

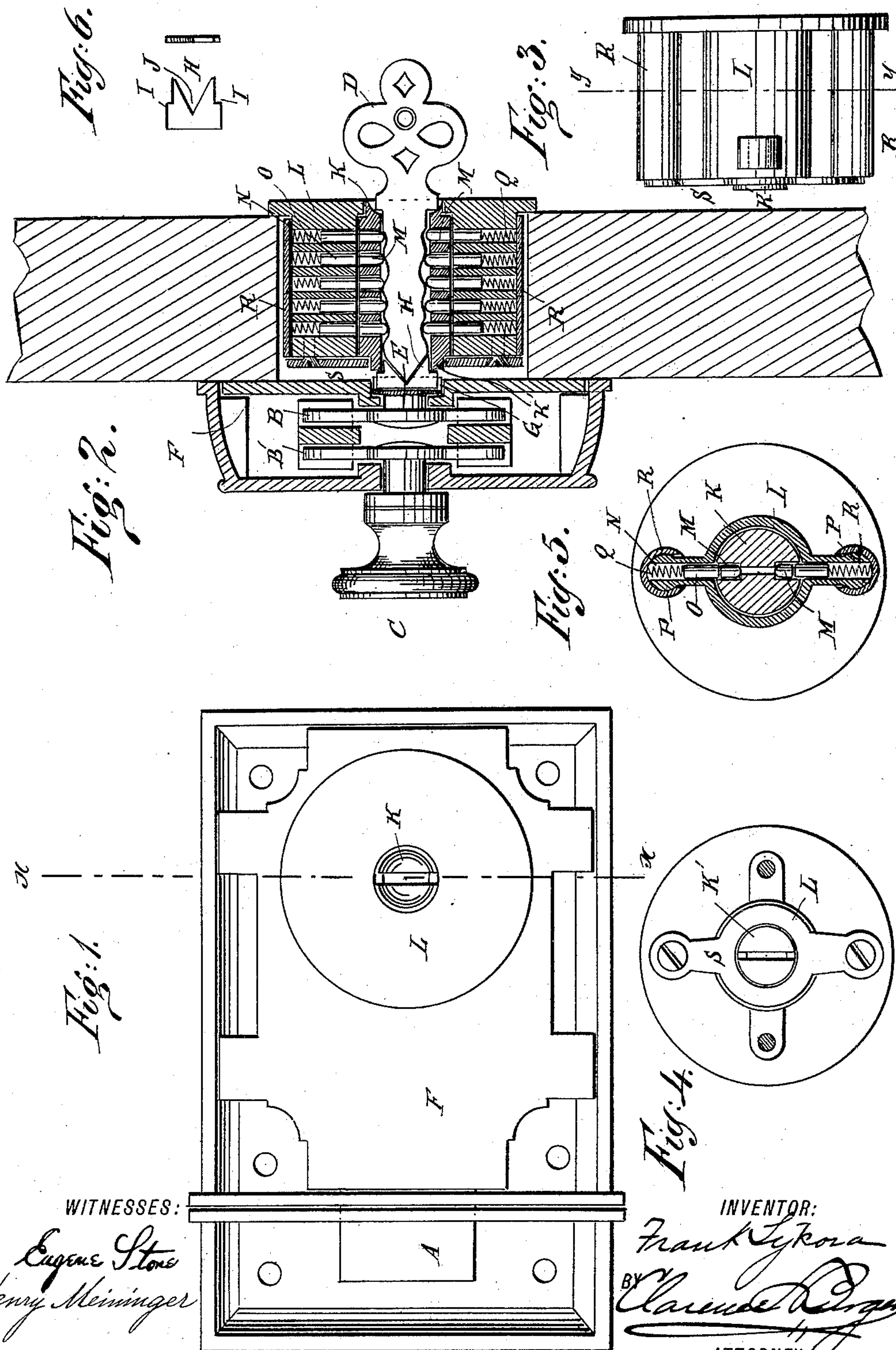
(Model.)

2 Sheets—Sheet 1.

F. SYKORA.
LOCK.

No. 421,205.

Patented Feb. 11, 1890.



