(No Model.)

H. J. MITCHELL.

DOOR LOCKING BURGLAR ALARM.

No. 528,206. Patented Oct. 30, 1894.

Fig. 1.

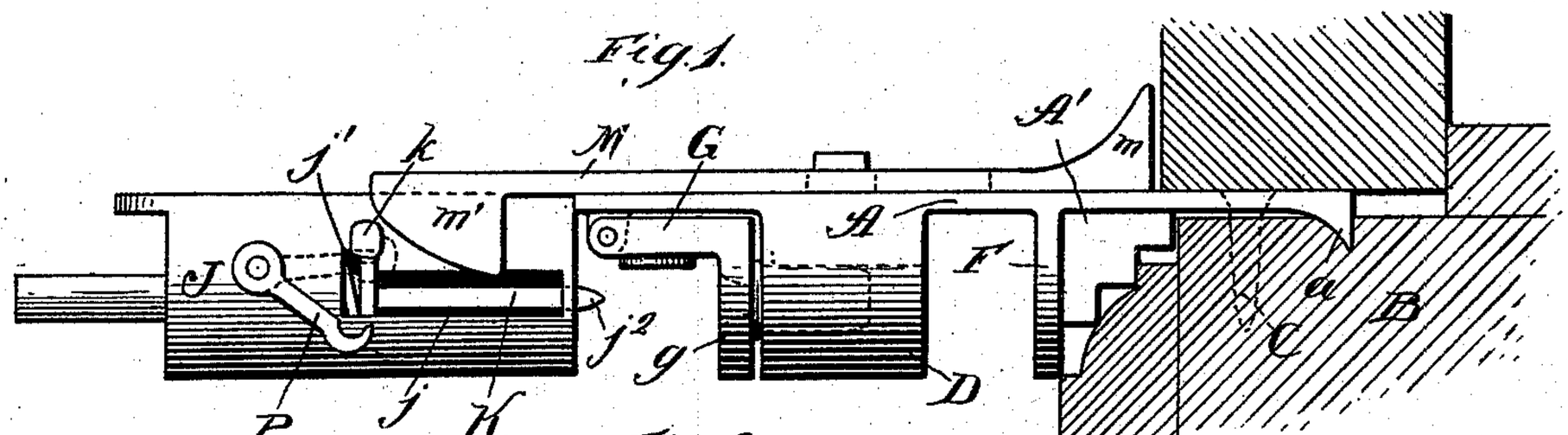


Fig. 2.

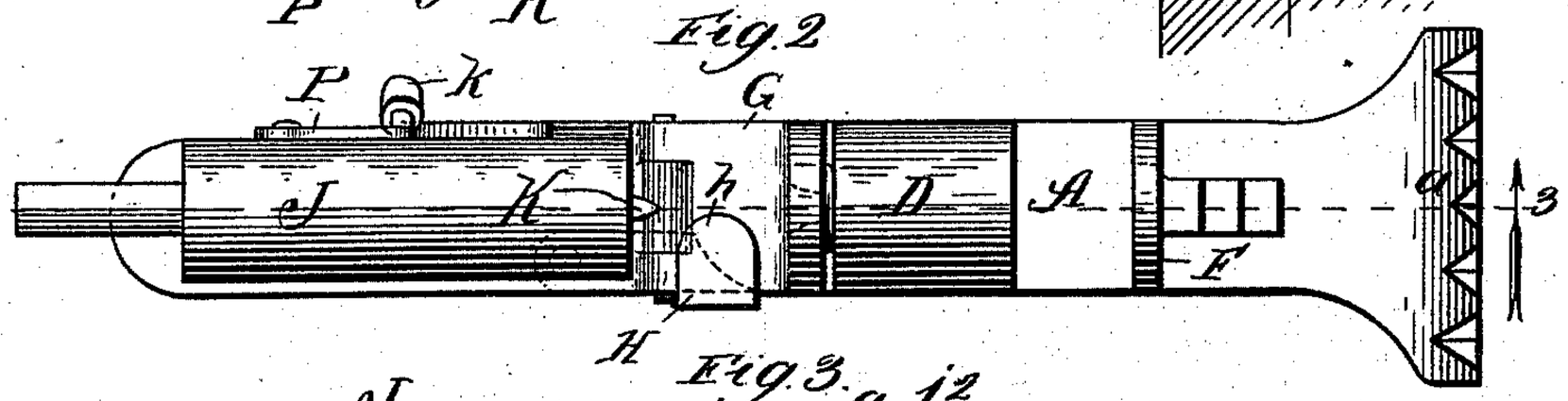


Fig. 3.

