

No. 721,399.

PATENTED FEB. 24, 1903.

H. P. TOWNSEND.

LOCK.

APPLICATION FILED FEB. 28, 1902.

NO MODEL.

Fig. 1

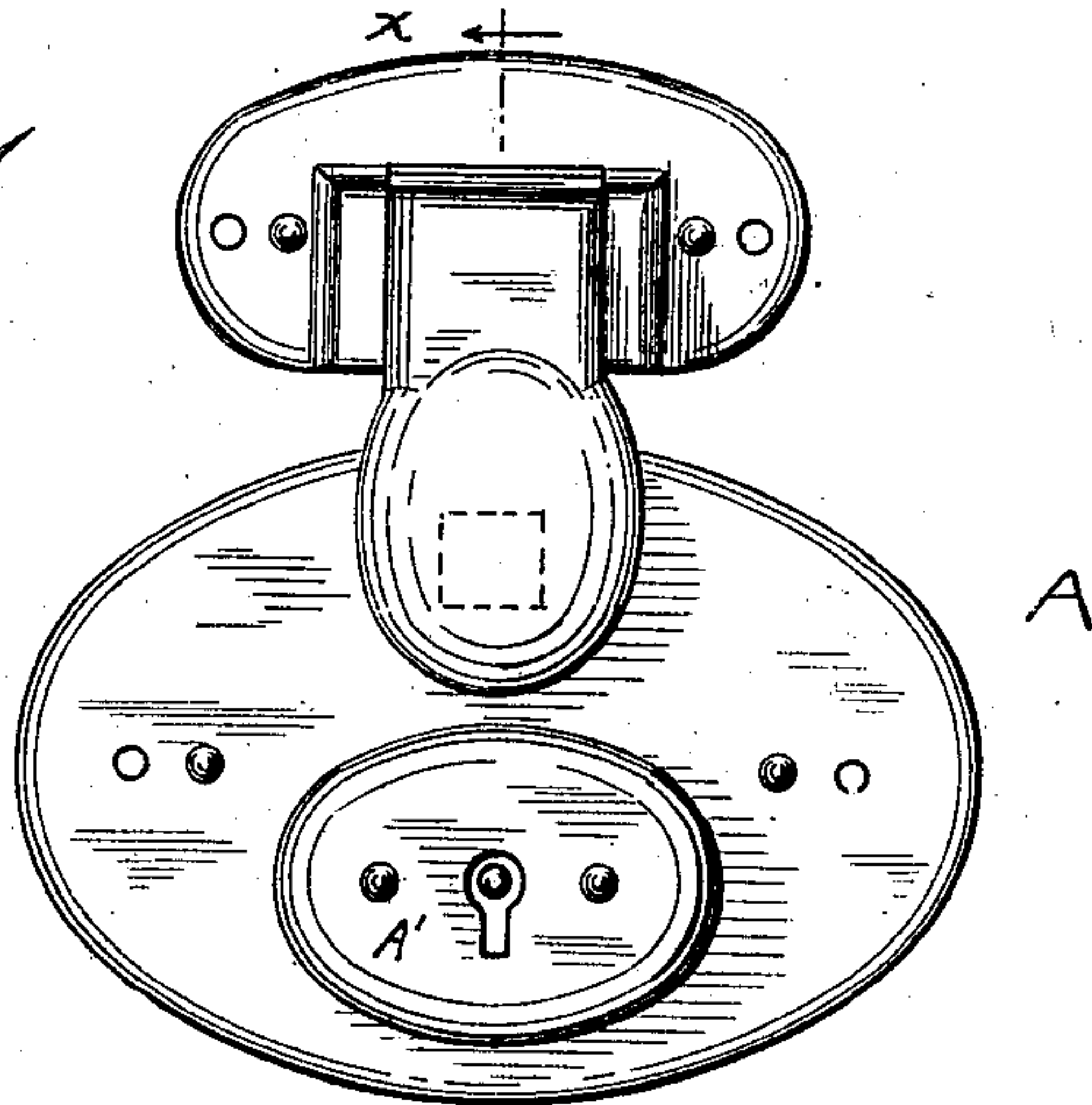


