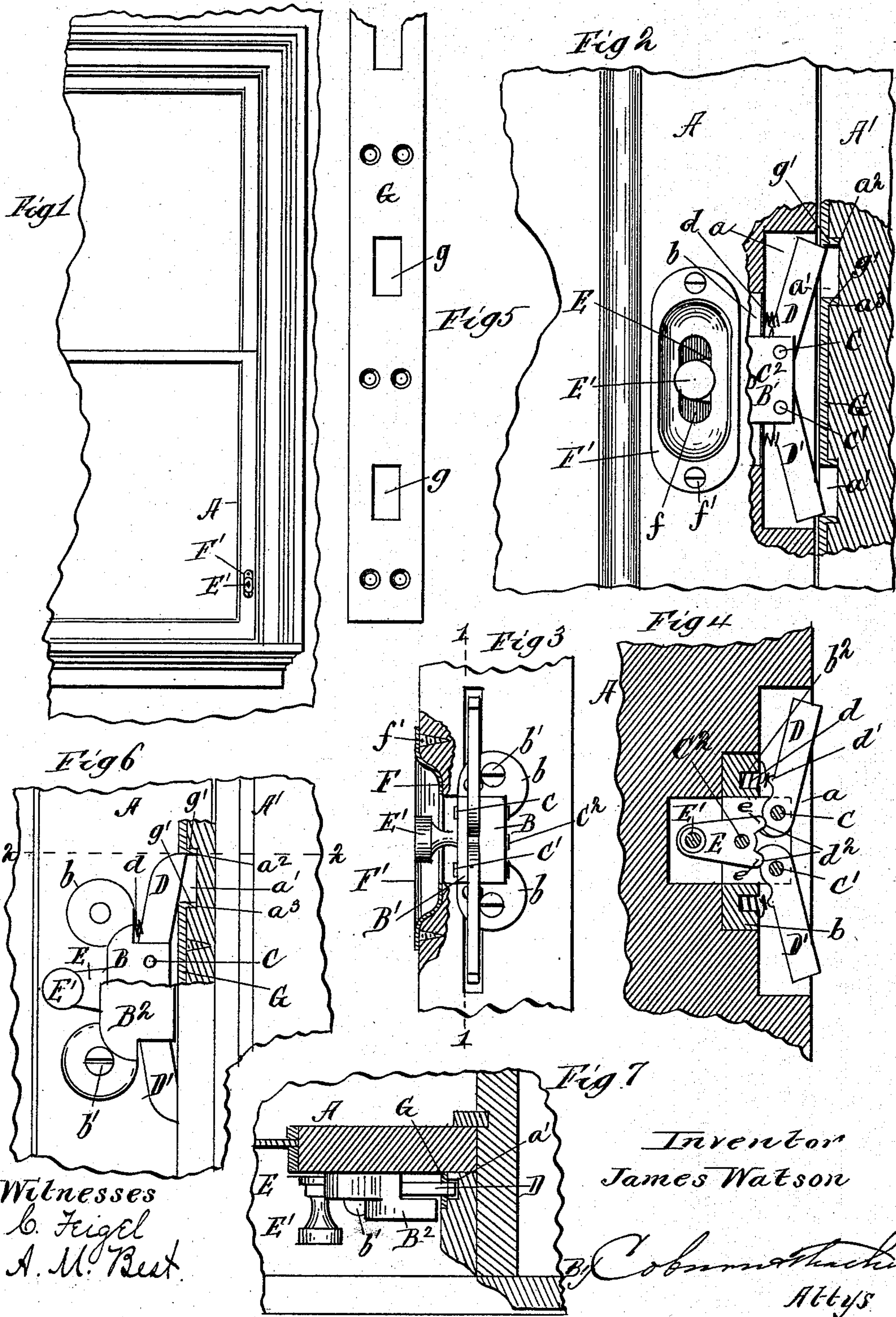


(No Model.)

J. WATSON.
SASH FASTENER.

No. 413,355.

