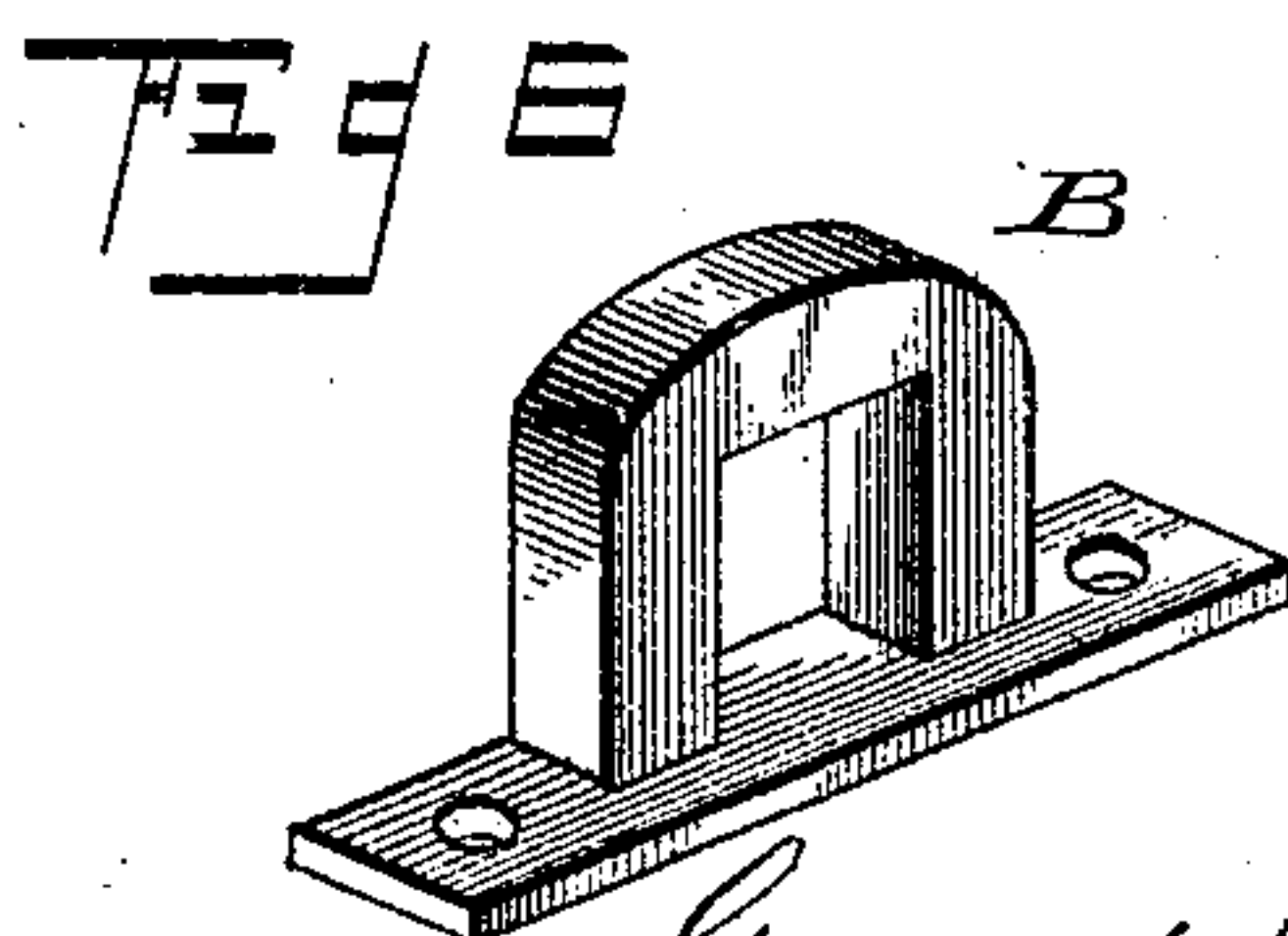
