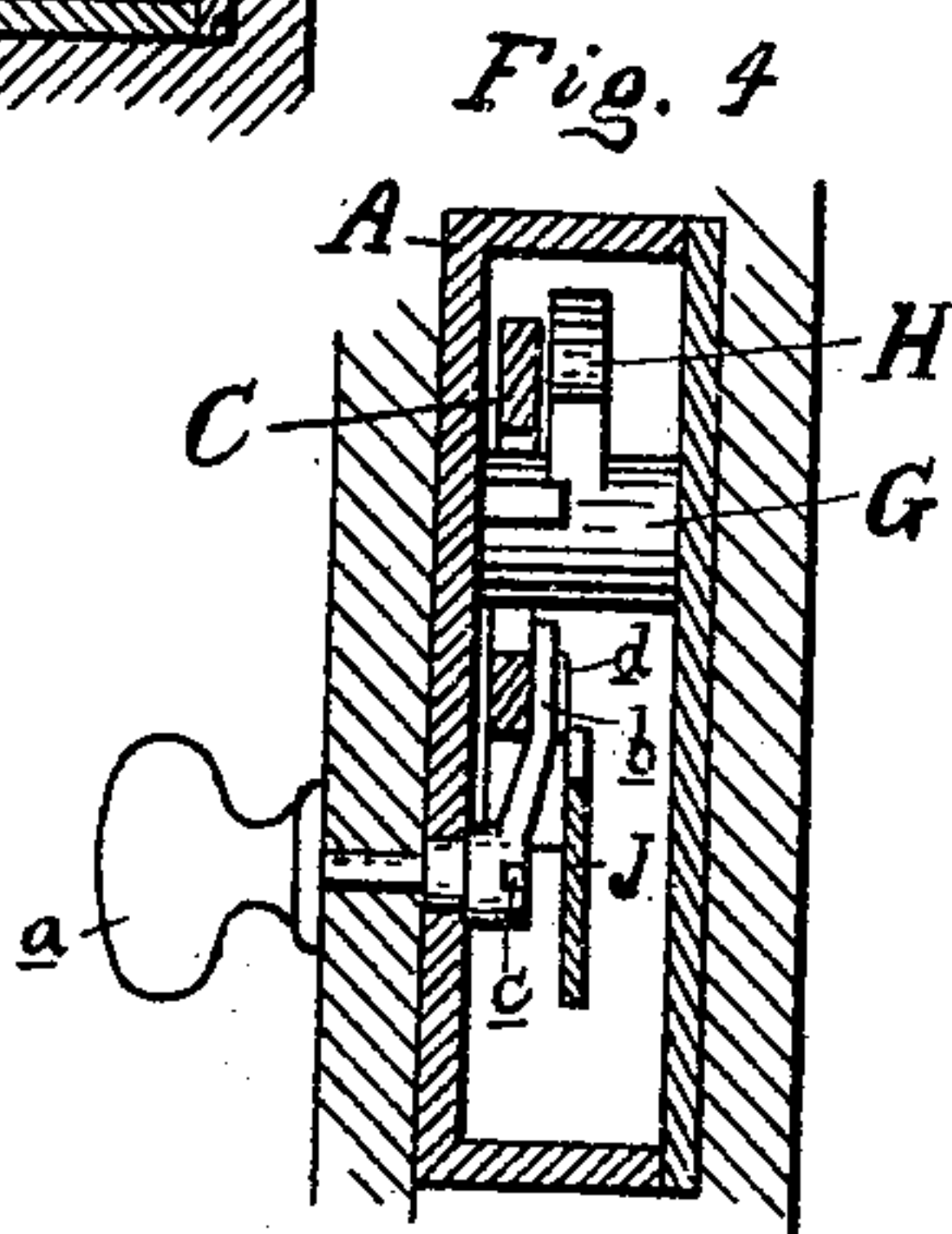
