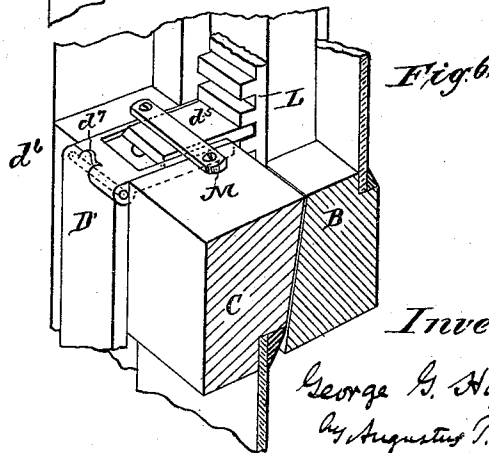
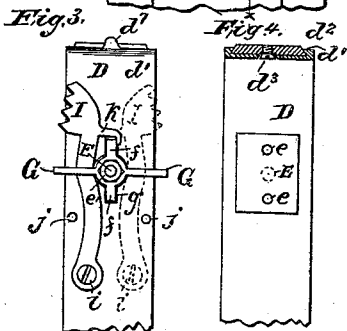
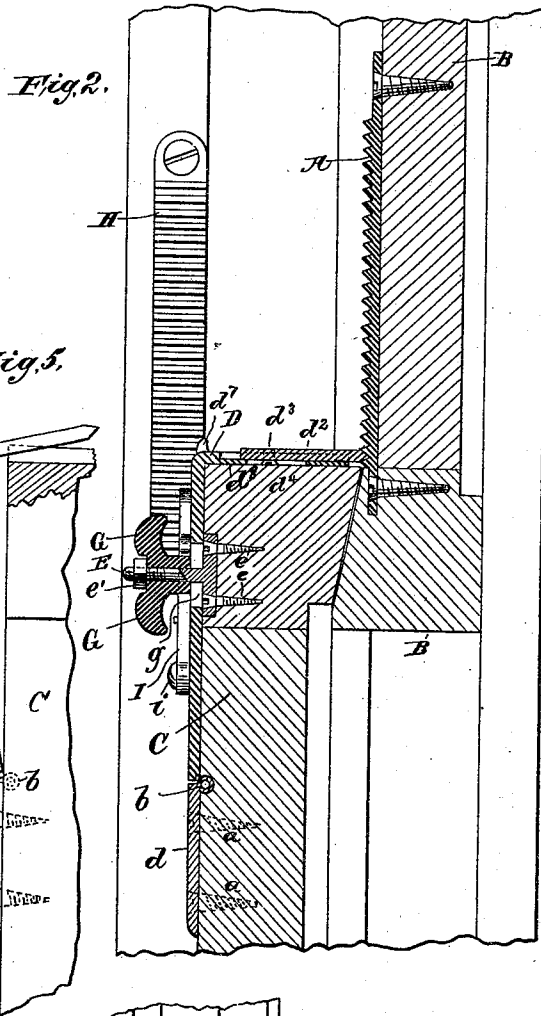
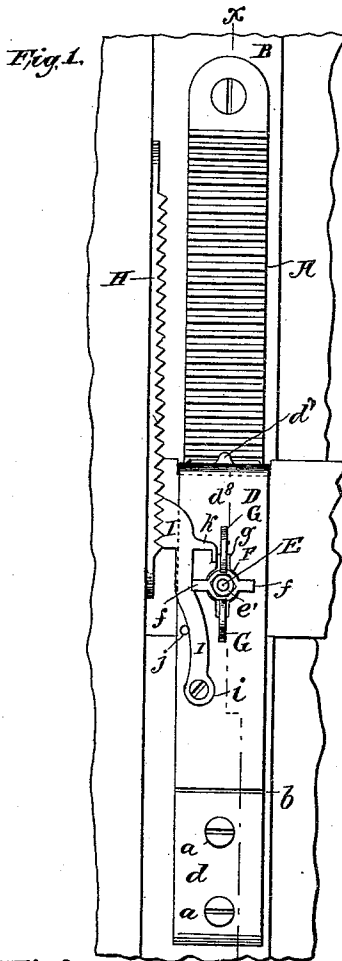


Patented July 26, 1892.



