

No. 648,301.

Patented Apr. 24, 1900.

L. RETTIG.
LOCK.

(Application filed Feb. 5, 1900.)

(No Model.)

Fig. 1.

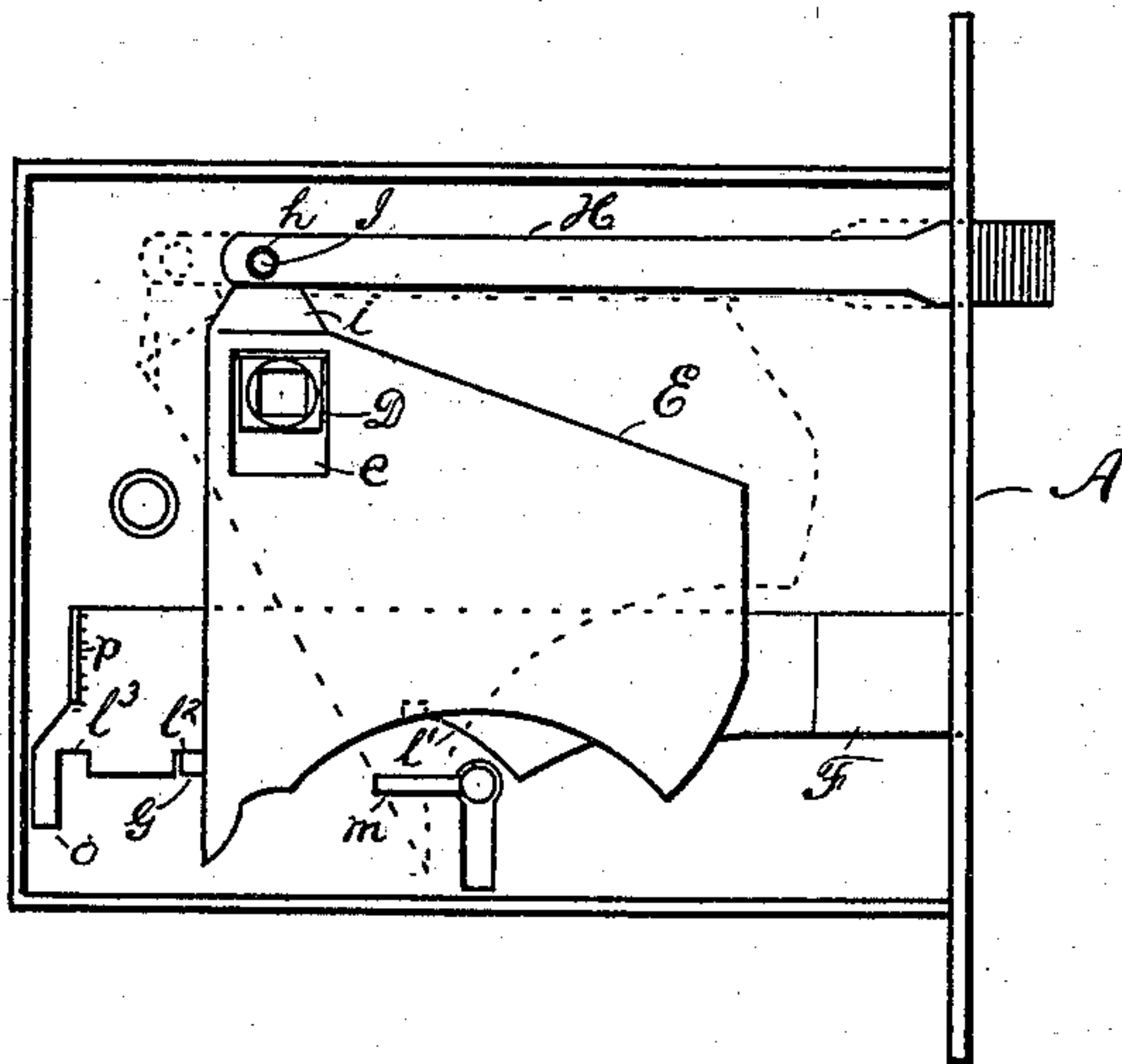


Fig. 2.

