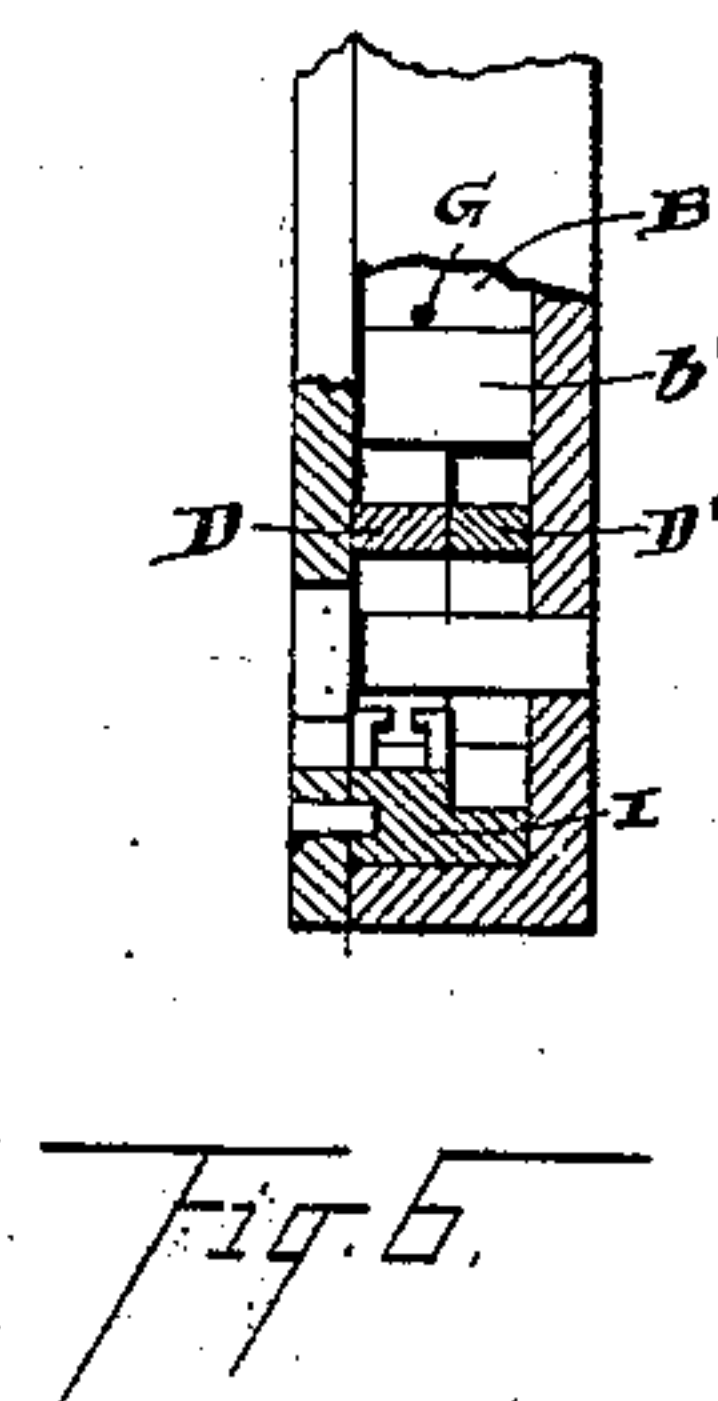