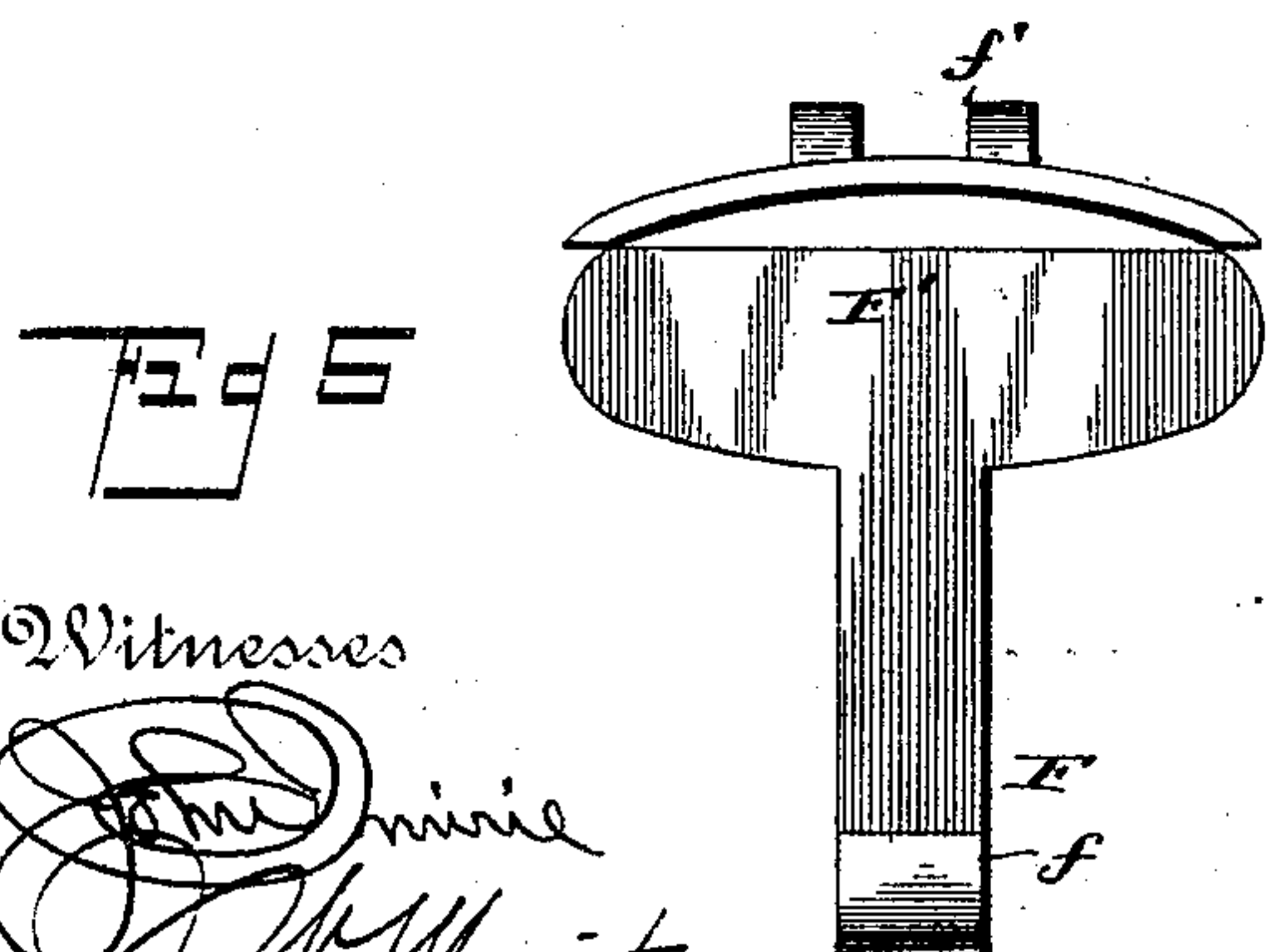
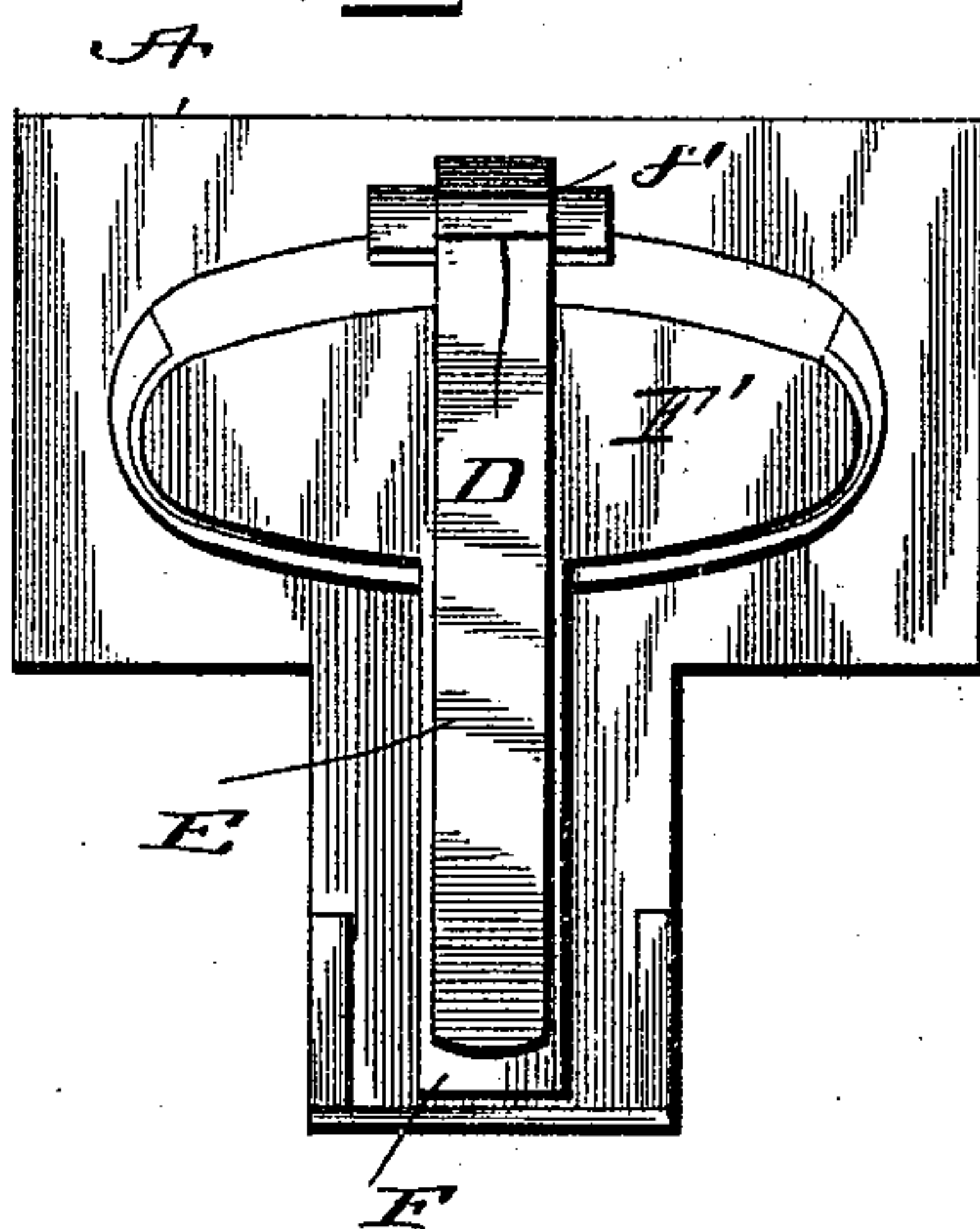
