(No Model.)

J. B. FINCH.

COMBINATION ALARM LOCK FOR WINDOWS.

No. 401,148. Patented Apr. 9, 1889.

Fig. 1.

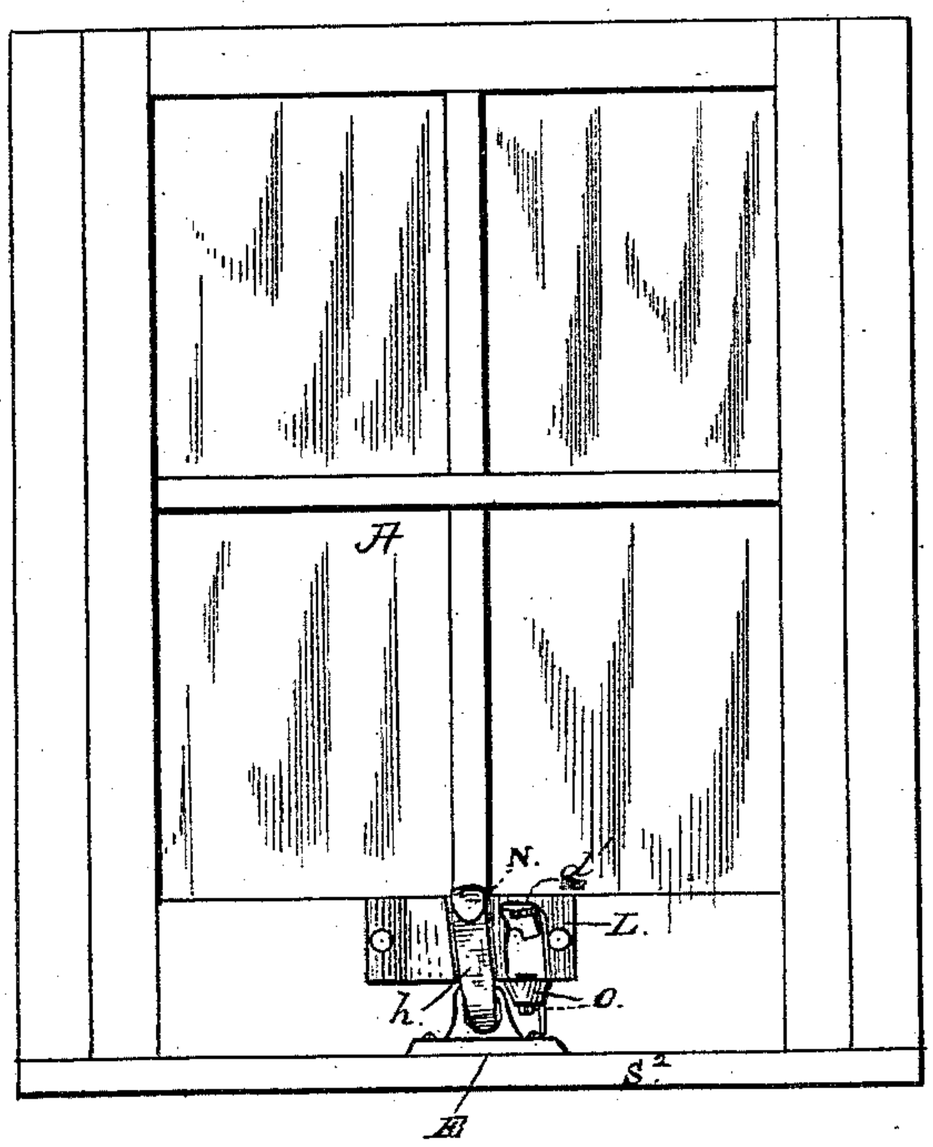


Fig. 2.

