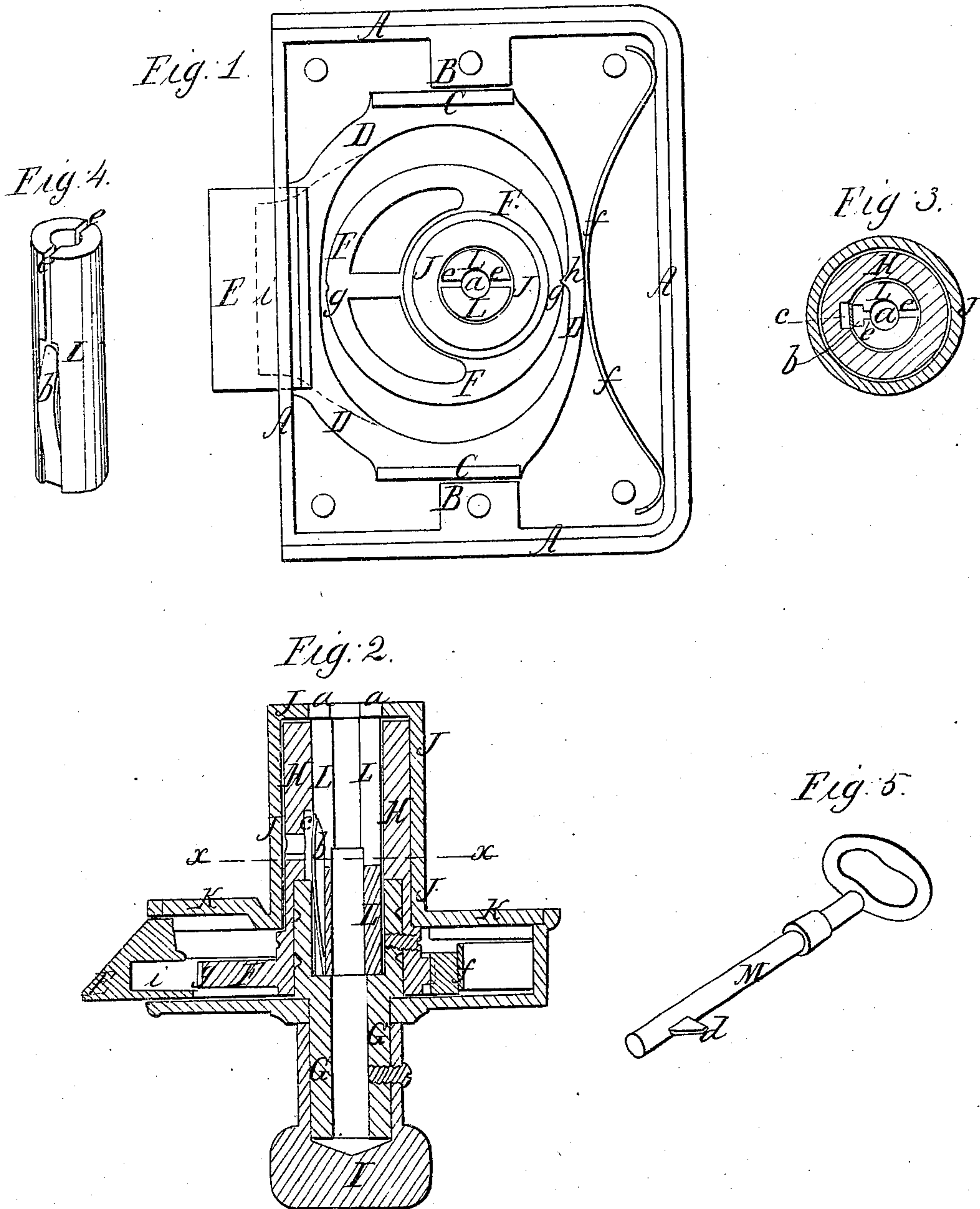


N. Petre.

Latch.

N<sup>o</sup> 95,508.

Patented Oct. 5, 1869.



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# United States Patent Office.

N. PETRÉ, OF NEW YORK, N. Y.

Letters Patent No. 95,508, dated October 5, 1869.

