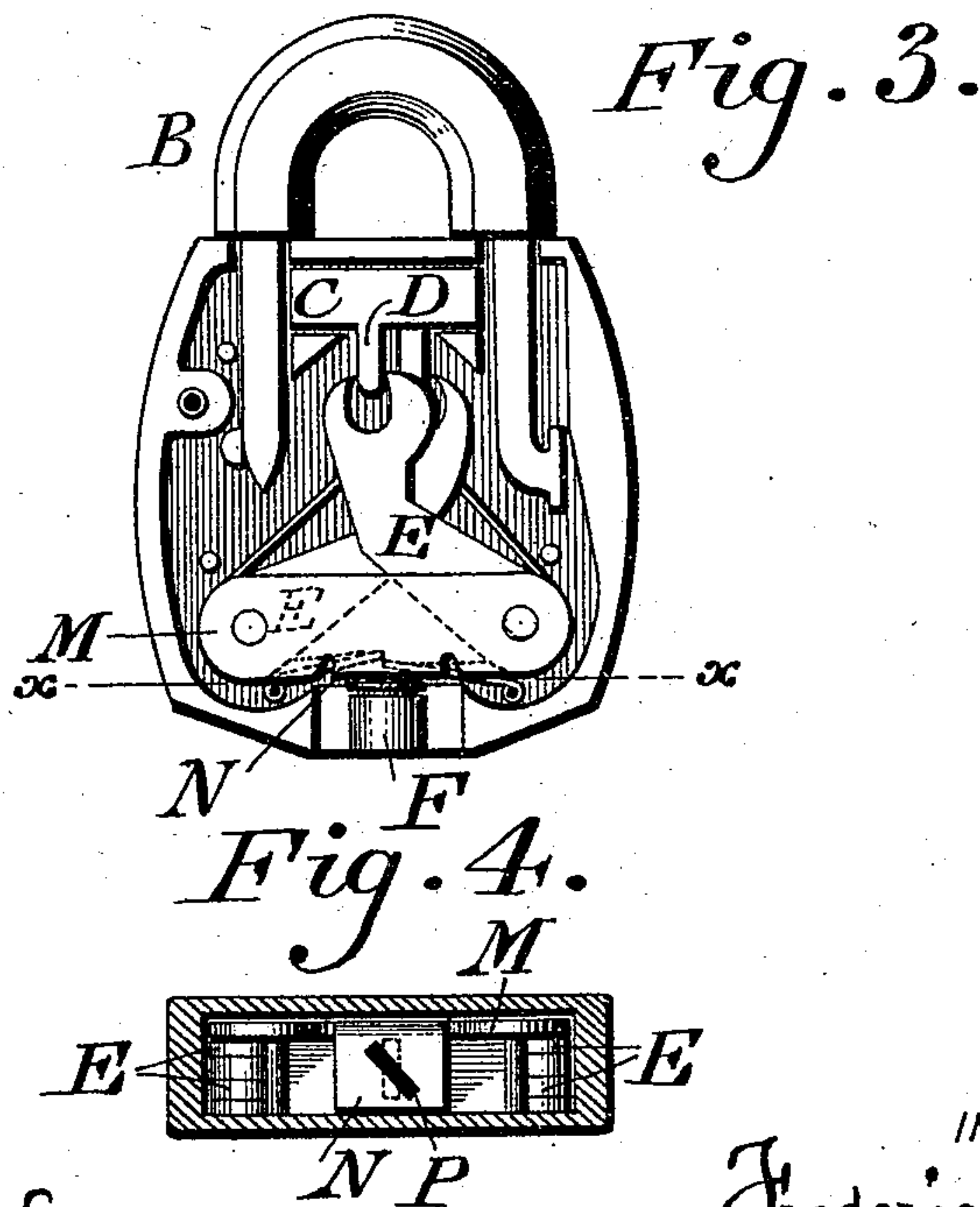
