No. 617,548. Patented Jan. 10, 1899.

H. M. WILSON.

SHUTTER FASTENER.

(Application filed Aug. 27, 1898.)

(No Model.)

Fig. 1.

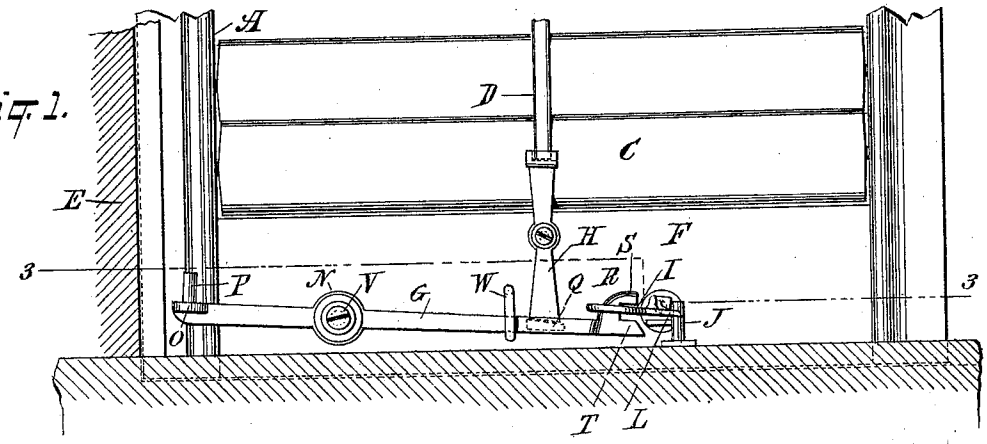


Fig. 2.

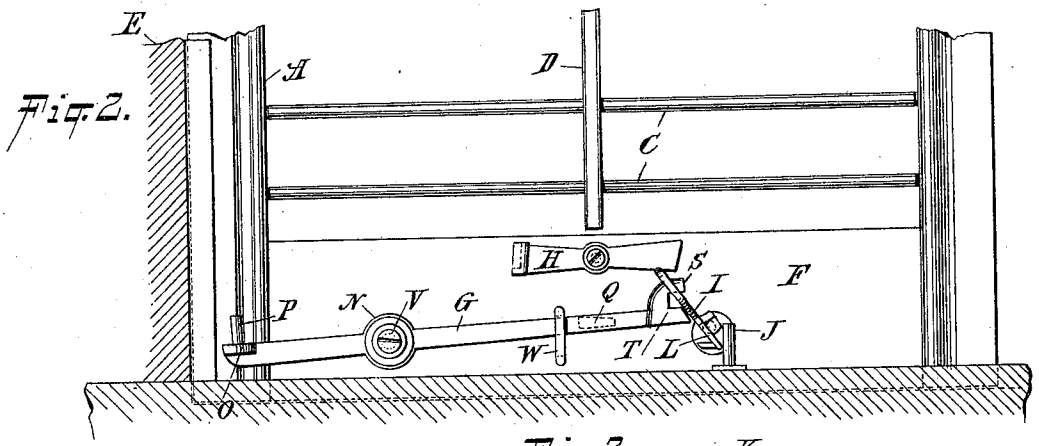


Fig. 3.

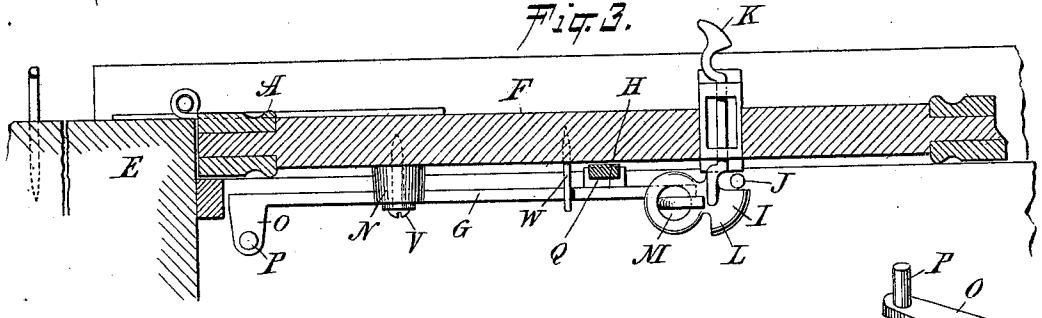
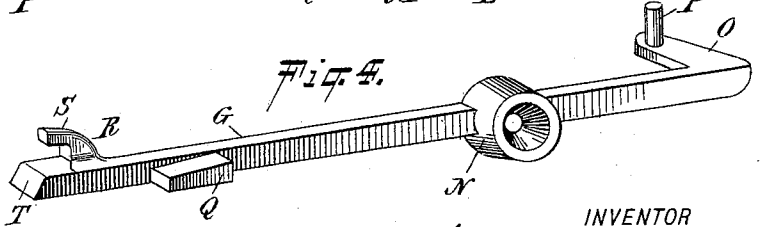