## IMPROVEMENT IN LATCHES.

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

To all whom it may concern:

Be it known that I, N. PETRÉ, of the city, county, and State of New York, have invented certain new and useful Improvements in Locks; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 represents a plan of the interior of the lock.

Figure 2 represents a transverse section through the same.

Figure 3 represents a cross-section through the key-hub, taken at the red line *xx* of fig. 3.

Figure 4 represents, in perspective, the key-barrel and its spring, removed from the lock.

Figure 5 represents the key in perspective view.

Similar letters of reference, where they occur in the separate figures, denote like parts of the lock in all of the drawings.

This invention relates to a dead-latch lock, in which the bolt is drawn into the lock by an eccentric working in a yoke connected to said bolt, and projected by a semi-elliptic or other spring, and in which the bolt, which is bevelled as it strikes the bevel on the keeper, as in the act of shutting the door, can enter the lock without moving or using the eccentric; and it relates, further, to a key-barrel and spring within the hub of the eccentric, so that with the proper key, the barrel and hub may be connected through the medium of the spring and key, and the eccentric and bolt operated by turning the key.

To enable others skilled in the art to make and use my invention, I will proceed to describe the same with reference to the drawings.

In the lock-case A, there are guides B B, against which the straight portions O O of the yoke D move. This yoke may be cast in one piece with the bolt E, or made separate therefrom, and then united to it.

The eccentric F, that works in the yoke D, to move the bolt into the lock-case, has spindles, or journals G H connected with it, and which project each way from it, the one, G, having a knob, I, fastened on to it, by which the eccentric and bolt may be moved on or from the inside of the door.

The other spindle, or journal H is tubular, and covered by the cap J, on the cover K of the lock, and through this cap J there is no opening but the key-opening *a a*, and even this opening does not expose this spindle, or journal, as the key-opening leads into a key-barrel, L, within the tubular spindle H, and this key-barrel must be fastened to the spindle, before the spindle, eccentric, or bolt, can be moved by even the key.

This is accomplished as follows:

On the key-barrel L there is a spring, *b*, and in the

interior of the hollow spindle H there is a recess, *c*, corresponding to said spring.

The key M being inserted, its ward, or projection *d*, taking the slot *e* next to the spring *b*, presses said spring into the recess *c* in the spindle H, which unites the barrel and spindle. Then, by turning the key, the eccentric is turned, and the bolt drawn into the lock against the action of the half-elliptic plate-spring *f*, and the reaction of the spring aids to or will itself shoot out the bolt, when it is relieved of the hold of the eccentric upon it.

The spring is of a semi-elliptic-plate form, for the sake of economizing space and, consequently, size of the lock, while sufficient power is attained by its use.

At diametrically opposite sides of the eccentric there are nicks, or depressions *g g*, into which a click, or projection, *h*, on the rear of the yoke D, takes, when they come opposite to said projection, and which hold the eccentric and yoke together by a force equal to that of the pressure of the spring *f*, but are readily released by the turning of the knob or of the key.

There is an opening, or recess, *i*, in the bolt E, which will take in the part of the eccentric F next to it, when said bolt is pressed into the lock, as in the act of closing door, and when the bolt in such case passes the bevel on the keeper, the recoil of the spring will shoot the bolt out again, and into the keeper.

Thus, while the bolt can only be moved in and out by the use of the knob or key from the outside, and through the action of the eccentric, yet the bolt, as above described, can be forced in and shot out without moving the eccentric, viz, by the act of closing the door and the bevels on the bolt and keeper.

Having thus fully described my invention, and shown how the same is operated,

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

1. In combination with a bolt, yoke, and eccentric, when so arranged as that the bolt moves directly toward and from the eccentric, and operated from the exterior by a knob or key, and controlled by a spring, a recess, *i*, in the front of said bolt, that allows it to be forced into the lock, as in the act of shutting the door to pass over, without moving the eccentric, as and for the purpose substantially as described.

2. Also, in combination with the spindle H and its recess *c*, the key-barrel L and its spring *b*, so that the insertion of the key shall form a connection between said spindle and barrel, and cause them to move together by the turning of the key, to move the bolt, substantially as described.

N. PETRÉ.

Witnesses:

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