

Irvine & Hitchcock

Alarm Lock.

N^o 97,513.

Patented Dec. 7, 1869.

Fig. 2.

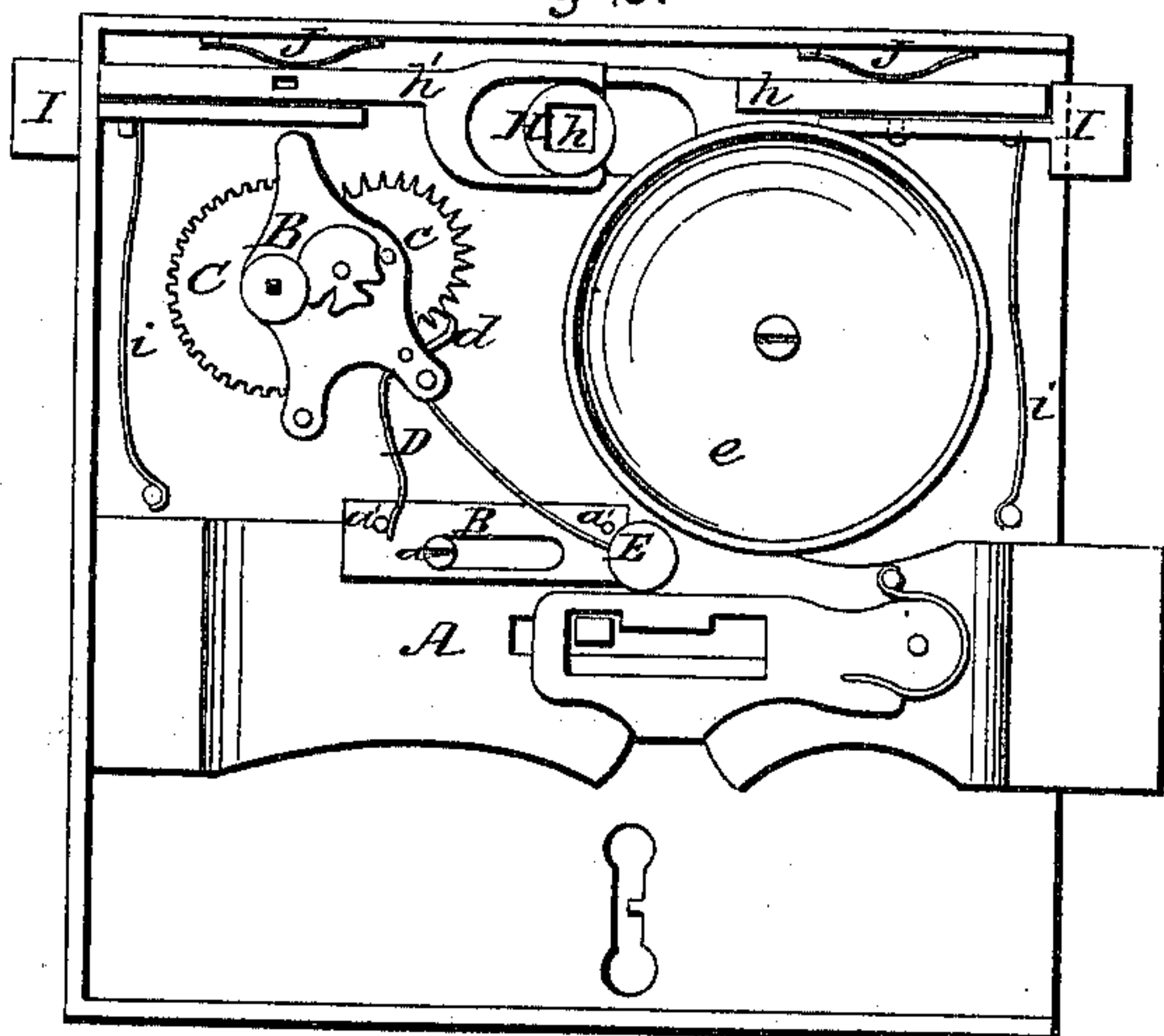


Fig. 1.