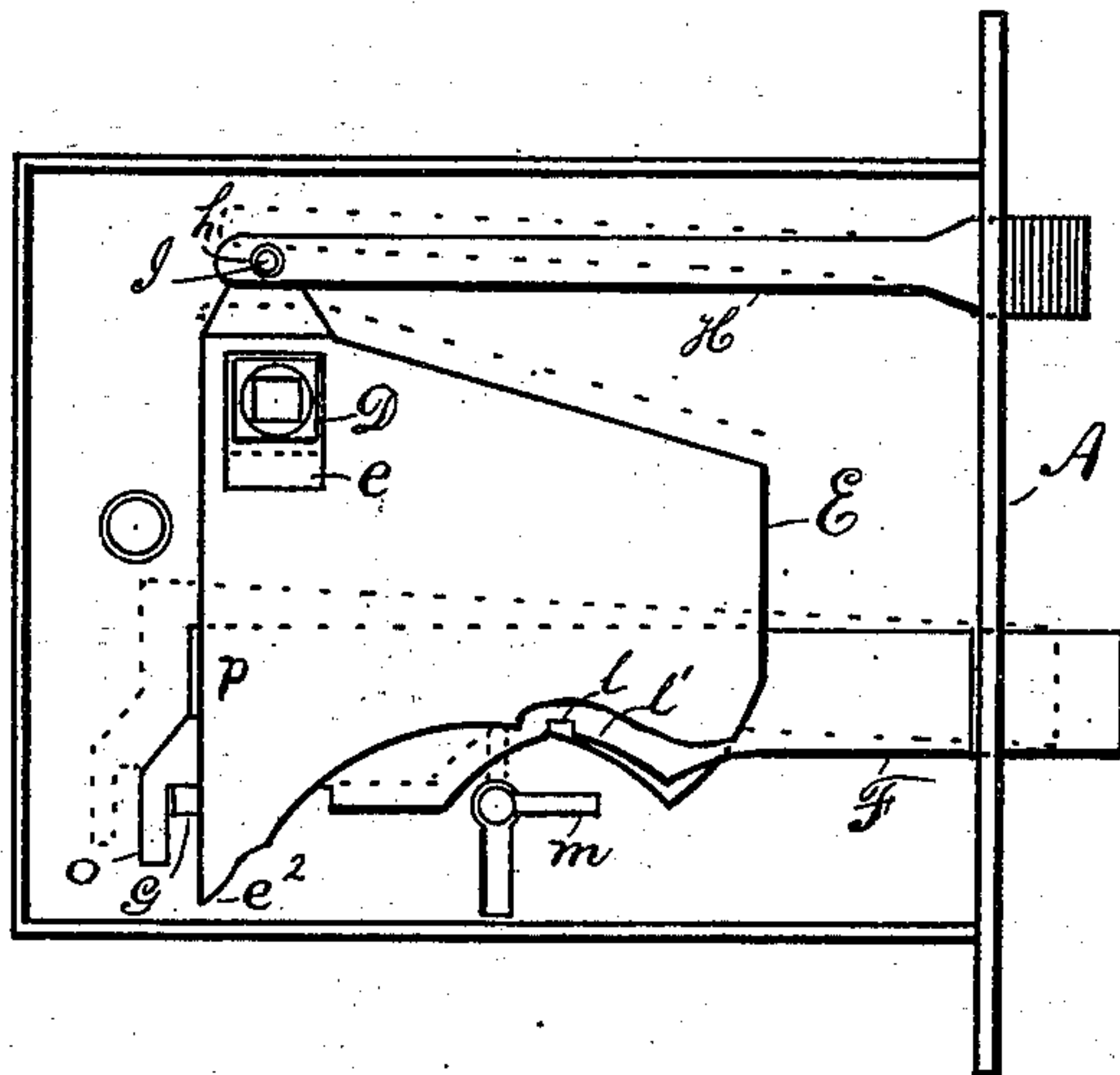


Fig. 3.