WITNESSES:

Eugene Stone
Henry Meiminger

INVENTOR:

Frank Sykora
BY *Charles R. [Signature]*
ATTORNEY

(Model.)

2 Sheets—Sheet 2.

F. SYKORA.
LOCK.

No. 421,205.

Patented Feb. 11, 1890.

Fig. 7.

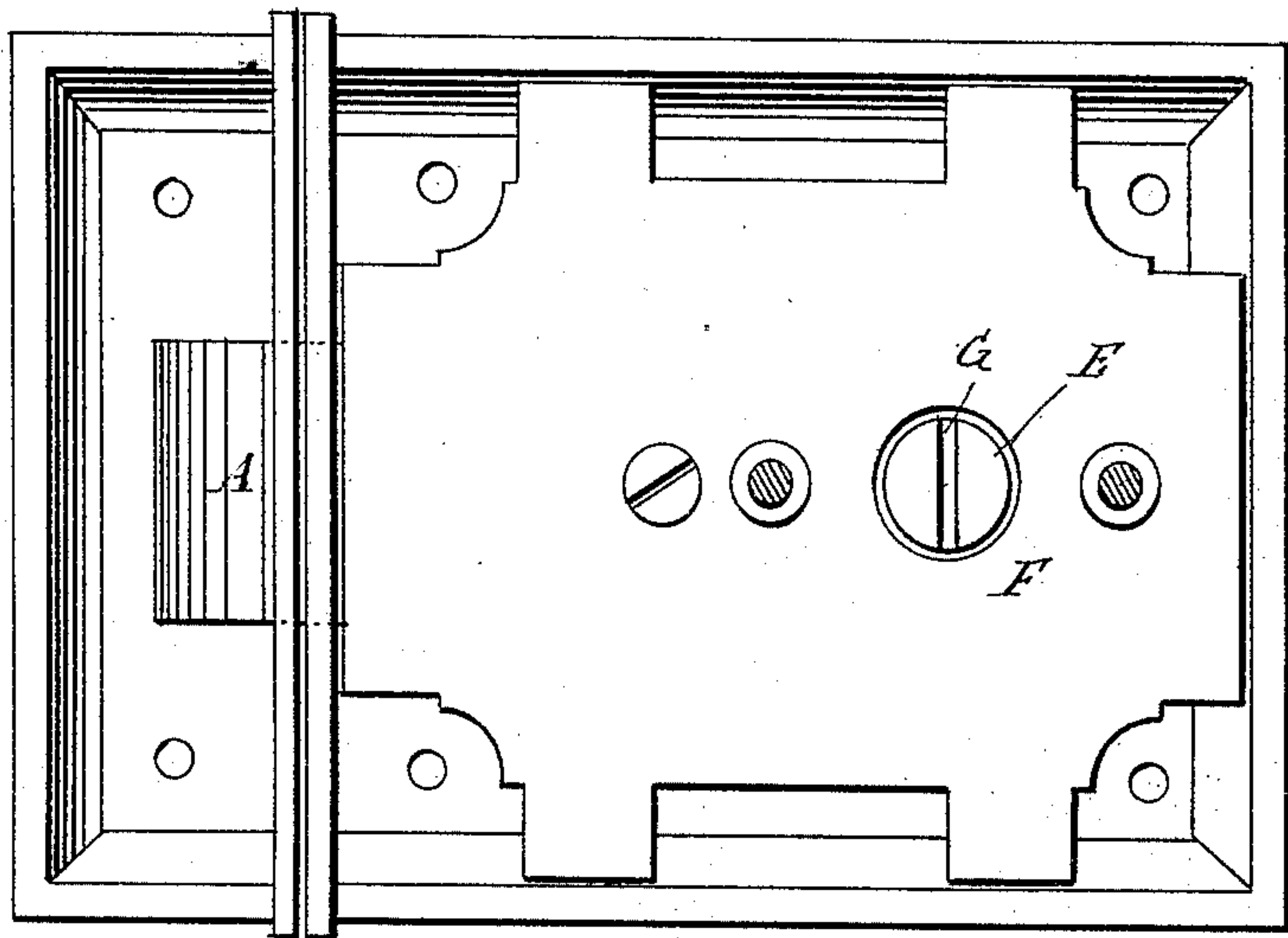


Fig. 8.