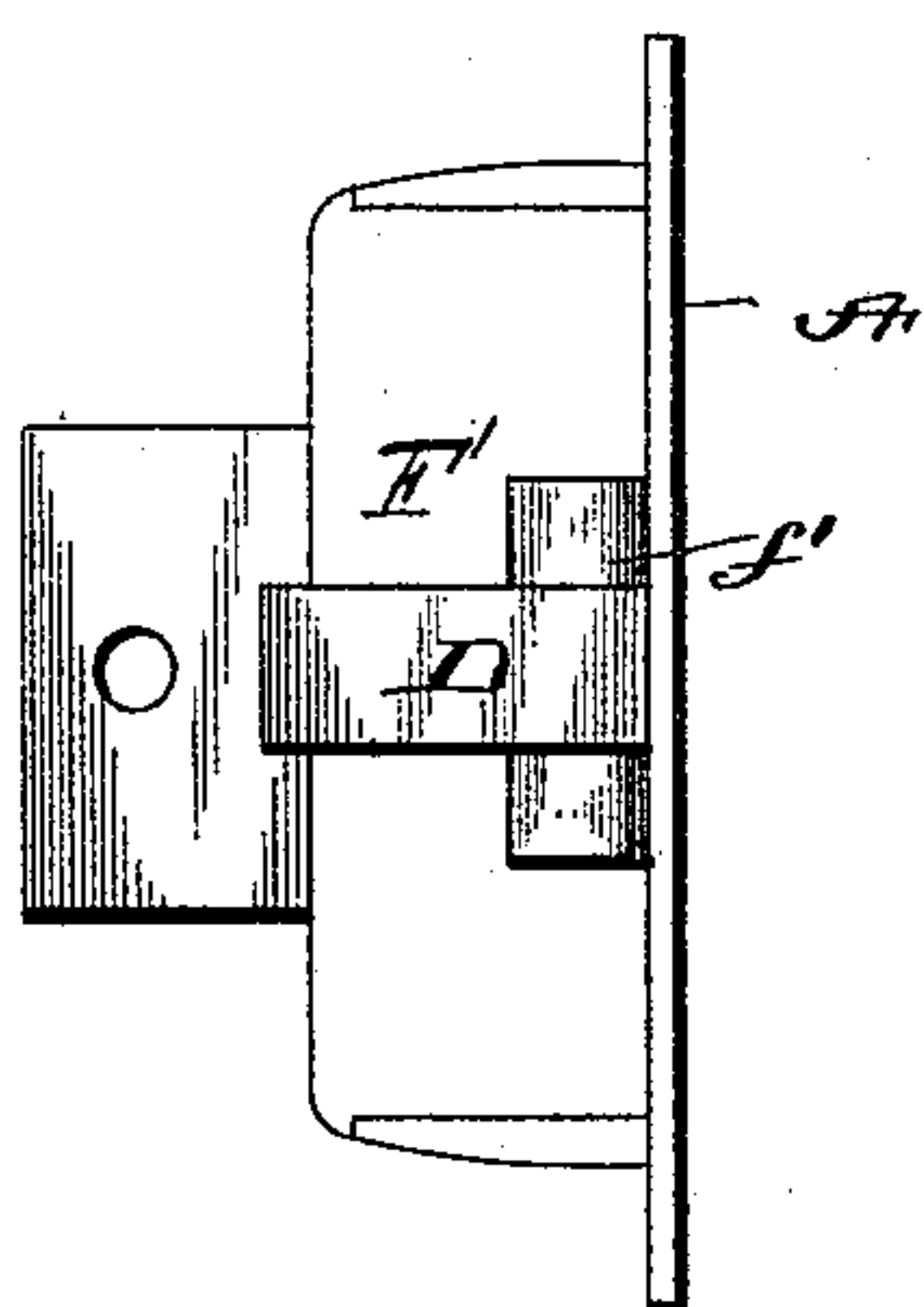