Fig. 2

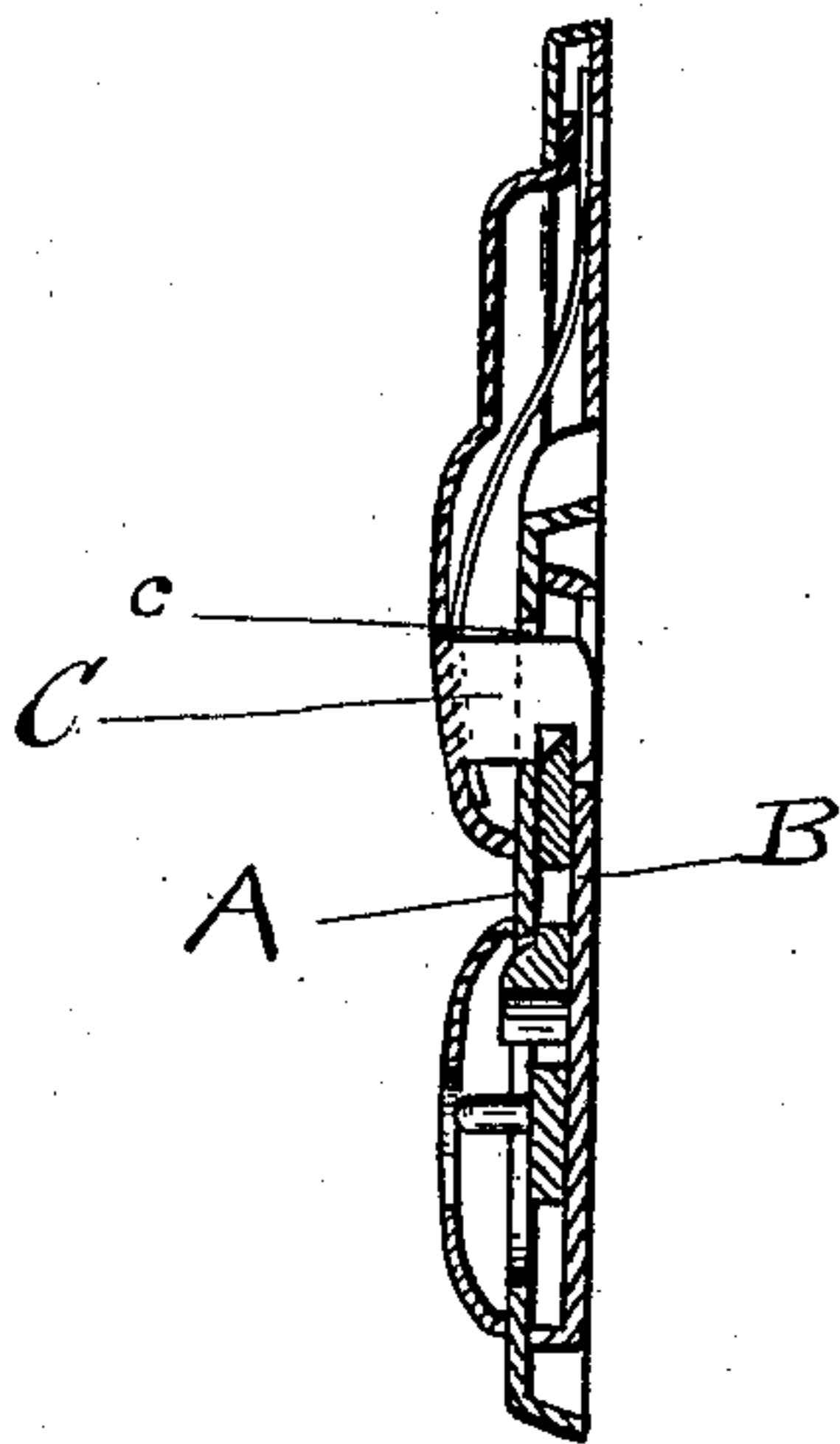