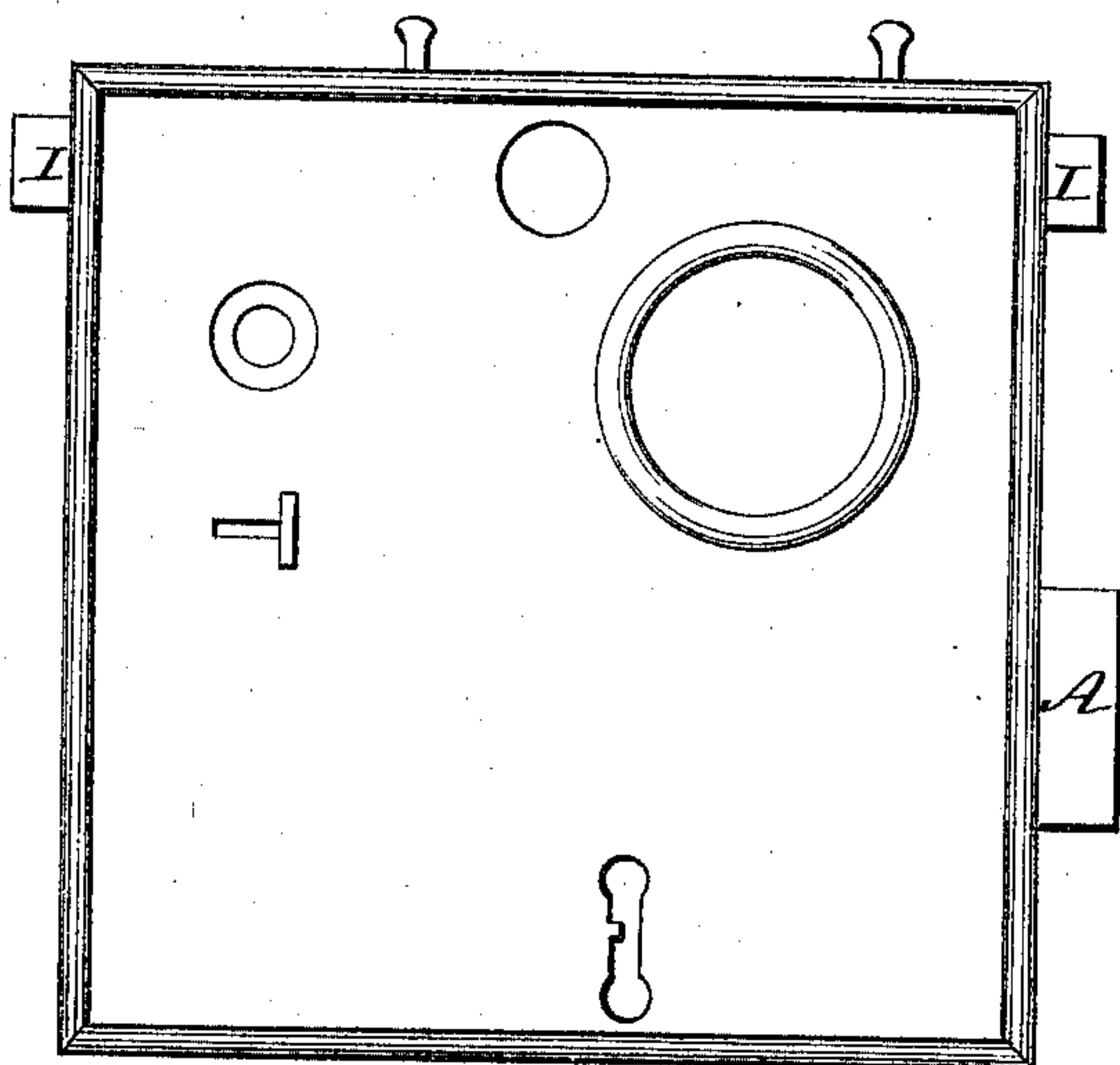


Fig. 3.