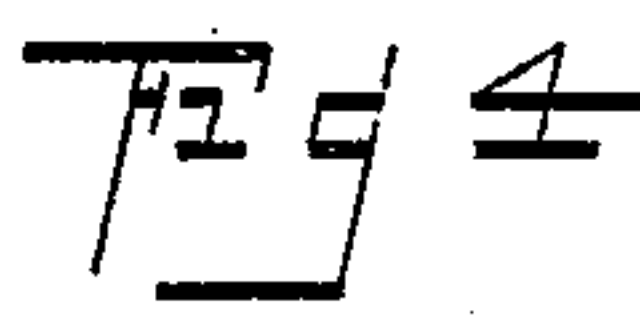
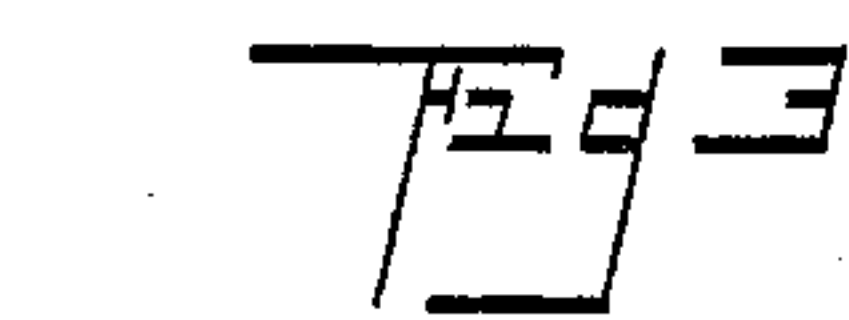