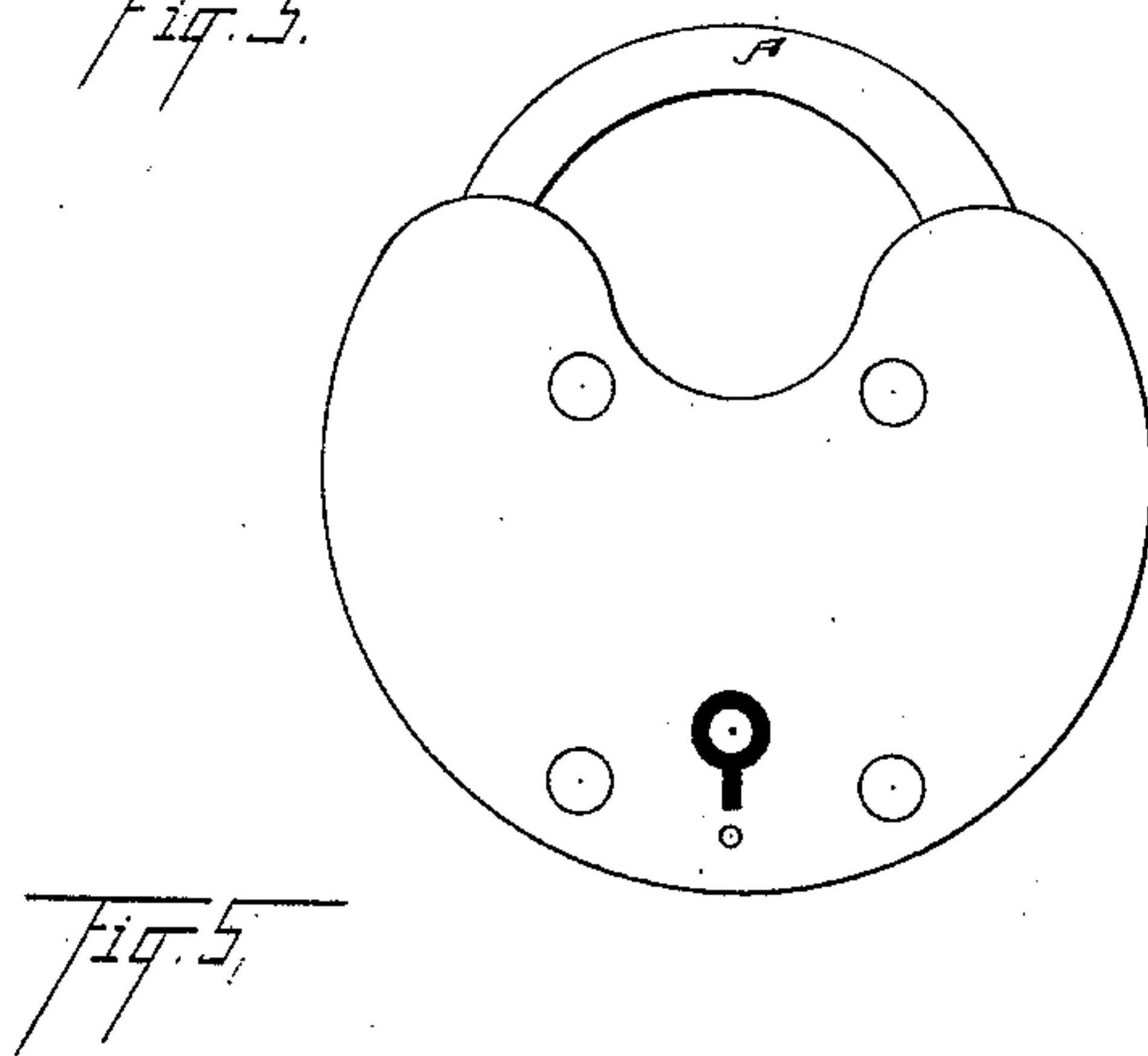
