

(No Model.)

A. F. McCOLLAM.

ALARM LOCK.

No. 301,252.

Patented July 1, 1884.

Fig. 1.

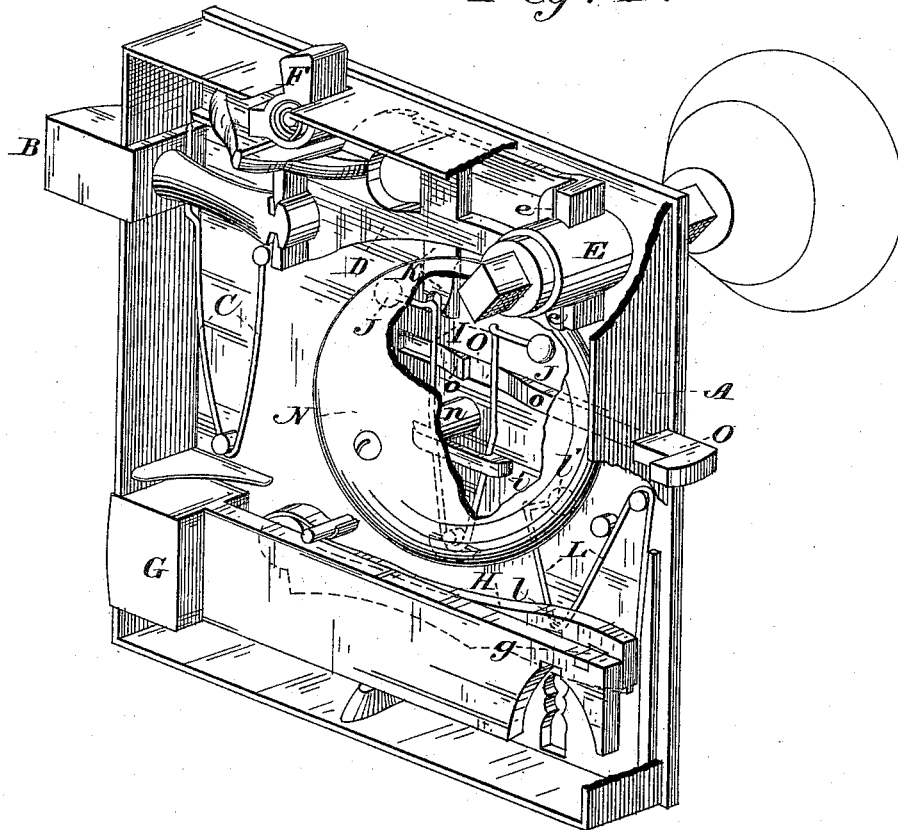
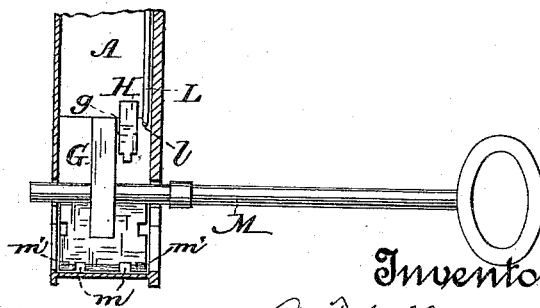


Fig. 2.

Fig. 3.



Witnesses,
Geo. H. Strong.
J. H. House.

Inventor,
A. F. McCollam
By
Dewey & Co.
attorneys

UNITED STATES PATENT OFFICE.

ALEXANDER F. McCOLLAM, OF FAIR PLAY, CALIFORNIA.

ALARM-LOCK.

SPECIFICATION forming part of Letters Patent No. 301,252, dated July 1, 1884.

Application filed March 31, 1884. (No model.)

To all whom it may concern:

Be it known that I, ALEXANDER F. McCOLLAM, of Fair Play, county of El Dorado, and State of California, have invented an Improvement in Alarm-Locks; and I hereby declare the following to be a full, clear, and exact description thereof.