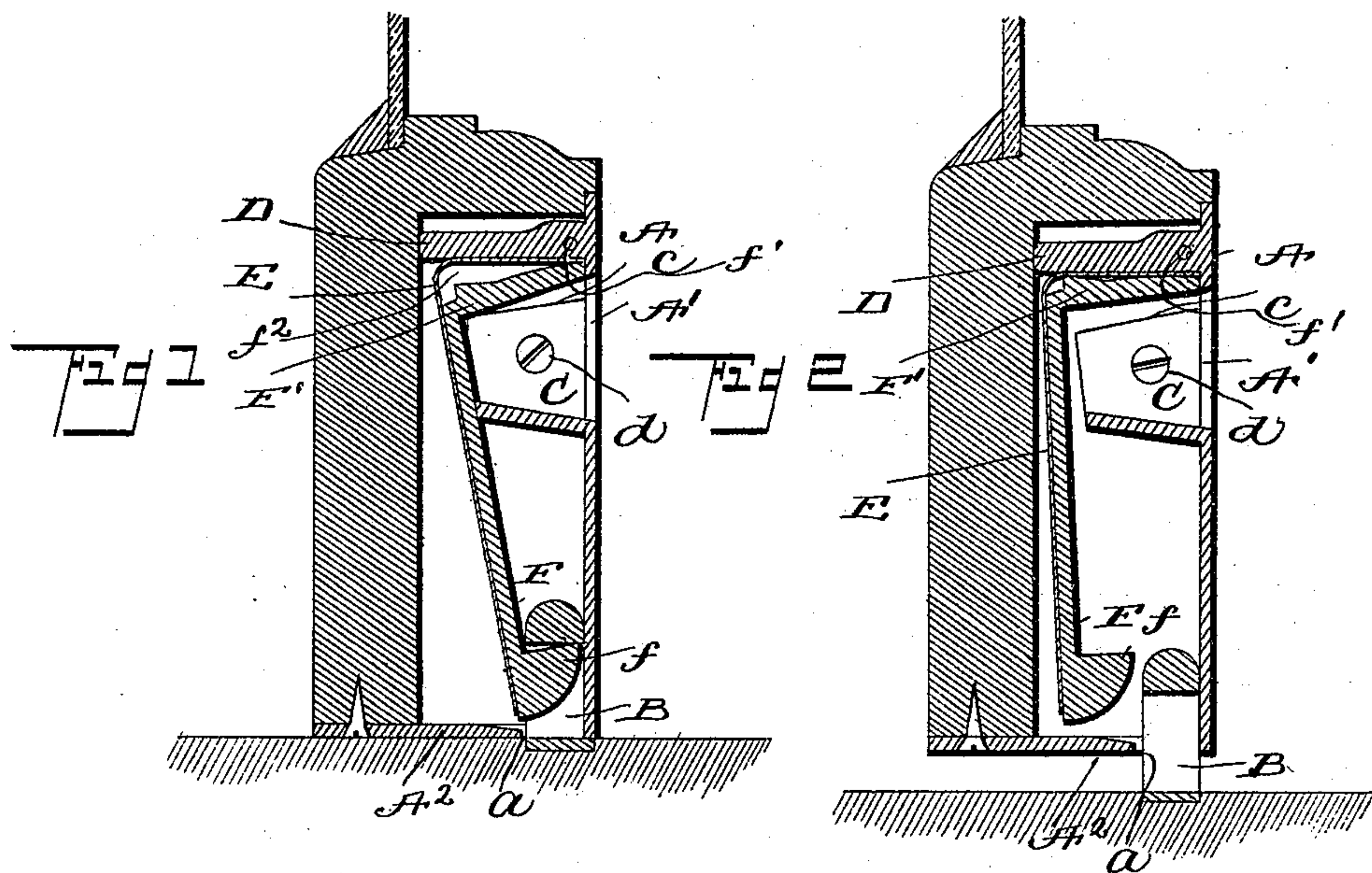