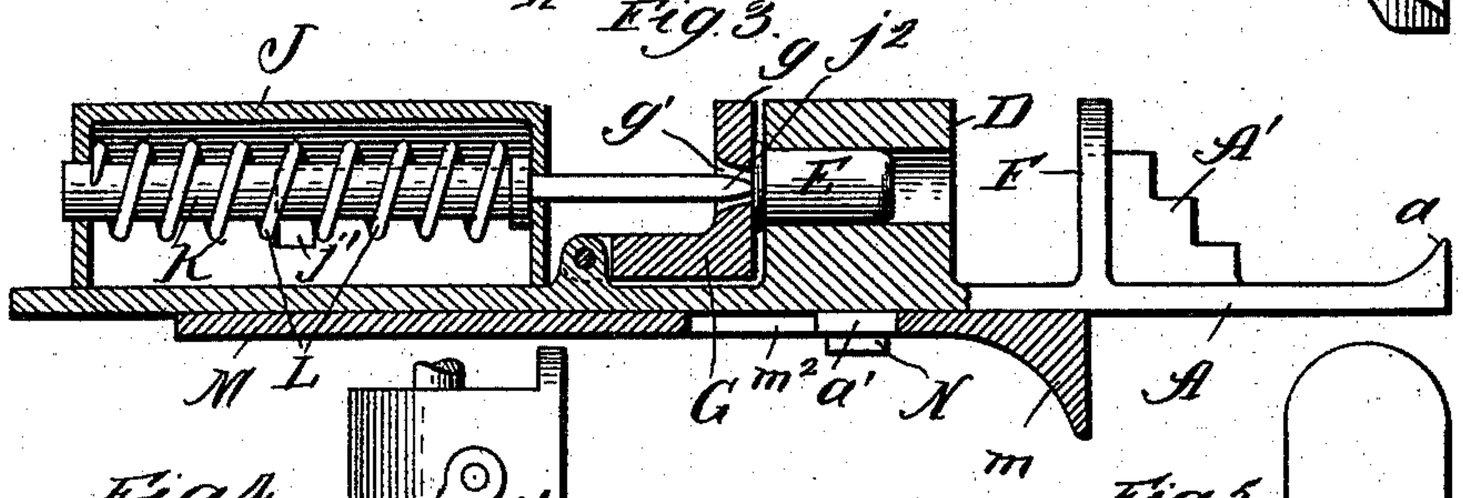


Fig. 4.

