

(No Model.)

J. H. DICKSON.
SASH FASTENER.

No. 528,769.

Patented Nov. 6; 1894.

Fig. 1.

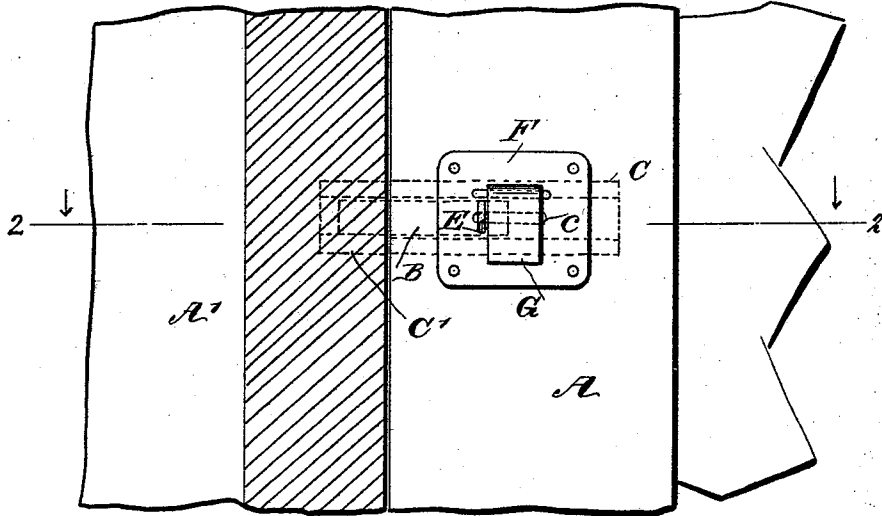


Fig. 2.

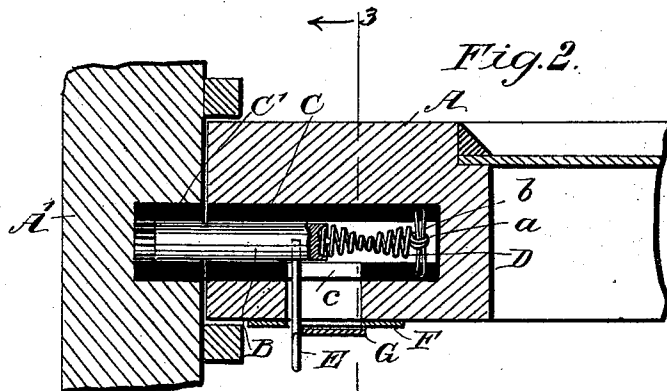
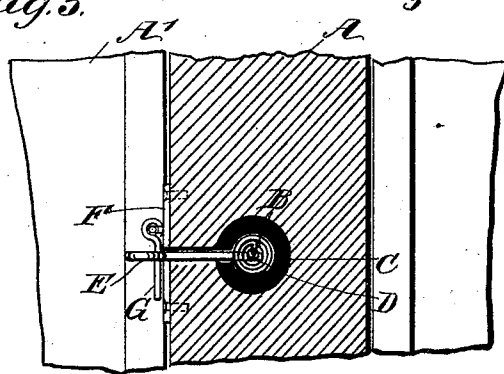


Fig. 3.



WITNESSES:

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Fig. 4.



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SASH-FASTENER.

SPECIFICATION forming part of Letters Patent No. 528,769, dated November 6, 1894.

Application filed September 22, 1893. Serial No. 486,159. (No model.)

To all whom it may concern:

Be it known that I, JOHN H. DICKSON, of New Philadelphia, in the county of Tuscarawas and State of Ohio, have invented a new and useful Improved Sash-Lock, of which the following is a full, clear, and exact description.

This invention relates to an improved sash lock of the slide bolt type, and has for its objects to provide a novel, simple and inexpensive sash securing device, which is adapted for application to the upper and lower sashes of a window, and that will afford means to sustain or lock either sash in a partly open condition or completely closed, and that will be proof against release from the exterior of the window when in a locked condition.

To these ends my invention consists in the construction and combination of parts, as is hereinafter described and claimed.