Fig. 3

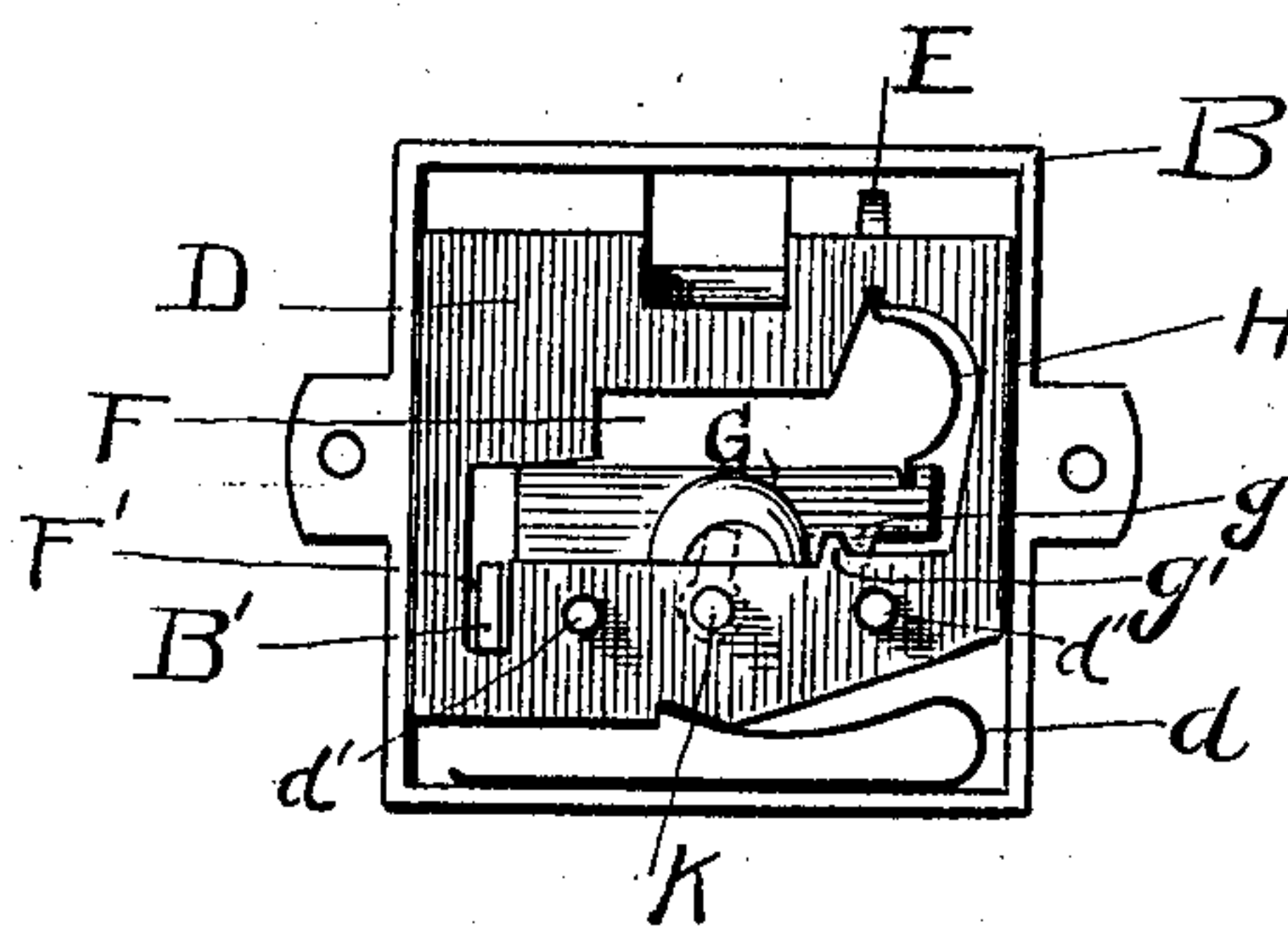


Fig. 4