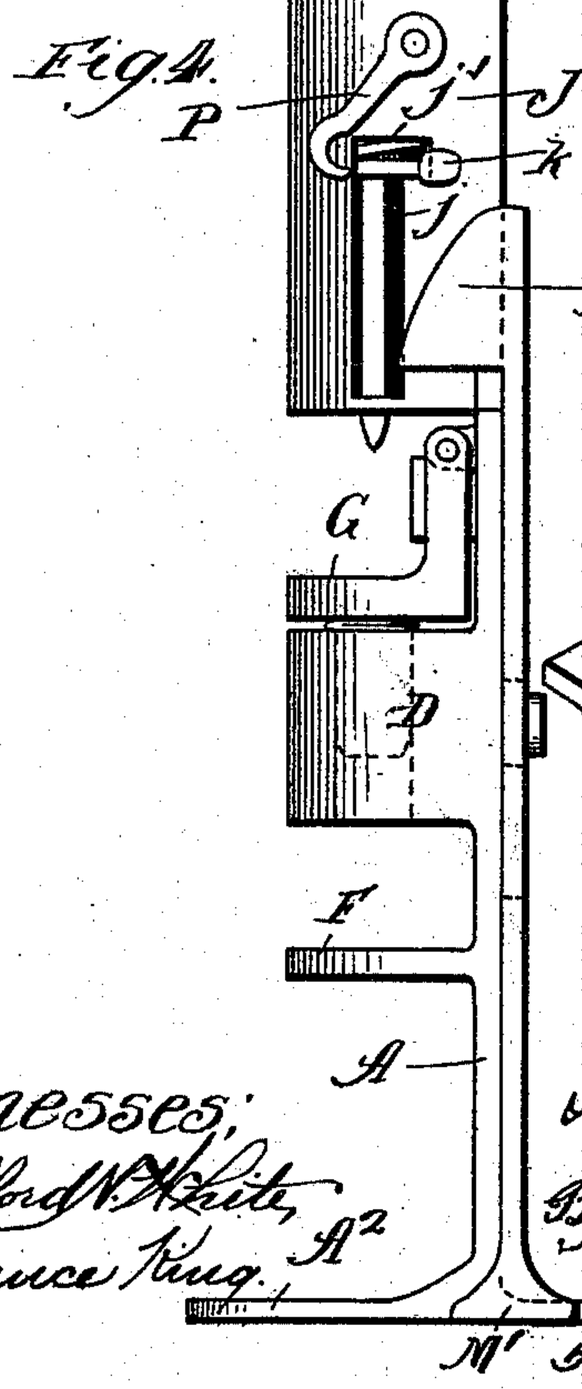


Fig. 5.

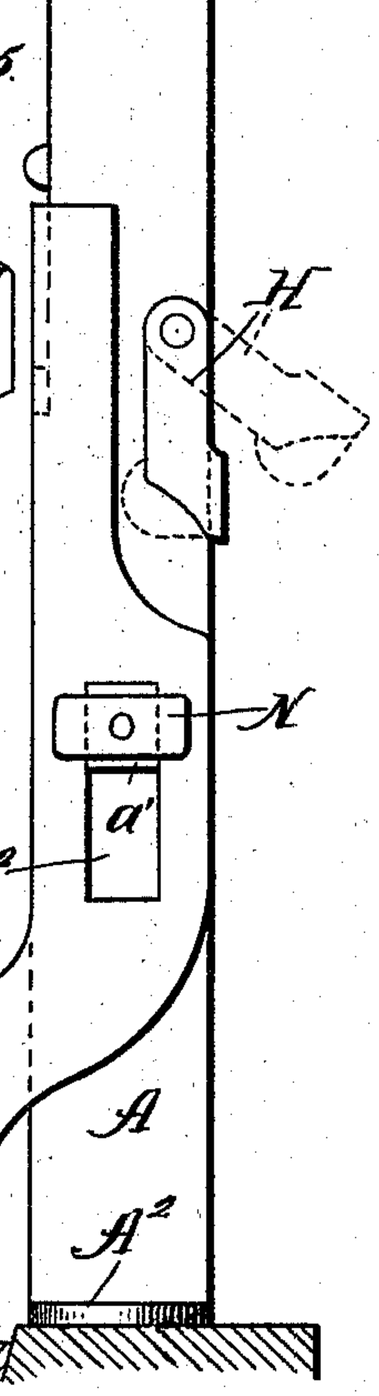
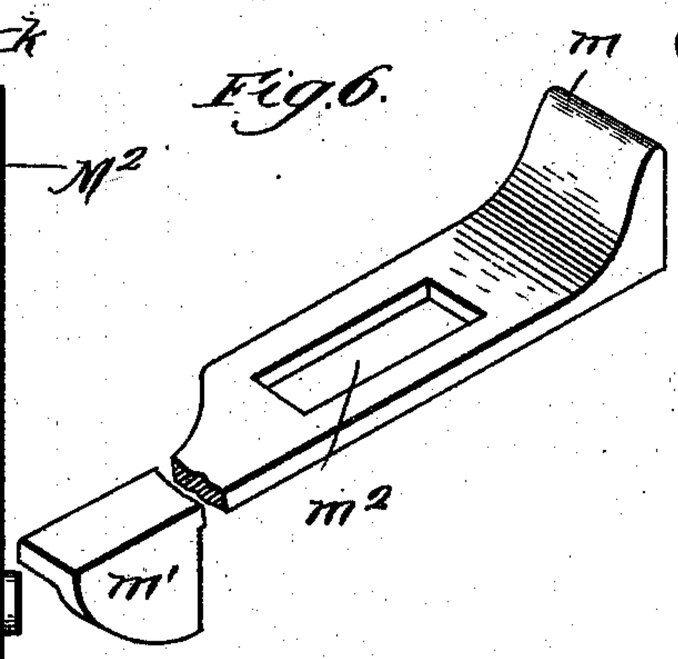


