

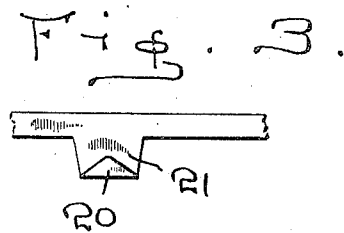
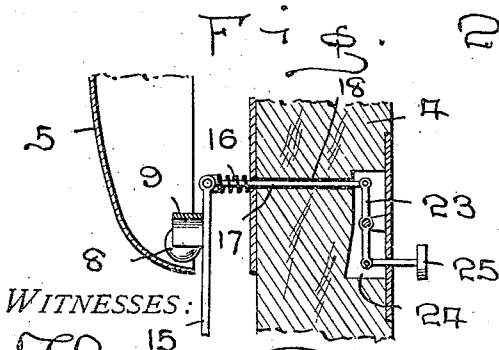
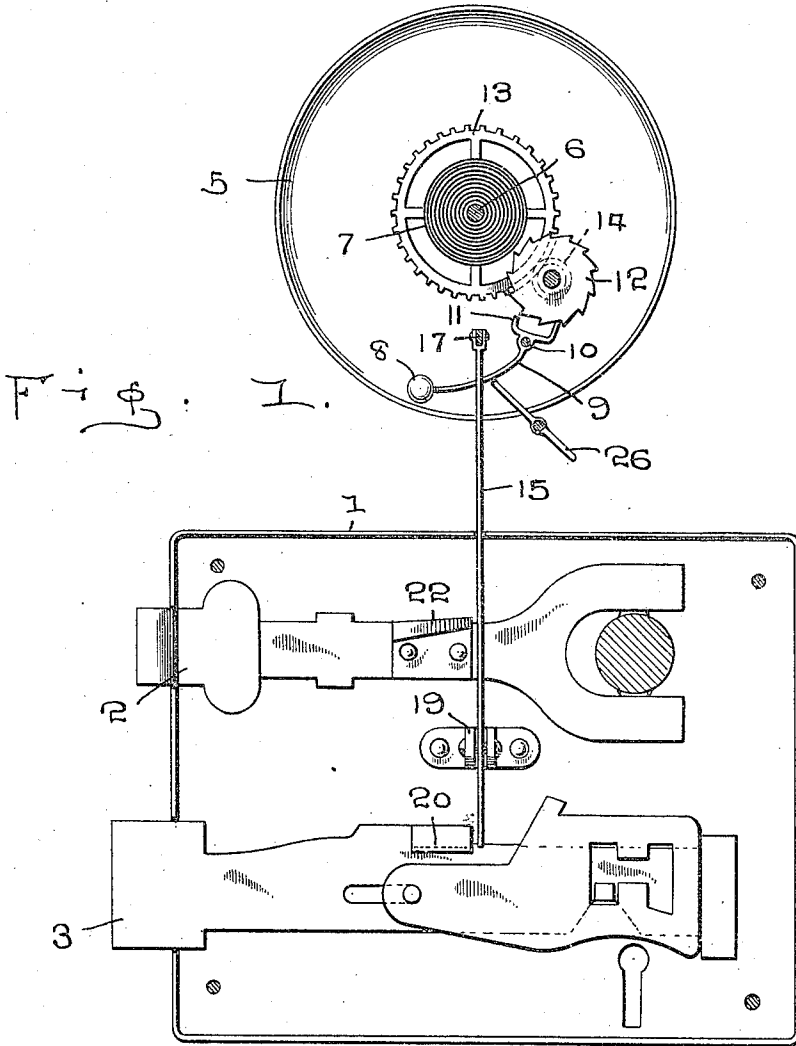
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ALARM.

APPLICATION FILED APR. 16, 1909.

948,848.

Patented Feb. 8, 1910.



WITNESSES:

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UNITED STATES PATENT OFFICE.

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ALARM.

948,848.

Specification of Letters Patent.

Patented Feb. 8, 1910.

Application filed April 16, 1909. Serial No. 490,336.

To all whom it may concern:

Be it known that I, ANTHONY COYNE, a citizen of the United States, residing at Hartranft, in the county of Claiborne and State of Tennessee, have invented certain new and useful Improvements in Alarms; 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 relates to new and useful improvements in alarms and more particularly to that class adapted to be attached to door locks and my object is to provide means for sounding an alarm when either the latch bolt or lock bolt is operated.

A further object is to provide means for normally holding the bell hammer stationary.

A still further object is to provide means for positively locking the bell hammer against operation and a still further object is to provide means for operating the alarm manually and thereby providing a door bell.

Other objects and advantages will be hereinafter referred to and more particularly pointed out in the claim.