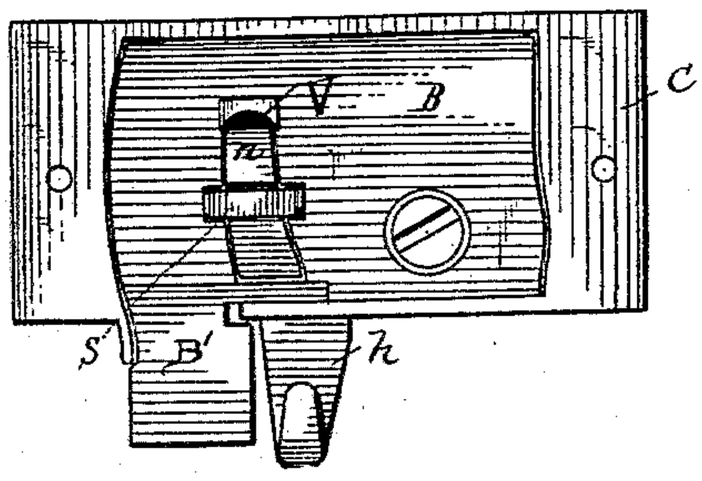


Fig. 3.

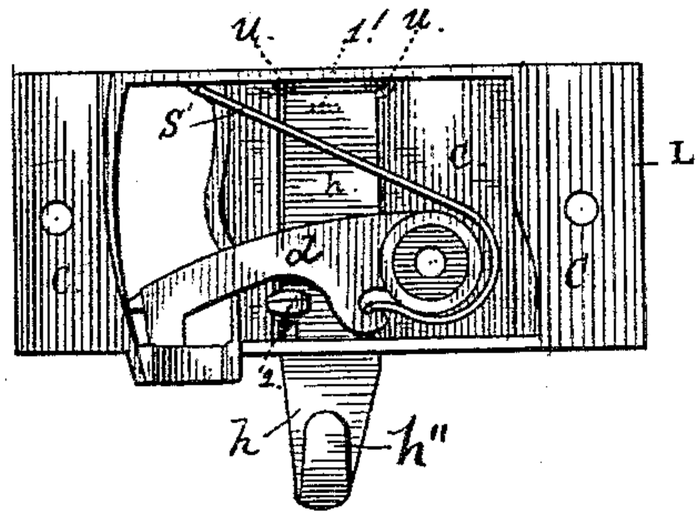
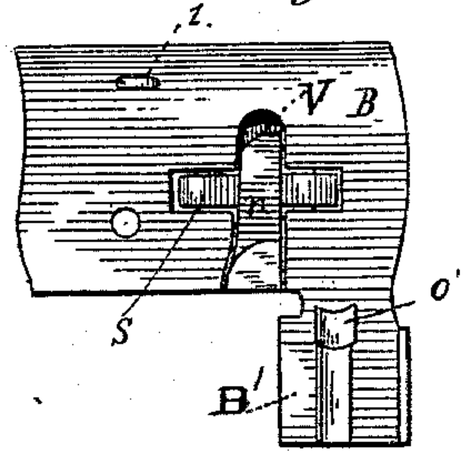


Fig. 4.



Attest
Thomas Scheef
James D. McLean

Inventor
James B. Finch

UNITED STATES PATENT OFFICE.

JAMES B. FINCH, OF NEWARK, NEW JERSEY, ASSIGNOR OF ONE-HALF, BY MESNE ASSIGNMENTS, TO THOMAS W. HARRIS, HENRY R. KILLALY, AND HUGO S. MACK.

COMBINATION ALARM-LOCK FOR WINDOWS.

SPECIFICATION forming part of Letters Patent No. 401,148, dated April 9, 1889.

Application filed February 23, 1888. Serial No. 265,042. (No model.)

To all whom it may concern:

Be it known that I, JAMES B. FINCH, a citizen of the United States, and a resident of Newark, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Combination Alarm-Locks for Windows, of which the following is a specification.

This invention relates to improvements in the construction of automatic window-locks combining the triple functions of a sash-lifter, burglar-alarm, and lock.

