

(No Model.)

H. L. SILVER.
BURGLAR ALARM.

No. 360,923.

Patented Apr. 12, 1887.

Fig. 1

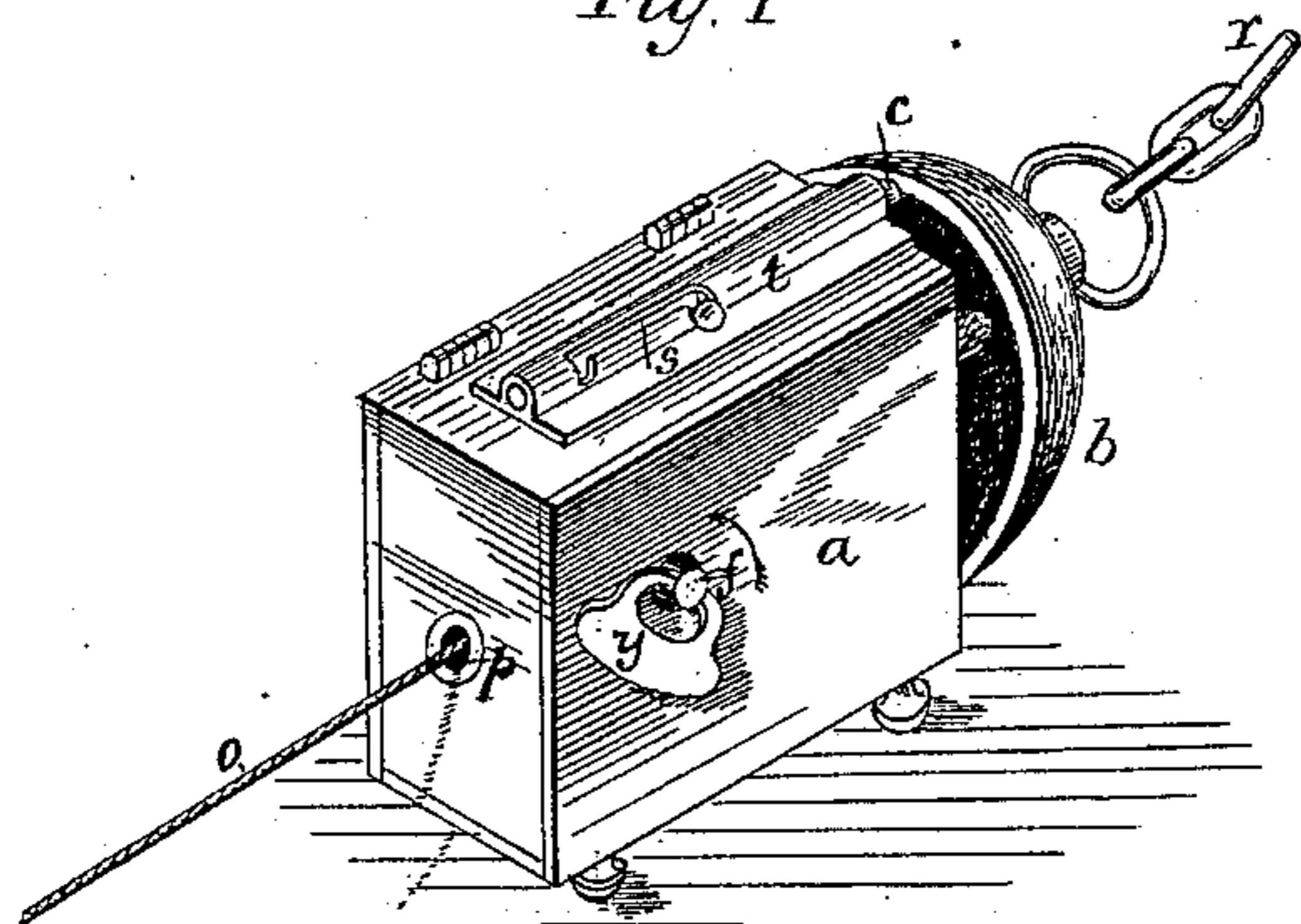


Fig. 2

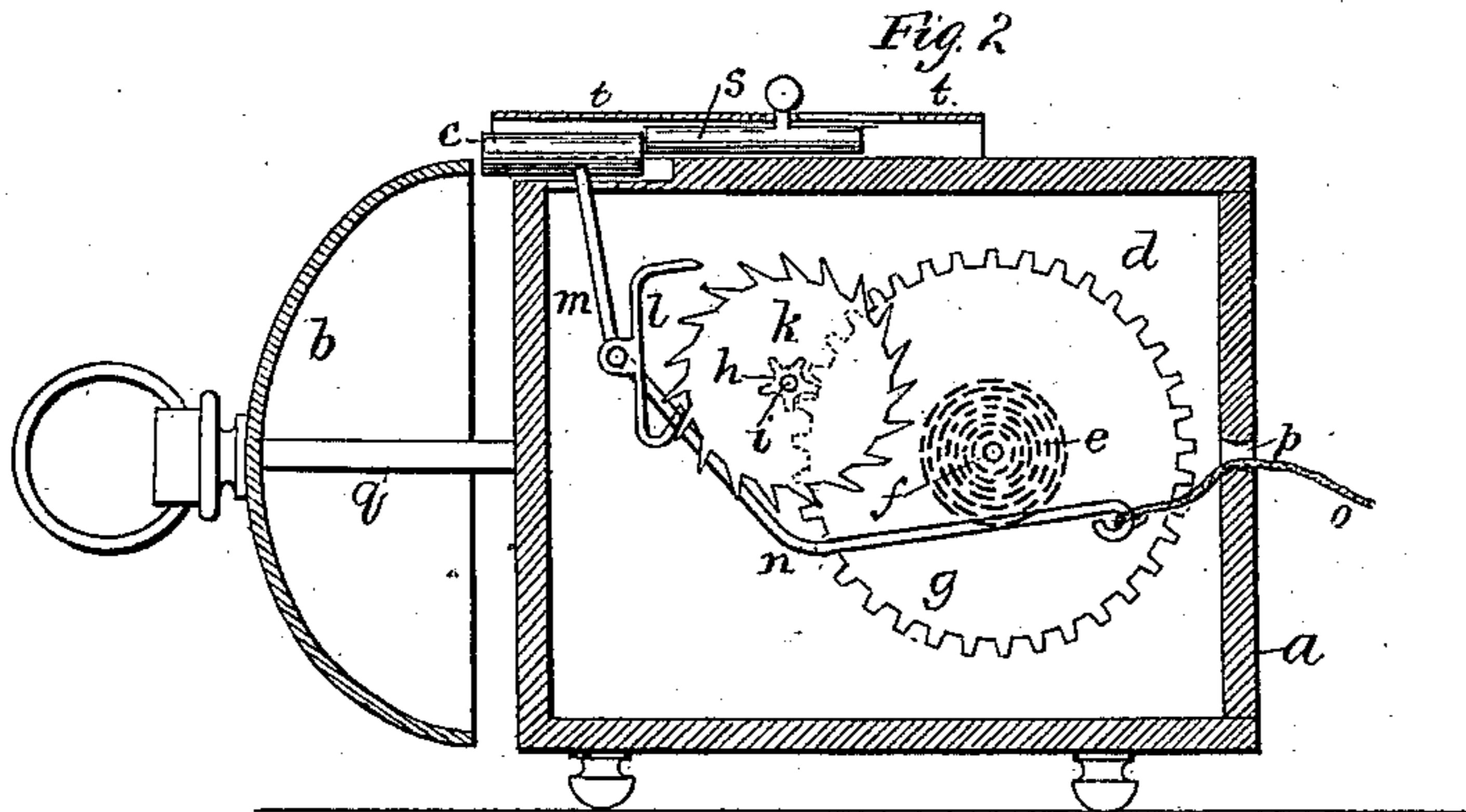