Fig. 4.

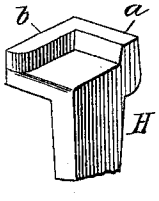


WITNESSES:

William P. Goebel.

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Fig. 5.



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UNITED STATES PATENT OFFICE.

HENRY M. WILSON, OF SOMERSET, MASSACHUSETTS, ASSIGNOR OF ONE-HALF TO CORNELIUS A. DAVIS, OF SAME PLACE.

SHUTTER-FASTENER.

SPECIFICATION forming part of Letters Patent No. 617,548, dated January 10, 1899.

Application filed August 27, 1898. Serial No. 689,636. (No model.)

To all whom it may concern:

Be it known that I, HENRY M. WILSON, a citizen of the United States, and a resident of Somerset, in the county of Bristol and State of Massachusetts, have invented certain new and useful Improvements in Shutter-Fasteners, of which the following is a specification.

The invention relates to improvements in devices for operating and fastening outside shutters or blinds; and it consists in the novel features and combinations hereinafter described, and particularly pointed out in the claims.

The object of my invention is to provide suitable, efficient, and superior means for use in connection with the locking-latches of shutters, whereby the shutter may be securely locked in its closed position, with the Venetian-blind portion of the shutter also locked in its closed position, and whereby also when the shutter has been locked in its open position its latch may be freed and the shutter drawn to its closed position with entire ease and convenience and without the necessity of reaching out of the window to operate the locking-latch.

The invention will be fully understood from the detailed description hereinafter presented, reference being had to the accompanying drawings, in which—

Figure 1 is a front elevation of a portion of a shutter and window-casing equipped with means embodying my invention, the shutter being illustrated in its closed position, with the slat portion also locked closed. Fig. 2 is a like view of same, showing the slats released and the operating-rod tilted upward at its inner end to free the locking-latch from engagement with the catch secured on the window-casing. Fig. 3 is a horizontal section of same on the dotted line 2 2 of Fig. 1 and looking downward on the attachments embracing my invention. Fig. 4 is a detached perspective view of the operating-rod, and Fig. 5 is an enlarged detail.

In the drawings, A designates a portion of a usual shutter provided with the slats C and the rod D therefor, said rod being the usual rod pivotally connected with all of the slats C for operating the latter and forming, with said slats, the usual Venetian blind. The shutter A will, as usual, be hinged to the window-casing E.

Upon the lower bar F of the shutter A are pivotally secured the operating lever-rod G and button H, and said shutter is provided with the pivotally-mounted locking-latch I, whose inner end is adapted to engage and lock upon the usual catch J, found upon window-sills and whose outer end is adapted to engage and lock upon the outer catch when the shutter A is thrown to its open position.

The locking-latch I is adapted to have a limited horizontal rocking or axial oscillatory motion, and is provided at its outer end with the engaging lip K and at its inner end with the engaging lip L and aperture M, the said lips K L being for engagement, respectively, with the usual catch on the outside of the wall and the catch J on the window-casing.