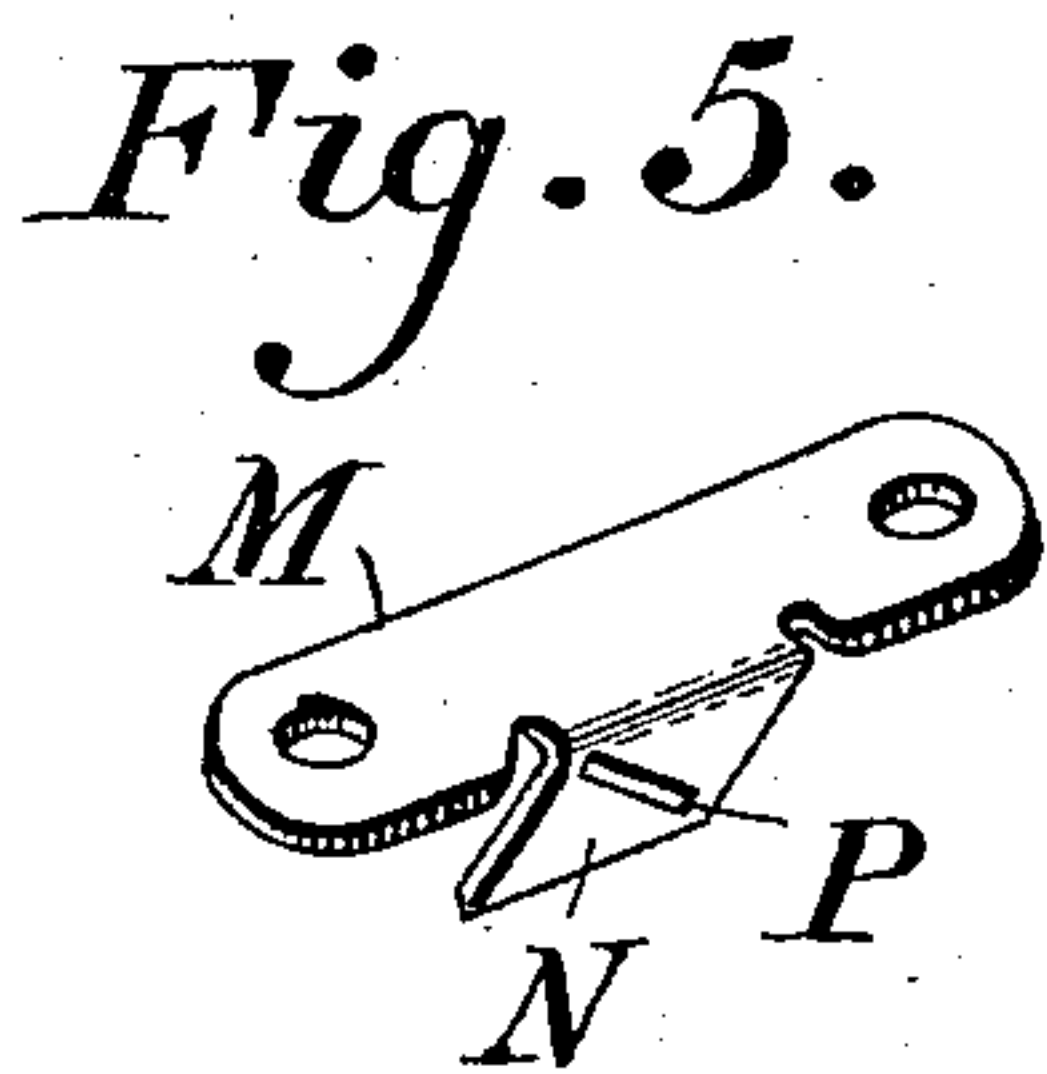
