W. D. WRIGHT.

BURGLAR-ALARM.

No. 187,445. Patented Feb. 13, 1877.

Fig. 1.

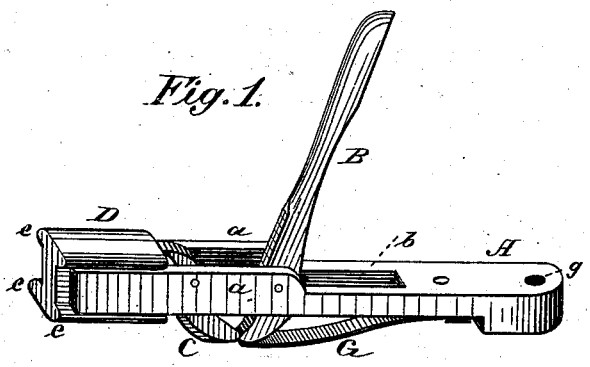


Fig. 2.

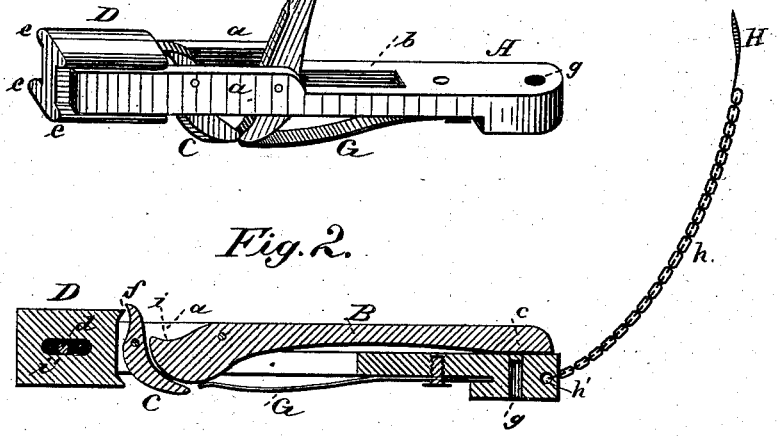


Fig. 4.

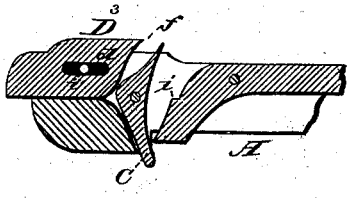
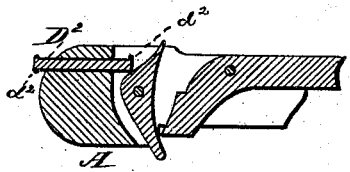


Fig. 3.



Attest:

Jno. P. Brooks.

S. Dittmold.

Inventor:

William D. Wright,

by Louis Bagger & Co.,

attys

UNITED STATES PATENT OFFICE.

WILLIAM D. WRIGHT, OF BALTIMORE, MARYLAND.

IMPROVEMENT IN BURGLAR-ALARMS.

Specification forming part of Letters Patent No. **187,445**, dated February 13, 1877; application filed December 21, 1876.

To all whom it may concern:

Be it known that I, WILLIAM D. WRIGHT, of Baltimore, in the county of Baltimore and State of Maryland, have invented certain new and useful Improvements in Burglar-Alarms; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a perspective view, showing the alarm set. Fig. 2 is a longitudinal vertical section, and Figs. 3 and 4 represent modified constructions of the discharging mechanism.

Similar letters of reference indicate corresponding parts in all the figures.

This invention relates to that class of burglar-alarms which are arranged to be suspended from a door or window, in such a manner that the opening of the door or window causes it to fall to the ground, thus exploding a cartridge, which has been previously adjusted in the alarm; and it consists in the construction and arrangement of parts hereinafter more fully shown and described.

In the drawings, A is the body of my improved burglar-alarm. This consists of a block of metal or other suitable material, having, lengthwise, a recess denoted by *b*. Between the two arms *a a*, formed by this recess, is pivoted a hammer, B, having, if desirable, at its outer lower end, a sharp tooth or projection, *c*, by which the cartridge is more readily exploded. C is the trigger, which is pivoted between arms *a a*, behind hammer B. The lower part of the hammer B projects, when the hammer is raised, below the arms *a a*, thus enabling the trigger to be easily placed against it, in the position shown in Fig. 1, thus keeping the hammer raised—or, in other words, setting the alarm. The hammer at its lower end has a recess, *i*, in which the trigger is placed, thus preventing the accidental discharge of the alarm.

If desirable, a small spring may be used for placing the trigger in position, automatically, when the hammer is raised, on the principle of an ordinary gun-lock; but this is not necessary.

The trigger is operated by a bolt, D, which slides between arms *a a*, beyond which it projects. The construction of this bolt will be clearly understood by reference to Figs. 1 and 2 of the drawings. It consists of a flat piece of metal, having at its upper and lower sides flanges *e e*, fitting upon arms *a a*, and enabling it to slide freely. It has a longitudinal slot, *i'*, by which it slides upon a pin, *d*, which retains it in position between arms *a a*. The upper side of bolt D has a projection, *f*, which engages with the upper end of the trigger, which, when the alarm is set, projects above arms *a a*.

The construction of bolt D may, if desirable, be modified, as shown in Figs. 3 and 4. As it is but necessary that the upper end of trigger C should be touched by the bolt in order to explode the alarm, the bolt may consist simply of a pin sliding in a perforation in the end of body A, which is then made solid, as shown, Fig. 3. The pin D^2, in order to prevent its falling out, is slightly clinched on both ends, as shown at d^2 d^2.

In Fig. 4, the bolt D^3 is shown as having but one flange, namely, the upper one, the lower one being unnecessary, as the bolt slides in a recess in body A, just large enough to accommodate it. Both of these forms are cheaper than the first, and may, therefore, be used in preference to it, answering, as they do, every practical purpose.

A spring, G, is secured to the under side of body A, and operates the hammer B in such a manner as to bring it down with considerable force, when, by the action of bolt D upon trigger C, the alarm is discharged. The body A has, directly under the head or end of hammer B, a perforation, *g*, in which a cartridge may be placed, which is thus exploded when the hammer, impelled by spring G, is brought down upon it.

As before stated, the material of which my improved burglar-alarm is manufactured, is preferably metal; but it should be so constructed, in order to insure certainty of action, that the end having the bolt D should be

much heavier than the opposite end. This is in order that, when the apparatus falls to the ground, it may fall with the bolt D down, thus forcing the bolt against the trigger, and operating the alarm.

The operation of my improved burglar-alarm will be easily understood from the foregoing description, and by reference to the drawings hereto annexed. It is suspended by a string or chain, *h*, which passes through a perforation, *h'*, in its light end, from a rod, H, which is inserted between the door and jamb in such a manner that, when the door is opened, it must fall to the ground. When this happens the bolt D, by being forced against the trigger, operates this and sounds the alarm, a cartridge having been previously placed in the perforation *g*.

Instead of suspending it in the manner just described, it may be suspended in any other suitable manner so that the opening of the door will cause it to fall; or, it may be laid sidewise upon the floor in such a manner that, when the door is opened, it shall press against bolt D, thus operating the alarm.

Having thus described my invention, I claim and desire to secure by Letters Patent of the United States—

The combination of body A, having perforation *g* and spring G, pivoted hammer B, trigger C, and operating-bolt D, the latter sliding between arms *a a*, beyond which it projects, substantially as and for the purpose herein shown and specified.

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

WILLIAM D. WRIGHT.

Witnesses:
C. A. SNOW,
WM. BAGGER.