No. 813,164. PATENTED FEB. 20, 1906.

W. L. MONROE.

ALARM.

APPLICATION FILED MAY 25, 1904.

Fig. 1.

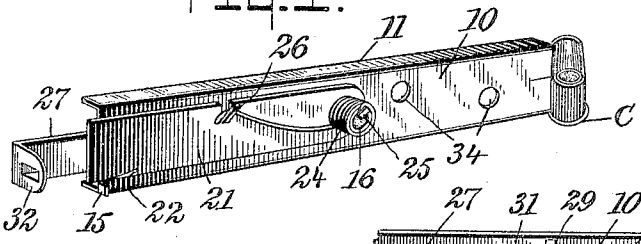


Fig. 2.

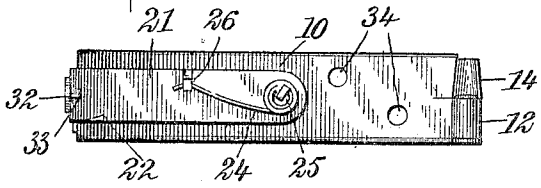


Fig. 3.

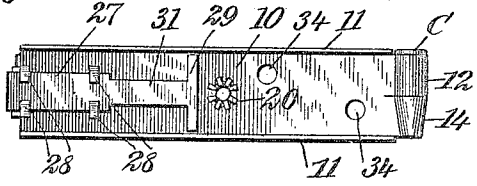


Fig. 4.

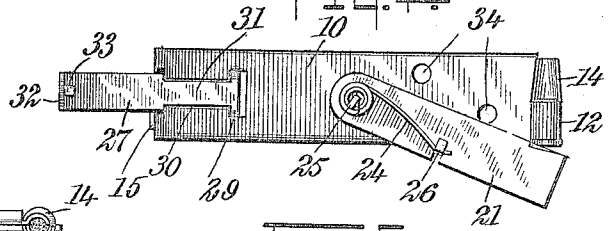


Fig. 5.

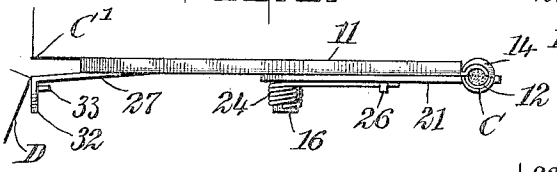


Fig. 6.

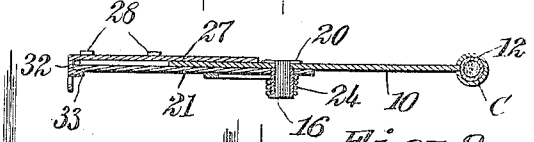


Fig. 8.

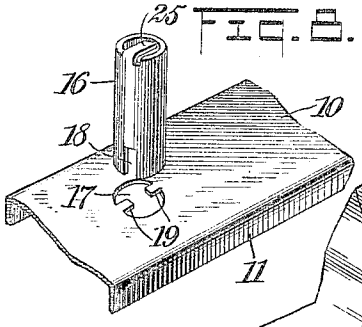


Fig. 9.

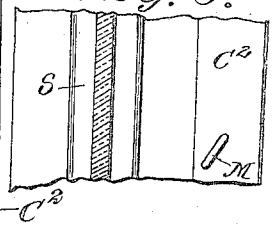
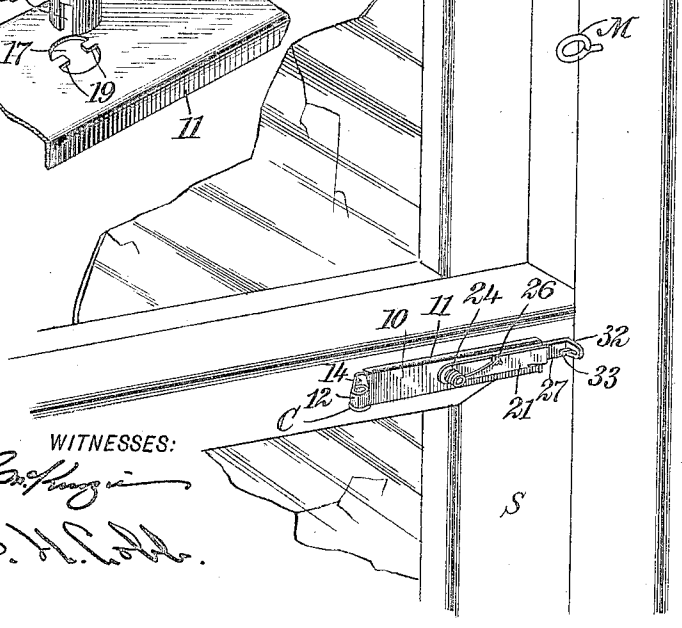


