(No Model.)

P. D. MITCHELL.

SASH FASTENER.

No. 533,660. Patented Feb. 5, 1895.

Fig. 1

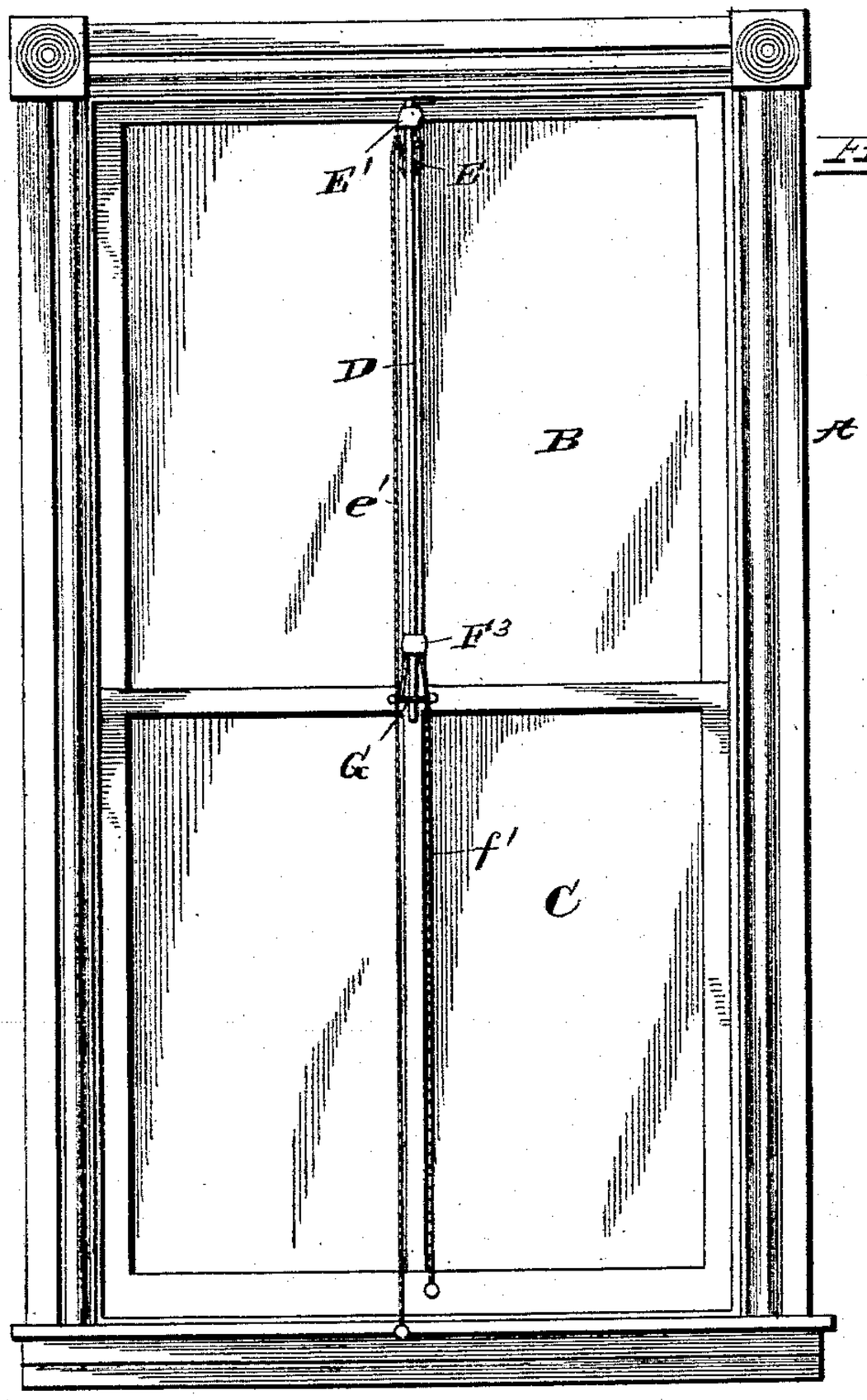


Fig. 2

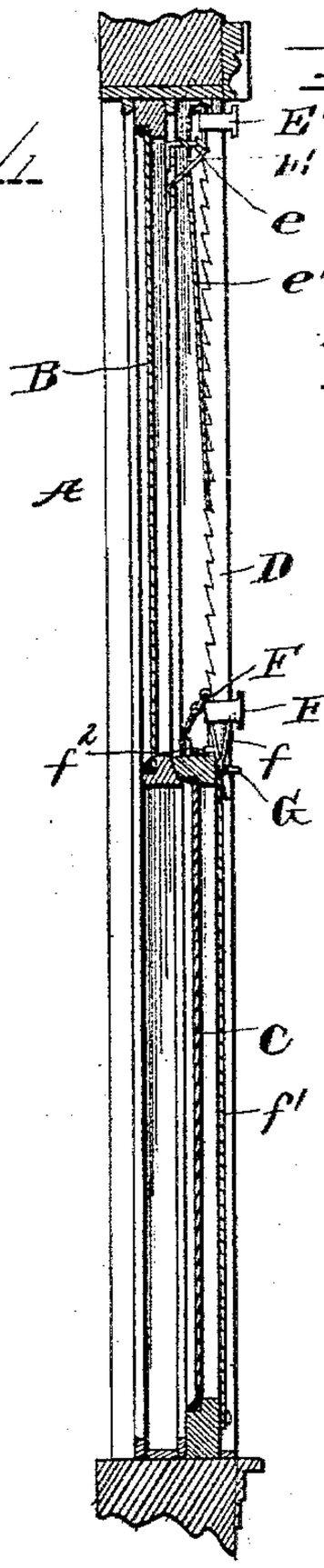


Fig. 3

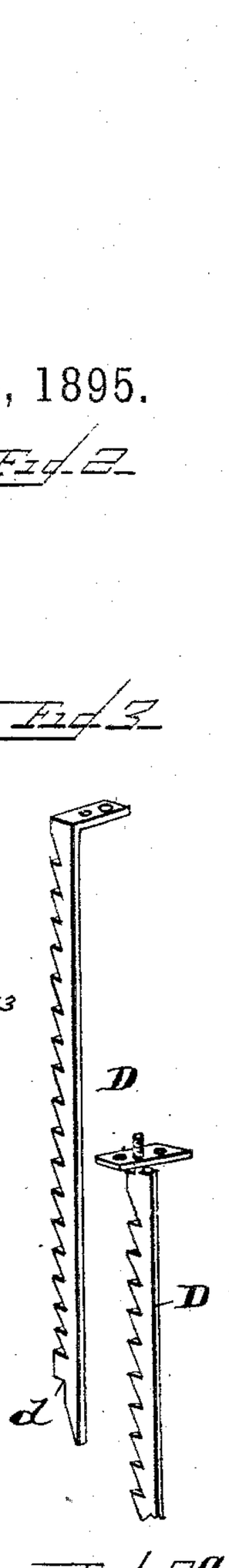


Fig. 3a

Fig. 4