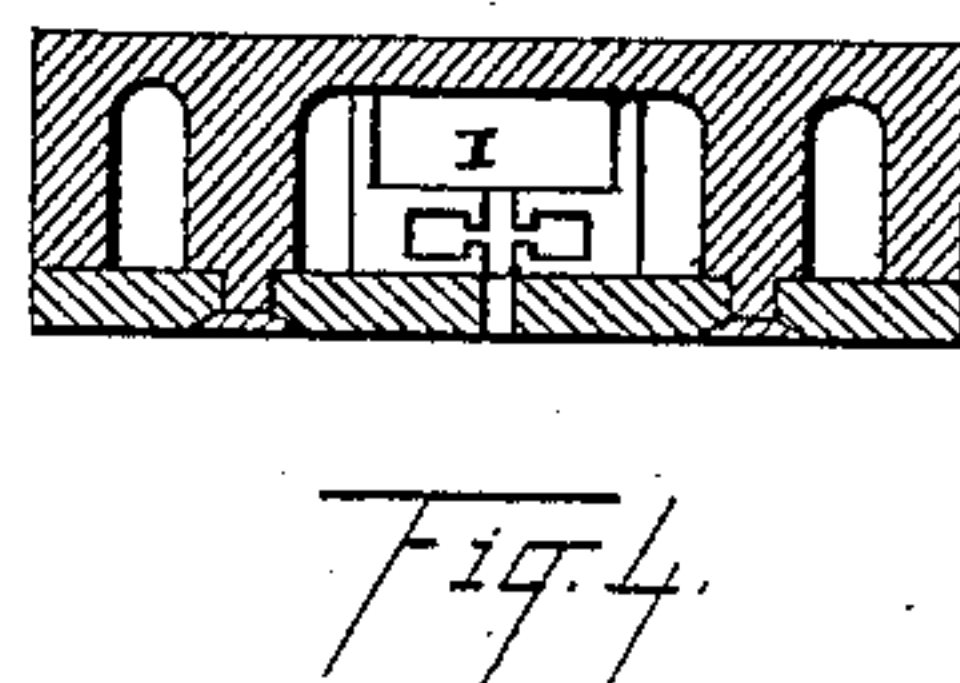
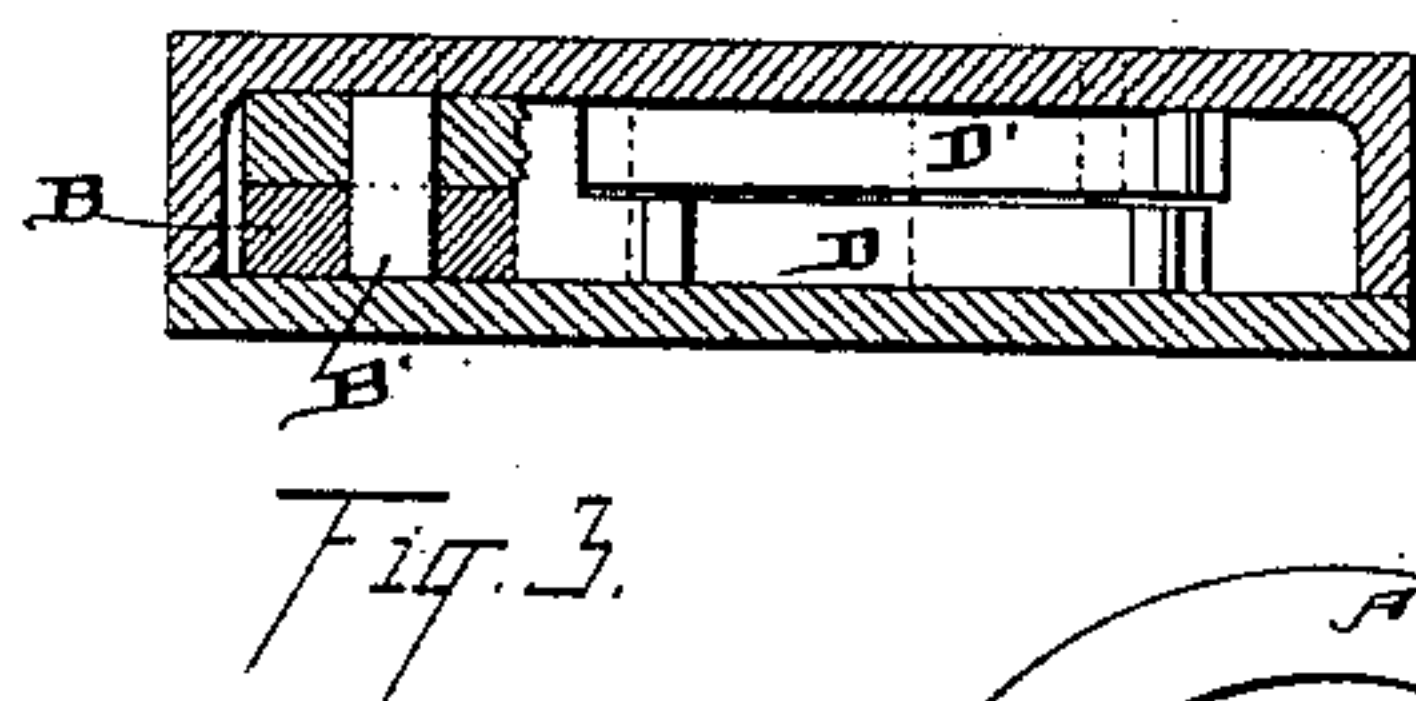