In order that the public may fully understand the nature of my invention, and those who are skilled in the mechanic arts may be enabled to construct and apply the same, I will describe it, as follows, to wit:

Referring to the drawings accompanying this application, Figure 1 is an inside view of the lower sash of a window having my combination-lock L, screwed or otherwise secured to the bottom of the sash A, showing the lift *h*, hammer *d*, (ready to fall upon the fulminating or percussion cap O,) and loop E, firmly fastened to the sill S^2. Fig. 2 is a plan view of the back or under side of the lock, showing the three separate pieces of casting, B, C, and *n*; also showing the small flat spring S, which secures the small casting *n* in its place; also showing the hook forming an integral part (on the under side) of the lift *h*, which passes into the loop E, Fig. 1, and locks the sash A. Fig. 3 represents the internal arrangement of the lock L, in which C is the outer shell. *d* is the hammer. S′ is the flat spring which operates the hammer. *h* is the under side of the lift, showing the locking-hook *h″*, forming a part of the lower end thereof. Fig. 4 is the under side of plate B, showing the catch-plate or stop *n*, that holds the hammer *d* in the lifted position shown at Fig. 1, (cocked,) ready to fall upon the percussion-cap O by the reacting force of the spring S′, (see Fig. 3,) when the hammer *d* is set free from being supported on the shoulder or rabbet V, near the upper end of the stop or catch *n*, (see Fig. 4,) by the pressure upon said catch *n* of the projection 2 on the swinging lift *h*. This pressure upon the catch *n* forces it outward against the short flat spring S. The hammer when released falls into the position shown in Fig. 3. When the hammer is next raised, the spring S throws the catch or stop plate *n* back into the position shown at Fig. 4, ready to receive and hold said cock or hammer *d* in the recess V until again set free, as aforesaid, to discharge the cap O. The lift *h* hangs on two bearings or lugs, U U, as shown at Fig. 3, so that it will (slightly) swing in and out, so that the hook *h″* will fall by its own gravity into the loop E and automatically lock the sash A; and by simply taking hold of the thumb-piece N, Fig. 1, and lifting upward you will throw the foot of the lift *h* outward and free the locking-hook from the loop E and raise the sash A without disturbing the alarm-connections of the lock. The projection 1, Fig. 4, rests upon the under side of the lift *h* at the dotted line 1′, Fig. 3, (when the lock is put together,) to keep the lift *h* in position. When the sash is lowered, as shown at Fig. 1, the hook forming an integral part of the lift falls by its own gravity into the loop E (which is firmly secured to the sill S^2) and locks the window, and in case a burglar attempts to lift the sash from the outside it draws the lower end of the lift *h* inward, which causes the lift to press upon the catch-plate or stop *n*, Fig. 4, and set the hammer free to fall and discharge the large percussion-cap O with the full force of the spring S′, Fig. 3, which gives the desired alarm to the occupants of the house.

Having thus set forth the several parts of my invention, what is claimed as my improvement in burglar-alarm locks for windows is—

1. In an automatic window-lock, the combination of the outer shell, C, back plate, B, therefor, the hammer *d*, located within said shell, flat spring S′, arranged in the shell for operating said hammer, the catch or stop *n*, located in a slot in the back plate and serving to support the hammer, spring S, arranged in back plate transverse to the catch and acting thereon, and the swinging lift *h*, hung in the shell C, substantially as described.

2. In an automatic window-lock, the combination of the outer shell, the slotted back plate therefor, the swinging lift hung loosely in the outer shell and having a hook on its

lower end, the loop E on the window-sill adapted to be engaged by said hook, the spring-actuated hammer located within the outer shell, and the catch or stop in the slotted back plate for temporarily supporting said hammer, substantially as described.

3. The combination of the outer shell, C, having projection B′, formed to receive a percussion-cap, O, the slotted back plate, B, of the shell, the oscillating lift *h*, having hook *h″*, lugs U U, on which it hangs in shell C, and projection 2, the hammer *d*, located within the shell, so as to be capable of falling upon cap O, its actuating-spring likewise situated within shell C, the stop *n* in the slotted back plate having shoulder V, and the spring S, fixed in the back plate transverse to said stop and acting thereon, substantially as described.

4. The combination of the outer shell, C, the spring-actuated hammer within the same, the stop or catch *n* for supporting said hammer, the spring S, transverse to the catch and serving to keep it in place, the swinging lift *h*, hung in the outer shell, and the loop E on the window-sill, substantially as described.

Signed at Newark, in the county of Essex and State of New Jersey, this 1st day of December, A. D. 1887.

JAMES B. FINCH.

Witnesses:
WILLIAM RIGBY,
JAMES P. MCLEAN.