Fig. 7.



WITNESSES:

INVENTOR
William L. Monroe
BY
ATTORNEYS

UNITED STATES PATENT OFFICE.

WILLIAM LEALDAS MONROE, OF OMAHA, NEBRASKA.

ALARM.

No. 813,164. Specification of Letters Patent. Patented Feb. 20, 1906.

Application filed May 25, 1904. Serial No. 209,710.

To all whom it may concern:

Be it known that I, WILLIAM LEALDAS MONROE, a citizen of the United States, and a resident of Omaha, in the county of Douglas and State of Nebraska, have invented a new and Improved Alarm, of which the following is a full, clear, and exact description.

My invention relates to alarms, and more particularly to those applicable to doors and windows for use as burglar-alarms. Its principal object is to provide an effective and inexpensive device of this character.

It consists in the various features and combinations hereinafter described and claimed.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a perspective view of one embodiment of my invention. Fig. 2 is a front elevation thereof with the trigger in its locking position. Fig. 3 is a rear elevation. Fig. 4 is a front elevation with the hammer released. Fig. 5 shows the device arranged for coaction with a door. Fig. 6 is a central horizontal longitudinal section. Fig. 7 illustrates the application of the device to a window. Fig. 8 is a detail in perspective, showing the manner of securing the post to the base. Fig. 9 is a detail view of part of a window-casing, showing the inclined position of the actuating member of the device.

10 designates a base, which may conveniently consist of an elongated plate of sheet metal, at the opposite sides of which are flanges 11 11, furnishing an intermediate space or chamber. At one end of this base is mounted a holder or barrel 12, which is preferably formed by bending over into a cylinder a tongue furnished by a portion of the width of the plate. This holder may be of such dimensions as to receive a blank cartridge, the detonation of which furnishes the alarm. At the end of the holder is a shield 14, which may consist of a tongue formed similarly to that which provides the holder, but of less length, it being bent into a frusto-conical contour converging from the end of the holder and serving to direct the discharge from the cartridge away from the surface on which the device is supported. At the opposite end of the base near one edge a lug 15 furnishes a retaining projection, the purpose of which will be hereinafter described.

Between the ends of the base is mounted a post 16, which is preferably in the form of a hollow cylinder extending through an opening 17 and having slots 18, which engage tongues 19, projecting inward from opposite sides of the opening. These tongues prevent the rotation and inward movement of the post, and it is retained in place against outward movement by upsetting its extremity at 20. Pivoted about the post is an operating member or hammer 21, conveniently formed of sheet metal and of such length that it may engage the retaining projection 15 at one end of the plate or may coact at the other end with a cartridge C in the holder, this latter coacting portion being preferably reduced at 22 to enable it to more certainly explode the fulminate. Encircling the post outside the hammer is a spring 24, one end of which is secured to said post at its outer end by forcing down over it a tongue 25, while the opposite end extends along the hammer and beneath a tongue or lug 26, turned up from the plate.

