

(No Model.)

W. GARDINER.
WINDOW FASTENER.

No. 575,519.

Patented Jan. 19, 1897.

Fig. 1.

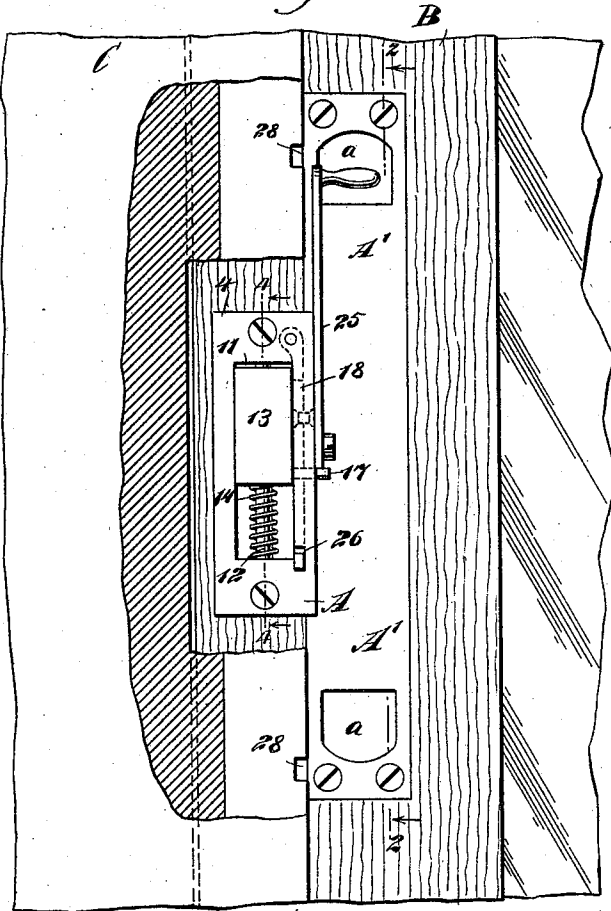


Fig. 2.

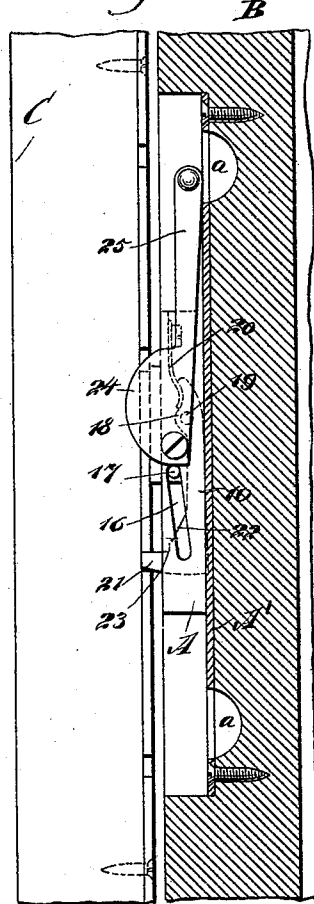
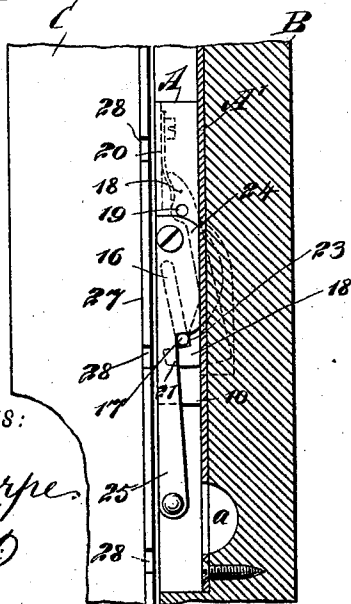


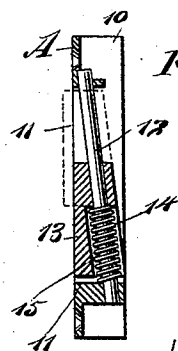
Fig. 3.



WITNESSES:

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Fig. 4.



INVENTOR

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UNITED STATES PATENT OFFICE.

WILLIAM GARDINER, OF ELIZABETH, NEW JERSEY.

WINDOW-FASTENER.