(No Model.)

G. GIBSON.
SASH FASTENER.

No. 496,303.

Patented Apr. 25, 1893.



Witnesses

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UNITED STATES PATENT OFFICE.

GEROLT GIBSON, OF ST. LOUIS, MISSOURI.

SASH-FASTENER.

SPECIFICATION forming part of Letters Patent No. 496,303, dated April 25, 1893.

Application filed February 10, 1892. Serial No. 421,027. (No model.)

To all whom it may concern:

Be it known that I, GEROLT GIBSON, a citizen of the United States, residing at St. Louis, State of Missouri, have invented certain new and useful Improvements in Window-Sash Locks; 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 has relation to improvements in window sash locks; and my said invention consists in certain novel details of construction and arrangement of the parts composing the sash lock, as and for the purposes as will be hereinafter more fully described, illustrated in the accompanying drawings and pointed out in the claims.

The object of my invention is to provide a lock for the lower sash of a window that will be simple in construction; which will automatically lock the sash in its closed position upon the lowering of the sash to its normal position; which cannot be unlocked from the outside and is automatically unlocked in the act of raising the sash—and to accomplish such objects I proceed as follows, reference being had to the accompanying drawings forming a part hereof and in which drawings:

Figure 1 is a sectional side elevation of a lock for the lower sash of a window constructed according to my invention, the same being shown as in position within the lower rail of the sash and engaging the keeper secured to the window sill, and Fig. 2 is a similar view showing the position of the parts in the act of raising the window sash. Fig. 3 is a plan view, Fig. 4 rear view, and Fig. 5 a front elevation of the lock detached. Fig. 6 is a view of the keeper.

This lock consists essentially of two members or parts, one of which is seated within the lower rail of the window sash at its lower edge and flush with its front surface, and the other member secured upon the face of the window sill in such position as to engage the first member, for the purposes as will presently appear. This second member is simply a keeper with flanged base, as shown in Fig. 6, and the first member is constructed as follows—

The letter A designates the face-plate of the lock having elliptical opening A' for the insertion of the fingers in raising and lowering the sash, which face-plate fits flush with the face of the lower rail of the sash, and an angle plate or foot A², that fits flush with the bottom edge of the lower rail of the sash and has an opening a therein to receive the keeper B, Fig. 5. At the rear of the face-plate A and preferably formed integral therewith and inclosing the opening A' at its bottom and ends is a wall C, the top edges of which incline downward as shown at c Fig. 1.

D designates a projection secured to or forming a part of the face plate A to which projection is secured a spring E.

F is the latch that effects the locking of the parts, and this latch has a hook end f that engages the keeper B, and a body F' that corresponds in shape to the wall C of the face-plate and against which it fits—being hinged at f' to the projection D, or to the face plate.

As shown in Fig. 1, the top of the body F' of the latch inclines downward and covers the top of the opening A' of the face-plate, while the projection D is horizontal or nearly so, so that a space as at f² is left between the projection and top surface of the latch and this space is so proportioned as to permit the hook end f of the latch to clear the keeper. The movement of the latch is therefore limited and a solid support is provided when raising the window as will presently appear.

As before stated, the lock is seated within the lower rail of the window sash, flush with the face thereof and it is so secured by screws that pass through the sides of the wall C, as at d.

The operation is as follows—Supposing the parts to be in position and the window raised, upon closing the same the curved outer end of the latch F comes against the curved top edge of the keeper B whereby the latch is forced back and, passing the end of the keeper, enters the same as in Fig. 1, locking the window in its closed position. To raise the window, the fingers are inserted through the opening in the face-plate and against the top of the hinged latch so that in the act of lifting the window the pressure is brought upon

the latch and the same forced back and out of engagement with the keeper permitting the window to be raised as in Fig. 2. When the hook end of the latch has cleared the keeper, 5 the top of the latch engages the projection D so that the movement of the latch is limited and a solid bearing provided when raising the window.