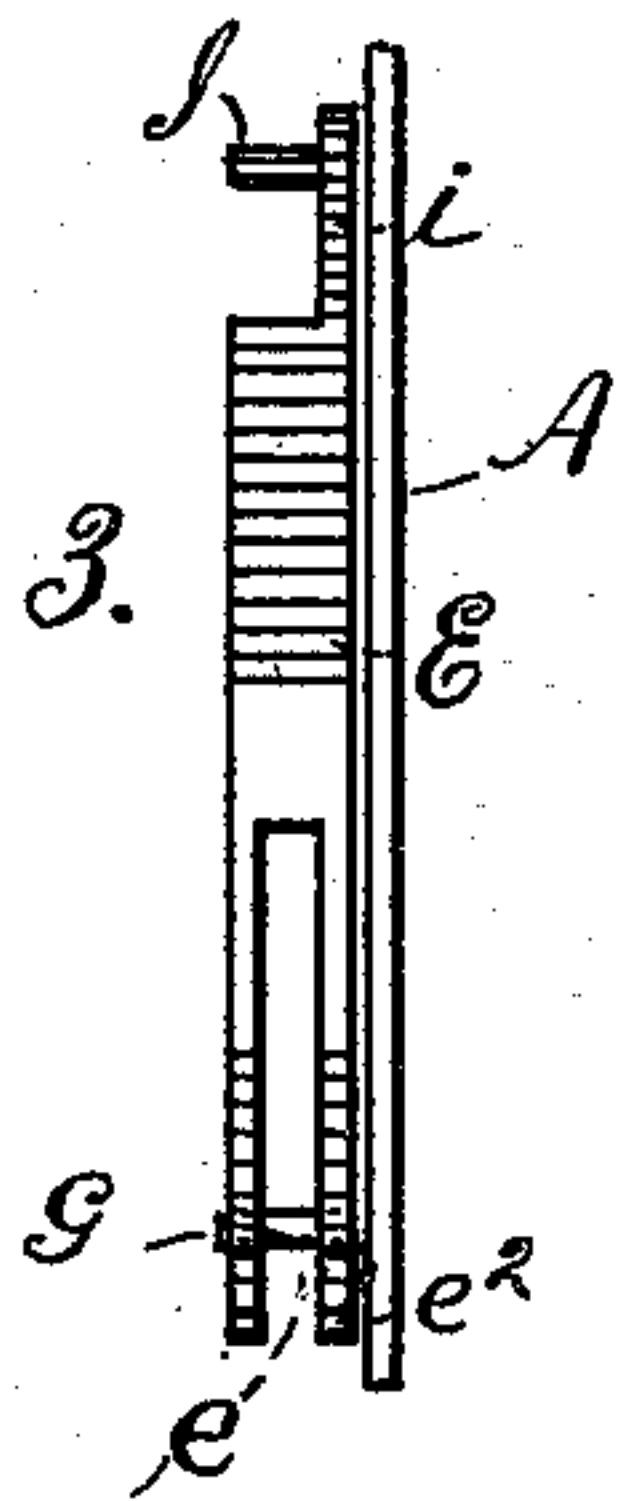
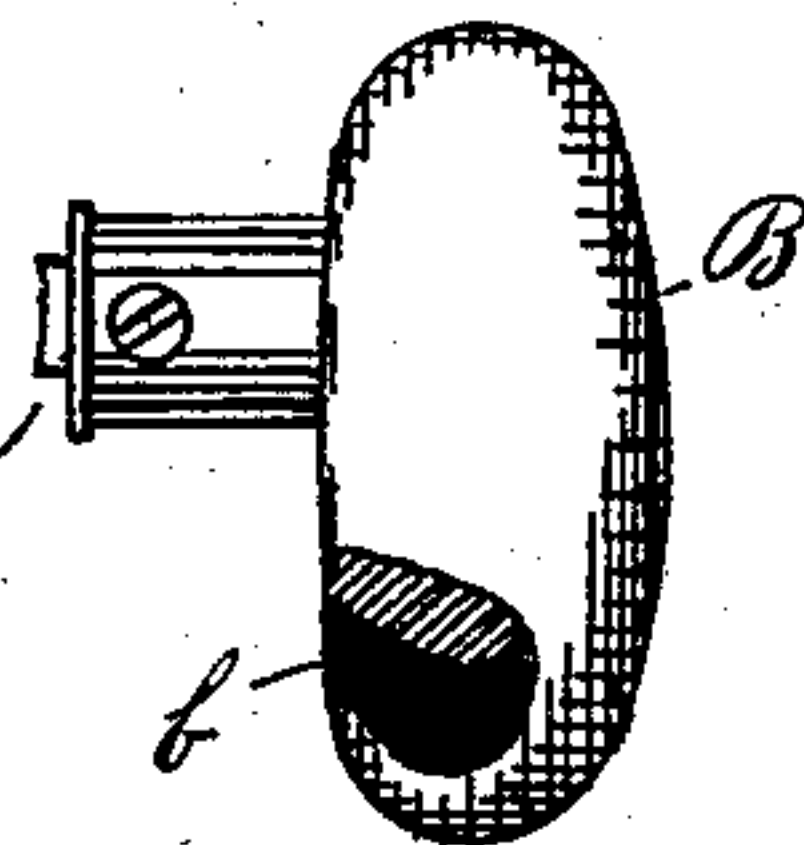