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

Figure 1, is an inner side view of a sash and casement in part, with the improvement in position, and adjusted to lock the sash to the casement. Fig. 2, is a sectional plan view, on the line 2—2 in Fig. 1. Fig. 3, is a transverse sectional view on the line 3—3, in Fig. 2; and Fig. 4, is an enlarged side view of a detail of construction of the improvement.

In the drawings, A represents a portion of a side bar of a window sash, and A' the adjacent portion of the window casement.

At any suitable point on the casement and side bar of the sash that it is desired to secure the improved locking device, a cylindrical socket of proper depth, is formed in the vertical face of the casement directly opposite the edge of the side bar, which latter in service is adapted to slide in loose contact with the face of the casement.

If the sash securing device is to be arranged to retain the sash in a completely closed condition, whether such sash is an upper or a lower one, the side bar A, is perforated from its edge inwardly, a correct depth to receive the locking device, and at a point which will align said perforation with the socket in the casement, the aligned sockets being of an equal diameter.

A slide bolt B, is provided, and consists of

a cylindrical bar having proper dimensions for efficient service, its diameter being so proportioned to that of the sockets in the side bar of the sash and the casement, that a tubular elastic lining C, may be introduced within the socket in the sash bar, said lining having a proper thickness and such an interior diameter as will afford a close fitting envelope for the slide bolt when the latter is introduced therein.

A sufficient space should intervene between the inner end of the bolt B, and the bottom of the socket in the side bar of the sash, to afford room for the proper longitudinal movement of the bolt within the lining C, that extends the full depth of the said socket. The inner end of the bolt B, is cupped and a steady pin is either integrally formed at the axial center of the bolt in said cupped formation, or may be secured at the indicated point, so as to project a short distance from the end of the bolt.

The double conical spiral spring D, is preferably used as a cushion for the inner end of the slide bolt B, and for its outward projection, one end of the spring being inserted in the cupped cavity of the bolt, and engaging the steady pin. Preferably the spring is made of spring wire that is coated to prevent rust, or brass spring wire may be used.

The spring D, is of such a proportionate length, as will locate its inner end close to the bottom of the socket it occupies, and at said terminal there is formed an integral ring eye *a*, which is adapted to receive the spring keeper bar *b*, that is preferably formed of wire doubled to produce an elastic key that will be retained in proper engagement with the ring eye, by its own resilience.

The ends of the keeper bar *b*, are embedded in the elastic lining piece C, as shown in Fig. 2, thus retaining the spring centrally located within the bore of the lining piece in a way that will prevent the rotation of the slide bolt B. A longitudinal slot *c*, is formed in the wall of the lining piece C, of a proper width and length to allow the pusher bar E to be freely inserted and traverse the slot.

The pusher bar is preferably provided with a grip piece or flat circular enlargement on one end, and a thread on the other end portion, the latter being adapted to engage a tapped hole

in the side of the slide bolt near its inner end, so as to be removable therefrom. The pusher bar is made of a correct length to permit it to extend through a slot in the side of the sash bar A, that is cut to correspond with the slot *c* and form a part of said slot, the grip piece of the pusher bar being thus exposed at the side of the sash conveniently for manipulation when the slide bolt is to be retracted, the pressure of the spring D, serving to normally project the outer end of the slide bolt beyond the edge face of the side bar.

The manner of connecting the spring D with the slide bolt B, and lining piece C by the transverse spring keeper bar *b*, serves to prevent the bolt from having a rotatable movement when it is slid to lock or release the sash, so that the hole in the bolt which is provided to receive the pusher bar E, will always lie opposite the slot *c*, and the insertion of the pusher bar will be permitted at any time if it is removed.

An escutcheon plate F, forms a facing for the protection of the wood of the sash side bar A, whereon it is secured by pins or screws, so that a slot in the plate will correspond with and form a part of the slot *c* before mentioned, the shank of the pusher bar E, being inserted through this plate when it is introduced for connection with the slide bolt B.

The bar E may be formed as a key and be carried in the pocket ready for use.

A locking plate G, is hinged at its upper edge, on a pintle-like bearing that projects (Fig. 1) from the plate, F. The length of said bearing is greater than the width of the plate G, and the latter is adapted to slide thereon. The plate, G, is normally pendent, but may be raised and slid laterally, to adapt it to engage the pusher bar, E, on either side, for the purpose of holding the bolt, B, in either locking or retracted position.