SPECIFICATION forming part of Letters Patent No. 575,519, dated January 19, 1897.

Application filed August 8, 1896. Serial No. 602,161. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM GARDINER, of Elizabeth, in the county of Union and State of New Jersey, have invented a new and Improved Window-Fastener, of which the following is a full, clear, and exact description.

The object of the invention is to provide a window-fastener adapted to effect a secure, ready, and convenient attachment to any window, and which will act to hold the window in an open or in a closed position, and whereby when a lock is applied the window-sash will be prevented from rattling or moving in the window-frame.

A further object of the invention is to construct a window-fastener which will be exceedingly simple, durable, and economic.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claims.

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

Figure 1 is a front elevation of a portion of a window-sash and a partial side elevation of that portion of the frame in which the sash has movement, parts of the frame being broken away to illustrate the application of the fastener, the fastener being shown in face view as applied to a window-sash, and the keeper-plate which is attached to the window-frame being broken away. Fig. 2 is a vertical section taken on the line 2 2 of Fig. 1, illustrating the window as locked to the frame. Fig. 3 is a view similar to Fig. 2, illustrating the fastener in position to admit of the window being moved in the frame; and Fig. 4 is a vertical section taken longitudinally through the main portion of the fastening device and practically on the line 4 4 of Fig. 1.

In the construction of the main portion of the fastener a casing A is employed, comprising a face-plate and flanges 10, formed at the sides of the face-plate, being at a right angle thereto. A longitudinal opening 11 is made in the face-plate, as is best shown in Fig. 1, and a pin 12 is located in the casing, extending from the top portion of the opening 11 to the bottom portion thereof, and the said pin at the top is near the front of the face-plate,

but at the bottom is removed some distance backward therefrom, whereby the pin, as shown in Fig. 4, is given a downward and inward inclination. A block 13 is held to slide on this pin, and the outer or front face of the block is at all times in the same plane or parallel with the front of the face-plate.

A spring 14 is coiled around the pin 12, and this spring is partially located within a compartment 15, formed in the back of the block 13, as is also best shown in Fig. 4, the spring having a bearing against the upper wall of the said compartment and against the bottom horizontal portion of the casing. A slot 16 is made in the lower portion of the outer flange of the casing, as illustrated particularly in Fig. 2, and this slot has a corresponding inclination to the inclination of the pin 12, the slot being practically parallel with the pin, and a stud 17 is projected from the outer side of the block 13 and is made to enter and slide in the said casing-slot 16, as shown in Figs. 2 and 3.

A latch 18 is pivoted within the casing to the inner face of the right-hand flange 10, near the upper portion of the front opening 11 in the casing, the pivot-pin being indicated in the drawings by the reference-numeral 19, and a spring 20 has bearing upon the front edge of the upper portion of the latch 18, above its pivot, whereby a head 21, which is formed at the lower end of the latch, will be normally forced outward through an opening 26 in the side of the front portion of the casing and preferably communicating with the main opening 11, as shown in Fig. 1.

An inclined surface 22 is formed upon the front edge of the latch adjacent to its head 21, and separated from the head by a shoulder or straight surface 23, as shown in Fig. 2, and when the head of the latch projects from the casing A the inclined surface 22 will cross the side slot 16 in the casing, as is also shown in Fig. 2.

A cam 24, the bearing-face whereof is more or less segmental, is pivoted above the upper end of the casing-slot 16, and this cam has constant bearing on the stud 17, projecting from the block 13, which slides in the casing. The cam has a handle 25 attached thereto, and when the handle is in an upper position, as shown in Fig. 2, the stud 17 of the sliding

block will be near the pivot-point of the cam and the cam will have permitted the stud to enter the upper portion of the casing-slot 16, and the spring 20 of the latch will then act to throw its head 21 outward and beyond the casing, and as the stud 17 rises the block 13 will also rise and will reach the upper forwardly-inclined portion of the pin 12, whereupon the outer face of the block will be beyond the front face of the casing, as shown in dotted lines in Fig. 4 and in Fig. 2, and in this position the block will bear against the window-frame C, the casing being attached to the window-sash B in such manner as to prevent the sash from having lateral movement in the frame.

