T. N. ROBERTS.

Alarm-Lock.

No. 213,249. Patented Mar. 11, 1879.

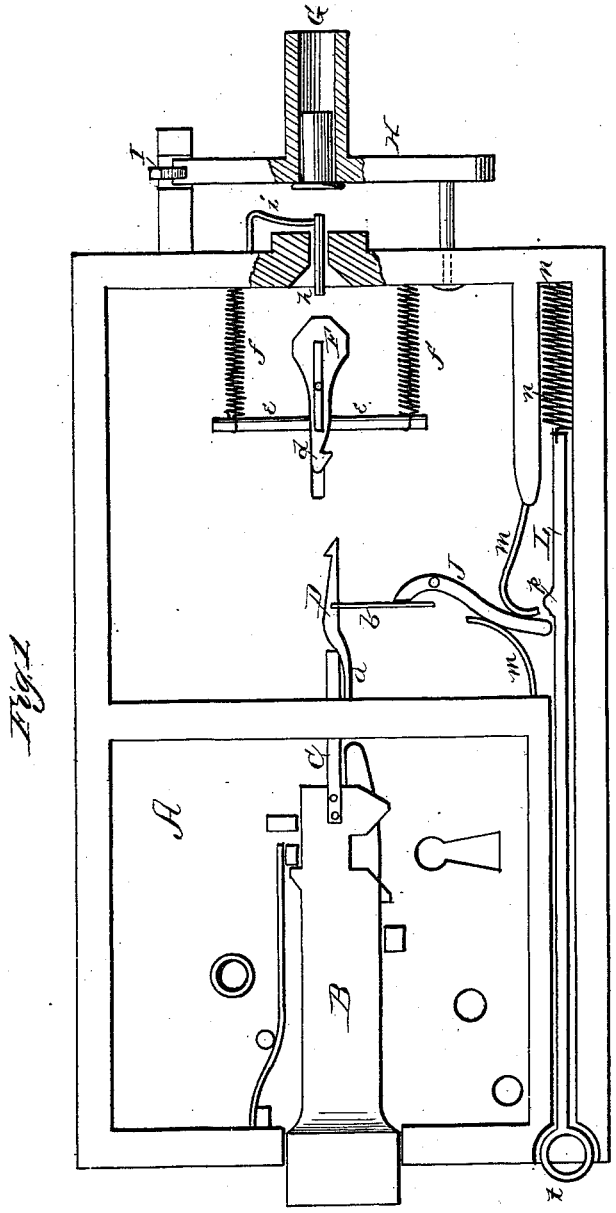

Fig. 1.

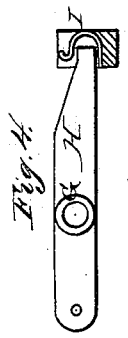

Fig. 4.

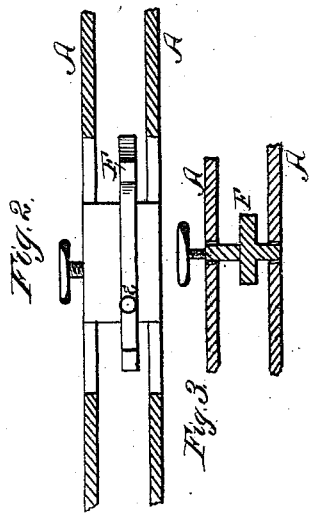

Fig. 2.

Fig. 3.

Witnesses:

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UNITED STATES PATENT OFFICE.

THEOPHILUS N. ROBERTS, OF COLUMBIA, SOUTH CAROLINA.

IMPROVEMENT IN ALARM-LOCKS.

Specification forming part of Letters Patent No. **213,249**, dated March 11, 1879; application filed January 20, 1879.

To all whom it may concern:

Be it known that I, THEOPHILUS N. ROBERTS, of Columbia, in the county of Richland and State of South Carolina, have invented certain new and useful Improvements in Alarm-Locks; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and the letters of reference marked thereon, which form part of this specification.

My invention relates to door-locks; and it consists in the construction and arrangement of a torpedo burglar-alarm attachment for the same, as will be hereinafter more fully set forth.

In the annexed drawings, Figure 1 is a face view with the cover of the lock removed. Figs. 2, 3, and 4 are detail sectional views of parts thereof.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation.

A represents the lock-case, and B is the usual bolt therein, constructed in any of the known and usual ways. The inner end of the bolt B is provided with an arm or extension, C, which passes through a suitable guide in the lock-case.

