J. ISRAEL.

BURGLAR-ALARM.

No. 193,002. Patented July 10, 1877.

Fig 2

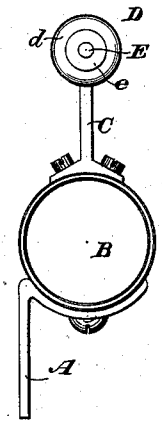


Fig 1

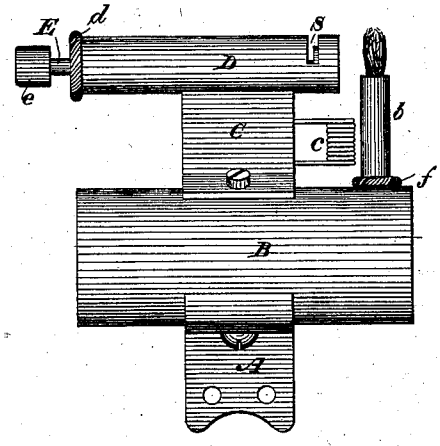
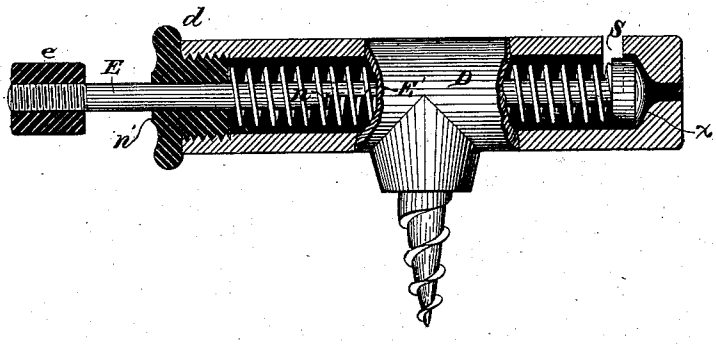


Fig 3.



WITNESSES

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JOHN ISRAEL, OF LANCASTER, OHIO.

IMPROVEMENT IN BURGLAR-ALARMS.

Specification forming part of Letters Patent No. **193,002**, dated July 10, 1877; application filed June 26, 1877.

To all whom it may concern:

Be it known that I, JOHN ISRAEL, of Lancaster, in the county of Fairfield and State of Ohio, have invented certain new and useful Improvements in Burglar-Alarms, of which the following is a specification, that will enable those skilled in the art to which my invention relates to make and use the same, reference being had to the accompanying drawings.

The object of my invention is to improve and simplify the construction of the burglar-alarm patented to Thomas N. Howell, April 2, 1872.

I employ a lamp and a tube and spring-rod and percussion for lighting the lamp, and a bell and striking apparatus for giving an alarm substantially and in general such as described in said patent; but I have made some important modifications and improvements, which constitute my invention, and which I will now describe in detail and set forth in my claims.

In the drawings, Figure 1 is a front elevation of my improved device. Fig. 2 is an end elevation of the same. Fig. 3 is a view, partly in elevation, and partly in longitudinal section, of the tube which carries the spring-rod and percussion detached and formed with a screw.

A indicates the bracket, having a concave arm for supporting the lamp-cylinder, and which may be screwed to a window or door-frame, or to the ceiling of a room. The lamp-cylinder or oil-vessel B is secured in the concavity of the bracket by a screw, and may be detached and reversed to accommodate different situations. *b* is the wick-tube, provided with a collar, *f*, and screwed into the body of the cylinder. C is a standard for supporting the percussion-tube, which carries a match-holder, *c*, and is secured to the top of the lamp-cylinder by screws. D is the percussion-cylinder, closed at one end, except an escape-vent for the fulminate, and provided at the other end with a screw-cap, *d*, like a common syringe. Through this screw-cap works the plunger-rod E surrounded by a coiled spring, E′. On the outer end of the plunger-rod is a screw-knob, *e*, for withdrawing it to set it in position for exploding the fulminate and setting off the alarm. I form a hook-notch, *n*, on the plunger-rod, so that, when it is drawn out of the cylinder to the desired distance for giving a sufficient blow to the fulminate, the notch will engage with the edge of the hole in the screw-cap, and thus hold the rod retracted.

In order to insure such engagement of the notch, I form an annular flange or projection, *n′*, on the outside around the plunger-hole of the screw-cap. In the bottom or closed end of the percussion-tube I form a slight concavity, as shown at *x*. I cut a slot, S, in the tube, into which I insert the percussion-wafer. When the plunger strikes the wafer it drives or incloses the percusssion in the concavity, and, pressing against the rim or margin of the concavity, confines it therein, and causes the flame or gases to escape more successfully through the vent, to light the match or lamp-wick, as the case may be.

It is sometimes convenient to have the lamp and percussion-lighting device in separate parts to be attached to the wall in juxtaposition; hence I have provided a stump and screw to the cylinder, as shown in Fig. 3.

The operation of my invention in connection with an alarm mechanism, and in connection with a time mechanism, and in connection with doors and windows to be guarded, being substantially such as set forth in the patent of Howell, above referred to, and familiar to the public, I have not deemed it necessary to describe or illustrate those things; but,

Having described my improvements, what I claim as my invention is—

1. The percussion-tube provided with the wafer-slot and concavity, substantially as described.

2. The combination of the percussion-tube, its screw-cap having annular notch *n′*, and the spring-plunger having the hook-notch *n*, substantially as described.

3. The improved percussion device, having the wafer-slot, the concavity, the spring-plunger, the screw-cap, and provided with a screw or standard, substantially as described.

In testimony of which invention I hereunto set my hand.

JOHN ISRAEL.

Witnesses:
JOHN E. JONES,
J. L. WARTMANN.