Patented Oct. 22, 1889.



UNITED STATES PATENT OFFICE.

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SASH-FASTENER.

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To all whom it may concern:

Be it known that I, JAMES WATSON, a citizen of the United States, residing at Marinette, in the county of Marinette and State of Wisconsin, have invented a certain new and useful Improvement in Sash Locks and Stops, which is fully set forth in the following specification, reference being had to the accompanying drawings, in which—

10 Figure 1 is a face view of a portion of a window and casing having my improvement applied thereto; Fig. 2, a similar detail view having a portion of the sash-rail and casing broken away to show the construction; Fig. 15 3, an edge view of part of the sash partly broken away and with my improvement attached; Fig. 4, a sectional view taken on the line 1 1 of Fig. 3; Fig. 5, an elevation of the face plate or strip detached; Fig. 6, a view 20 similar to Fig. 2 and showing a modified form of the device, and Fig. 7 a sectional view taken on the line 2 2 of Fig. 6. Figs. 2 to 7, inclusive, are on the same scale with respect to each other, but on a larger scale with respect to Fig. 1.

25 Like letters refer to like parts in all the figures of the drawings.

My invention relates to sash locks and stops, and has for its object to provide a device of 30 this description which shall possess various points of superiority, both in construction and operation, over the devices for similar purposes heretofore employed, and which shall be cheap and simple in construction 35 and effective in operation.

To these ends my invention consists in certain novel features, which I will now proceed to describe, and will then particularly point out in the claims.

40 In Figs. 1 to 4 of the drawings I have shown my improved lock as constructed and organized as a blind or mortise lock. In this construction I form within the side face of the side rail A of the window-sash, which abuts 45 against the casing A', a mortise *a* of a suitable size and shape to receive and conceal the lock.

The lock proper consists of a body portion or seat B, provided with lugs *b*, arranged at 50 right angles to the said body portion at its rear end, and perforated to receive screws *b'*, by means of which the lock is secured to the sash-

55 rail A. The lugs *b* extend beyond the body B, and between them and parallel to the body is arranged a face-plate B', which is connected to the body B by means of three rivets or screws C, C', and C². A space is left between the body B and face-plate B', and in this space are arranged the inner ends of the piv- 60 oted stop-arms D and D', the rivet C forming the pivot of the arm D, and the rivet C' forming the pivot of the arm D'. These arms extend, respectively, upward and downward from the body or seat B, and are thrust nor- 65 mally outward by suitable springs, which springs are preferably very light or weak, so as to offer as little resistance as possible to the operation of the stop-arms, in the manner hereinafter described. These springs may be 70 of any suitable construction and arrangement for their purpose; but preferably I provide for each arm a coil-spring *d*, which rests in a suitable recess *b²* in the corresponding lug *b* of the body portion B, and which bears 75 against the arm, which latter is provided with a projection *d'*, which enters the center of the coil and prevents displacement thereof.

E represents the operating lever or arm, which is preferably pivoted on the rivet C² 80 between the body B and face-plate B'. This lever or arm is provided on each side of its pivot with a toe or projection *e*, which engages a corresponding notch or indentation *d²* of the arm D or D', as the case may be. It 85 will thus be seen that the operating arm or lever E engages both of the stop-arms, these latter being held in engagement with it by means of their springs. The lever E is provided with a knob or handle E', which extends up through a slot *f* in the rail A, the 90 said knob or handle resting in a recess F in the inner face of the said rail and being flush with or below the level of the surface of the said face. Preferably an escutcheon F' of suitable shape to fit within the recess F, and 95 secured to the rail by screws *f'* or in any other suitable manner, is employed to give this portion of the lock, which is the only visible portion when the lock is in position, a neat and finished appearance. 100

The face of the window-casing A' opposite to the rail A, which carries the lock, is provided with a series of recesses *a'*, with which the stop-arms D and D' may engage, as here-

inafter set forth. Each recess a' has of course an upper wall a^2 and a lower wall a^3 , each of these walls forming a stop with which one of the arms engages. Preferably I apply to the face of the casing A' a facing-strip G , constructed as shown more particularly in Figs. 2 and 5 of the drawings. This facing-strip is of metal—preferably iron—and is provided with apertures g , corresponding in size to the recesses a' in the casing, and having flanges g' , which rest against the end walls a^2 and a^3 of the recesses a' to give the same a metallic facing and prevent wear thereof.