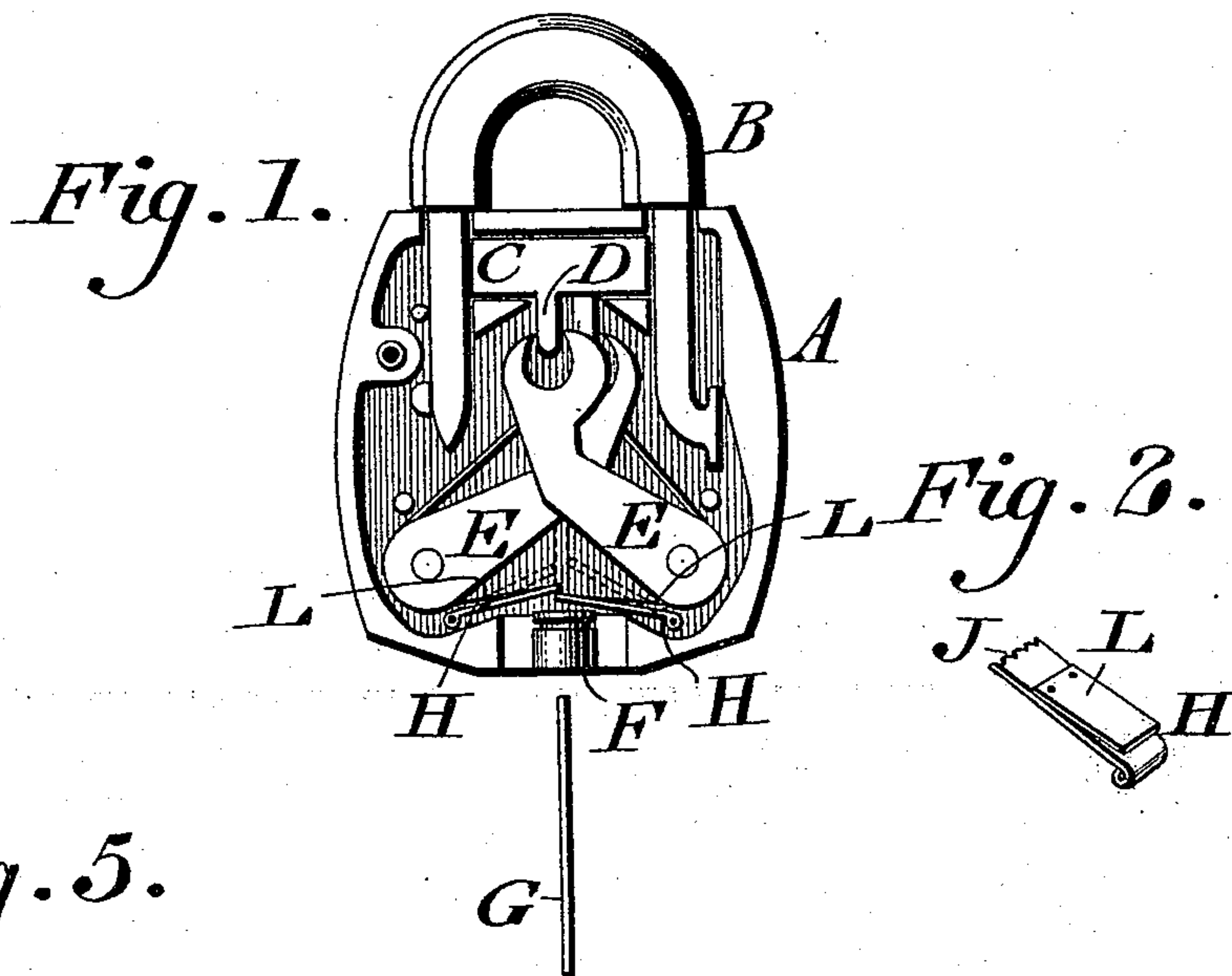