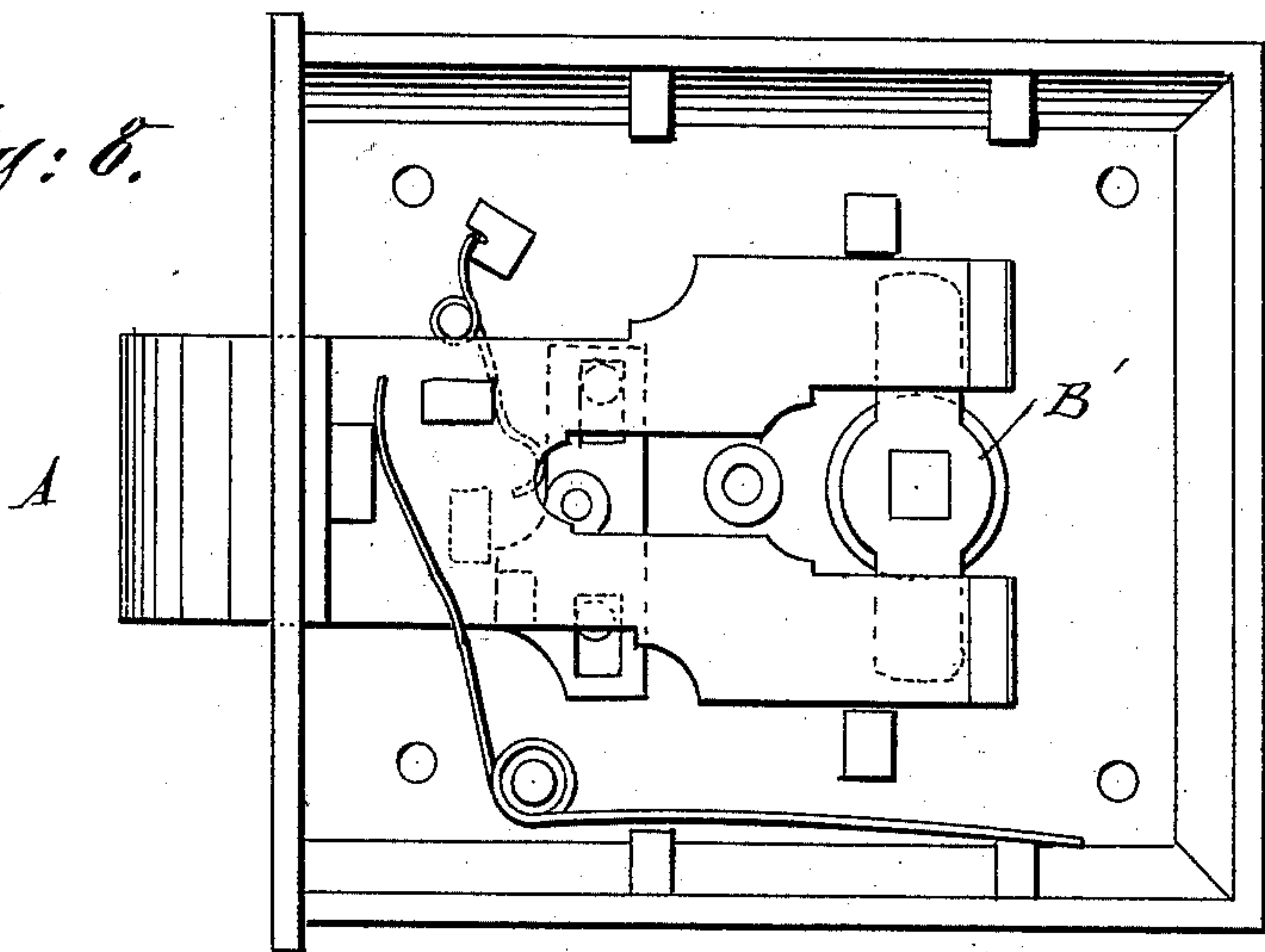