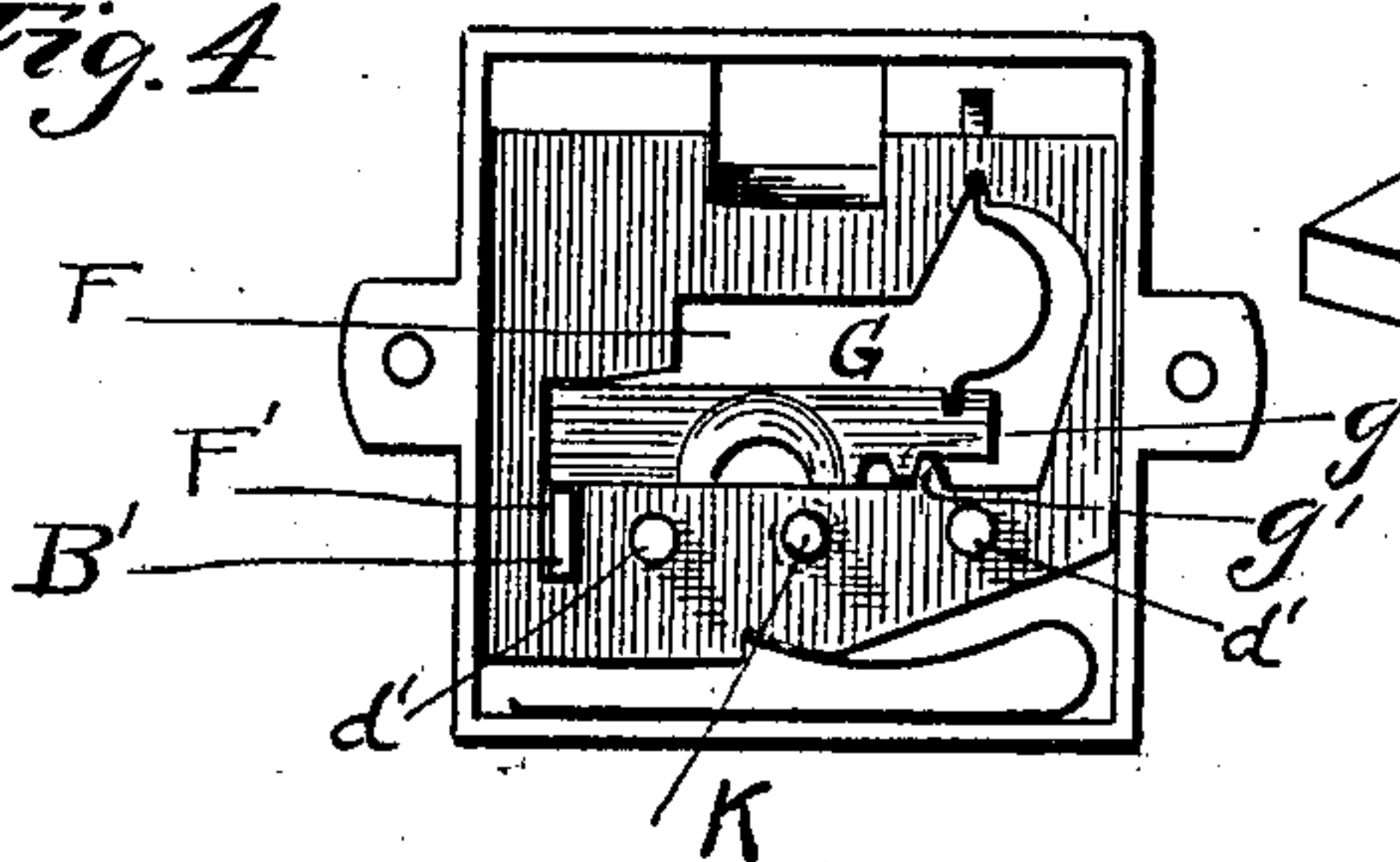
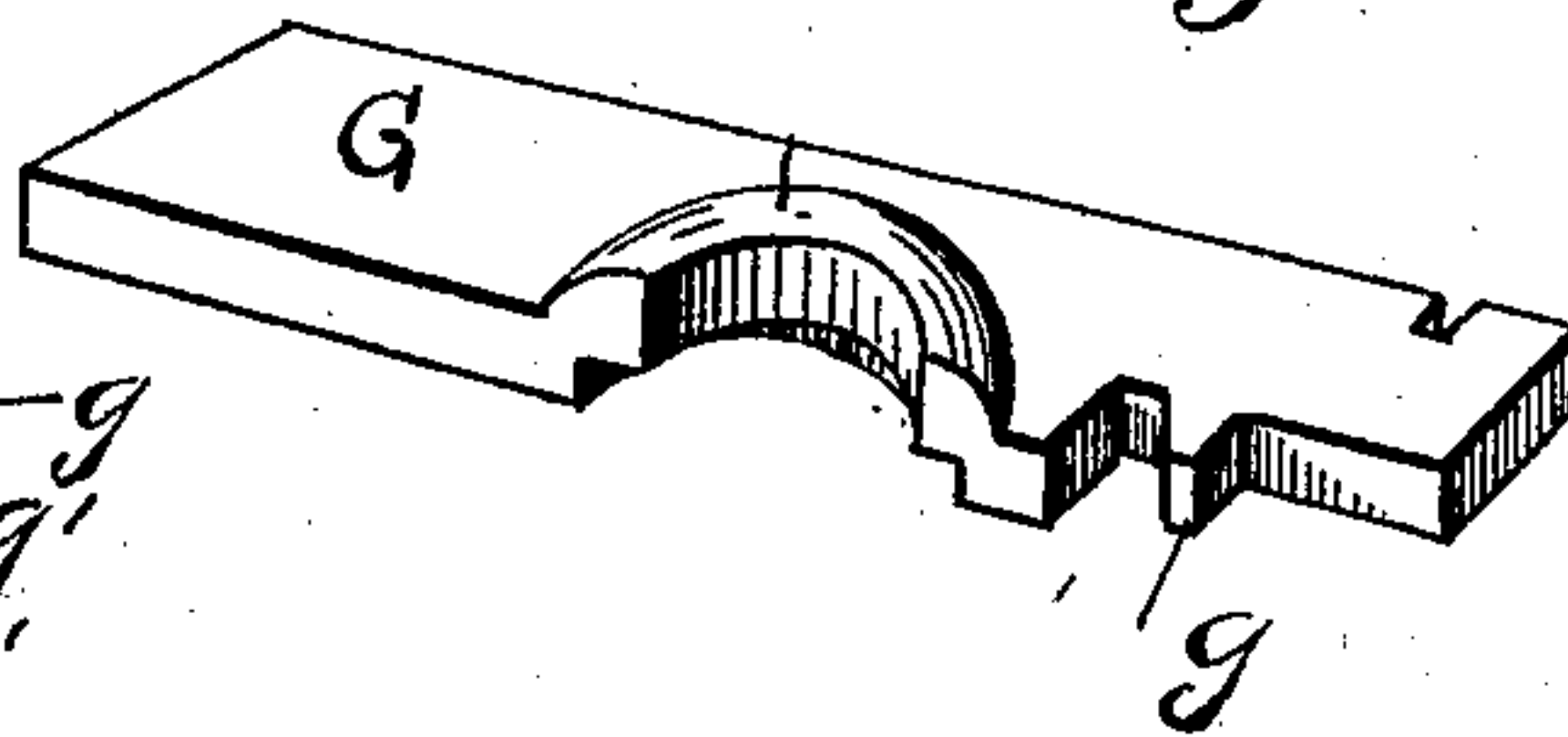