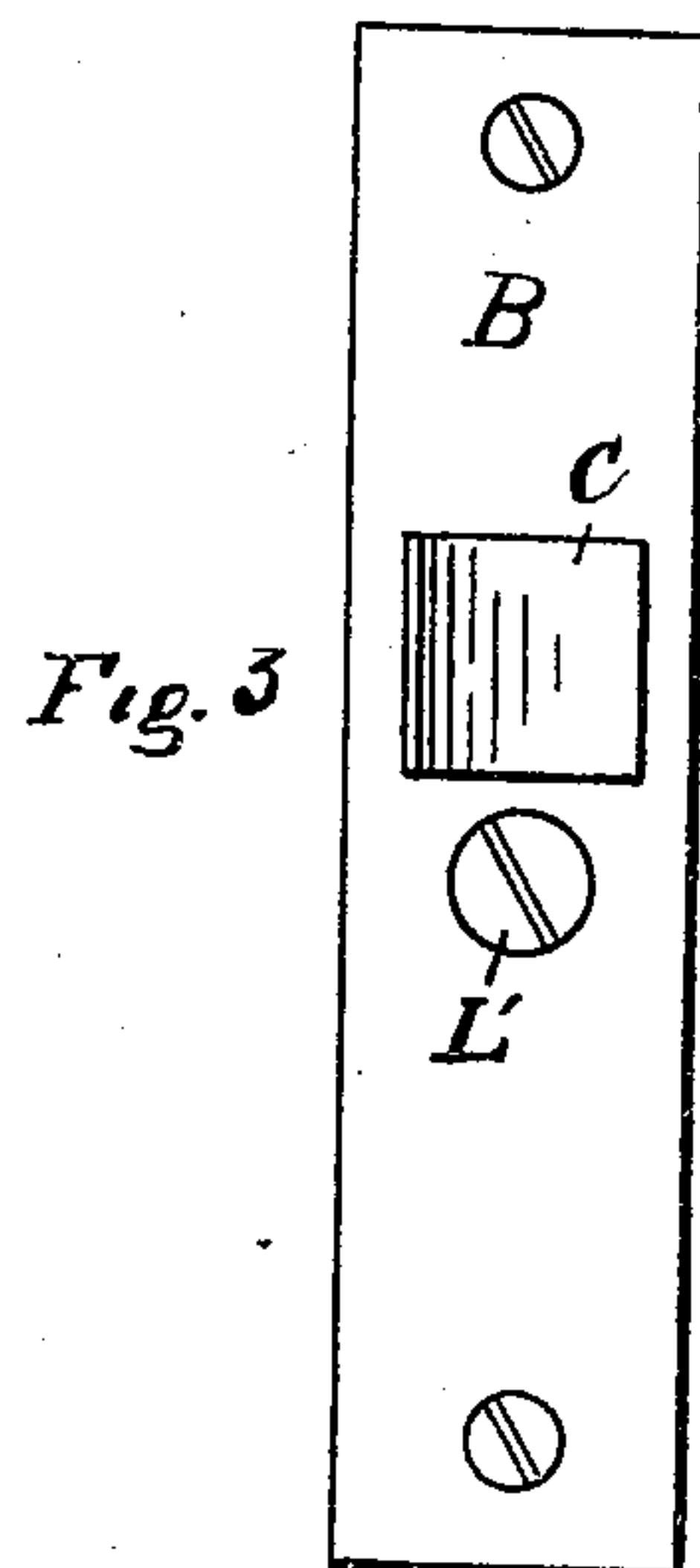
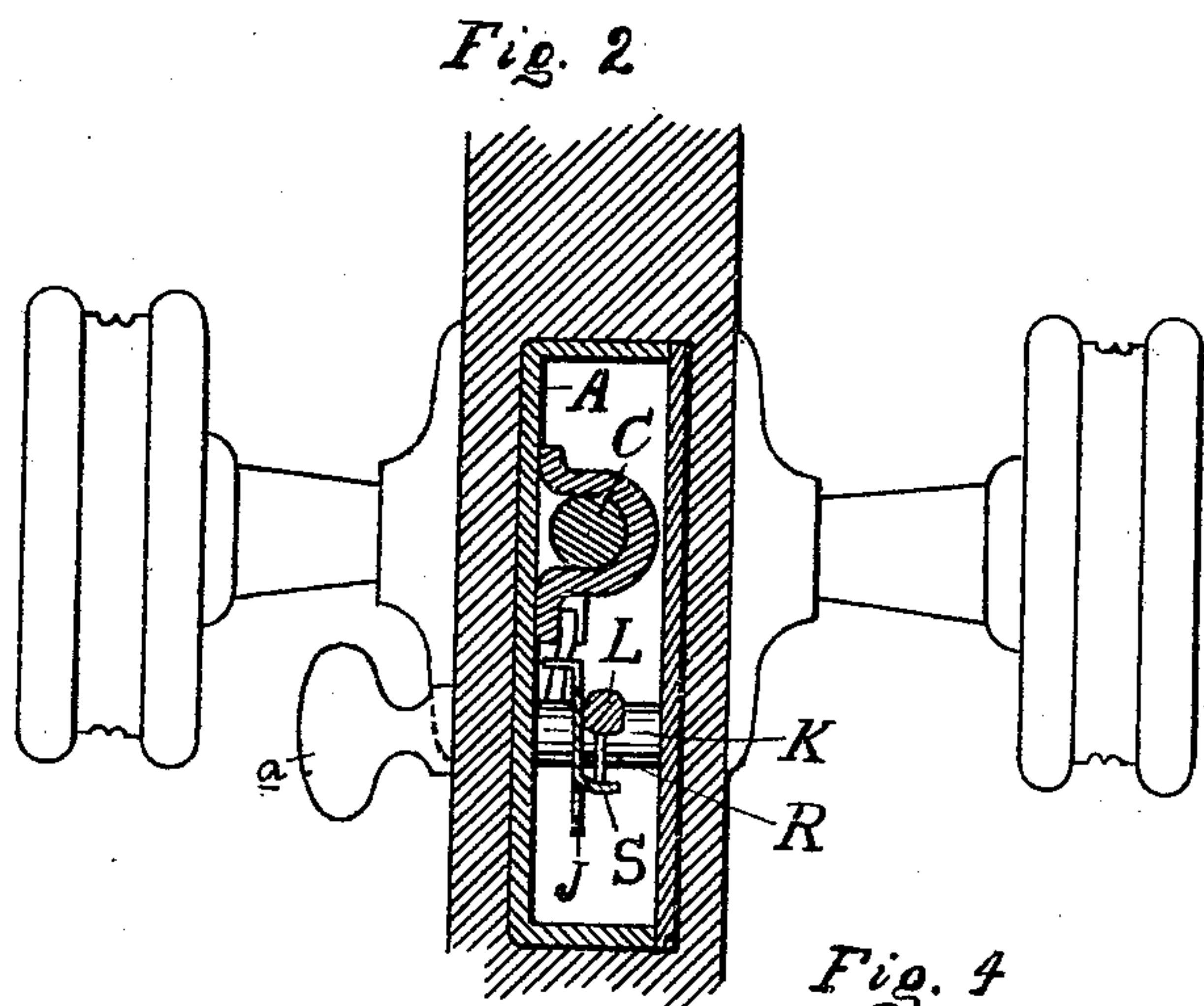
