3 is a sectional plan view of the same on the line 3—3 of Fig. 1. Fig. 4 is an enlarged cross section of the improvement on the line 4—4 of Fig. 1. Fig. 5 is a perspective view of the operating lever and its lock. Fig. 6 is an enlarged plan view of the lowermost pivot and adjacent parts; and Fig. 7 is a face view of the same.

In the window casing A is fitted the window B provided on top and bottom and on the inside thereof with keepers C and C′, fastened by set screws to the sash, as plainly shown in Fig. 1. The keepers C and C′ are provided with the lugs C^2 and C^3 respectively, in which screw vertically the threaded ends of the pivot pins D and D′, adapted to be secured or locked in place in the respective lug C^2 or C^3, by set screws E and E′ respectively, screwing laterally in the lugs. The simple pivot end of the pivots D and D′ is fitted into sockets F^2 and F^3 respectively, formed in the pivot plates F and F′ respectively, secured by screws to the top and bottom of the window casing A, as plainly shown in Fig. 1. The pivot pin D extends with its pivot end upwardly into the socket F^2, while the pivot end of the other pivot D′ extends downwardly into its socket F^3. Now, it will be seen that by loosening the set screws E and E′, the said pivots may be screwed up or down, so as to bring the pivots in the proper position on their sockets to permit the window B to swing properly on the said pivots. When the pivot pins have been adjusted vertically, they are locked in place by screwing up the set screws E and E′. As shown in Fig. 1, the pivots D and D′ are arranged directly opposite each other and somewhat to one side of the middle of the top and bottom sashes of the window B, so that the window can be readily swung into an angular position, the window turning on the said pivots D and D′.

In order to lock the window in an angular position the following device is provided; see Figs. 2, 4, 6 and 7. On the pivot plate F′ is formed a horizontally-disposed segmental plate F^4 formed with a series of apertures F^5 arranged in a circle, the center of which is in the center of the pivot D′. The apertures F^5 are adapted to be engaged by a pin G mounted to slide vertically in a bearing C^4 formed on the front face of the keeper C′, the upper end of the said pin being attached to the free end of a spring H, fastened to the keeper C′. The spring H is in the shape of a flat spring and is provided near its free end with an enlarged part to form a handle H′, for conveniently lifting the free end of the spring to raise the pin G out of contact with one of the apertures F^5 to turn the window on its pivots. When the pin G engages the aperture F^5 near the left corner of the plate F^4, as shown in Figs. 6 and 7, then the window B is closed in the casing A and locked in this position by the pin G. Now, when it is desired to swing the window into an angular position and lock it therein, the operator takes hold of the handle H′, pushes upward to lift the spring G out of the left corner aperture F^5, and then the operator turns the window until the desired angular position is reached, the operator then releasing the pressure on the handle H′, so that the spring H assumes its normal position and moves the pin G downward into engagement with the registering aperture F^5. The pin engaging the aperture plate F^4 holds the window in a locked angular position.

In order to render the window air, water and burglar proof, I provide weather strips I and I′, arranged on the top and bottom of the window B, the said weather strips extending throughout the length of the window and journaled at their ends in bearings J and J′, secured to the casing A, the bearings J being arranged on the inside of the casing, while

the other bearings J′ are arranged on the outside of the casing, as will be readily understood by reference to Figs. 3 and 4. The weather strips I and I′ extend longitudinally in recesses A′ and A² formed in the casing A, at the top and bottom, as plainly shown in Figs. 2 and 4. Each of the weather strips is provided with a longitudinally-extending ridge I³ adapted to engage a longitudinal and correspondingly-shaped recess B′ formed in the top and bottom of the sash of the window B, so that a tight joint is rendered and at the same time a lock is formed with for the window when it is in a closed position. Each of the weather strips I and I′ is provided near its pivot end with a ridge I³ adapted to abut against the face of the casing A at the time the ridges I³ are in engagement with the recesses B′ in the sash of the window B; see Fig. 4. As illustrated in the latter figure, the two weather strips extend in opposite directions, that is, the weather strip I extends outwardly from its pivot end, while the other I′, extends inwardly from its pivot, and both weather strips, when closed, form a very tight joint at the top and bottom of the window and the casing A.

The weather strips I and I′ are pivotally-connected near their free ends and at one side of the weather strip with links K and K′, respectively, pivotally-connected with a lever L on opposite sides of its fulcrum L′, which latter is in one of the sides of the casing A, as plainly illustrated in Fig. 1. The lever L extends transversely a suitable distance into the casing and passes outwardly into the room through a slot N′ formed in the plate N secured to the side of the casing by set screws or other suitable means. When the lever L is in a lowermost position, as shown in Figs. 2 and 4, then the weather strips I and I′ engage with their ridges I³ the recesses B′ to lock the window in place and to form a tight joint, as previously described. The lever L itself is locked in this position by an arm O pivoted on the upper end of the plate N and closing the upper part of the slot N′ at the same time resting with its lower free edge of the top edge of the lever L.

When it is desired to unlock the window by the weather strips I and I′, the operator swings the pivoted arm O to one side, as shown in dotted lines in Fig. 5, and then takes hold of the handle end L² of the lever L and swings this end upward in the slot N′. By doing so, a swinging motion in an upward direction is given to the weather strip I by the link A and simultaneously, a downward swinging motion is given to the other weather strip I′ by the link K′, so that the two weather strips are moved with their ridges I³ out of engagement with the recesses B′ in the window B. The operator after unlocking the pin G as above described, can then swing the window in an angular position for cleaning and other purposes.

As illustrated in Fig. 3, I prefer to make a broken joint between the sides of the window sash and the sides of the casing A, so that the window is also rendered water and air proof at the sides, whenever the window is closed.

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

1. The combination with the frame and the sash of opposed aligned sockets on the frame, pivot plates or bearings on the sash and provided with longitudinally adjustable pivots entering said sockets and transverse set screws extending through the pivot plates or bearings and bearing at their inner ends against the said pivots to hold them in their adjusted position; whereby by adjusting the pivots the sash may be adjusted to swing properly in the frame.

2. The combination with the frame and the sash of the opposed aligned sockets on the frame, pivot plates or bearings on the sash and having threaded apertures and longitudinally adjustable pivots having threaded portions within said apertures and non-threaded ends turning in the said sockets; whereby by turning the pivots to adjust them longitudinally the sash may be made to swing properly in the frame, substantially as set forth.

3. The combination with the frame and sash of the opposed aligned sockets on the frame, the pivot plates or bearings on the sash and provided with threaded pintle apertures and transverse set screw apertures, the longitudinally adjustable pintles having threaded portions within the threaded pintle apertures, and non-threaded ends entering said sockets and set screws extending through the set screw apertures and bearing at their inner ends against the threaded portions of the pintles to lock them against turning in their plates or bearings, substantially as set forth.

4. The combination with the frame and the sash, of the opposed aligned sockets on the frame, the pintle plates or bearings having longitudinally adjustable pintles to provide for the sash properly turning in the frame, a flange extending from one of the plates or bearings at right angles thereto and having a segmental series of apertures and a spring arm on the adjacent socket to one side of the pintle to permit of its adjustment and provided with a pin to engage any one of said apertures, substantially as set forth.

5. The combination with the frame and the sash, of the weather strips each having along one edge a longitudinal ridge or flange to enter a recess in the sash and an oppositely projecting ridge or flange along its opposite longitudinal edge to overlap the edge of the window frame, and an operating mechanism substantially as set forth.

WILLIAM WALLACE.

Witnesses:
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C. SEDGWICK.