The operating-rod G is formed with the tubular bearing N, by which the rod is sustained at the proper distance from the shutter and through which passes the screw V, by which said rod is pivotally secured to the shutter. At the outer end of the rod G is formed the horizontal inwardly-projecting arm or extension O, and at the outer end of this arm or extension O is formed the vertical arm P. Adjacent to the inner end of the rod G is formed the shelf Q, which is rectangular in outline and extends in close relation to the surface of the shutter. The purpose of the shelf Q will be explained hereinafter. At its inner end the rod G is formed with the head R, having the upper and lower fingers S T, respectively, the end surfaces of the finger T being rounded and operating in the manner of a cam. The operating-rod G is intended to have a limited rocking or oscillatory motion upon the screw V, by which it is secured in place, and said rod during this motion is restrained and controlled by means of the loop or guide W, secured to the shutter and encompassing in a transverse direction said rod G. When in its operative position, the inner end or head R of the rod G will be in engagement with the inner end of the locking-latch I, the upper finger S of said head being projected through the aperture M of said locking-latch and bearing at its outer end upon the upper surface of the said latch,

at one side of the longitudinal center of the latter, while the finger T of said head R is extended below the inner end of the latch I and in position to engage the same at one side of the longitudinal center thereof when the inner end of the rod G is tilted upward to effect that result.

In Fig. 1 the shutter is shown in its closed position, with the slats C locked in their closed position, and under such conditions the inner end of the locking-latch I is in engagement with the catch J on the window-casing and is effectually locked in such engagement by the button H, which is then in its vertical position, with its lower end directly over the shelf Q, formed on said rod G. The button H when in this position effectually resists any effort which may be made to turn the latch I from without for the purpose of releasing it from said catch J. The button H not only secures the locking-latch I in its locked position, but also at its upper end engages the lower end of the rod D, connecting the slats C, and locks said rod and slats against movement, the upper end of the button H thus locking the slats C in their closed position and the lower end of said button locking the rod G and latch I. When the button H is in its vertical position, the finger S of the rod G is held downward upon the upper surface of said latch I, and hence said latch is restrained against movement in either direction and no one at the outside of the window could from the outer end of said latch release said latch from the catch J.

The upper end of the button H is provided with the flanges *a b*, which operate to house the lower end of the rod D, and thereby the more securely lock said rod D in its upper or closed position. The flange *a* on the button H also operates as a stop to check said button when arriving at its proper vertical position.

When it is desired to open the shutter A, the button H will be turned to a horizontal position, as shown in Fig. 2, for the purpose of releasing the rod G and slats C, and thereupon the rod G will be tilted upward at its inner end to cause the lower finger T of said rod to turn the inner end of the locking-latch I upward and free the engaging lip L thereof from the catch J on the window-casing, the shutter being then free to be swung open upon its hinges at will. As soon as the shutter A is started outward the rod G will be released, since the engagement of the lip K on the outer end of the latch I with the catch on the outer wall will automatically effect the proper turning of said latch to insure the engagement of said lip with said catch.

The screw V, securing the rod G, is at the outer side of the center of gravity of said rod, and hence the inner end of said rod is heavier than the outer end thereof and will of its own weight when left unsupported fall downward to the lower side of the loop W to the position illustrated in Fig. 1, and thus the rod G will normally hold the locking-latch in a position to engage either the catch J on the window-casing or the catch secured on the outer wall. The weight and arrangement of the rod G are such, however, as to yield upward at its inner end with the head of the latch I whenever the latter is turned by its contact with the catch J on the window-casing or the catch on the outer wall. The rod G does not, therefore, interfere with the automatic operation of the latch I at the end of the closing movement of the shutter or at the end of the opening movement of the shutter, and thus the ordinary conveniences of the use of an automatic locking-latch I are not interfered with in any sense by the application to the shutter of the operating-rod G and button H.

The rod G and button H are useful when the shutter is closed to lock the latch I and slats C, and when the shutter A is in its open position the rod G is of great utility in that thereby without reaching out of the window the latch I may be tilted free of the outside engaging catch and the shutter may be pulled to its closed position. When the shutter is in its open position, the releasing of the latch I from the outside catch is effected by simply pressing lightly downward upon the outer end of the rod G, the pressure being applied either upon the arm O or arm P or upon the body of the said rod G, and thereupon the latch I having been released the arms O P may be utilized for drawing in the shutter to its closed position. I have found that the arm O and arm P very much facilitate the closing of the shutter A and that in the use of the arms O P the shutter A may be caused to move inward with slight exertion, when with the back of the hand upward the forefinger is caused to press outward upon the arm P and the thumb is pressed against the vertical edge of the shutter A, a leverage being thus created which readily effects the inward movement of the shutter A.