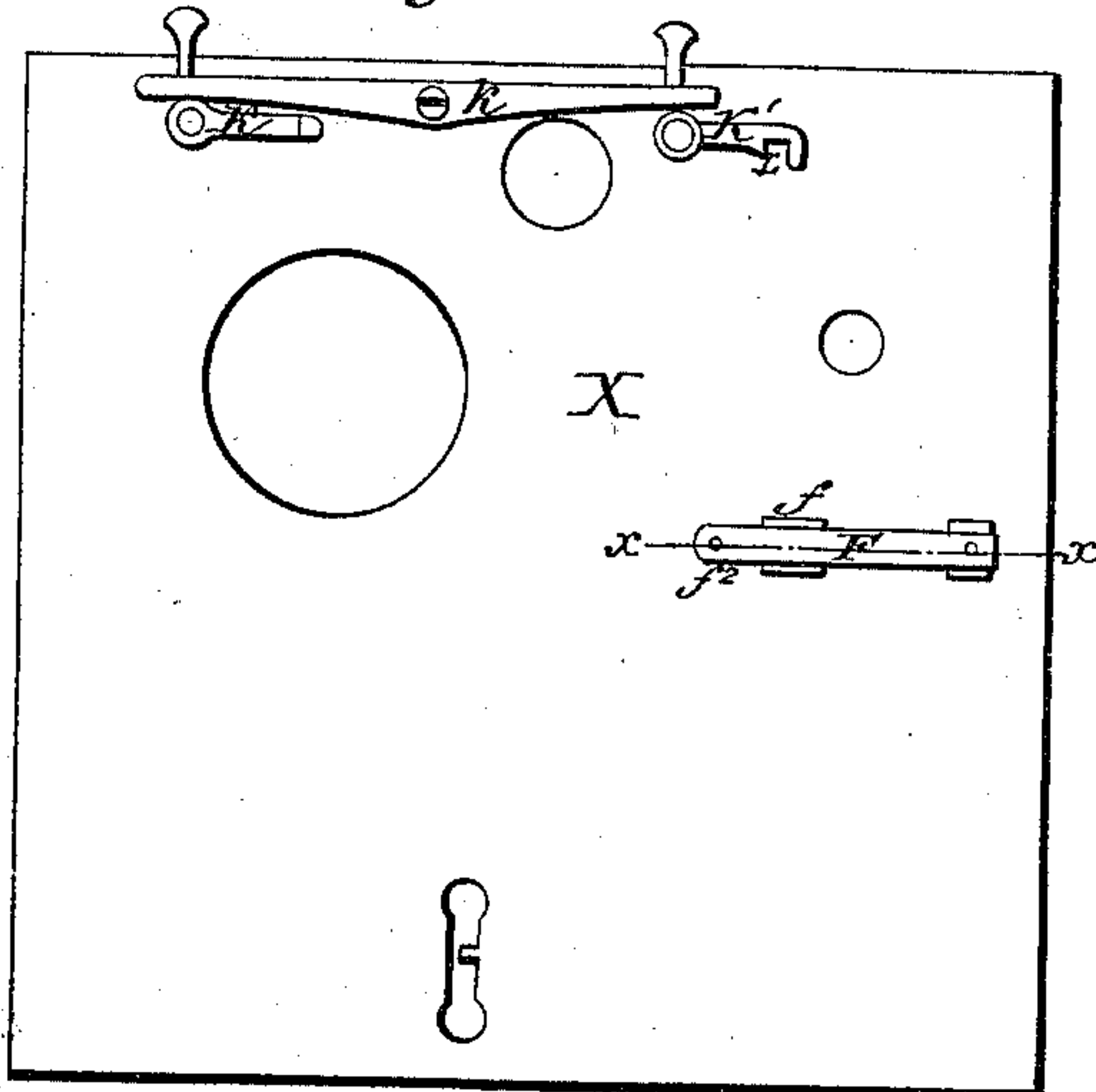


Fig. 4.



Witnesses.
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BENJAMIN F. IRVINE AND THOMAS A. HITCHCOCK, OF NORTH LA CROSSE,
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Letters Patent No. 97,513, dated December 7, 1869; antedated November 27, 1869.

IMPROVED ALARM-LOCK

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that we, BENJAMIN F. IRVINE and THOMAS A. HITCHCOCK, of North La Crosse, in the county of La Crosse, and State of Wisconsin, have invented a new and useful Improvement in Alarm-Locks; and we do hereby declare that the following is a full and exact description of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

This invention relates to an improved alarm-attachment for locks, and consists mainly in certain devices, whereby the alarm can be regulated to operate or remain silent when the lock-bolt is withdrawn, and, also, is readily adapted to a right or left-hand lock, as will hereinafter more fully appear.

In the drawings—

Figure 1 is a side elevation of my invention.

Figure 2, a side elevation of my invention, with the outer covering-plate removed.

Figure 3 is a side elevation of the inner side of the outer plate.

Figure 4 is a section through line *x x*.

To enable others skilled in the art to make and use our invention, I will now proceed to describe fully its construction and operation.

A represents the lock-bolt, of the usual construction, provided with an enlarged head, on both ends, which pass through openings on each side of the casing.

On the upper part of the bolt A is a slotted plate, B, secured by a set-screw, *a*.

The plate B runs longitudinally with the bolt, and is provided at each end with the pins or projections *a'*.

B represents the alarm-device, which consists of an ordinary clock-spring, attached to the shaft of the cog-wheel C, and, when wound up, imparts motion thereto, which is communicated to the escape-wheel *e*.

D is a bent arm, which is attached to a collar, which surrounds a post between the plates of the alarm-device, and extends downward between the projections *a'*, on the plate B.

d represents a pawl, which is rigidly attached to the collar, and, when the bolt is locked, holds the escapement.

E is the hammer, the rod of which is also rigidly attached, while the head is situated near the bell *e*.

The operation of my invention is as follows:

When the bolt is locked, one of the projections *a'* bears against the arm D, and keeps the pawl *d*, by means of its rigid connection therewith, in close contact with the teeth of the escapement *e*, thereby restraining the alarm from operating.

When the bolt is unlocked, however, the arm D is released, and the hammer E, by its weight, falls to a certain extent, and partially removes the pawl from the teeth of the escapement. The latter then rapidly revolves, each tooth striking the pawl, and imparting a rapid vibratory motion to the hammer, which strikes the bell at every motion, thus producing a continuous ringing sound, which varies in power, according to the strength of the mechanism and size of the bell.

To operate the lock without the alarm, we provide the spring F, attached to the inner side of the plate X, between which is a wedge-shaped piece, *f*, operated by a shank passing through a slot in said plate, and terminating in a thumb-piece, *f'*.

One end of the spring F is rigidly attached to a projection on the plate, while the other is free, and the free end is provided with a pin, *f''*, which, when pressed inward by the wedge *f*, comes in contact with the arm D, to which it bears the same relation as the pins *a'*.

To change the lock from a right to a left-hand one, the plate B is moved along until the other end of the slot comes in contact with the set-screw.

Having thus fully described our invention,

What we claim as new, and desire to secure by Letters Patent, is—

The slotted plate B, with projections *a a'* arranged to operate in connection with the double bolt A, substantially as and for the purpose set forth.

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Witnesses:

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