J. B. UNDERWOOD.

BURGLAR-ALARMS.

No. 185,148. Patented Dec. 5, 1876.

Fig 1

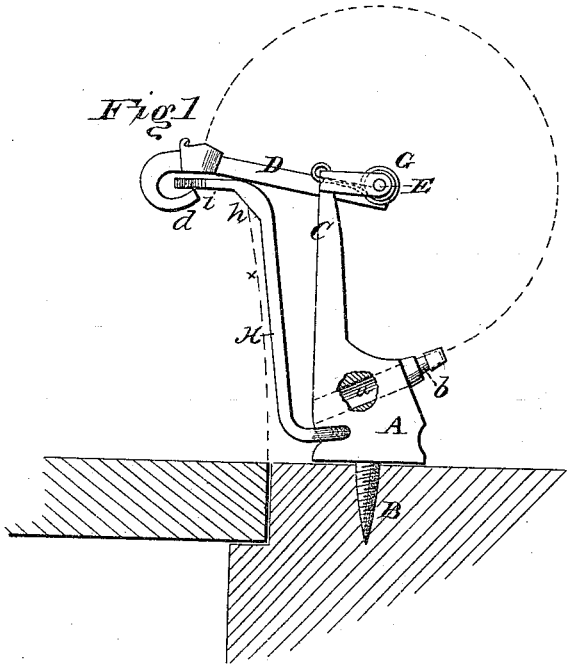
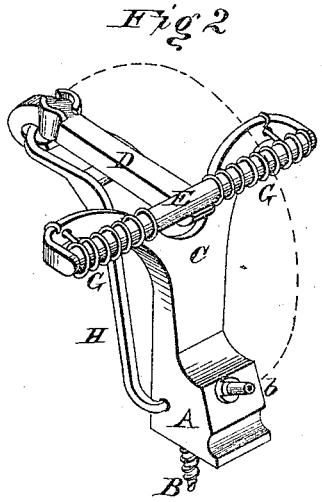


Fig 2



WITNESSES

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IMPROVEMENT IN BURGLAR-ALARMS.

Specification forming part of Letters Patent No. **185,148**, dated December 5, 1876; application filed May 10, 1876.

To all whom it may concern:

Be it known that I, J. B. UNDERWOOD, of Fayetteville, in the county of Cumberland, and in the State of North Carolina, have invented certain new and useful Improvements in Burglar-Alarms; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of this specification.

The nature of my invention consists in the construction and arrangement of a burglar-alarm for doors, windows, and other places, as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing, in which—

Figure 1 shows my burglar-alarm as applied to a door. Fig. 2 is a perspective view of the alarm.

A represents the head or base of my burglar-alarm, provided with a projecting screw, B, so as to be easily and quickly inserted and fastened in position where wanted. In the head A is formed an inclined or diagonal barrel or chamber, *a*, with an ordinary gun-nipple inserted in the outer end thereof. From the head A extends a bar, the outer end of which is forked, forming two projecting side arms, C C, which have their ends bent outward on the same side that the nipple *b* is situated. In these bent ends of the arms C C is journaled a shaft, E, to the center of which the hammer D is secured. This hammer is made in the form of a lever, and its outer end is curved to form a hook, *d*, as shown. Around the shaft E is coiled a wire spring, G, the center of which forms a loop around the inner end of the hammer, and the two ends coiled around the shaft on each side of the hammer, and fastened to the arms C C. Near the inner end of the head A is pivoted a bail, H, of substantially the form shown in the drawing, the outer end of said bail forming an inclined plane, *h*, and loop *i*. This bail forms the trigger for operating the alarm. The head A is screwed into the door-casing, near the outer edge of the door, in such a position that the barrel *a* will point directly into the opening made by the door as soon as the same is opened ever so little, the nipple *b*, of course, being on the opposite side of the head. The hammer D is then drawn over into the position shown, and the trigger hooked on the hook *d*.

When the door is pushed open, as shown by the dotted line *x* in Fig. 1, the edge of the door strikes the incline *h* on the trigger, and pushes the same back out of the hook *d* on the hammer, allowing the hammer to be thrown forcibly by the spring G onto the nipple *b*, and discharge the alarm, and the trigger, being constructed as shown, at the same time stops the further opening of the door.

The barrel *a* may be drilled at a right angle through the head or frame piece A, and the trigger turned square up and high enough in front to prevent the door from opening far enough to cover the end of the barrel. The pressure, then, of the door at the inner end of the trigger disengages the outer end thereof, letting the alarm discharge on the inside of the room, without allowing the door to open at all, in which case any fulminating explosive is to be used, merely to produce a noise.

The hammer may be arranged to turn to the front and be self-acting—simply reversing the alarm—and does not require to be set with the trigger, the opening of the door then raising and releasing the hammer as it passes.

This alarm is applicable to windows as well as doors, &c. To attach it to a window it may be screwed into the top sash, and set in such a way that the lower sash, in raising, or the top sash in being pulled down, will come in contact with the trigger, the alarm acting as a lock after the explosion.

If it is desirable to fire a solid shot or loaded cartridge, it may be turned at a proper angle on the sash to pass load out through the window diagonally.

This alarm may also be attached to any place desired in the house or on the premises, and a cord or wire fastened to the trigger, and so arranged that any trespasser will throw the trigger and give the alarm.

The alarms may be made for either metallic

cartridges or percussion-caps, and with the barrels to shoot at right angles or diagonally, as desired.

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

The combination of the hammer D, having hook *d* at its outer end, and attached to a shaft, E, the spring G, trigger H, and the frame A C, with barrel *a*, all constructed substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 27th day of April, 1876.

J. B. UNDERWOOD.

Witnesses:
S. A. BALDWIN,
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