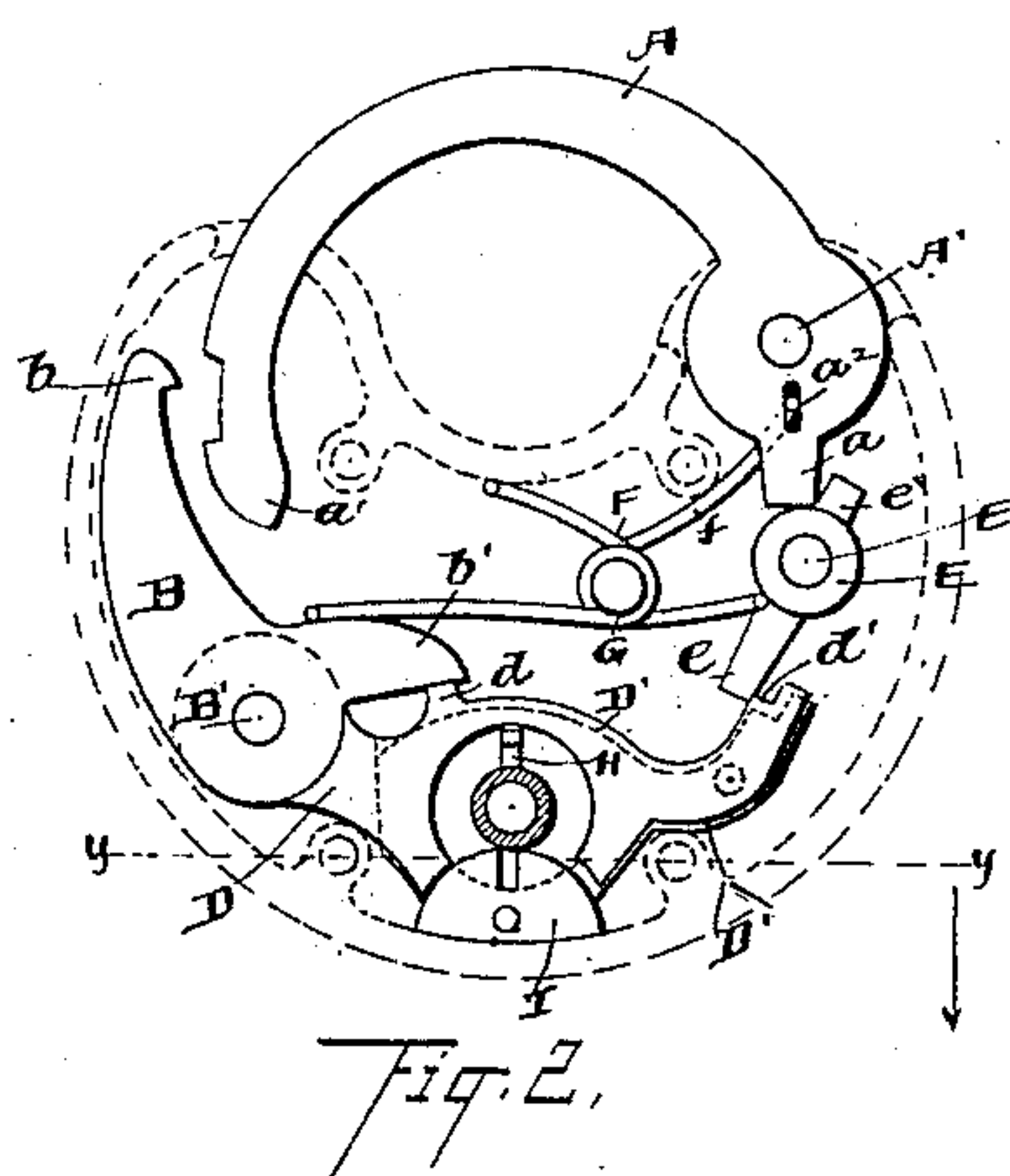
