

A. P. NORMAN.  
BURGLAR-ALARM.

No. 178,875.

Patented June 20, 1876.

Fig. 1.

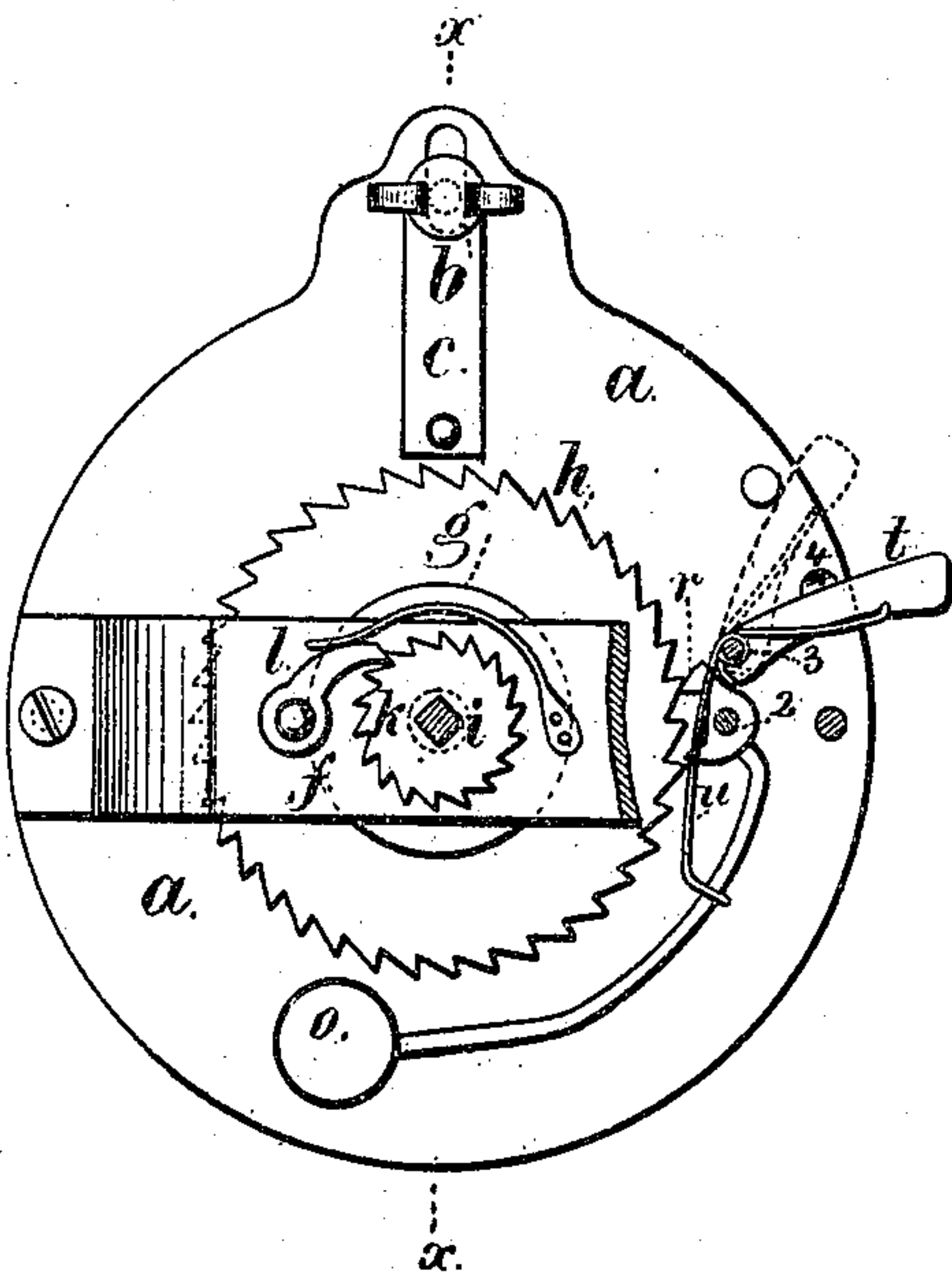
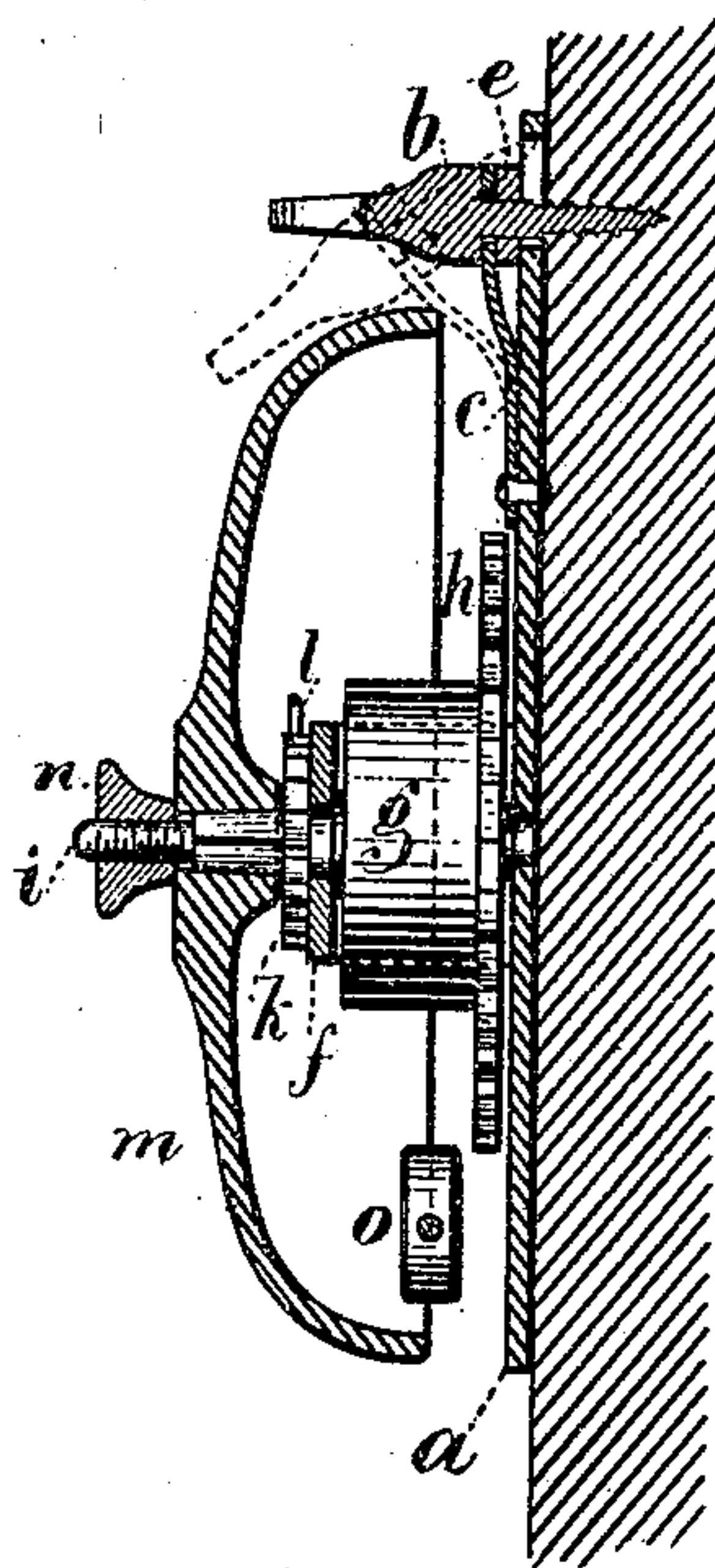