Fig. 3

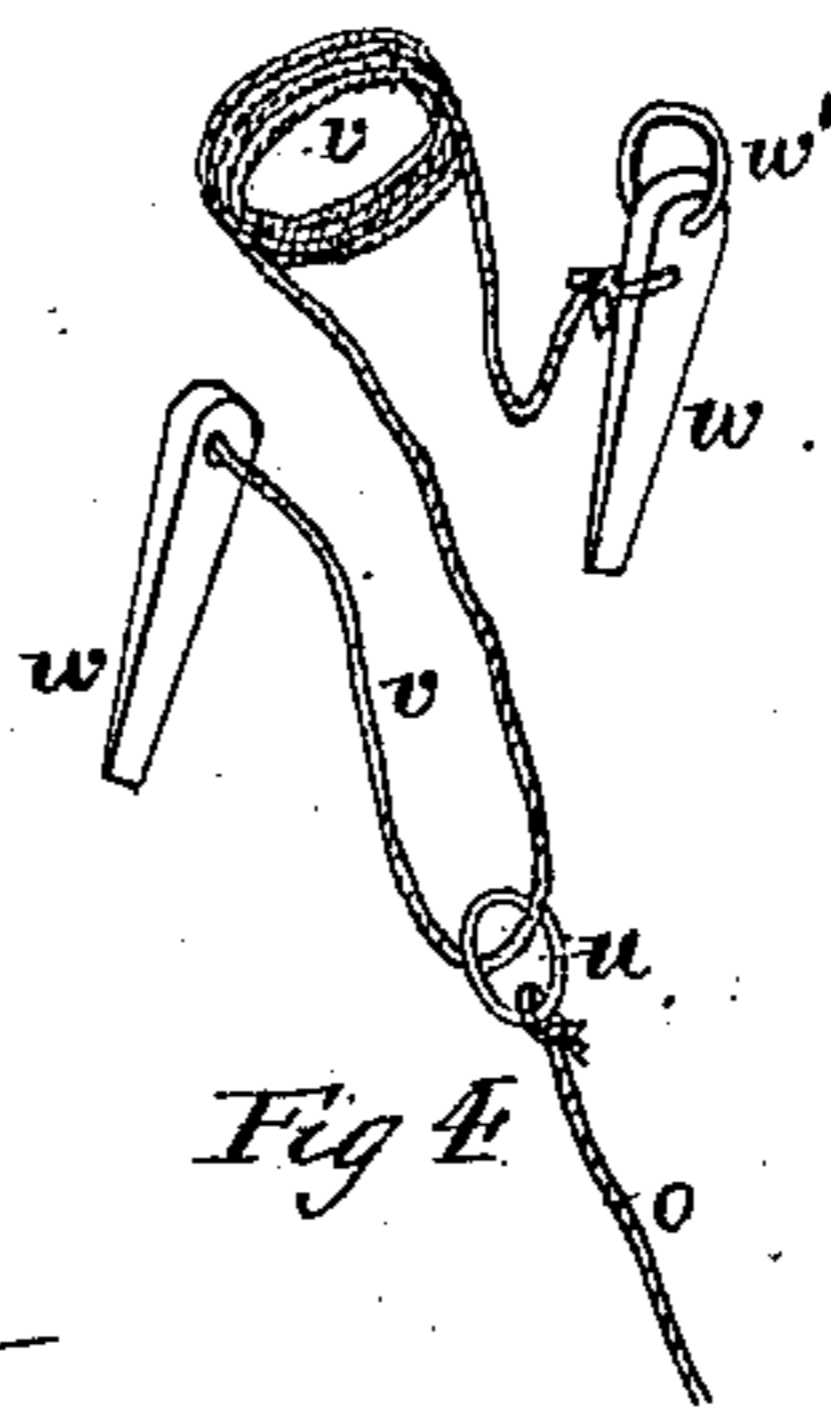
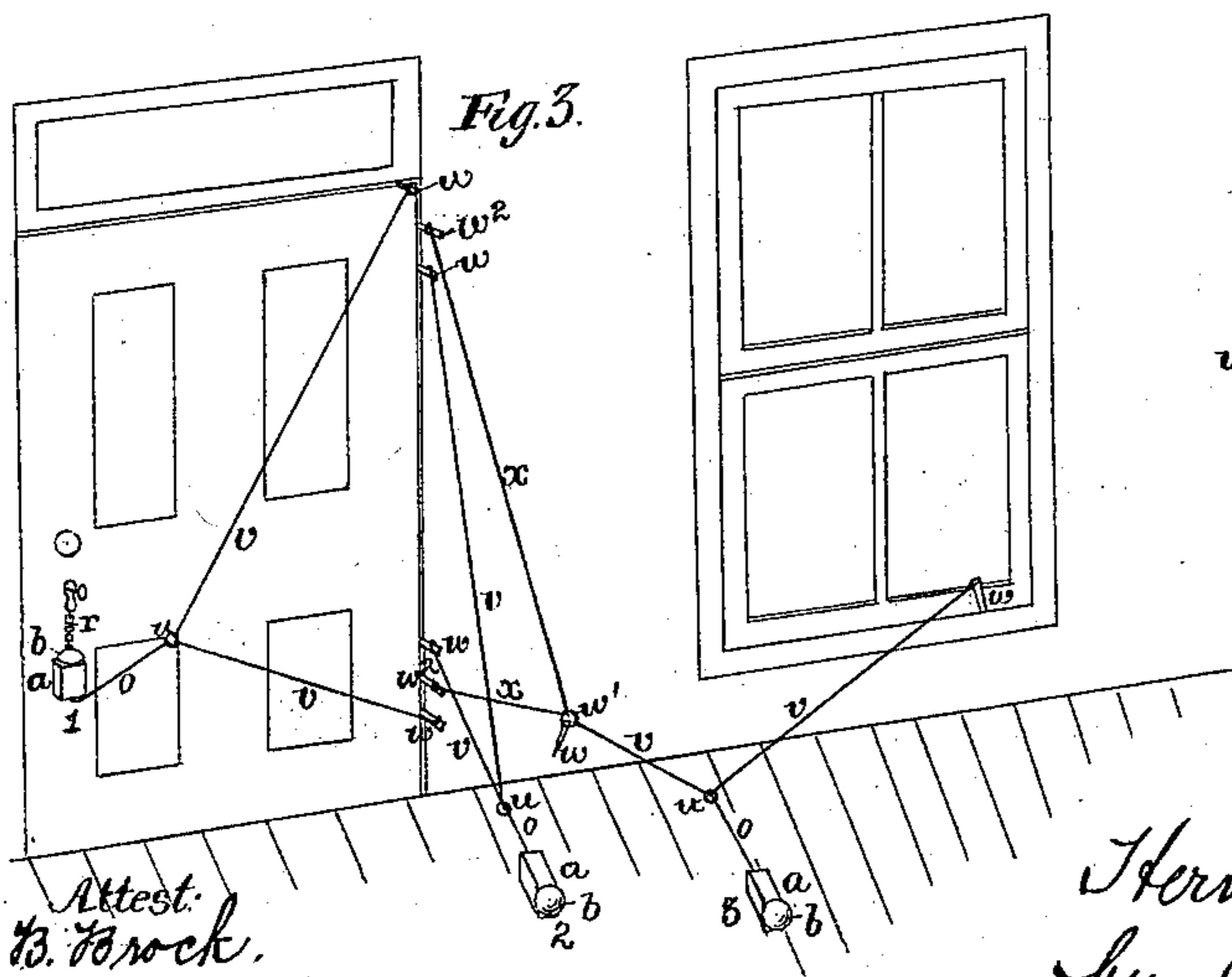