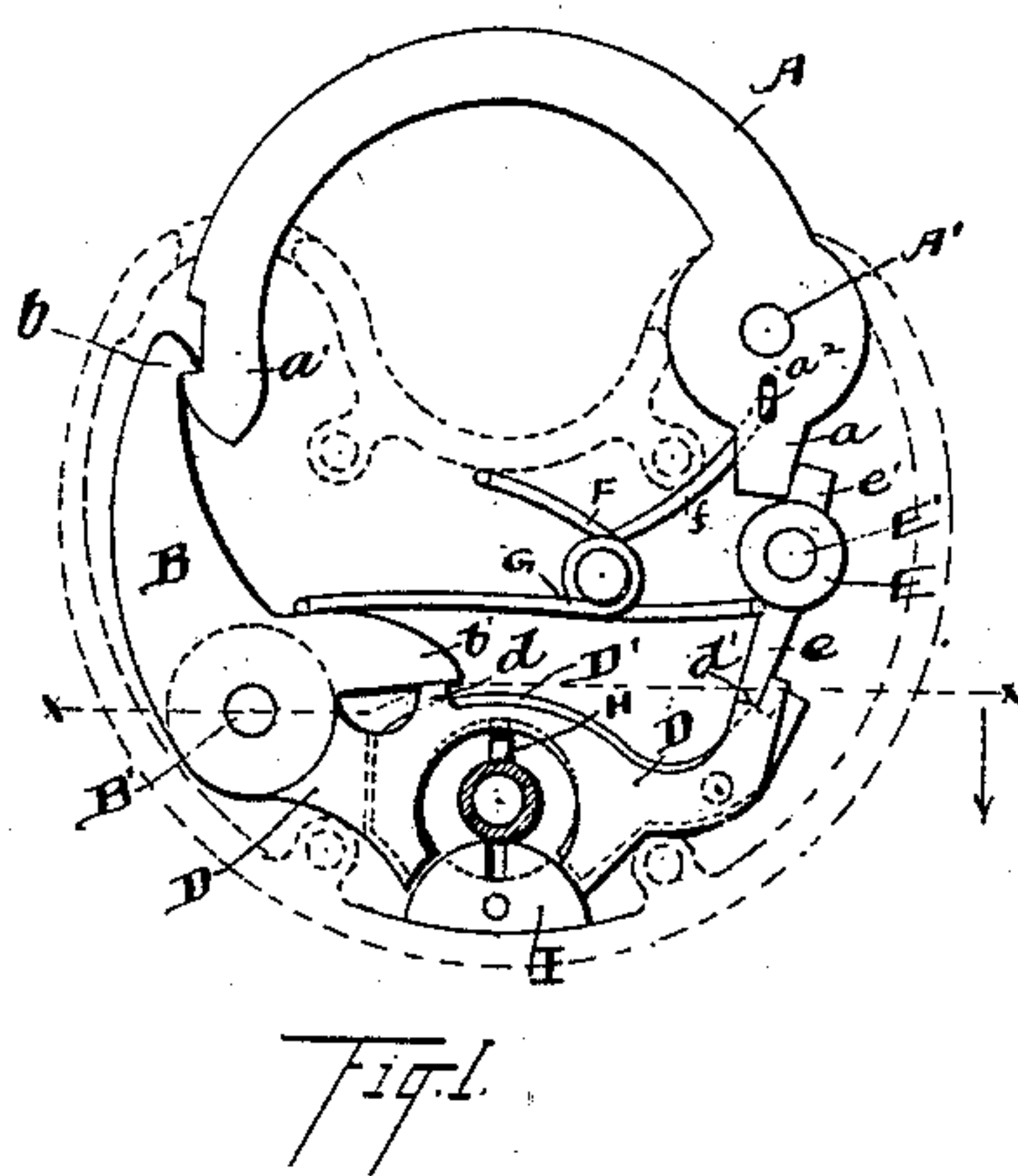