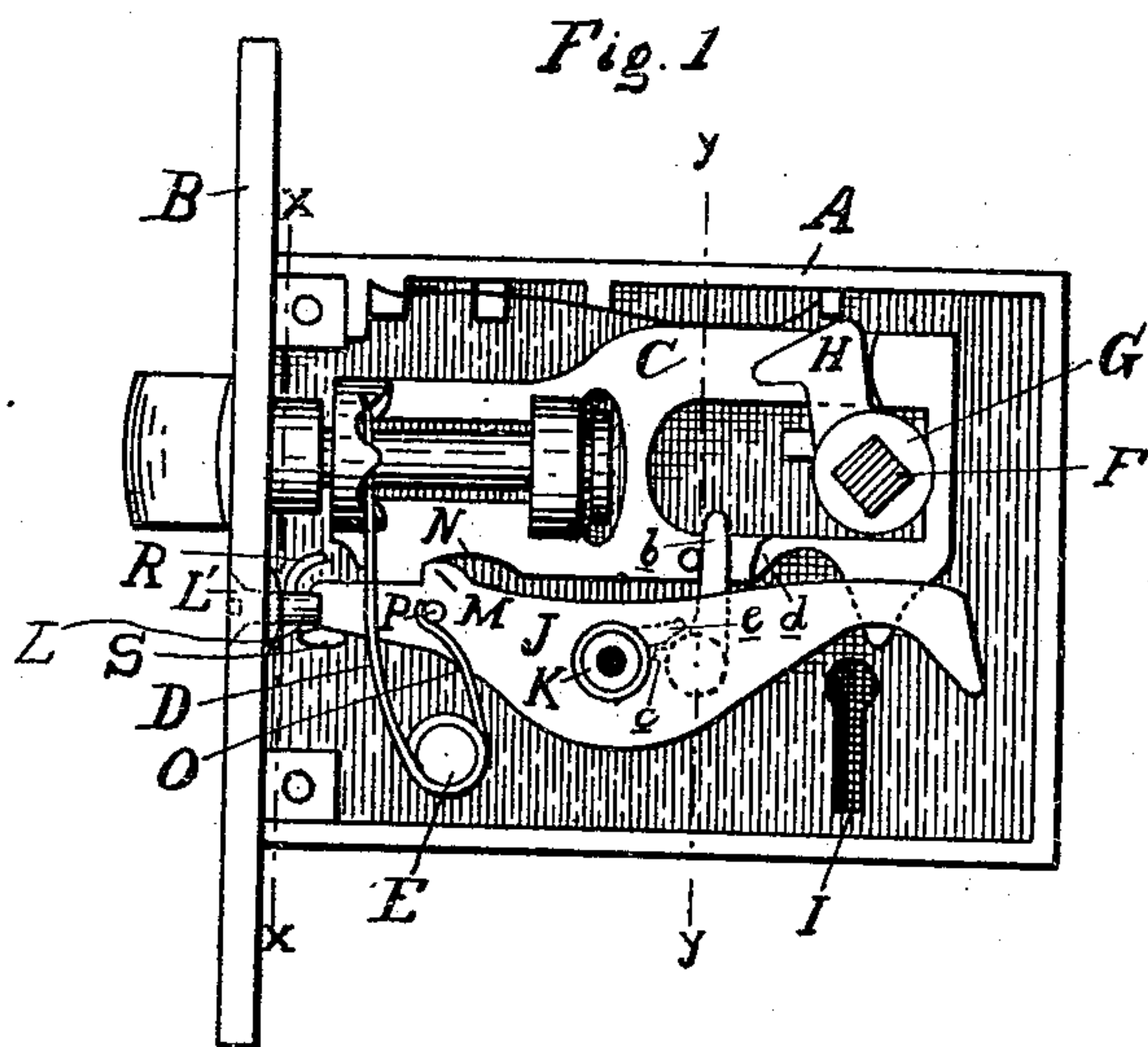


