J. McCARTHY.

DETONATING ALARM.

APPLICATION FILED MAY 16, 1911.

1,067,126.

Patented July 8, 1913.

2 SHEETS—SHEET 1.

FIG. 1.

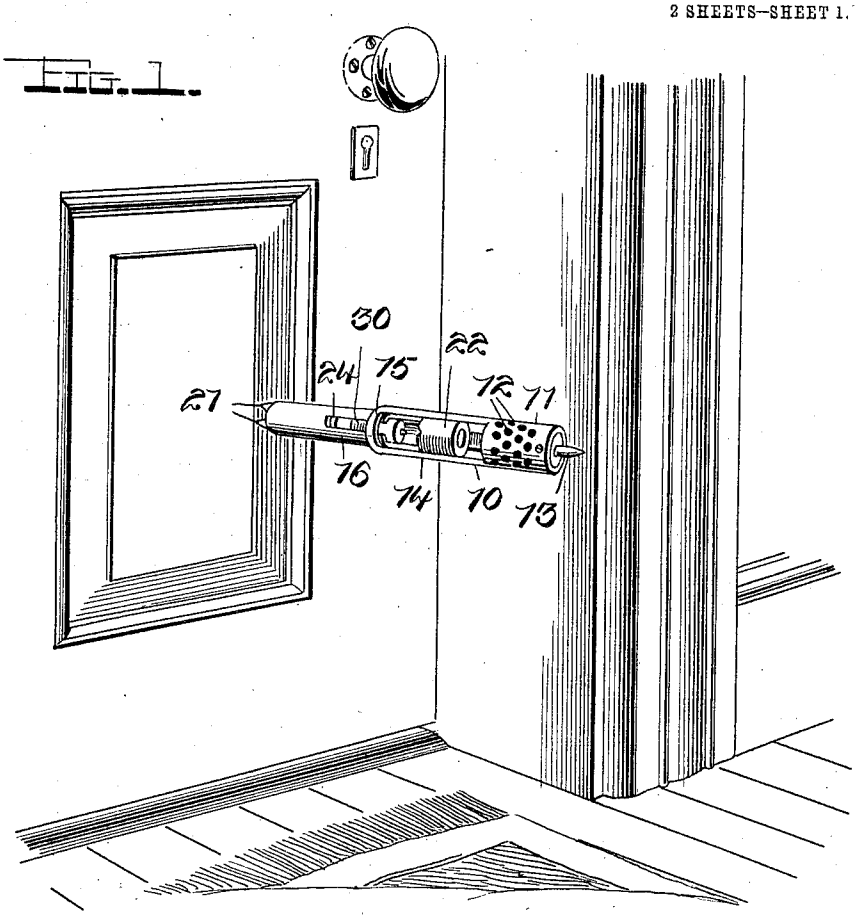
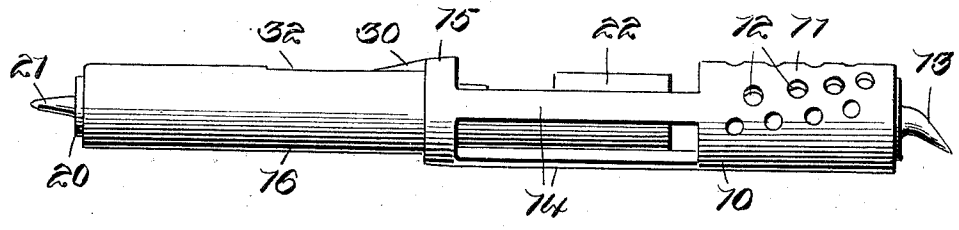


FIG. 2.



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2 SHEETS—SHEET 2.