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UNITED STATES PATENT OFFICE.

GEORGE G. HOPKINS, OF BROOKLYN, NEW YORK.

SASH-FASTENER.

SPECIFICATION forming part of Letters Patent No. 479,595, dated July 26, 1892.

Application filed March 24, 1892. Serial No. 426,186. (No model.)

To all whom it may concern:

Be it known that I, GEORGE G. HOPKINS, a citizen of the United States, residing in the city of Brooklyn, in the county of Kings and State of New York, have invented a certain new and useful Sash-Fastening Device, of which the following is a full, clear, and exact description and specification, reference being had to the accompanying drawings, and to the letters of reference thereon, which form part of this specification.

My invention relates to an improved device by means of which the sashes of windows may be locked to each other in varying positions, and which, furthermore, is so constructed that when desired the sashes as locked to each other may also be locked in position to the window-casing.

In the drawings, Figure 1 is a front view of a portion of a window-casing and of the two sashes, showing the sashes locked together and also to the window-casing. Fig. 2 is a side view of the window casing and sashes, the sashes and the locking device being shown partly in section. Fig. 3 is a front view of a portion of the locking device. Fig. 4 is a back view of the same. Fig. 5 is a side view of a modified form of the locking device. Fig. 6 is a perspective view of another modified form of a part of my invention.

Similar letters of reference indicate like parts in all the drawings.

One example of this device for fastening the sashes to each other consists of a receiving portion, as the ratchet-strip A, which is to be suitably secured to one of the sashes B, in the path of the other sash, but so that the other sash may pass by it. To engage with this ratchet-strip A, the other sash C is provided with a detent to enter the depressions in the ratchet-strip A and interlock therewith. This detent d^2 is part of the angle-piece D, one member of which d is firmly secured to the sash C, as by screws $a a$. At a convenient point on the angle-piece D a hinge b or other suitable connection is provided, allowing for the projection and retraction of the part d' and the locking part d^2 , so as to permit engagement with the ratchet-strip A and the withdrawal therefrom of the locking part d^2 . To hold the locking part d^2 into the ratchet-strip A, a stem portion E is provided.

This portion is to be firmly secured to the sash C, as by screws $e e$. On this stem portion E a sleeve F (see Fig. 1) is mounted, said sleeve F being so adjusted that it may rotate upon the stem E, and it is held in position on such stem by the nut e' . This rotating sleeve F is provided with a handle or thumb-screw-like portion G G, and is further provided with projections $f f$ of a size and configuration corresponding to an opening g , provided in the movable part d' of the angle-piece D, so that the part d' may be moved away from the sash C and the part d^2 drawn out of engagement with the ratchet-strip A when the projections $f f$ are disposed in the path of the opening g as the part d' is moved away from the sash. The scope of motion of the part d' upon the stem portion E may be limited by making the hinge b a stop-hinge, or by the handle G, which projects against the face of the part d' and prevents motion away from the sash. The adjustment of the device is such in position on the sash that when the part d' lies flat against the sash C the part d^2 will be engaged in one of the notches of the ratchet-strip A, and the projections $f f$ are then just beyond the face of the part d' , so that by turning the handle G the projections $f f$ will be brought out of alignment with the opening g and rest against the face of the portion d' , thereby holding the part d' against the face of the sash and locking the engaging portion d^2 into the ratchet A at the desired point. This example of my invention is adapted for use on center-bar sashes—that is, window-sashes having the sash divided by an upright portion in the center—or it may be affixed to one or both sides of the sash-frame, as desired, the ratchet-bar A being disposed opposite to the locking part d^2 on the other sash.

In the examples of my invention shown in Figs. 1 to 4 the engaging portion d^2 is shown adjustable on the horizontal portion d^3 by means of a screw d^4 , which may be secured at some point in the slot d^4 , so that a device having this adjustable feature may be employed upon sashes of varying thickness, and as the sashes shrink or expand the engaging part may be adjusted to reach such shrinkage, and thereby, when the sashes are locked, the engaging parts, pressing firmly against each other, will prevent the rattling of the sashes.