(No Model.)

E. HAMBURGER.
COMBINED LATCH AND LOCK.

No. 371,577.

Patented Oct. 18, 1887.



Witnesses:
P. M. Hulbert
Jas. Whittemore

Inventor:
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Att'y.

UNITED STATES PATENT OFFICE.

EPHRAIM HAMBUJER, OF DETROIT, MICHIGAN, ASSIGNOR OF ONE-HALF TO
S. WIGHTMAN STEWART, OF SAME PLACE.

COMBINED LATCH AND LOCK.

SPECIFICATION forming part of Letters Patent No. 371,577, dated October 18, 1887.

Application filed August 24, 1887. Serial No. 247,751. (No model.)

To all whom it may concern:

Be it known that I, EPHRAIM HAMBUJER, a citizen of the United States, residing at Detroit, in the county of Wayne and State of Michigan, have invented certain new and useful Improvements in a Combined Latch and Lock, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to new and useful improvements in a combined latch and lock; and the invention consists in the novel construction and arrangement of different parts, all as more fully hereinafter described.

In the drawings which accompany the specification, Figure 1 is an elevation of the lock with the cover of the lock-case removed. Fig. 2 is a cross-section on line *xx* in Fig. 1. Fig. 3 is a face view of the lock. Fig. 4 is a cross-section on line *yy* in Fig. 1.

A is the lock-case.

B is the face plate secured to the lock-case.

C is the latch-bolt.

D is the spring projecting the latch-butt.

E is a fulcrum-stud for the tension-coil of the spring D.

F is the knob-spindle.

G is the hub of the knob-spindle.

H is the actuating-arm on the knob-spindle.

I is the key-hole.