Fig. 6.



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HENRY J. MITCHELL, OF CHICAGO, ILLINOIS.

DOOR-LOCKING BURGLAR-ALARM.

SPECIFICATION forming part of Letters Patent No. 528,206, dated October 30, 1894.

Application filed January 13, 1894. Serial No. 496,766. (No model.)

To all whom it may concern:

Be it known that I, HENRY J. MITCHELL, a citizen of the United States, residing at Chicago, county of Cook, State of Illinois, have invented a certain new and useful Improvement in a Combined Bolt and Alarm; and I 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 pertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

My invention has for its object the production of a device attachable either to a door or window, which shall constitute at one and the same time a bolt to lock the door or window and an alarm to show that an attempt is being made to open it.

The invention consists essentially in a plate attached to the door jamb, to a stationary window frame, or other object; a cartridge holding device; a cartridge firing device; and a plate adapted when moved to release the cartridge firing device and then lock the door.

The invention further consists in a combination of devices and appliances hereinafter described and claimed.

In the drawings Figure 1 is a horizontal section of a door and adjacent jamb with my device in elevation. Fig. 2 is an elevation at right angles to Fig. 1. Fig. 3 is a cross section on the line 3—3 of Fig. 2. Fig. 4 is a side elevation of a device adapted for engagement to a window. Fig. 5 is an elevation at right angles to Fig. 4. Fig. 6 is a detail of the bolt.

In carrying out the invention A represents a suitable base plate which may be engaged to the door jamb in any suitable manner, as for instance the teeth *a* may be inserted in the jamb B and if necessary held there by the screw C.

Engaged to the plate A and preferably made integral therewith is a barrel D in which is placed a suitable blank cartridge E.

F is a plate against which the force of the explosion is expended.

G is a plate hinged to the main plate having an upward projection which when the plate is in its normal position is immediately back of the cartridge. This upward projection *g* is perforated as at *g'*.

H is a pivoted latch, pivoted to the main plate A and adapted by means of the flange *h* to hold the plate G in its normal position against the plate A.

J is a suitable case engaged to the plate A and provided with an interior longitudinally movable plunger or piston K, the plunger being surrounded by a spring L adapted to keep it normally outward. The end of this piston enters the orifice *g'* and strikes the percussion cap of the cartridge. In the case J is a slot *j* provided at its end with a notch *j'*. On the piston is a suitable projection *k* which travels in the slot *j*.

M is a suitable sliding plate provided on one end with a projection *m* and on the other end with a beveled projection *m'*. This plate is provided with a slot m^2 which embraces a projection *a'* on the plate A. A pivoted latch or button N holds the plate M against the plate A and yet allows the former to move longitudinally on the projection *a'*. It will be observed that the beveled projection *m'* terminates adjacent to the slot *j* and travels along the same.

