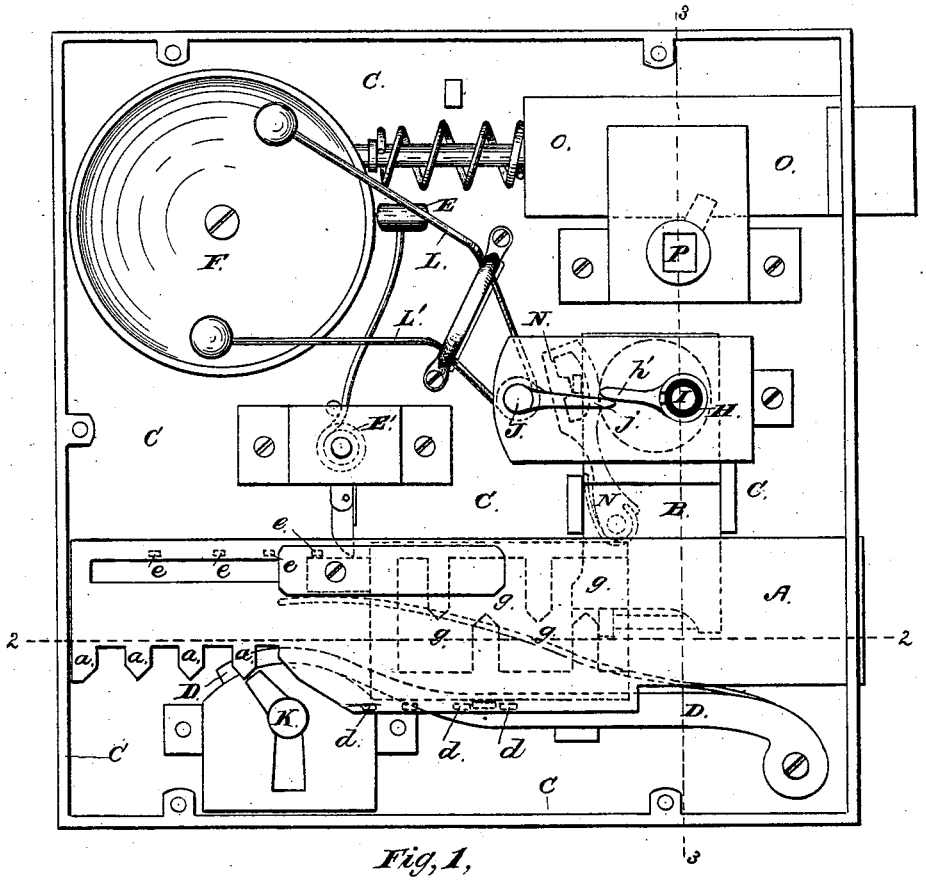
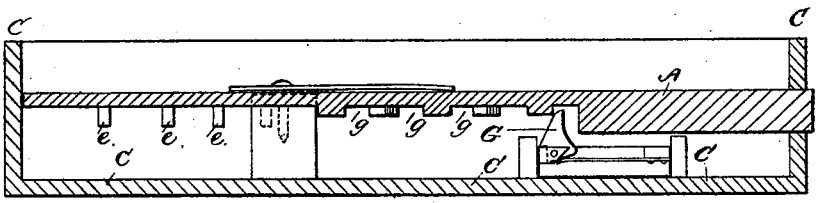
2 Sheets—Sheet 1.

W. McADAMS, Jr.
Alarm-Lock.

No. 217,809. Patented July 22, 1879.



Fig, 1,



Fig, 2,

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2 Sheets—Sheet 2.

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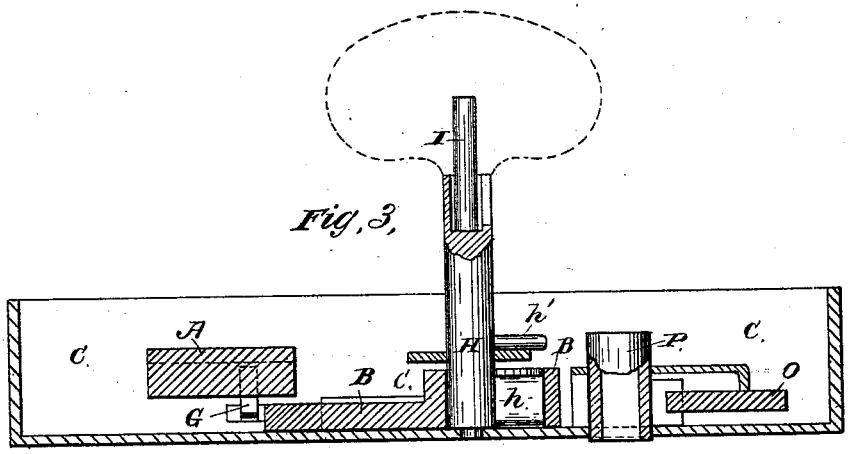
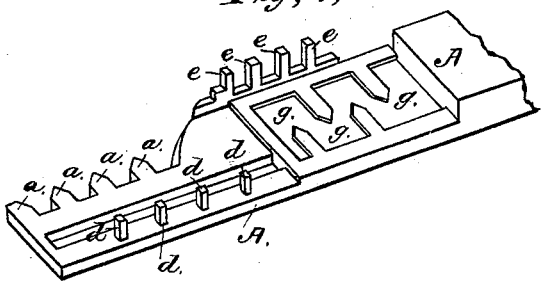
Fig, 3,



Fig, 4,



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UNITED STATES PATENT OFFICE

WILSON McADAMS, JR., OF RUSHSYLVANIA, OHIO.