Fig. 4

Attest:
L. B. Brock.
W. C. Stearns

Inventor:
Herman L. Silver
by L. B. Brock
Atty

UNITED STATES PATENT OFFICE.

HERMAN L. SILVER, OF DENVER, COLORADO.

BURGLAR-ALARM.

SPECIFICATION forming part of Letters Patent No. 360,923, dated April 12, 1887.

Application filed February 9, 1887. Serial No. 227,083. (No model.)

To all whom it may concern:

Be it known that I, HERMAN L. SILVER, a citizen of the United States of America, residing at Denver, in the county of Arapahoe and State of Colorado, have invented certain new and useful Improvements in Burglar-Alarms, of which the following is a specification, reference being had therein to the accompanying drawings.

Figure 1 is a perspective view of an alarm embodying my invention. Fig. 2 is a side elevation of the same with the cover removed, showing the interior arrangement of the box. Fig. 3 is a diagram view showing the alarm arranged to operate in various ways. Fig. 4 is a detail view of the cord device connecting the alarm with the door, window, or other entrance or object which it is desired to protect.

My invention relates to alarms.

The improvements consist in the following construction and combination of parts, which will first be fully described, and the points of novelty then set forth in the claims.

In the drawings, *a* represents the box carrying a bell, *b*, a reciprocating hammer, *c*, and a spring-driven mechanism, *d*, for operating the hammer and ringing the bell under certain conditions.