The form of lock just described is, as herebefore stated, a mortise-lock, which is flush with the inner face of the sash-rail and the only visible portions of which are the knob or handle E' and the escutcheon F' . This form of lock may be applied to the upper sash as well as to the lower, since it does not project beyond the inner face of the sash-rail. The lock may, however, be constructed and organized as a surface-lock, and I have so shown it in Figs. 6 and 7 of the drawings. In this construction the body B comprises in itself both the seat and face-plate, having a suitable aperture cast in or otherwise formed through the same to receive the stop-arms D and D' and the operating arm or lever E . The lugs b are in this case arranged in the same plane with the body B and not at right angles thereto, so that the lock may be attached directly to the inner face of the sash-rail. A suitable cap or casing B^2 is provided, which covers the body and the adjacent portions of the stop-arms and lever as well as the springs d and protects the same from injury. This cap is secured by the screws b' or in any other suitable manner. The construction and arrangement is in the main the same as that already described in referring to the mortise-lock, the changes being merely such as are necessary to adapt the lock to its changed situation.

The operation of my improved lock and stop is as follows: It will be observed that in its normal position the arms D and D' engage, respectively, with the upper wall a^2 and lower wall a^3 of the respective recesses a' opposite which they happen to be, and thus prevent any movement of the sash in either direction. When the sash is closed, it cannot of course be opened from the outside, since the lock is not accessible from that side. When it is desired to raise the window, the knob or handle E' is pressed upward, when the upper stop-arm D will be withdrawn within the mortise or clear of the recess with which it is engaged, and the sash may be raised to any desired extent. During this upward movement of the sash the lower stop-

arm D' will, by its engagement with the lower walls a^3 of the recesses a' , hold the sash up and prevent its descent when the sash is raised. When it is desired to lower the sash, the knob or handle E' is depressed, when the lower stop-arm D' is withdrawn and the sash may be lowered, as desired. In any position in which the sash may be left the arms D and D' effectually prevent any movement of the sash in either direction until the stop-arms are actuated as desired by means of the knob E' . It will be observed that the said knob or handle is moved in the direction in which it is desired to move the sash, thereby economizing strength and time, since the same force which is applied to move the knob serves also to move the sash. It will also be observed that the stop-arms, although they are controlled by the operating arm or lever, being held in contact with the same by their springs, are capable of yielding independently of the said stop-arm and of each other, and are therefore independent arms controlled by the said operating-lever.

Various modifications in the details of construction may be made without departing from the principle of my invention; and I therefore do not wish to be understood as limiting myself to the precise details herebefore described, and shown in the drawings.

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

1. The combination, with the recessed casing, of the sash-rail provided with a mortise, and the lock arranged within said mortise and consisting of a body portion having pivoted thereto the independent spring-controlled stop-arms extending, respectively, upward and downward, and the operating-lever pivoted to the body, engaging the stop-arms and provided with a knob or handle extending through a slot in the sash-rail and flush with the same, substantially as and for the purposes specified.

2. In a sash-lock, the combination, with the independent spring-controlled stop-arms pivoted at their inner ends, and each provided with a notch or indentation d^2 , of the operating-lever E , provided with the toes e to engage the said notches, substantially as and for the purposes specified.

3. The combination, with the body B , having lugs b with recesses b^2 , of the pivoted arms D D' , and the springs d , arranged in said recesses and bearing against the said arms, substantially as and for the purposes specified.

JAMES WATSON.

Witnesses:

B. F. SIMPSON,
JOHN ROUTLEDGE.