The socket-hole in the casement A', has an elastic tubular lining piece C', inserted within it, that is proportioned to fit tightly therein, its bore being of an equal diameter to that of the lining piece C, so that the projection of the slide bolt, into the lining piece C', will effect the secure locking of the sash bar A, to the casement A', which adjustment of the bolt will be automatically effected when the sash is slid so as to align the bores of the lining-pieces C, C', owing to the expansion of the spring D.

If preferred, one of the improved sash locks may be placed on each side bar of a sash, and the upper and lower sashes of a window may be so provided with the improvement.

Any desired number of socket-holes may be formed in the face of the casement for each slide bolt, to permit the sashes to be secured at different points of elevation or depression, such sockets being arranged oppositely in pairs to facilitate the action of the sash locks, and all provided with the linings C, C'.

In use, when the sash is to be locked com-

pletely, or at a desired point of open adjustment, the bolts B are caused to enter the proper socket-holes in the casement, and the locking plate G, is allowed to hang in the position indicated in Figs. 1 and 3, the pusher bar E, being turned so that the grip piece will have a flat side opposite a side edge of the locking plate.

The position of the pendent locking plate G, will prevent the bolt B, from receiving retractive movement, to effect which the locking plate must be thrown upwardly and the bolt slid back against the stress of the spring D, the latter being compressed so as to allow the bolt to be completely removed from the socket-hole in the casement, the peculiar double conical form of the spring permitting its compression to be readily effected.

Should it be desired, the slide bolt B, may be retained in retracted adjustment by allowing the locking plate G, to hang pendent with its edge that is farthest from the casement in engagement with the pusher bar E, which will retain the bolt withdrawn from the socket-hole in the casement until the plate G, is elevated the spring D, being then fully compressed.

It is claimed for this improved sash lock, that owing to its position on the sash, and manner of adjustment, tampering with the sash lock from the exterior of a window having the improvement applied, will be prevented, as the linings of the holes in which the slide bolts work, prevent a burglar from locating the lock by shaking the sash, the elasticity of these envelopes obviating the rattling of the bolts.

It will be seen, that if extra security is desired, this can be obtained by a removal of the pusher bar E from the slide bolt B, after the window sash is in a locked condition, the retraction of the slide-bolt being then prevented from within or without, until a similar pusher bar is employed to release the latter from an engagement with the socket hole in the window casement; and as the insertion of a pusher bar from the outside of the window would be very difficult, if not impossible when the window is closed, it will be evident that a very secure sash lock is afforded by the improvement.

The sash lock is durable, easy to apply to a window, and of an inexpensive construction, and the metal parts being coated with any preferred non-oxidating material, remain sightly and present a neat appearance, rendering the improvement valuable, and practical in service.

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

1. In a sash lock, the combination, with the socketed side bar of a sash, and a socketed casement, of a slide-bolt, a re-acting spring fast to one end of the bolt, a securing device for the other end of the spring that prevents

a rotation of said spring, and a pusher bar removably engaging the slide bolt through a slot of the sash, substantially as described.

2. In a sash lock, the combination with a socketed side-bar of a sash, and a socketed casement, of rubber socket linings for the sockets in said bar and casement, and a slide bolt adapted to be longitudinally moved in the linings, substantially as described.

3. In a sash lock, the combination with the socketed side-bar of a sash, a socketed casement, and a tubular lining for these sockets, of a cylindrical slide-bolt, a reacting spring fast to the rear end of the bolt, a transverse spring keeper bar engaging the spring and the lining of the sash socket, and a pusher bar detachably engaging with the slide bolt

through a slot in the sash, substantially as described.

4. In a sash-lock the combination with the sliding locking bolt, its laterally-projecting pusher bar and a spring acting on said bolt, of a pendent locking plate which is hinged at its upper edge and adapted to slide on the pintle or bearing therefor, as shown and described, whereby it is adapted to be raised and adjusted laterally and dropped into engagement with either side of the pusher bar, as and for the purpose specified.

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Witnesses:

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