(No Model.)

F. W. SCHULTZE.  
PADLOCK.

No. 496,369.

Patented Apr. 25, 1893.



WITNESSES:  
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# UNITED STATES PATENT OFFICE.

FREDERICK W. SCHULTZE, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR  
TO THE SCHULTZE LOCK MANUFACTURING COMPANY, LIMITED, OF SAME  
PLACE.

## PADLOCK.

SPECIFICATION forming part of Letters Patent No. 496,369, dated April 25, 1893.

Application filed October 28, 1892. Serial No. 450,221. (No model.)

*To all whom it may concern:*

Be it known that I, FREDERICK W. SCHULTZE, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Improvement in Padlocks, which improvement is fully set forth in the following specification and accompanying drawings.

My invention consists of a lock which is provided with means for preventing the withdrawal of a piece of material that may have been introduced into the lock for taking the impression of the tumblers or lock works.

It also consists in providing the lock with a guide when a spiral key is employed to open said lock, so that the key is required to pass through said guide in order to reach the tumblers.

Figures 1 and 3 represent views of the interior of a padlock embodying my invention. Fig. 2 represents a perspective view of one of the guards of the lock. Fig. 4 represents a transverse section on line *x, x*, Fig. 3. Fig. 5 represents a perspective view of a guide for the key of the lock.

Similar letters of reference indicate corresponding parts in the several figures.

Referring to the drawings:—A designates the casing of a lock, the same being provided with a shackle or bow B, in whose limbs are openings to receive bolts C, depending from which are the stems D, which are engaged by the bifurcated ends or slots of the dogs or tumblers E, which are pivoted at one end to the lock casing, and project in opposite directions. In the bottom wall of the casing is a bushing F, which is rotatably mounted therein and adapted to receive a key whose bits engage with the tumblers E, at the place of crossing of the same, it being evident that when said key is employed, it presses the tumblers in such manner that they are forced apart, whereby the bolts C emerge from the openings in the limbs of the shackle, and the latter may be withdrawn, the lock being accordingly opened.

In the casing A, above the bushing F are dogs H, consisting of flat pieces of metal or other suitable material which are pivoted to the casing on opposite sides of said bushing,

and their inner ends overlap, as shown in Fig. 1, it being seen that should a piece G of lead or other pliable material be inserted into the lock in order to reach the tumblers, and take an impression thereof, said dogs open and permit the passage or entrance of said strip, but when an attempt is made to withdraw the same, the ends of the dogs bite against said piece, and cause the latter to interlock with the dogs, whereby withdrawal of the piece is prevented. The interlocking action of the dogs on the piece is increased by serrations or teeth J on the ends of the former, so that slipping of the dogs on the piece is prevented.

When a proper key is introduced into the lock, it separates the dogs, and when it is withdrawn, owing to its hard nature, it slips past the dogs, without being stopped by the latter. On the backs of the dogs are springs L, which bear against the heel ends of the tumblers E, or other stops in the casing, whereby said dogs are caused to be held in contact, their normal condition, and to return to the same after the key has been properly withdrawn.

Mounted on the axis of the tumblers or other pins within the casing, is a bridge M, on which is a transversely extending plate N, in which is an obliquely-extending slot P, forming a guide for a key which has a spiral shank, it being noticed that when the key is inserted in the key-hole of the bushing F, it rotates therewith, and when its bit portion reaches the slot P, it is directed into the same, the spiral portion of the key then riding through said slot, thus causing the bits of the key to be properly presented to the tumblers, to move the same for opening the lock. When the key is withdrawn, the tumblers return to their normal position, due to the action of springs, thus restoring the bolts to locking engagement with the shackle.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a padlock, a guard for the key-hole thereof consisting of two pieces of metal pivoted at their outer ends, and having overlapping inner ends, in combination with controlling springs bearing against said guards and

the heels of the tumblers of the lock, substantially as described.

2. In a padlock, a guard for the keyhole thereof consisting of two pieces of metal piv-  
5 oted at their outer ends and inner serrated ends, and provided with controlling springs, said parts being combined substantially as described.

3. In a padlock, a rotating bushing with a

keyhole therein, and the bridge M with trans- 10  
versely-extending plate N having a slot therein forming a guide for a key entering said keyhole in the bushing, said parts being combined substantially as described.

FREDERICK W. SCHULTZE.

Witnesses:

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