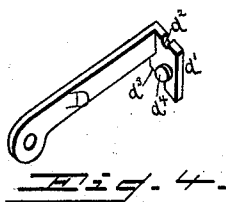
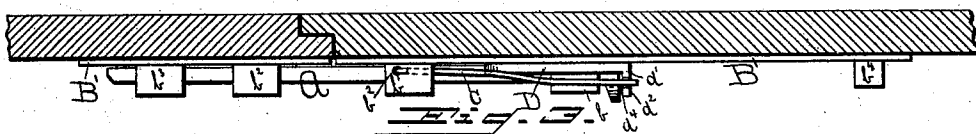
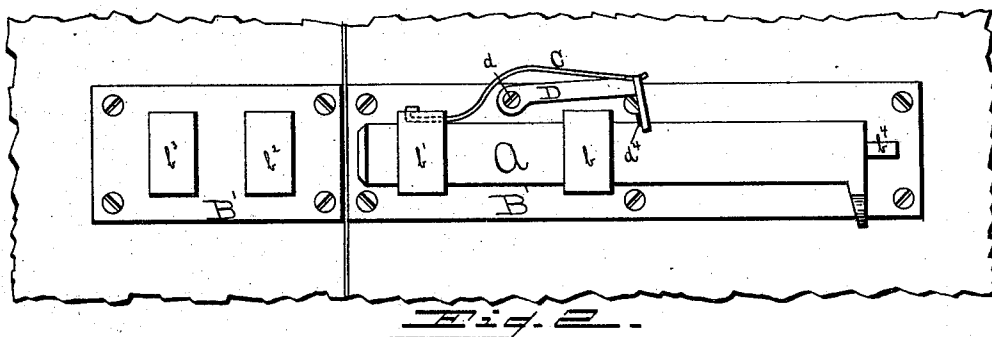
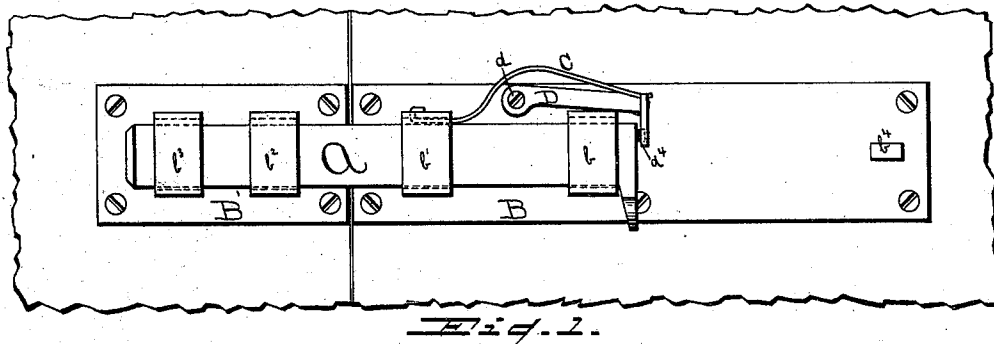


(No Model.)

W. H. THOMAS.
ATTACHMENT FOR BOLTS.

No. 402,492.

Patented Apr. 30, 1889.



WITNESSES.

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UNITED STATES PATENT OFFICE.

WILLIAM H. THOMAS, OF JENKINTOWN, PENNSYLVANIA.

ATTACHMENT FOR BOLTS.

SPECIFICATION forming part of Letters Patent No. 402,492, dated April 30, 1889.

Application filed December 26, 1888. Serial No. 294,670. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. THOMAS, a citizen of the United States, residing at Jenkintown, in the county of Montgomery and State of Pennsylvania, have invented certain new and useful Improvements in Safety Attachments for Bolts; and I do hereby declare that the following is a full, clear, and exact description of the invention, reference being had to the accompanying drawings.

My invention has relation to bolts for use on shutters, blinds, &c., and has for its object to provide novel and inexpensive means for effectually preventing the accidental unlocking of such bolts when the shutters to which said bolts are applied are shaken by the wind or other outside force.

A further object of my invention is to provide means for preventing the rattling of shutter or other bolts when in a locked or unlocked condition and the securing of such bolt when in the latter condition against any accidental movement in a longitudinal direction.

A still further object of my invention is to provide means for the automatic securing of bolts against unlocking when said bolts are thrust into place.

Heretofore various means have been provided for accomplishing the securing of bolts against unlocking, all of which are expensive and more or less complicated, and with the majority of said devices such securing of the bolts has been of necessity manually accomplished, and in some cases the bolts have had to be made differently from the ordinary bolt, in order to provide for the co-operation of the locking device.