The operation will at once be seen. The person adjusting the device, by turning the button N so that it is parallel with the slot m^2 can remove the plate M. He then places the plate A against the door jamb and embeds the teeth *a* therein, a brace A' having a stepped face enabling the plate A to be braced in the proper position irrespective of the width of the jamb. The door is then closed. The plunger is now drawn back so that the projection *k* is in the notch *j'*. The latch H is thrown up and the plate G thrown up. A cartridge is inserted in the barrel, the plate thrown down and locked in position by the latch H. The plate M is now placed in position and the button N turned at right angles to the slot to lock the plate M on to the plate A and the projection *m* is brought up against the face of the door. The result is that so long as the bolt is in position any person attempting to open the door, the door strikes the projection *m*, slides back the plate M until the beveled projection *m'* comes into contact with the projection *k* on the piston, the projection is tilted out of the notch *j'* and the spring forces the pointed end j^2 of the plunger into the cap of the cartridge and explodes the

latter. This movement of the plate M on the projection a' has, however, brought the end m^2 of the slot against the projection a' and the plate M thus serves as a bolt so that the door cannot be further opened without tearing out the jamb and that is practically impossible. Thus not only an alarm but a lock is provided which can readily and easily be attached to and detached from the door.

In Figs. 4 and 5 I have shown the same device applied to a window. In that case the plate A instead of being provided with teeth a is provided with projections A^2 having screw holes whereby the plate A may be engaged to the window sash. The plate M is also of somewhat different shape, the projection M' serving the same purpose that the projection m does in the former construction and the beveled projection M^2 performing the same function (that of tripping the hammer or piston) that is performed by the projection m' in the former construction. In order that when the device is being loaded the piston will not become accidentally released I provide on the case J adjacent to the notch j' a pivoted latch P, which, when thrown down engages the projection k and prevents its being accidentally disengaged from the notch, thus insuring a safe loading of the device.

It is obvious that other changes of construction might be resorted to without departing from the spirit of my invention which consists essentially in the provision upon a door, window or other movable device which it is desired to lock of a movable plate, which when moved will cause an explosive to be fired, but which will prevent more than a slight movement of the object to be locked.

What I claim is—

1. In a combination lock and alarm the combination with the door, window or the like which it is desired to lock, of a suitable supporting plate provided with means for engaging it to a stationary support, a movable device carried by said plate and adapted to limit the movement of the door, &c., a cartridge holding device carried by said plate and a longitudinally movable spring plunger released from its retracted position by the movable device and adapted to fire the cartridge, substantially as described.

2. In a combination lock and alarm the combination with the door, window, or the like, of a suitable supporting plate engaged to a stationary object, a sliding plate engaged to the supporting plate and located in the path of the door, &c., a cartridge holding barrel carried by the plate, a hinged plate adapted to hold said cartridge in the barrel, and spring mechanism released by the movement of the sliding plate and adapted to fire the cartridge, substantially as described.

3. The combination with the door, window, or the like of a suitable supporting plate engaged to the door jamb, a sliding plate on the supporting plate in the path of the door, said sliding plate detachably engaged to the main plate, a cartridge holding device on the main plate, and spring mechanism released by the sliding plate and adapted to fire the cartridge, substantially as described.

4. The combination with the door, window, or the like, of a main or supporting plate engaged to the door jamb, a cartridge holding device, a hinged plate to hold the cartridge in place, a spring impelled plunger carried by the main plate and a detachable sliding plate carried by the main plate having a projection extending in the path of the door or the like and adapted to limit the movement of the same, said sliding plate also provided with a beveled projection adapted to release the spring impelled plunger from its retracted position, substantially as described.

5. The combination with the door, window, or the like of the main or supporting plate, a cartridge holder carried thereby, a sliding plate moved by the movement of the door, &c., mechanism released by the movement of the sliding plate and adapted to fire the cartridge, and a hinged plate adapted to hold the cartridge in position, said hinged plate held in place by a pivoted latch, substantially as described.

6. The combination with the door and door jamb of a plate provided with a series of teeth extending at an angle therefrom and adapted to enter the door jamb, a cartridge holding device on said plate, means for firing the cartridge and a detachable sliding plate adapted to release the cartridge firing means, and also to limit the movement of the door, substantially as described.

7. The combination with a door or the like of the main plate carried by the door jamb, the cartridge holding device, a cartridge firing spring impelled piston, a sliding plate to release said piston from its retracted position and a pivoted catch to lock said piston in its retracted position and against release by the sliding plate, substantially as described.

In testimony whereof I sign this specification in the presence of two witnesses.

HENRY J. MITCHELL.

Witnesses:
W. H. CHAMBERLIN,
FLORENCE KING.