A wear-plate A' is secured to or made integral with the inner side flange of the casing, and this wear-plate is countersunk in the upright rail of the window-sash outside of that portion which will travel in the groove of the window-frame; but the casing will have been placed upon that portion of the window-sash which travels in the sash-groove of the frame. The wear-plate, it will be understood, is provided with a suitable opening through which the cam may extend, and at the top and bottom portions of the wear-plate recesses or cavities *a* are produced, in order that the handle of the cam may be readily grasped when in either its upper or its lower position.

A locking or a keeper plate 27 is secured upon that wall of the sash-groove in the window-frame which will be opposite the front face of the casing, and in the outer edge of this keeper-plate a series of recesses 28 is produced. These recesses are so placed that when the window-sash is closed and the handle of the cam is carried to the upper position (shown in Fig. 2) the head of the latch will enter the lowermost recess in the keeper-plate, and as the sash is raised to various points it may be supported by causing the latch-head to enter one or the other of the upper keeper-recesses, since when the latch is in its locking position the block 13 is forced outward and said block will engage with the keeper-plate and prevent rattling of the sash. When the sash is to be raised or lowered, the handle of the cam is carried downward to the position shown in Fig. 3, and in moving the cam downward it will carry with it the block 13 by depressing the stud 17 of the latter, and as the stud reaches the inclined surface 22 of the latch it will force the latch inward, and when the latch-head has reached its innermost position, also shown in Fig. 3, the stud will be in engagement with the shoulder 23 of the latch-head, holding the said head entirely within the casing and permitting the sash to be raised and lowered as freely as if the block were not used in connection therewith.

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

1. A window-fastener, consisting of a casing

provided with an inclined slot, a block mounted to slide on an inclined guide in the said casing and provided with a projection engaging the said inclined slot, the said block at one point in its movement extending beyond the front face of the casing and at another point being substantially flush with the said front face of the casing, a device for operating the said block, and a latch adapted to be engaged by the projection on the said block and operated when the block is carried to its withdrawn position, as and for the purpose set forth.

2. A window-fastener, consisting of a casing having an opening in its front face, a block mounted to slide in the said casing, and which at one point in its movement extends beyond the front face of the casing and at another point is substantially flush with the said front face of the casing, a latch operated by the movement of the said block, and a cam operating upon the said block, as and for the purpose set forth.

3. A window-fastener, consisting of a casing having an opening in its front face, and provided with an inclined slot, a block mounted to slide in the said casing, and which at one point of its movement extends beyond the front face of the casing and at another point is substantially flush with the said front face of the casing, the said block being provided with a stud engaging the said inclined slot in the casing, and a cam engaging the said stud for operating the block, as and for the purpose described.

4. A casing having an inclined slot and provided with a sliding frictional surface, which surface at one point in its movement is beyond the front face of the casing and at another point is withdrawn from the said front face, the said frictional surface being provided with a projection engaging the said slot in the casing, a latch having an inclined surface adapted to be engaged by the said projection, the said latch being operated by the movement of the frictional surface when carried to its withdrawn position, and a cam operating upon the surface, as and for the purpose set forth.

5. A window-fastener consisting of a casing having an opening in its front face, a pin having a downward and inward inclination and extending longitudinally of the said front opening in the casing, a sliding friction-face having movement on the said pin, the outer portion of the said friction-face being parallel with the outer face of the casing, a latch operated by the movement of the friction-face, and a cam operating upon the said friction-face, as and for the purpose set forth.

6. A window-fastener consisting of a casing having an opening in its front face and provided with an inclined slot, a pin having a downward and inward inclination and extending longitudinally of the said front opening in the casing, a sliding friction-face having movement on the said pin and provided with

a stud working in the slot of the casing, the
outer portion of the said friction-face being
parallel with the outer face of the casing, a
latch operated by the movement of the fric-
5 tion-face, a cam operating upon the stud of
the said friction-face, a spring having bearing
against the friction-face and compressed
when the said face is operated by the said
cam, and a tension device connected with the
10 latch, operating to normally force the latch

outward beyond the casing, the said project-
ing portion of the latch being adapted for en-
gagement with a keeper, and the friction-face
being adapted for engagement with a surface
opposed to the front face of the casing, as and 15
for the purpose specified.

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Witnesses:

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DYE VINCENT WELSHAW.