FIG. 3

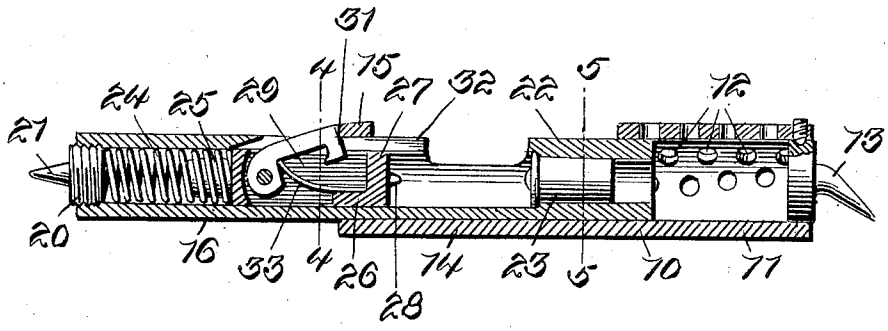


FIG. 4

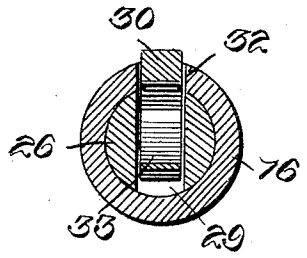


FIG. 5

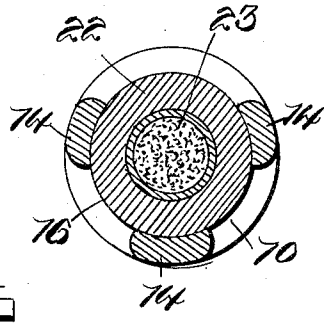
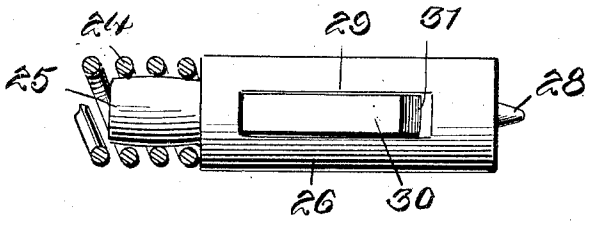


FIG. 6



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DETONATING ALARM.

1,067,126. Specification of Letters Patent. **Patented July 8, 1913.**

Application filed May 16, 1911. Serial No. 627,405.

To all whom it may concern:

Be it known that I, JOHN MCCARTHY, a citizen of the United States, residing at Whitehall, in the county of Washington and State of New York, have invented new and useful Improvements in Detonating Alarms, of which the following is a specification.

An object of the invention is to provide an alarm for use in connection with the doors and windows of a house whereby unauthorized opening of a door or window will result in the explosion of a cartridge, thus alarming the inhabitants of the house and frightening the intruder.

For the purpose mentioned use is made of a perforated casing, a shank mounted to slide in the said casing, a barrel formed in the said shank and adapted to receive a cartridge therein and trigger means mounted in the shank and slidable therein for firing the cartridge contained in the said barrel when the closure to which my device is attached is opened, the said device being adapted to be positioned between the closure and the casing thereof with one end engaging the closure and the other end engaging the casing.

Reference is to be had to the accompanying drawings constituting a part of this specification, in which similar characters of reference denote corresponding parts in all the views, and in which—

Figure 1 is a fragmentary perspective view showing a closure and casing with my device operatively connected thereto. Fig. 2 is a side elevation of my device showing the same in initial or inoperative position. Fig. 3 is a vertical sectional view taken longitudinally through my device and showing the same in position for firing the cartridge. Fig. 4 is a vertical transverse section taken on the line 4—4 in Fig. 3 looking in the direction of the arrow. Fig. 5 is a vertical transverse section taken on the line 5—5 in Fig. 3, looking in the direction of the arrow. Fig. 6 is a plan view of the bearing and trigger, showing one end of the spring attached to the bearing.

Referring more particularly to the views I provide a casing 10 terminating in a chamber 11 having the walls thereof provided with perforations 12 and extending outwardly from an end of the casing 10 is a retaining pin 13 detachably secured thereto by means of the screw 13′, the other end of the casing 10 being provided with spaced integral bars 14 terminating in a cocking member 15.