Fig. 5



Witnesses
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UNITED STATES PATENT OFFICE.

HARRY P. TOWNSEND, OF NEW BRITAIN, CONNECTICUT.

LOCK.

SPECIFICATION forming part of Letters Patent No. 721,399, dated February 24, 1903.

Application filed February 28, 1902. Serial No. 96,084. (No model.)

To all whom it may concern:

Be it known that I, HARRY P. TOWNSEND, a citizen of the United States of America, residing at New Britain, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Locks, of which the following is a specification.

The object of this invention is to produce a device of the class specified having features of novelty and advantage.

Figure 1 is a front view of the lock. Fig. 2 is a central vertical section on the line $x x$ of Fig. 1. Fig. 3 is a view of the lock with the front casing removed, showing the parts unlocked. Fig. 4 is a view similar to Fig. 3, but showing the parts locked. Fig. 5 is a detail perspective view of the lock-bolt.

Referring to the drawings, A B denote the two parts of the lock-cases, which are adapted to be secured together in any desired manner—as, for instance, by screws.

c is an opening through the casing A for the reception of the latch C.

D is the latch-plate, pressed upward by the spring d against a lug E, which limits its upward movement. This latch-plate being continually pressed upward by the spring d normally extends across the opening c through the case A, and that part of the plate which extends across the opening is beveled off, as seen in Figs. 2, 3, and 4, so that when the parts are in the position shown in Fig. 3 and the latch C is pressed in the latch-plate will be retracted until the latch C is in position, when the spring d will throw it up to engage the notch in the latch C to lock it. The latch-plate when unlocked can be disengaged from the latch by a downward pressure on the cap A', which is connected to the latch-plate by the pins d' . This latch-plate has two openings F F' through it, which are in communication with one another. In the opening F' is a stump B', secured to the casing B, preferably integral therewith. In the opening F is located a lock-bolt G, shorter than the opening, so that it may have a movement from side to side therein. On the lower side of the lock-bolt and on the lower side of the opening F are formed lugs $g g'$. The lock-bolt is held in position by the curved spring H. This lock-bolt is preferably of the same thickness as the

latch-plate, and opposite the key-stump K it has a raised portion or rib adapted to cooperate with the steps on the key to operate the lock-bolt.

When the parts are in the position shown in Fig. 3, the lug g of the bolt is on the right-hand side of the lug g' on the latch-plate and the latch-plate is free to move up and down to lock and unlock the latch. When it is desired to lock the latch-plate, the key is inserted and turned, first raising the bolt to disengage the lugs $g g'$, then throwing the bolt to the left until it occupies the position back of the stump B' and the lug g is to the left of the lug g' . The parts now occupy the positions shown in Fig. 4, and it will be seen that the latch-plate cannot be moved, for the reason that the stump B', which is secured to the casing B, is surrounded by the latch-plate and the bolt.

The advantages of a lock of this kind are apparent, the most important being that I am able to produce an effective lock which at the same time is extremely compact and very simple in its operation and inexpensive in its manufacture.

In other locks of this class which have heretofore been made it has always been customary to make use of tumblers, which increase the expense of the lock greatly, render it more liable to get out of order, and materially increased the size of the lock.

I am aware that my invention is susceptible of modification, and I wish to include herein any modifications which come within its scope.

I claim as my invention—

1. In a lock, in combination, the casing, the latch-plate located therein, an opening through said latch-plate, a stump secured to said casing and projecting within the opening, the lock-bolt and the key-rib raised above the surface of said bolt, all substantially as described and for the purposes set forth.

2. In a device of the class specified in combination the casing, the latch-plate located therein, an opening through said latch-plate, a stump secured to the casing and projecting through said opening, a lock-bolt within said opening and capable of a limited movement from side to side therein, coacting lugs on the bolt and the latch-plate, and the key-rib

integrally secured to said lock-bolt, all substantially as described and for the purposes set forth.

3. In a device of the class specified in combination the casing, the latch-plate located therein, a large and a small opening in said latch-plate communicating with one another, a stump secured to the casing and projecting into the smaller opening, a lock-bolt located in the larger opening and adapted to movement from side to side therein, interengaging lugs on the bolt and the latch-plate, a key-rib integral with said lock-bolt and projecting slightly above the surface thereof, and a spring acting on said lock-bolt, all substantially as described and for the purposes set forth.

4. In combination in a device of the class specified the casing, the latch-plate located

therein, a spring operating against said latch-plate, and lugs formed integral with the lock-case and adapted to limit the movement of the latch-plate in one direction, an opening through the latch-plate, a stump on the casing projecting into said opening, a lock-bolt located in said opening and adapted for movement from side to side therein, interengaging lugs on the lock-bolt and the latch-plate, and a key-rib integral therewith, all substantially as described and for the purposes set forth.

In testimony whereof I affix my signature in presence of two witnesses.

HARRY P. TOWNSEND.

Witnesses:

G. E. ROOT,
L. B. MALLORY.