Fig. 4.



Witnesses:

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UNITED STATES PATENT OFFICE.

LOUIS RETTIG, OF KASSON, INDIANA.

LOCK.

SPECIFICATION forming part of Letters Patent No. 648,301, dated April 24, 1900.

Application filed February 5, 1900. Serial No. 4,023. (No model.)

To all whom it may concern:

Be it known that I, LOUIS RETTIG, a citizen of the United States, residing at Kasson, in the county of Vanderburg and State of Indiana, have invented certain new and useful Improvements in Locks; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to vertical locks whose bolts are made to engage means for holding them in either their normal or their operative positions by the weight of the tumbler, the knob also being constructed to cooperate with the tumbler in this particular function. This lock is especially adapted for use on doors, and particularly as a mortise-lock.

The accompanying drawings illustrate the invention, in which—

Figure 1 is a side elevation with the near side of the casing removed, the lock-bolt drawn, and the latch-bolt in normal position. Dotted lines show positions of parts with the latch-bolt drawn. Fig. 2 is a similar view with the lock-bolt thrown, dotted lines showing positions with the lock-bolt half-thrown. Fig. 3 is a vertical edge of the tumbler and part of the casing; and Fig. 4 is a side of the knob, partly in section.

A indicates the casing of the lock, made in the form usual for mortise-locks.

B is the knob, weighted at its lower side *b* and preferably having eccentric connection with the spindle C.

D is a sleeve on the spindle having an angular external surface.

E is a gravity-tumbler having a vertically-elongated angular opening *e* near its upper rear corner adapted to receive the sleeve D,

by which it is supported and capable of limited motion thereon.

e' is a slot in the lower part of the tumbler, in which the bolt F has limited longitudinal motion. The rearward swing of the tumbler is limited by a cross-bar G, which engages its lower rear corner *e''*.

H is a catch-bolt having a hole *h* near its rear end adapted to loosely engage a pin I on a projection *i*, formed on the upper rear part of the tumbler E. The bolt H is drawn by turning the knob and when released is thrown by the weight of the front part of the tumbler E, supplemented by the weight in the knob.

The lock-bolt F is operated with an ordinary key, whose bit *m* lifts the tumbler E and engages the notch *l* in the top of the arch *l'*, throwing the bolt out or in as the key is turned in the lock. Notches *l² l³* in the bolt engage a cross-bar G, by which the bolt is retained in the desired position when forced down by the tumbler E. A stop-lug *o* at the rear end of the bolt prevents the bolt from going too far forward. A cross-lug *p* above the notch *l³* in the bolt contacts with the rear edge of the tumbler.

What I claim and desire to secure is—

A lock having a gravity-tumbler vertically movable on a supporting-spindle sleeve, a vertical slot in the lower part of said tumbler, a lock-bolt movable lengthwise in said slot, an arch in the lower edge of said bolt above the keyhole, a central notch in said arch to engage the key-bit, notches rearward, and a terminal lug in said bolt to engage a retaining cross-bar, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

LOUIS RETTIG.

Witnesses:

JOHN H. LANG,
F. C. GORE.