Mounted to slide in the casing 10 is a tubular shank 16 having threadedly connected at one end thereof a plug 20 provided with outwardly extending retaining pins 21. It will be observed that the plug 20, owing to its threaded connection with the outer end of the shank 16 may be adjusted longitudinally of the shank so as to increase or decrease the length of the device. The other end of the shank 16 is formed into a barrel 22 adapted to receive therein a cartridge 23 as shown in Fig. 3. An expansible spring 24 is mounted in the shank 16 with an end of the spring abutting against the inner end of the plug 20 and the other end of the spring encircles a knob 25 formed on one end of a plunger 26 slidably mounted in the tubular shank 16, the other end of the plunger 26 having a plug 27 connected thereto with a firing pin 28 extending outwardly from the said plug. Pivotally mounted in the plunger 26 and projecting outwardly through a slot 29 therein is a trigger 30, the said trigger having a head 31 adapted to abut against the cocking member 15 on one end of the casing 10 when my device is in operative position for firing the cartridge 23.

A longitudinally extending slot 32 is provided in the tubular shank 16 and the trigger 30, mounted to operate in the said slot will have its outer side inclined relatively to the tubular shank when the trigger is in operative position so that the outer side of the trigger will abut against the tubular shank 16 at one end of the slot, a spring 33 being provided in the plunger 26 and engaging the trigger 30 to retain the same in normal position.

In the use of my device the cartridge 23 is inserted in the barrel 22 after which the shank 16 is slid inwardly in the casing 10 until the outer side of the trigger 30 almost touches the tubular casing 16 at the inner end of the slot 32, the head 31 of the trigger 30 being in engagement with the cocking member 15. The device is then positioned as shown in Fig. 1 with the retaining pin 13 in engagement with the casing of a closure and the retaining pins 21 in engagement with the closure which is in closed position. Now assuming that the door is opened inwardly from the outside, the tubular shank 16 will be slid still farther inwardly toward

the casing 10 and against the action of the spring 24 and the resulting movement will cause the outer side of the trigger 30 to engage the shank 16 at the inner end of the slot 32. As the door is opened still farther, the pressure at their point of engagement will cause the trigger to be moved inwardly in the plunger 26 and out of engagement with the cocking member 15. At the moment that the trigger is moved out of engagement with the cocking member 15 the pressure of the spring 24 against the bearing 26 will force the bearing toward the barrel 22 so that the pin 28 will engage the firing cap of the cartridge 23 thus exploding the same and the barrel end of the shank 16 will move into the chamber 11 of the casing 10.

Owing to the telescopical action of the shank 16 relatively to the casing 10, when the cartridge 23 is fired, my device will be approximately one-half the length in which it was positioned between the closure and the casing thereof and the weight of the device will cause the same to be disengaged from the closure and the casing and the device will fall to the floor, thus permitting the closure to be opened.

From the foregoing description it will be seen that a reliable and efficient instrument is provided for giving an alarm when an intruder attempts to enter a residence by raising a window or opening a door or other closure of the residence, provided my device is properly attached to one of the said closures and it will be readily seen that my device can be used in connection with all manner of closures such as windows, doors, skylights, et cetera.

Having thus fully described the invention, what I claim as new, is:—

An alarm including a casing, a tubular shank having a slot mounted to telescope within the said casing and adapted to receive a cartridge therein, a cocking member formed on the inner terminal end of said casing, a spring actuated plunger slidably mounted in the shank, a firing pin carried by said plunger, a trigger pivotally mounted on the said plunger and adapted to extend upwardly through said slot and engage with the said cocking member, said trigger being disposed longitudinally of and within said shank and movable out of engagement with the said cocking member to release the said spring and actuate the said plunger to move the said firing pin to strike the said cartridge, upon the telescoping of the shank within said casing, and detachable supporting members carried by the outermost terminal of the casing and shank for supporting the device in active position, one of said supporting members having a threaded connection with its carrying part whereby upon the adjustment of the said supporting member the said device may be adjustably supported as desired.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN McCARTHY.

Witnesses:
MARTIN BRODIE,
GEORGE E. PIERCE.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."