J is the tumbler, pivotally secured at or about midway of its length below the latch-bolt on a fulcrum-pin, K, so as to swing in a plane parallel with the plane of the bolt. One end of this tumbler projects in proximity to the key-hole to be operated on by the key, and the opposite end projects in proximity to the face-plate. Near its forward end this tumbler is provided with a shoulder or stud, M, which in the operation of the lock is adapted to engage with a notch, N, formed on the lower edge of the latch-bolt, and the arm O of the latch-spring is adapted to hold the tumbler in such engagement by its pressure upon the pin P.

L is a pin rotatively secured in the face-plate and projecting with its free inner end into proximity of the forward end of the tumbler. This pin is preferably screw-headed, and carries at its free end an arm or eccentric,

R, so arranged that by turning the pin L on its axis this arm or eccentric will engage upon the forward end of the tumbler and depress the latter sufficiently to bring its stud M out of engagement with the notch N on the latch-bolt, as shown in Fig. 2; but when in normal position, as shown in Fig. 1, it will not interfere with the free action of the tumbler. The forward end of the tumbler is provided with a suitable shoulder or offset, S, to engage with the arm or eccentric R to operate in the prescribed manner. In practice the pin L thus operates as a catch, whereby the tumbler is made inoperative or operative, as desired. With the catch adjusted in its operative position, as shown in Fig. 1, the lock cannot be operated without the use of a suitable key adapted to lift the rear end of the tumbler sufficiently to disengage its stud M from the notch N of the latch-bolt and to throw the latch-bolt jointly therewith.

If the pin L is turned half a revolution by means of an ordinary screw-driver, the tumbler is made inoperative and the latch-bolt may be operated freely by turning the knob.

An advantage of my construction is that the nature of the lock is not easily disclosed by its outward appearance, the screw-head L' of the pin L being especially calculated to divert discovery, while at the same time the lock is exceedingly simple and easily operated, either as a latch or lock, by simply turning the pin L half a revolution ahead or back by means of a screw-driver or the equivalent use of the thumb-nail of the operator.

In manufacturing the lock for an outside mortise door-lock I preferably provide it on the side which comes on the inside of the door with a knob, *a*, which turns in a bearing formed in the lock-case, and has secured to its inner end a hub carrying the two arms *b c*. The arm *b* is adapted to retract the latch-bolt in turning the knob in the proper direction, there being a shoulder, *d*, formed on the latch-bolt, against which the arm *b* strikes. The arm *c* is adapted to engage with a lug, *e*, formed near the pivotal point or hub of the tumbler, and by means of said engagement the tumbler is disengaged from the latch-bolt before the latter is retracted, there being a lost motion

between the arm *b* and the shoulder *d*. Thus by means of the knob *a* the lock may be opened on the inside without using any key.

What I claim as my invention is—

5 1. In a combined latch and lock, the combination, with the latch-bolt, of a tumbler pivotally secured below said bolt and operating in a plane parallel therewith, and provided with an arm projecting forwardly in
10 proximity to the face-plate of the lock, and a pin rotatively secured in the face-plate and provided at its inner end with an arm or eccentric adapted to depress the forward end of the tumbler and hold the same in an inoper-
15 ative position, substantially as described.

2. In a combined latch and lock, the combination, with the latch-bolt, of a tumbler hung midway of its length upon a pivot to swing in a plane parallel with the plane of the
20 latch-bolt, and having the rearwardly-projecting arm, against which the key operates, and the forwardly-projecting arm carrying a stud to engage into a notch on the latch-bolt, a

spring having its tension-coil secured upon a fulcrum-pin and operating with one arm on 25 the latch-bolt and with the other on the tumbler, and an adjustable catch secured in the face-plate of the lock, adapted to depress the forward end of the tumbler, substantially as described.

3. In a combined latch and lock, the combination, with the notched bolt, pivoted tumbler, and key mechanism, substantially as described, of a catch consisting of a screw-headed pin rotatively secured in the face-plate 35 of the lock, and having an arm or eccentric adapted to act on the tumbler, substantially as described.

In testimony whereof I affix my signature, in presence of two witnesses, this 16th day of 40 August, 1887.

E. HAMBUJER.

Witnesses:

H. S. SPRAGUE,
JAS. WHITTEMORE.