My invention relates to a new and useful alarm-lock; and it consists, in connection with the reciprocating latch-shank and key of a lock; of a novel arrangement of spring-strikers operated by said shank and key, and of a gong inclosed by the lock-casing, against which said strikers operate, as I shall hereinafter fully explain by reference to the accompanying drawings, in which—

Figure 1 is a perspective view of my alarm-lock. Fig. 2 is a portion of a vertical transverse section, showing the key M in the lock. Fig. 3 is an end view of the key.

The object of my invention is to provide a lock with an alarm attachment adapted to be sounded when the handle of the latch is turned and when the key is turned in the lock.

A is the casing of an ordinary flat lock.

B is the latch, and C is the spring influencing it.

D is the shank of the latch, against the angled end of which the wings *e* of the oscillating shaft E of the handle or knob operate to reciprocate the latch.

F is the dead-latch mechanism.

G is the sliding bolt, and H is the pivoted spring-guard, in the slotted end of which a stud, *g*, on the sliding bolt plays.

I is a spring-wire bent to a U shape, secured by its base to the lock-casing, guided across its arms by a bar or wire, *i*, which also limits the divergence of the arms, and having on its ends the knobs J. These ends of the arms have a double curvature or bend, turning at right angles away from the nearest wall of the casing, and thence at right angles sideways. Upon the shank of the latch is a downwardly-extending arm, K, the end of which is notched or forked. The exterior edges of the forks are beveled. This arm engages with the ends of the spring-arms in such manner that the inner straight walls of its forks alternately force back the spring-arms and release them suddenly, while their beveled edges slip by

them when moving in an opposite direction. Secured in the casing is a spring-wire, L, having a bend, *l*, extending down between the wall of the casing and the spring-guard H. Its free end extends upwardly, is bent as shown, and provided with a knob, *l'*.

M is the key, the bit of which is provided with the usual grooves, *m*, for engaging and raising the spring-guard of the bolt; but the face or edge of the bit at each end is beveled, as shown at *m'*, and these bevels engage with the bend *l* of the spring-wire L when the key is turned. But one of the bevels thus engages at a time. The other engages when the key is put into the lock from the reverse side. This engagement forces back the spring L and suddenly releases it, whereby its knob is thrown against the gong.

N is the gong. It is secured within the casing on a central post, *n*, and it covers the spring-strikers, which by the movement of the latch and key operate against it to sound an alarm. The advantage of the U-shaped striker is that it operates both on the inward and outward movement of the latch, so that when the knob is seized, turned, and released a double alarm is given.

O is a wedge-slide to throw the spring-wire I out of engagement with the arm K. This slide operates behind the arms of the spring-wire, and by its wedge-shaped surface forces said arms far enough out to avoid the arm K, or lets them spring into engagement again. There being two arms of the spring-wire I, there are two wedges, *o*, on the slide, one operating under each arm. The end of the slide projects through the casing, and has formed on it a knob or finger-hold to adapt it to be conveniently operated.

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

1. In combination with the reciprocating shank of the latch of a lock, having an arm, K, with a forked end, the exterior edges of which are beveled, as described, the U-shaped spring-striker I, having oppositely-bent ends with knobs J thereon, said ends being engaged by the forked end of the arm K, and the gong N, against which the striker operates, substantially as herein described.

2. In an alarm-lock, the gong N and the U-shaped spring-striker I, in combination with the arm K on the reciprocating shank of the latch, engaging with and operating said striker, 5 and the wedge-slide O, moving under the arms of the striker and adapted to throw their ends out of engagement with arm K, substantially as herein described.

3. In an alarm-lock, the gong N, in combination with a spring-striker adapted to be actuated to strike said gong by the engagement of the bit of the key, substantially as herein described. 10

4. In an alarm-lock, the gong N and the spring-striker L, having bend *l* and knob *l'*, 15 in combination with the key M, having a bit with bevels *m'*, adapted to engage with the bend *l* of the spring-striker, substantially as and for the purpose herein described.

In witness whereof I have hereunto set my hand.

ALEXANDER F. McCOLLAM. [L. S.]

Witnesses:

WILLIAM GARDNER,
ISAAC M. WALTER.