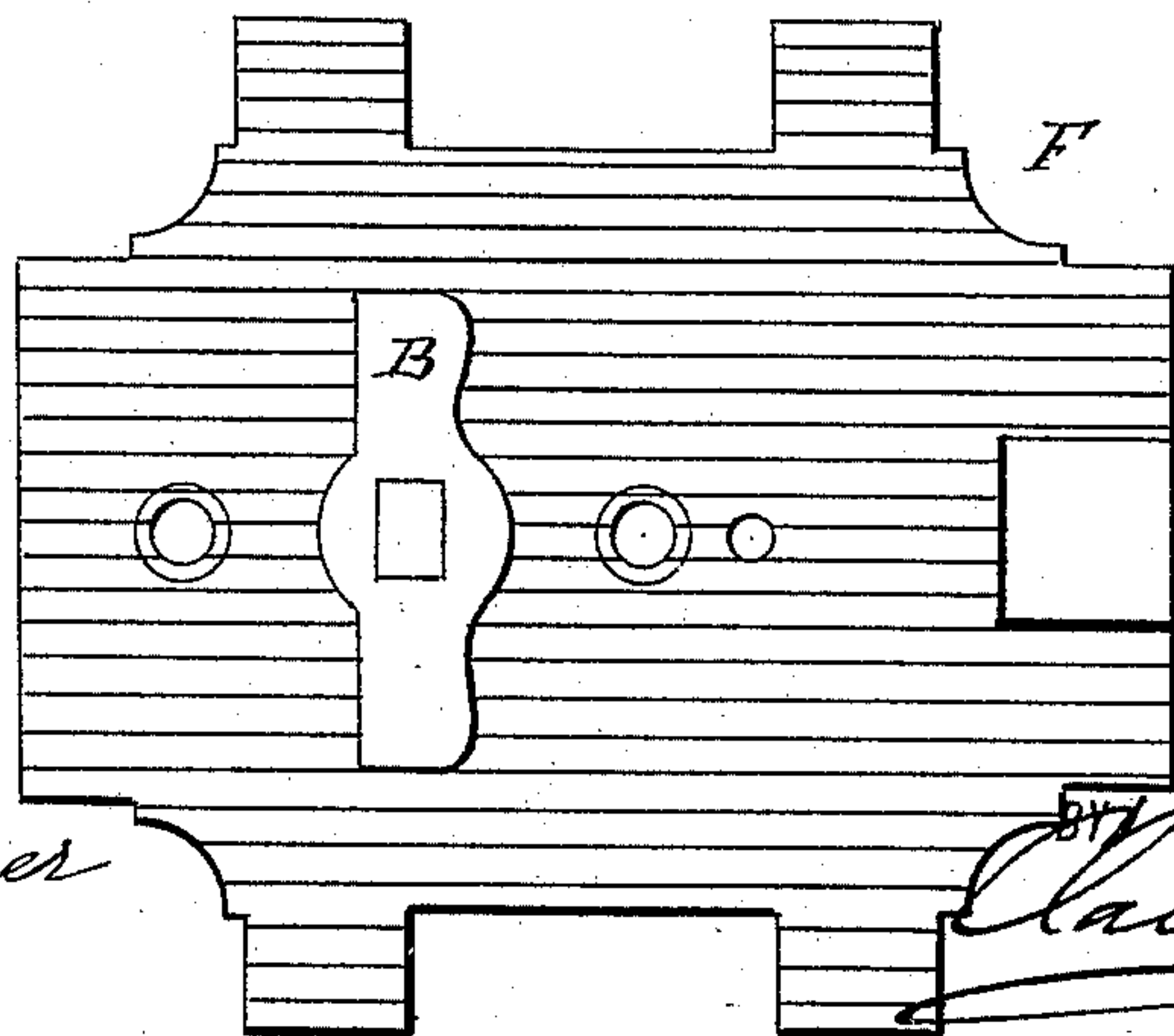