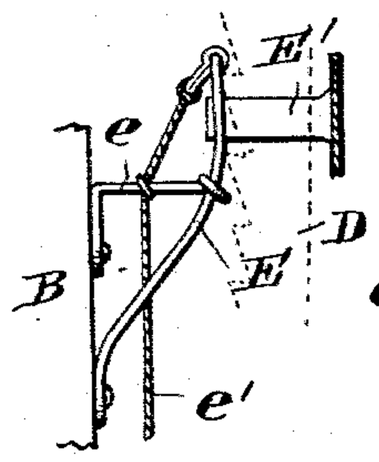


Fig. 5

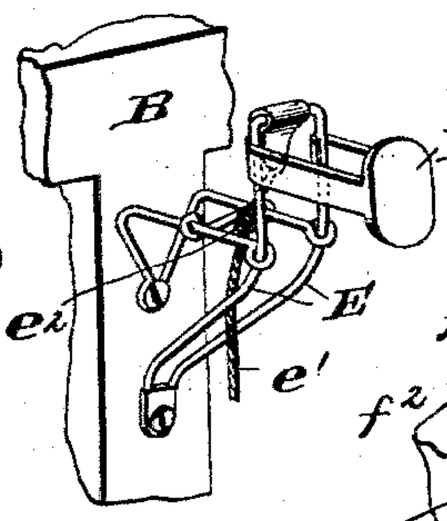


Fig. 6.

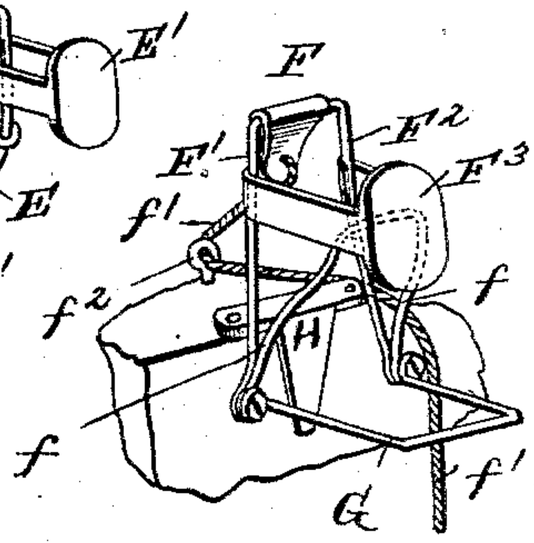
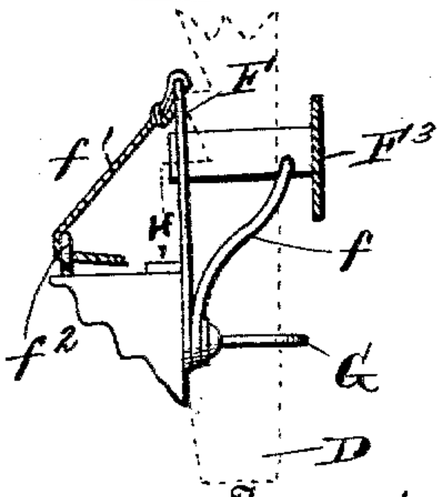


Fig. 7



Witnesses

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UNITED STATES PATENT OFFICE.