D is a small trigger attached to and kept in position by a spring, *a*, and this trigger is provided with a downwardly-projecting arm or finger, *b*. F represents a hammer of any suitable construction, which is preferably made to slide in slots made in the front and back plates of the lock-case. This hammer is formed with a hook, *d*, to catch on the trigger D, and it also has a cross-bar, *e*, to which are connected two spiral springs, *f f*, the other ends of said springs being connected to the inner end of the lock.

Through the inner end of the lock-case, on a direct line with the hammer, passes a firing-pin, *h*, held in place by a spring, *i*, and moving freely in the hole through which it passes.

G is a barrel for holding a torpedo, said barrel being formed with or attached to an arm, H, which is pivoted at one end and held at the other end by a catch, I, firmly in position for operation. The torpedo-carrying device G H can be swung out of the way when desired for putting in or removing the torpedo.

Below the trigger D is another trigger, J, pivoted to the lock-case, and having its upper end working against the arm *b* of the trigger D, so that when moved outward it will cause the trigger to be drawn downward and be disengaged from the hammer. When the upper end of the trigger J is turned in the opposite direction it does no work, but simply moves away from the arm *b*.

m m are springs for holding the trigger J in a proper position for action.

L is a straight rod having its inner end attached to a spiral spring, *n*, and its upper side provided with a lug or pin, *p*, and in its outer end is formed a ring, *t*. This rods L moves in a true manner in a groove or channel at the bottom of the lock-case.

The operation is as follows: When the lock is locked the extension C of the bolt B has no effect on the trigger D; but when the bolt is thrown back—providing the hammer F has by its hook *d* been engaged with the trigger—the extension C depresses the trigger, releasing the hammer, which latter, by the recoil of the springs *f*, is suddenly drawn back, striking the firing-pin *h*, which explodes the cartridge or torpedo in the barrel G. When the lock is locked and the hammer drawn forward till it engages the trigger D, any attempt, while the parts are in this position, to throw back the bolt of the lock will depress the trigger and cause the hammer to explode the cartridge. No matter how the bolt of the lock is thrown back, whether by false keys or otherwise, the effect will be the same—namely, an explosion of the cartridge and the giving of an alarm.

The rod L is an additional device to produce, also, an alarm. Its operation is as follows: When the door is to be closed and locked the rod is drawn out, and as the door is being shut the ring *t* on the end of the rod is passed over a small pin or peg in the frame-work of the door. When the lock is one to be mortised into the door, of course some excavation in the wood-work of the door and its frame will be needed to make this device fit, as well as the barrel for holding the torpedo. Supposing the ring *t* to be caught over the peg, it is obvious that, even if a burglar should evade or get away with the alarm, which is operated through the bolt of the lock, by cut-

ting the latter in two or otherwise, this added arrangement would still offer an obstacle, for the moment the door commences to be opened the ring *t* would slide off from the peg on which it rested, the result of which would be that the rod L is drawn back by the spiral spring *n*, and by so doing the lug *p* on said rod will press back the trigger J, which, in turn, will cause the trigger D to be disengaged from the hammer F, and the latter explode the torpedo.

The hammer F is provided with a headed screw, F′, for pushing the hammer forward. This screw can be screwed into the hammer from either face of the lock, so that it can be used on the right or left of a door without using double key-holes.

In case the rod L should be cut in two by a burglar, as it is often the case that burglars cut in two the bolts and other appendages of locks, the alarm would still be given, as the inner end of the cut rod would be drawn inward by the spring and operate as above described.

I am fully aware that it is not new to construct a lock with an alarm attachment, and therefore confine myself to the combination of devices herein shown and described.

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

1. In an alarm-lock, the sliding hammer F, having hook *d*, in combination with cross-bar *e*, spiral springs *f f*, trigger D, and bolt B, all constructed and arranged to operate substantially as herein described.

2. In an alarm-lock, the combination of the torpedo-carrying device, consisting of the barrel G, pivoted arm H, and spring-catch I, with pin *h*, bar *e*, springs *f f*, and sliding hammer F, trigger D, and bolt B, all arranged substantially as and for the purposes set forth.

3. The rod L, with spring *n*, lug *p*, and ring *t*, and the auxiliary trigger J, in combination with the trigger D, having arm *b*, substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

THEOPHILUS NUNEZ ROBERTS.

Witnesses:
W. J. DE BRUHL,
JNO. P. ARTHUR.