Fig. 9.



WITNESSES:

Eugene Stone
Henry Meisinger

INVENTOR:

Frank Sykora

Charles D. Quinn
ATTORNEY

UNITED STATES PATENT OFFICE.

FRANK SYKORA, OF NEW YORK, N. Y., ASSIGNOR OF ONE-HALF TO HERMAN KOELBEL, OF SAME PLACE.

LOCK.

SPECIFICATION forming part of Letters Patent No. 421,205, dated February 11, 1890.

Application filed October 1, 1889. Serial No. 325,734. (Model.)

To all whom it may concern:

Be it known that I, FRANK SYKORA, a citizen of the United States, residing in the city, county, and State of New York, have invented a new and useful Improvement in Locks, of which the following is a specification.

This invention relates to locks of the "Yale" pattern, in which the latch or bolt is operated by a rotary barrel, which is normally locked against movement by tumbler-pins, and can be turned only when said tumbler-pins are operated by an appropriate key.

The object of my invention is to render the tumbler-pins more easily accessible for repairs or renewal than heretofore.

In order that my invention may be fully understood, I will first describe in detail a lock embodying my invention, and then specifically claim the same.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a face view of a lock embodying my invention. Fig. 2 is a cross-sectional view of the said lock with key on the line X X, Fig. 1. Fig. 3 is a side view of the Yale attachment removed. Fig. 4 is an inner end view of the same. Fig. 5 is a sectional view of the same on the line Y Y, Fig. 3. Fig. 6 illustrates in end and side view the device for coupling the Yale attachment to the bolt or latch-lever. Fig. 7 is a face view of the lock, the Yale attachment being removed. Fig. 8 is a similar view of the lock, the cover-plate being also removed. Fig. 9 is a view of the inside of said cover-plate.

Like letters of reference designate corresponding parts in the several figures.

The lock shown is provided with a spring-projected latch or bolt A and two two-armed bolt-operating levers B B', one operated from inside by a knob C and the other adapted for operation outside by the key D in a well-known manner, so that the bolt will be retracted when either the knob or key is turned in either direction.

The boss E, by which the key-operated lever B is pivoted to the case-plate F, is formed with a transverse slot G in its outer end to receive the wider and square end of a flat

coupling-piece H, (shown detached in Fig. 6,) the outer end of which is reduced in width, forming side shoulders I, and is formed with a central V-shaped notch J. The notched end of the coupling-piece H is fitted to enter snugly a transverse slot formed in the inner end of the barrel K of the Yale attachment, the shoulders I bearing against the end of said barrel and limiting the entrance of the coupling-piece, as shown in Fig. 2, so that when the barrel is turned by the key D the two-armed lever B will turn therewith and thus retract the bolt. The end of the key is pointed or tapered to fit the notch J in the coupling-piece, whereby the key is automatically centered when inserted in the key-slot.

The barrel K, which is fitted to turn in the fixed cylinder L, is provided with like sets of pin-chambers and tumbler-pins M, entering opposite edges of the key-slot, and the cylinder L, also with opposite like sets of pin-chambers N and pins O, adapted to register with those in the barrel, the arrangement being such that when the key D, which has like bits on its opposite edges, is fully inserted either side up in the key-slot the meeting ends of the pins M and O will be brought into coincidence with the meeting surfaces of the barrel and cylinder and the barrel thus be permitted to turn and retract the bolt on turning the key in either direction. The outer ends of the pin-chambers N in the cylinder extend through the side of the cylinder and through lateral cylindrical wings P, formed integrally on opposite sides thereof, the tumbler-pin springs Q, as well as the pins O, being introduced into the chambers N through their open outer ends and held in place by split cylindrical shells or sleeves R, which are slid over the cylindrical wings P as covers, and are in turn held in place by a detachable winged plate S, screwed on the back of the cylinder against the sleeves R and the end of the barrel K, the barrel being formed with a neck K', which fits loosely within a central aperture in the plate S. With this construction when the key is lost or the Yale attachment out of order the latter may be detached, the plate S and sleeves R removed, and convenient access thus had to the pins

and pin-chambers in both cylinder and barrel for examination, refitting, repair, or renewal.

I claim as new and desire to secure by Letters Patent—

In a lock of the character specified, a barrel-containing cylinder formed with a lateral wing in which are outward-opening pin-cham-

bers, in combination with a split sleeve-like shell engaging the wing and covering the pin-chambers, substantially as described.

FRANK SYKORA.

Witnesses:

CLARENCE L. BURGER,
EDWIN L. KALISH.