The upward movement of the inner end of the rod G causes the cam-shaped or curved edges of the finger T to move easily against the locking-latch I, and during the downward movement of the said end of the rod G the said cam or curved surfaces of the finger T permit the ready return of the latch I to its normal position, said latch being aided in its return motion by the pressure of the finger S bearing upon its upper side. The finger S, as above described, passes through the aperture M in the latch I, and hence the engagement of the rod G and latch I is properly preserved at all times.

I do not limit the invention to the special axially-revoluble latch I shown in the drawings and above referred to; but it is apparent that the invention is admirably adapted for use in combination with said latch.

It is a desirable characteristic of the present invention that all complexity of parts is avoided in its mechanism and that its parts are both few and simple, easily applied and

operated, and automatic in maintaining the latch in a normal operative position ready to engage either the catch on the window-casing or the catch on the outer wall.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The shutter having a pivotally-mounted latch adapted at its ends to alternately engage the catches provided upon the window-sill and wall respectively, combined with the tilting operating-rod G pivotally mounted upon the inner face of the shutter and extending in one integral piece from said latch, (which it engages to both elevate and depress the inner end of same) to the hinged edge of the shutter whereat said rod is provided with a handle, said rod G having the tubular bearing N at one side of its center to receive the securing-screw V and maintain said rod at a distance from the shutter, and the weight of said rod G holding the said latch normally in position to interlock with the said catches on the sill or wall; substantially as shown and described.

2. The shutter having the slats C and rod D and provided with the latch, combined with the tilting operating-rod G in engagement with said latch and pivotally secured to said shutter, and the button H also pivotally secured to said shutter and adapted to simultaneously lock said rod D and said rod G; substantially as set forth.

3. The shutter having the slats C and rod D and provided with the latch, combined with the tilting operating-rod G in engagement with said latch and pivotally secured to said shutter, and the button H also pivotally secured to said shutter and having the flanges at one end to receive the lower end of said rod D, said button H being adapted to lock both said rod D and said rod G; substantially as set forth.

4. The shutter having the slats C and rod D and provided with the latch, combined with the tilting operating-rod G in engagement with said latch and having the shelf Q, and the button H pivoted to said shutter and adapted to simultaneously engage said shelf and said rod D, the end of said button which engages said rod D being provided with the flanges to receive said rod; substantially as set forth.

5. The shutter having a pivotally-mounted latch adapted at its ends to alternately engage the catches provided upon the window-sill and wall respectively, combined with the tilting operating-rod G pivotally mounted upon the inner face of the shutter and extending in one integral piece from said latch (which it engages to both elevate and depress the inner end of same) to the hinged edge of the shutter, whereat said rod is formed with the horizontal right-angular arm O and, at the end thereof, the vertical arm P, said rod having the tubular bearing N at one side of its center to receive the securing-screw V and maintain said rod at a distance from the shutter, and the weight of said rod G holding the said latch normally in position to interlock with the said catches on the sill or wall; substantially as shown and described.

6. The shutter having the axially-revoluble latch adapted to alternately automatically engage the catches on the window and outer wall, combined with the tilting operating-rod G pivotally secured to the shutter and having at its inner end the fingers S, T, to engage said latch; substantially as set forth.

7. The shutter having the axially-revoluble latch provided on its inner end with the aperture M, combined with the pivoted tilting rod G having at its outer end the arms O, P, and at its inner end the fingers S, T, to engage and operate said latch; substantially as set forth.

8. The shutter having the axially-revoluble latch, combined with the pivoted tilting rod having the fingers S, T, to engage said latch, the arms O, P, and shelf Q, and the button H to engage said shelf and lock said rod and latch; substantially as set forth.

Signed at Somerset, in the county of Bristol and State of Massachusetts, this 23d day of August, A. D. 1898.

HENRY M. WILSON.

Witnesses:

FRANK W. HANLEY,

WM. P. HOOD.