Instead of a flat spring such as that shown 10 being employed, a spiral or other spring may be provided to react the latch.

It will be observed that, while I have shown a spring applied to the latch, it is apparent that the automatic operation thereof is not 15 dependent upon the action of such spring, *i. e.* to hold the hooked end of said latch in its inward, normal position for the immediate engagement therewith of the keeper and, (as the keeper pushes it,—the latch, to one side 20 as the sash descends,) to permit the automatic return of said hooked end into engagement with the eye or opening of said keeper. This is due to the construction of the keeper, it being a perfect right-angle and unobstructed 25 in its inward movement until its lower end strikes the face-plate in consequence of its upper, short arm being pivoted at its inner end to the face-plate; the greater weight thus being thrown forward causing the latch to 30 swing toward the face-plate and be automatically or by gravity, retained, at its lower hooked end, against the face-plate with the beveled surface of the back of said hooked end presented to the upper beveled surface 35 of the keeper to have a readily yielding engagement with the latter just as the sash is being lowered to its final or closed position. Furthermore, by the provision of the apertured base or bottom plate, it will be 40 seen that, though the sash may be loose in the casing and though the aperture of said plate may not be just in alignment with the keeper, yet as the bottom plate, with its aperture approaches the keeper, the beveled upper edge of the keeper will guide the 45 latter into the aperture of said plate, and the sash will, when said keeper is received into said aperture, be held or retained against rattling. Again, by reason of the stop projection directly above the short or approximately horizontal arm of the right-angled latch, the weight or pressure, exerted as the 50 hand is applied to said arm of the latch in lifting the sash, is transferred from the pivot or pintle of said latch to said stop projection. And again, it will be observed that the incision or cutting away of the sash for the reception of the latch and its closure or casing is reduced to a minimum, no back plate being 55 necessary for said casing or closure, which would require with the shank of the latch, the providing of increased space or incision,

in the sash-frame. Besides, while only a reduced incision or space in the sash is needed for the latch and its casing, the latch, itself, 65 constitutes the back of the closure or casing, greatly simplifying the construction and rendering the same compact. Also, it will be seen that the face or engaging portion of the hooked end of the latch being presented 70 squarely to the under, flat surface of the eye or loop portion of the keeper and adapted to move in a horizontal plane away from and to the keeper, as is apparent from its suspension in place, the pivot of said latch being di- 75 rectly over the hooked end, any effort, clandestinely or otherwise, from the outside, in attempting to raise the sash, would have the effect to cause the latch to more firmly bind or impinge against said keeper and conse- 80 quently the more securely interlock said latch and keeper.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent of the United States, is— 85

1. The combination, with the face-plate secured to the window sash having around the bottom and sides of the opening for the reception of the fingers, a wall having inclined top edges, and the keeper secured to the win- 90 dow-sill, of the spring-pressed latch having a lower hooked end adapted to engage said keeper and its upper end adapted to rest upon the inclined top-edges of said wall, and itself adapted to rest bodily against the inner 95 edges of said wall, substantially as set forth.

2. In a window sash lock, in combination with the face-plate secured to the lower rail of the window sash, having opening for the insertion of the fingers in raising the window 100 and a keeper secured to the window sill, the locking latch hinged at the rear of the face-plate and forming the top inner covering of the said opening of the face-plate and upon which the fingers rest to raise the window and 105 simultaneously disengage the hook and spring for re-acting the latching hook—substantially as specified.

3. In a sash-lock, the combination, with a keeper adapted to be secured to the window- 110 sill, of a face-plate having an apertured bottom-plate with its aperture adapted to engage said keeper, and a right-angled latch hung upon said face-plate and having its pivot directly over its lower hooked end and said end 115 adapted to engage said keeper just as the latter enters said aperture, substantially as set forth.

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

GEROLT GIBSON.

Witnesses:

R. E. PERRY,
HENRY W. BOND.