PORTER D. MITCHELL, OF EAST LYNNE, MISSOURI.

SASH-FASTENER.

SPECIFICATION forming part of Letters Patent No. 533,660, dated February 5, 1895.

Application filed October 16, 1894. Serial No. 526,022. (No model.)

To all whom it may concern:

Be it known that I, PORTER D. MITCHELL, a citizen of the United States, residing at East Lynne, in the county of Cass and State of Missouri, have invented certain new and useful Improvements in Sash-Fasteners; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to automatic window sash fasteners, and consists in certain peculiarities of construction, which will be illustrated in the accompanying drawings, described in the specification, and specifically pointed out in the claims. Its object is to provide a means whereby both sashes of a window may be held at any desired point of elevation by a single rack, and, when closed, secured against outside opening.

In the drawings which fully illustrate my invention: Figure 1, is a front elevation. Fig. 2, is a vertical section of the same. Fig. 3, is a view of one form of the rack-bar, detached. Fig. 3ª shows another form of attachment of rack bar. Figs. 4 and 5, are detail views of the upper sash mechanism, and Figs. 6 and 7, are similar detail views of the lower sash mechanism.

A, represents the casing of a window.

B, is the upper, and C, the lower sash.

To the upper casing is secured a depending rack or ratchet bar D, usually of metal, and having its upper end bent at a right angle and attached to the under side of the upper casing by screws or nails; but any connection of the said ratchet bar and casing may be made without departing from the spirit of my invention. This ratchet bar is arranged to connect with both the upper and lower sashes and secure them at any point of elevation, and release one or other, or both, at will, and it has near its lower end a right angled shoulder *d*, which passes over the upper rail of the lower sash when the same is closed, and automatically secures it against outside elevation.

In order to raise the lower sash it is only necessary to draw the lower extremity of the rack bar D, away from the window until the angular shoulder is released from the top rail of the sash, when the sash will rise in the usual manner, and be held by the catch mechanism at any desired point of elevation. So, in like manner, the upper sash is locked by the upper tooth of the rack bar, when raised, and may be held at any point when partially lowered.

Secured to the top rail of the upper sash B, is an arm or guide *e*, in which is mounted a spring E, having one extremity secured to the central sash rail, and its other extremity bent upward to engage with the teeth of the rack or ratchet bar D, and a button or push-plate E′, having arms encircling the said rack is secured to the spring E, and by pressing upon the button the spring is released, and the sash lowers, and is held automatically at any desired point by the spring, engaging with one of the rack teeth.

A cord *e′*, attached to the upper end of the spring E, and passing through a loop e^2, on the arm *e*, and therefrom depending, serves to release the spring when the sash B, is raised too high to reach the push button.

Upon the upper rail of the lower sash C, is secured a duplex spring F, having two arms, one F′, carrying a push button F^3, similar to that on the upper sash B, by which the lower sash is locked in place at any desired elevation. The other arm *f*, encircles the rack bar D, and serves to press it against the sash rail, to lock the lower sash when closed. The push button F^3, is pressed toward the sash to release the spring F, from the rack bar when it is desired to lower the sash C, and a cord *f′*, secured to the upper end of spring F, and passing through a ring or loop f^2, on the upper rail of the sash, and thence depending, serves to release the spring from the ratchet bar when the sash is raised too high to be readily reached by the hand.

G, is a guide to control the outer movement of the lower and free end of the rack bar D.

H, is a plate on the upper rail of the lower sash, to prevent cutting the wood.

Either sash when lowered is raised in the usual manner, and automatically secured at any desired elevation. Thus, for the purpose of ventilation, the upper sash may be partially lowered, and the lower sash may, at the same time, be partially raised, and both locked in the desired positions. I am thus enabled to dispense with sash weights and cords, and the objects attained are simplicity of construc-

tion, economy, as well as security from outside opening, when closed, and ability to secure either sash at any desired point of elevation.

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

1. In a window sash fastener, the combination of the rack bar D, secured to the upper casing and depending therefrom in front of both sashes, and provided with the locking shoulder *d*, to engage the lower sash, with the said lower sash; the duplex spring F, thereto secured, having two branches, one F′, attached to the arms of the push plate, and engaging with the teeth of the rack bar, the other *f*, encircling the rack bar; and the cord *f′*, all constructed, arranged and operating substantially as hereinbefore described.

2. In a window sash fastener, the combination of the rack bar D, having a reduced, threaded upper end, adjustably secured to the upper casing, by the screw-threaded plate thereto attached, depending in front of both sashes and provided with the locking shoulder *d*, to engage with the lower sash; the said lower sash C; the duplex spring F, thereto secured, having two branches, one F′, attached to the arms of the push plate and engaging with the teeth of the rack bar, the other *f*, encircling the rack bar; the said push plate F³, and the cord *f′*, all constructed, arranged and operating as hereinbefore described.

In testimony whereof I affix my signature in presence of two witnesses.

PORTER D. MITCHELL.

Witnesses:

J. T. LIGGETT,

C. P. DANWALDER.