Mounted to slide at the rear of the base between the plate-flanges is a releasing member or trigger 27. This may be mounted in guides formed by pairs of projections 28 28, struck up from the plate. The trigger is shown as having at its inner end an enlargement or head 29, which by its contact with the inner guide prevents longitudinal withdrawal. Between the guides the plate is preferably cut away at 30, and the trigger has a reduced or narrowed portion 31, which may move therethrough when the trigger is in the position illustrated in Fig. 4 of the drawings. At the outer end of the trigger is an angular portion 32, serving as a finger-piece, and from this is an inturned lug 33, which may project over the hammer when it is in coaction with the retaining projection and lock it against release.

In use in connection with a door the base is secured upon the casing indicated at C′ by means of screws applied through openings 34 in the base in such position that when the trigger is drawn out to its full extent it will project slightly into the path of the door D. The holder is now provided with a cartridge, and the hammer is turned under the retaining projection, being held under tension by its spring. Now it will be seen that if the door is opened it will contact with the end of the trigger, and this member will be moved outward through the cut-away portion 30 of the plate and press the hammer from beneath

the projection, whereupon the spring will throw it forcibly to the other side of the base into contact with the cartridge and explode it, sounding an alarm. In applying my improved alarm to a window the base may be similarly secured to the top rail of the lower sash S and in the casing C^2 an actuating member M placed, which is here shown as a screw-eye, situated at a distance from the sash, which will secure the sounding of the alarm at the desired amount of opening of the window and lying in an outwardly-inclined plane. This results in the trigger being pressed from the base as it rides over the incline, which effects the release of the hammer, as has just been described. In this connection or with the door when it is not desired that the alarm shall be set for action the trigger is pressed to its extreme inmost position, at which the finger-piece contacts with the end of the hammer. In this position the lug on said finger-piece extends over the hammer and locks it beneath the retaining projection, obviating the possibility of accidental release and the necessity of manipulating the hammer except when alarm has acted. This permits the cartridge to be left in the holder at all times; but it can only be exploded when the alarm is set.

It will be seen that, although this device furnishes an effective alarm in which the hammer is operated by ample force under comparatively slight pressure by the door or window which is to actuate it, it may be very inexpensively manufactured, the base, holder, shield, and the guiding and retaining projections being stamped from a single sheet of metal, while the other elements are equally simple to produce. It will be obvious that the holder may be varied in diameter to receive cartridges of any suitable caliber or that the holder may support any other device which by the contact of the hammer will sound an alarm.

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

1. The combination with a base, of a holder, an operating member mounted upon the base, a retaining projection on the base for the said operating member, and a releasing member carried by the base and having a projection which may extend over the operating member, to lock the same in an inoperative position.

2. The combination with a base, of a post extending therefrom between its ends, a hammer movable about the post, a holder and retaining projection situated at opposite ends of the base, and a releasing member for the hammer movably mounted adjacent to the retaining projection.

3. The combination with a base provided with an opening, of a tongue extending into the opening, a post situated in the opening and having a slot engaging the tongue, and a hammer movable about the post.

4. An alarm comprising a plate having flanges, a holder, a hammer pivoted upon the plate, guides situated between the flanges, and a member for coaction with the hammer mounted in the guides and having an enlargement which may contact with one of said guides.

5. An alarm comprising a plate having an opening, a holder carried by the plate, a hammer pivoted upon said plate, and a member mounted to slide upon the plate and being movable through the opening into coaction with the hammer.

6. An alarm comprising a plate, a holder carried by the plate, a hammer pivoted to said plate, and a member mounted to slide upon the opposite side of the plate from the hammer and having a projection which may contact with the outer face of the hammer.

7. An alarm comprising a plate having an opening, a holder carried by the plate, a hammer pivoted upon said plate, and a member mounted to slide upon the opposite side of the plate from the hammer and being movable through the opening into coaction with said hammer, this member having a projection which may contact with the outer face of the hammer.

8. The combination with a base having an opening at one end, of a holder, an operating member pivotally mounted upon the base, a retaining projection on the base for said operating member, and a releasing member mounted to slide upon the base and movable through the opening in the base to engage and release the operating member.

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

WILLIAM LEALDAS MONROE.

Witnesses:

M. E. PATCH,

F. M. JONES.