When such device is intended to be employed with sashes of regulation size or when for any reason no adjustable device is required at this point, the horizontal portion d^3 of the limb d' may be made of a size appropriate to fit the particular width of sash upon which it is designed to use the same, as shown in Fig. 5.

The device heretofore described will be found to make a secure and rigid fastening to secure the sashes of windows to each other at the desired point on the ratchet-strip A.

For the purpose of applying my invention to the locking of the sashes in position on the window-case a ratchet-strip H is provided on the side of the window-casing nearest that to which the angle-piece D is secured, and to engage with this ratchet-strip H a toothed lever I is pivoted upon angle-piece D, as by a screw i . This toothed lever is so adjusted that by forcing it sidewise against the ratchet-bar H its teeth will enter the ratchets on that bar. To hold the parts in engagement with each other, the projections $f f$, which hold the angle-piece D against the window-casing, are made of such size as that the end of one of them will press against the edge of the lever I and hold it in position engaged with the ratchet-bar H. The toothed lever I is provided with a hook portion k , between which and the lever the projection f moves, and in such manner that when the handle G is turned to draw the projections $f f$ against the face of the angle-piece D one of such projections f will bear against the edge of the lever I and push it outward and its teeth into engagement with the ratchet-bar H, and hold it there in position engaged, as shown in Fig. 1, and when the handle G is turned to bring the projections $f f$ into alignment with the slot g , in order to unlock the sashes, the projection f will meet in its path toward the slot g with the inner side of the hook k and withdraw the toothed lever I from engagement with the ratchet-bar H and into the position shown in Fig. 3. The hook k may be omitted, if desired, and the lever I drawn back by the fingers. When that is done, a pin, as j , may be provided on the angle-piece D to limit the scope of motion of the lever I.

The arrangement shown in Fig. 1 is adapted to be applied to the left-hand side of the window-frame. Where it is to be used on the right-hand side of such sash, all that will be necessary to do will be to reverse the lever I upon the angle-piece D, as shown by the dotted lines in Fig. 3.

In Fig. 6 I illustrate another example of my invention, in which the engaging portions of the ratchet-bar, instead of being made V shape, are made square and of a greater depth than the ordinary ratchets, if desired. In this example, L represents a portion of such a ratchet-strip. D' is an angle-piece similar to the angle-piece D, but having the horizontal limb d^5 hinged at the point d^6 . By this arrangement there is a hinged joint at d^6 as well as at b . To strengthen the detaining portion d^5 in its position on the sash C, a suitable metal strap M is secured above its plane of motion, as shown in Fig. 6.

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

1. A device for fastening sashes to each other in varying positions, consisting of a ratchet-strip, as A, adapted to be secured to one sash, a suitable detent, including an adjustable part d^2 and adjusting-screw d^3 , adapted to be secured to the other sash and to engage with such ratchet-strip A, and a suitable device, as the projections $f f$, adapted to hold the part d^2 in engagement with the ratchet-strip A at any desired point, substantially as described and shown.

2. In a device for fastening sashes to each other and to the window-casing, a ratchet-strip A, secured to one sash, a detent adapted to engage with such ratchet-strip A, and a locking device, as the projections $f f$, moving on the stem E, adapted to hold the detent in engagement with the strip A, in combination with a suitable ratchet-strip, as H, disposed on the window-casing, and a suitable locking device adapted to engage with the ratchet-strip H and to be held in engagement therewith by the projections $f f$, substantially as described.

3. A sash-fastening device adapted to secure a window-sash rigidly in position at varying points in the window-casing, consisting of a ratchet-strip H and a suitable toothed lever I, adapted to engage therewith, disposed on the sash-frame, in combination with a ratchet-strip A, disposed on the other sash-frame, and a suitable detaining device adapted to secure the sashes to each other at varying positions of such ratchet-strip A, and a locking device, as the projections $f f$, moving upon the stem E, substantially as described.

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