Fig. 2.



Witnesses  
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# UNITED STATES PATENT OFFICE.

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## IMPROVEMENT IN BURGLAR-ALARMS.

Specification forming part of Letters Patent No. **178,875**, dated June 20, 1876; application filed April 27, 1876.

*To all whom it may concern:*

Be it known that I, ADOLPHUS P. NORMAN, of the city and State of New York, have invented an Improvement in Burglar-Alarms, of which the following is a specification:

This alarm is intended to be placed upon a door or window, to ring in case the same is opened. The alarm is portable, so that it can easily be carried by travelers and others, and attached wherever necessary for the protection of person or property.

Alarms have been made with a bell and a spring that is wound up by revolving the bell. My invention relates to this general class of alarms; and consists in a peculiar construction of escapement and trip; also, in the means for attaching the alarm.

In the drawing, Figure 1 is an elevation of the alarm with the bell removed, and with a part of the bridge taken away, so as to show the escapement; and Fig. 2 is a vertical section at the line *x x*.

The plate *a* is provided with a slot, through which the attaching-screw *b* passes to secure the plate to the casing of the door, or to the window or sash. This screw *b* has a winged head, so as to be operated by hand. There is a spring, *c*, attached to the plate *a*, and through the curved end of this spring *c* the screw passes, and it is attached by a washer, *e*, so that the screw is always connected to the spring, but it is free to be turned. The curvature of the spring is such as to turn the screw into an inclined position, and draw the point back into the position shown by dotted lines in Fig. 2, in order that the point of the screw may not project to tear or injure the clothing in transportation.

When the alarm is connected to its place the gimlet-pointed screw *b* compresses the spring as it is screwed into the wood. A bridge, *f*, is attached to the plate *a*, and passes from one side thereof across to the other, with the necessary distance between for the spring-barrel *g* and escapement-wheel *h*. The arbor *i* passes through the bridge *f* and plate *a*, and

one end of the spring is attached to the arbor, and the other to the spring-barrel *g*. The ratchet-wheel *k* is upon the squared end of the arbor *i*, and there is a pawl and spring, *l*, upon the bridge, to hold the spring when wound. The bell *m* also sets upon this arbor *i*, and is held by a nut, *n*, so that the spring of the spring-barrel *g* is wound by revolving the bell. The hammer *o* is upon a pivot, *2*, and it is connected with pallets *r*, adjacent to the escapement-wheel *h*, so that as the escapement-wheel is revolved by the spring the hammer will be vibrated and the bell rung.

In order to block the escapement while the spring is being wound, and until the alarm is brought into action, I employ the spring-trip *t*, that swings upon the pivot *3*, and when turned into the position shown by full lines, it springs down behind the inclined stud *4*, and is held by the same, and blocks the escapement so that it cannot move. There is a spring, *u*, around the stud *3*, that tends to throw the trip *t* into the position shown by dotted lines in Fig. 1, and also to draw the hammer back from the bell. The end of the trip *t* projects beyond the outside of the base *a*, and the alarm is to be positioned so that the spring-trip will be moved by the door or window as it is opened, and in so doing the alarm will be rung until the spring runs down.

I claim as my invention—

1. In combination with the bell, escapement, and hammer, the spring-trip *t*, pivot *3*, inclined stud *4*, and spring *u*, the parts being constructed and operating as set forth.

2. The gimlet-pointed screw *b* and curved spring *c*, in combination with the base-plate *a* and burglar-alarm, for the purposes, and as set forth.

Signed by me this 22d day of April, A. D. 1876.

A. P. NORMAN.

Witnesses:

GEO. T. PINCKNEY,  
CHAS. H. SMITH.