In the accompanying drawings forming part of this application, Figure 1 is a sectional view through a lock, showing my improved alarm attached thereto. Fig. 2 is a transverse sectional view through the door to which the alarm is attached, showing the manner of operating the same as a door bell, and, Fig. 3 is a detail edge elevation of a portion of the locking bar.

Referring to the drawings in which similar reference numerals designate corresponding parts throughout the several views, 1 indicates a lock casing, which may be constructed in the usual or any preferred manner, in which are located a latch bolt 2 and a locking bolt 3, said bolts being likewise constructed in the usual manner and mounted in the casing in the usual manner.

Secured to the door 4 in any preferred manner, is a bell or gong 5, said bell being mounted on a shaft 6 said bell being rotatably mounted on said shaft and having attached thereto in any suitable manner, one end of a coil spring 7, while the opposite end of said spring is fixed to the shaft, the tension of said spring being such as to cause

the bell to rotate on the shaft when in its wound position.

In order to cause the bell to ring and at the same time regulate the expansion of the spring 7, I provide a bell hammer 8, the supporting shank 9 thereof being pivotally mounted upon a shaft 10, the pivoted end of the shank having an escapement bar 11, which is adapted to cooperate with an escapement wheel 12 and cause the hammer to vibrate and strike the bell when the spring 7 is unwound, motion being imparted to the escapement wheel 12 through the medium of a cog 13, rotatably mounted with the bell and a pinion 14 fixed to the escapement wheel 12, said cog and pinion intermeshing with each other.

The hammer 8 is normally held against operation by means of a rod 15, the upper end of which rod is adapted to rest against the edge of the shank 9 and is held against the shank under pressure by means of a spring 16, said spring being coiled around a stem 17, which stem is pivotally secured to the upper end of the rod 15 and extends through an opening 18 in the door 4, one end of the spring resting against the face of the door while the opposite face thereof engages the upper end of the rod 15.

The lower end of the rod 15 extends into the casing 1 and is pivoted to a bracket 19 adjacent its lower end, the extreme lower end of the rod terminating at a point adjacent the upper edge of the locking bolt 3 and in position to be engaged by an arm 20 on the bolt, said arm having its engaging face 21 curved so that when the bolt 3 is moved back and forth, the upper end of the rod 15 will be swung away from the shank 9 and the hammer permitted to operate and ring the bell, the arm 20 being so arranged as to be out of engagement with the rod when the bolt is in its locked or unlocked position.

The latch bolt 2 is provided with a shoulder 22, the engaging face of which is curved and adapted to pass to the opposite side of the rod 15 from the arm 20, thereby lifting the upper end of the rod out of engagement with the shank 9, the shoulder 22 being so positioned as to operate the rod 15 with each movement of the latch bolt to disengage the same from its keeper.

If it is desired to manually operate the

rod 15 to convert the alarm into a door bell, a rocking lever 23 may be pivotally mounted in a recess 24 in the outer face of the door, the upper end of the lever being pivoted to the end of the shank 17, while to the lower
5 end of the lever is pivotally secured a push button 25, so that when it is desired to release the rod 15 from the shank 9, pressure is directed on the push button 25, which will
10 result in moving the rod 15 away from the shank 9 and permit the bell to ring.

The alarm may be permanently held against operation, regardless of the movement of the bolts in the locks, or the push
15 button, by providing a locking bar 26, which is preferably pivotally attached to the bell mounting and so located as to have one of its ends passed into engagement with the shank 9 and hold the same against operation
20 so long as the bar 26 is in engagement therewith, the opposite end of said bar being extended to a position to be conveniently grasped and operated.

It will thus be seen that I have provided
25 a very cheap and economical form of alarm and one that can be applied to any make of door lock. It will likewise be seen that by arranging the rod in the manner shown, the

movement of either the latch or the locking bolt will cause the alarm to operate and by
30 providing the push button as shown and attaching the same to the rod, the alarm may be used as a door bell.

What I claim is:

In an alarm, the combination with a lock
35 having a latch bolt and locking bolt therein, a rod pivotally mounted adjacent its lower end in said lock, a shoulder on the latch bolt adapted to engage the rod above its pivot
40 and an arm on the locking bolt adapted to engage the rod below its pivot, said shoulder and arm swinging the rod on its pivot in one direction; of an alarming device positioned adjacent the upper end of said rod,
45 means to normally hold the upper end of the rod in engagement with parts of the alarming device and additional means to manually operate the rod to release the alarming device.

In testimony whereof I have signed my
50 name to this specification in the presence of two subscribing witnesses.

ANTHONY COYNE.

Witnesses:

W. A. OWENS,
H. H. DUNCAN.