The spring-driven mechanism *d* consists of a spiral spring, *e*, mounted upon shaft *f*, to which also is keyed the gear *g*. This latter gear meshes with the pinion *h* on arbor *i*, which arbor also carries the escapement-wheel *k*. Arranged in operative relation to escapement-wheel *k* is pivoted the escapement *l*. The hammer *c* is connected to the vibrating escapement by an arm, *m*, and another arm, *n*, extends out from the arbor of the escapement *l*.

To the arm *n* is attached one end of a cord, *o*, which passes out through a hole, *p*, in the side of the box.

The bell or gong *b* is secured on the outer side or end of the box by the usual standard, *q*, and a chain or cord, *r*, may be attached to the bell, having a catch or hook at the other end, by means of which it may be hung up from any convenient point, such as the key-hole of the door.

s is a locking-bolt, and *t* is a case or sheath therefor. The sheath also covers and protects the vibrating bolt-hammer *c*. The arm *m* may

have a loose connection with the hammer *c*, so as to admit of the latter vibrating freely.

The outer end of the cord *o* is preferably provided with a ring, *u*, Figs. 3 and 4, and through this ring I prefer to pass a cord provided with small wedges, which may be stuck or inserted into the cracks of doors, between the window frame and sash, and other similar places which it may be desired to guard.

In Figs. 3 and 4 I have shown the alarm arranged in three different ways for the purpose of guarding a door or window, or both. In one instance the alarm *a* is shown hung to the key-hole of the door by the chain or cord *r*, and the wedges *w* at each end of the cord *v* inserted in the crack of the door or transom, and said cord passing through the ring *u* of cord *o*, so as to draw the latter taut. The alarm shown in that position is indicated by Fig. 1.

2 shows the alarm set on the floor, the same cord *v* being used, and the arrangement is similar to that already described, except that the alarm is placed upon the floor, as stated, and the cords pulled taut.

3 shows the alarm arranged for guarding both door and window. In this instance I prefer to use an extra cord, *xx*, having wedges *w*², similar to those of the cord *v*. One of the wedges *w* of cord *v* has a ring, *w*¹, through which the cord *x* passes when the latter is used.

In setting the alarm, the locking-bolt *s* is first moved up against the hammer *c* and locked. The thumb-piece *y* of arbor *f* is then turned to the left and the spring *e* wound. The wedges *w* or *w*² are then set, and the cord passed through the ring *u* or *w*¹. The alarm is then set in such a position that the cord *o* (and cords *v* or *x*, if used) is pulled taut. A slight pull on the cord *o* acts to lock the hammer, and to throw the escapement *l* into engagement with wheel *k*. This is the normal position of the alarm when set. The locking-bolt is then withdrawn. The alarm is sounded by the loosening of the cord, not by bringing it under tension.

It will be noticed by reference to Fig. 3 that the opening of the door or window will be followed by the loosening of the wedges, and consequently of the cord, whereupon the hammer will be released and caused to vibrate against the gong *b*, thus sounding the alarm.

A single alarm may be set for a number of openings which it may be desired to guard.

The alarm is compact, cheap, and can be conveniently packed and carried.

5 The cord of the alarm may be set across a hall or passage. The disturbance or removal of articles of almost any kind may be prevented by setting the alarm with the wedges or pegs under them.

10 It will be seen that it may have a wide range of uses, many of which will at once suggest themselves.

I claim—

15 1. A ringing alarm provided with a gong, a vibrating hammer, a motor for actuating the hammer, a bolt-casing covering both the hammer and bolt, and a sliding locking-bolt adapted to slide against the hammer and lock it, all in combination, substantially as set forth.

20 2. A ringing alarm having a cord which is brought under tension to keep the alarm in a quiescent state, in combination with a second

cord having a sliding connection with the first one, and provided with wedge-shaped pegs, substantially as and for the purposes stated. 25

3. A ringing alarm, a cord for operating it provided with a ring, and a second cord adapted to pass through the ring, and itself provided with a ring at one end, and a wedge-shaped peg at each end, all in combination, as described. 30

4. A ringing alarm having a ringed operating-cord, a second ringed cord provided with wedge-shaped pegs at each end, and a third cord having wedges at each end adapted to pass through the ring of the second cord, all in combination, for the purposes stated. 35

In testimony whereof I affix my signature, in presence of two witnesses, this 31st day of January, 1887.

HERMAN L. SILVER.

Witnesses:

CLARENCE A. LOTT,

G. B. LANNIER.