My invention provides a simple and comparatively inexpensive device, which can be applied to any form of bolt in a few minutes without necessitating the removal of said bolt when in position for use, and does not require the altering of the bolt in the slightest degree.

Referring to the accompanying drawings, Figure 1 is a front elevation of a bolt in its locked position with my improvement applied thereto. Fig. 2 is a front elevation of the same in its unlocked position. Fig. 3 is an edge view of position shown in Fig. 1, showing shutters in section; and Fig. 4 is a perspective view of locking device removed.

A represents the bolt sliding in keepers $b b'$ $b^2 b^3$ on base-plates B B', all of which are of usual construction and are secured to the shutters by screws or otherwise. As usual in bolts of this character, there is considerable play allowed bolt A in its keepers, in order to allow for the settling of either side of the window-frame. This play, when the shutters are shaken by the wind or otherwise, permits of the rattling of said bolt and the loosening and gradual unlocking of the same, and when the shutters are thus unlocked and allowed to swing to and fro in the wind the result has been the breaking of the window-glass. To overcome this objection, I provide the latch or hook D, which is pivoted to base-plate B on screw d . This latch has an enlargement or head, d' , on its outer end, serving the purpose of a thumb-piece for raising the latch when the bolt is to be withdrawn, and also to prevent the accidental unlocking or slipping of the bolt, said head being wide enough to extend beyond the outer face of the bolt and allow for any play thereof. Latch D is enforced in its action by spring C, which is secured in a hole, b^2 , in one of the keepers b' in such manner as to permit of the swinging of said spring out of engagement with head d' when it is desired to use the latch without the spring or to throw the latch out of operative relation with the bolt. Spring C rests at its outer end in notch d^2 in the upper edge of head d' and retains its tension by contact with the inner side of keeper b' . With the head of latch D resting on bolt A, as shown in Fig. 2, when the bolt is thrust inwardly until hand-piece a of bolt A contacts with keeper b , said latch will be caused by spring C to fall into the position shown in Fig. 1.

It might be found desirable to use the latch without the spring, in which case the weight of said latch will be sufficient to cause it to assume the position shown in Fig. 1 when the bolt is sent home.

In bolt attachments heretofore devised no means are provided for preventing rattling of the bolts when locked. This I provide for by securing to the inner side of head d' a rubber cushion, d^4 . This cushion, being soft, will allow of the forcing by spring E of latch D into the position shown in Fig. 1, thus effectually

preventing any longitudinal movement of bolt A. For preventing movement of bolt A in a transverse direction, I provide head d' with a notch, d^3 , in its under edge, which grasps the upper edge of the bolt A. Therefore by the above means the disagreeable noise produced by shaking of the shutters and the rattling of the bolt, and also the gradual slipping of the bolt out beyond the edge of the shutter when the same is open, are entirely prevented.

When it is desired to withdraw bolt A, latch D is raised through the medium of thumb-piece d' until it clears the top edge of the bolt. The said bolt is then withdrawn sufficiently to allow bolt A to rest in notch d^3 of head or thumb-piece d' , when the withdrawing of the bolt is continued until said bolt reaches the stop b^4 .

Having thus fully described my invention, what I claim is—

1. The combination, with a shutter or other bolt, of a latch provided with a head thereon and pivoted to the base-plate of said bolt, said head normally resting on the edge of the bolt and automatically dropping back of the rear end of the said bolt when the same is in its locked position, substantially as shown and described.

2. The combination, with a shutter or other bolt having a pivoted latch on the base-plate thereof, of a curved spring loosely secured to

one of the keepers of said bolt and resting in a notch in the head of said latch, as and for the purpose set forth.

3. The combination, with a shutter or other bolt, of a latch pivoted to the base-plate thereof, the head of said latch being provided with an elastic cushion and forced into operative relation with said bolt by a curved spring, as and for the purpose set forth.

4. The combination, with a shutter or other bolt, of a latch pivoted to the base-plate thereof and actuated by a curved spring, the head of said latch being provided with a notch in its under edge for grasping said bolt, as and for the purpose set forth.

5. The combination, with the bolt A, of a latch, D, pivoted on screw d in base-plate B, and actuated by a spring, C, secured to one of the keepers b' in a hole, b^3 , and resting at its other end in a notch, d^2 , in the head d' of said latch, said head having a notch, d^3 , in its lower edge and a cushion, d^4 , thereon, as and for the purpose set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 24th day of December, A. D. 1888.

WILLIAM H. THOMAS.

Witnesses:

THOMAS A. HEGGER,
R. DALE SPARHAWK.