IMPROVEMENT IN ALARM-LOCKS.

Specification forming part of Letters Patent No. **217,809**, dated July 22, 1879; application filed May 19, 1879.

To all whom it may concern:

Be it known that I, WILSON McADAMS, Jr., of Rushsylvania, in the county of Logan and State of Ohio, have invented new and useful Improvements in Alarm-Locks, of which the following is a specification.

The subject of my invention is an alarm-lock provided with a primary bolt, which may be locked by several revolutions of a key without giving an alarm, and will be retracted by a corresponding number of turns of the key in the opposite direction, giving an alarm at every turn.

The secondary bolt moves transversely to the first, engaging therewith in such a manner as not to resist the locking of the first bolt, but to prevent the unlocking thereof without a movement being imparted to the second bolt before each turn of the first-bolt key.

The secondary bolt is operated by a separate removable key, or by a permanent knob, as preferred. Its motion is forth and back alternately, and each of these motions is made to sound an alarm. The knob for operating the secondary bolt thus serves the purpose of a door-bell handle, for which use it is turned back and forth an indefinite number of times.

In order that my invention may be fully understood, I will proceed to describe it with reference to the accompanying drawings, in which—

Figure 1 is a front view of a lock illustrating the invention with the face-plate removed. Fig. 2 is a section on the line 2 2, Fig. 1. Fig. 3 is a section on the line 3 3, Fig. 1. Fig. 4 is a perspective view of the rear of the primary bolt.

A represents the primary bolt, and B the secondary bolt, working transversely thereto, both being arranged to slide within a case, C, and the first projecting beyond the side of said case in customary manner, and serving as the locking-bolt.

The primary bolt A is constructed with a number of projecting teeth, *a*, on which the bit of the key K operates by successive turns. The said key operates at the same time on a tumbler, D, by which the bolt is held in customary manner, to prevent its movement otherwise than by the proper key.

On the rear face of the bolt A are two sets of teeth, *d* and *e*, the first of which are engaged by the tumbler D. The teeth *e* are employed to strike the tail of a pivoted hammer, E, which is actuated by a spring, E′, so as to strike a bell, F, and thus sound an alarm at each impulse imparted to the bolt A in retracting the same. The tail of the hammer is pivoted by a knuckle-joint, to permit the teeth *d* of the bolt to pass freely in the advance movement, and operate on the hammer only in the reverse movement.

On the rear face of the bolt A is formed a zigzag channel, *g*, (shown clearly in Fig. 4,) in which a stud, G, on the secondary bolt B engages. The said stud G is connected to its bolt B by a knuckle-joint, which permits the free forward passage of the bolt A, but checks the return movement thereof, necessitating an alternately backward and forward movement of the secondary bolt B before each impulse imparted to the bolt A in withdrawing the same.

The bolt B is actuated by a spindle, H, having a suitable bit, *h*, working within the eye of the said bolt, so as to slide it back and forth by an oscillating movement of the said spindle, H. This spindle is preferably furnished with a permanent knob, I, on the inside of the door, and may have a similar permanent knob on the outside, if preferred; but when additional security is desired, it is operated by means of a secondary key engaging with the spindle H, which is made hollow for the purpose, after a manner common in some forms of night-latches.

On the spindle H is a secondary bit, *h′*, engaging with an arm, *j*, on a post, J, on which are coiled the wire shanks of twin hammers L L′, arranged as shown, to strike the bell F at each movement of the spindle H in either direction.

The use of a permanent knob on the outside of the spindle H, as illustrated in dotted lines in Fig. 3, is advantageous in adapting said knob to serve the purpose of a door-bell.

N represents the tumbler of the secondary bolt, which is actuated by the bit *h* of the post or spindle H, so as to release said bolt when it is to be moved, and prevent its spontaneous movement in slamming doors or otherwise. O represents the customary latch-bolt, operated by a knob, P, in the usual manner.

Having thus described my invention, the

following is what I claim as new therein and desire to secure by Letters Patent:

1. An alarm-lock constructed substantially as herein set forth, with a primary bolt having a number of teeth for checking its retraction, and a secondary bolt engaging with said teeth, repeated alternate movements of the bolts being required in unlocking.

2. The primary bolt A, constructed with teeth for checking its retraction and teeth for sounding an alarm, substantially in the manner described.

3. The combination of the primary bolt A, constructed with a number of teeth for checking its retraction, the secondary bolt engaging with said teeth in succession by alternate movements in opposite directions, the bell F, the twin hammers L L′, and suitable connections H *h′ j* J, for sounding an alarm at each successive movement of the said secondary bolt.

4. The combination of the primary bolt A, the secondary bolt B, controlling the retraction of the first by a movement transverse thereto, the operating-spindle H, and the twin hammers L L′, for sounding an alarm on each movement of the secondary bolt in either direction.

WILSON McADAMS, JR.

Witnesses:
GEORGE BROCKERMAN,
JOHN KAUTZMAN,
DAVID W. WHITE.