(Model.)

J. E. OPAL.
PADLOCK.

No. 411,054.

Patented Sept. 17, 1889.



WITNESSES:

N. S. Amstutz
Wm. A. Brown

Jonas E. Opal INVENTOR

BY *Liggett Liggett*

ATTORNEYS

UNITED STATES PATENT OFFICE.

JONAS E. OPAL, OF LAKE LINDEN, MICHIGAN.

PADLOCK.

SPECIFICATION forming part of Letters Patent No. 411,054, dated September 17, 1889.

Application filed June 30, 1888. Serial No. 278,631. (Model.)

To all whom it may concern:

Be it known that I, JONAS E. OPAL, of Lake Linden, in the county of Houghton and State of Michigan, have invented certain new and useful Improvements in Padlocks; and I do hereby 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 pertains to make and use the same.

My invention relates to improvements in padlocks; and it consists in certain features of construction and in combination of parts hereinafter described, and pointed out in the claims.

In the accompanying drawings, Figures 1 and 2 are elevations with the front plate removed, showing different positions, locked and unlocked. Figs. 3 and 4 are transverse horizontal sections respectively on lines $x x$ and $y y$. Fig. 5 is a side elevation of the lock complete. Fig. 6 is a transverse vertical section through the center of the lock.

A represents the bow of the lock, the same being pivoted at A' , and having an arm a extending into the lock, and having a hook end a' , for engaging catch b of lever B, the latter being of the bell-crank variety and pivoted at B' on a stud extending laterally through the lock. On this same stud is also pivoted tumbler D, the latter having a lug d , for engaging arm b' of lever B. The free end of tumbler D has a notch d' , that receives the end e of rock-arm E. This rock-arm is pivoted at E' , and the shorter member thereof e' overlaps arm a of the bow. Spring F, by means of the one end f bent forward, engages slot a^2 of the bow, the tension of the spring pressing the free end of the bow outward. The one end of spring G engages arm e , and the other end of the spring engages the short arm b' of the catch-lever, the tension of this spring depressing arm b' and turning arm e in the direction to engage notch d' . Tumbler D is tilted upward by turning key H, and by means of lug d engaging arm b' catch B is thrown back from its engagement with the bow; but in the locked position shown in Fig. 1 tumbler D is locked by arm e and held down so that it cannot be elevated. By pressing down on the bow until the latter is brought to the position shown in Fig. 2 arm a of the bow tilts the rock-arm E and unlocks the tumbler,

and while the bow is held in such depressed position the key is turned to elevate the tumbler and throw back the catch, and in such position of parts the bow is released and is instantly thrown outward by the action of spring F. When the key is removed, by pressing the bow inward the parts are returned to their normal or locked position.

One or more false tumblers D' may be pivoted on stud B' , and as the key may be thrust into the lock past tumbler D persons unacquainted with the peculiarities of the lock can divert themselves, and without doing any harm, by turning the key and operating the false tumbler, being stimulated meantime by the hope of success with every successive throw.

Key-block I is detachably secured to the inside of the casing; such key-block having the desired wards for admitting a key of peculiar construction. By removing such key-block and substituting another an entirely different-shaped key may be required. This admits of a great variety of keys being made without changing the form of lock simply by changing the key-blocks.

What I claim is—

1. The combination, with a bow and a pivoted catch for retaining the bow in locked position, of a tumbler for actuating said catch, a rock-arm for locking the tumbler when the bow is locked, and an arm projecting from the bow for engaging and actuating said rock-arm, whereby the tumbler will be released when the bow is depressed, substantially as set forth.

2. In a padlock, the combination, with a bow, of a catch and a tumbler, each pivoted at one end upon the same arbor, an arm projecting from the catch adapted to engage the tumbler, a rock-arm for locking the tumbler when the bow is locked, and an arm projecting from the bow for actuating said rock-arm, substantially as set forth.

In testimony whereof I sign this specification, in the presence of two witnesses, this 5th day of June, 1888.

JONAS E. OPAL.

Witnesses:

HENRY OPAL,
E. J. PENBERTHY.