

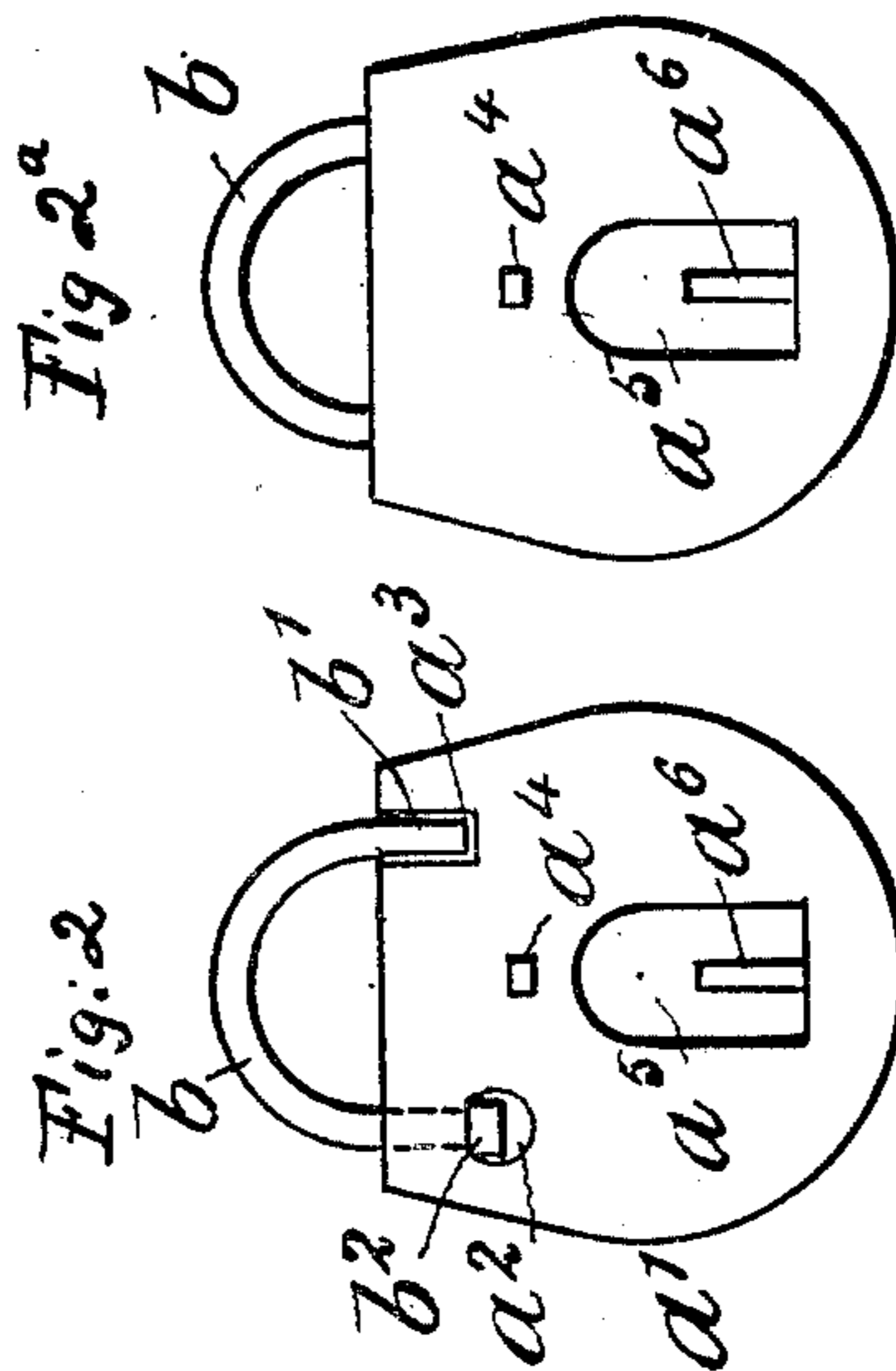
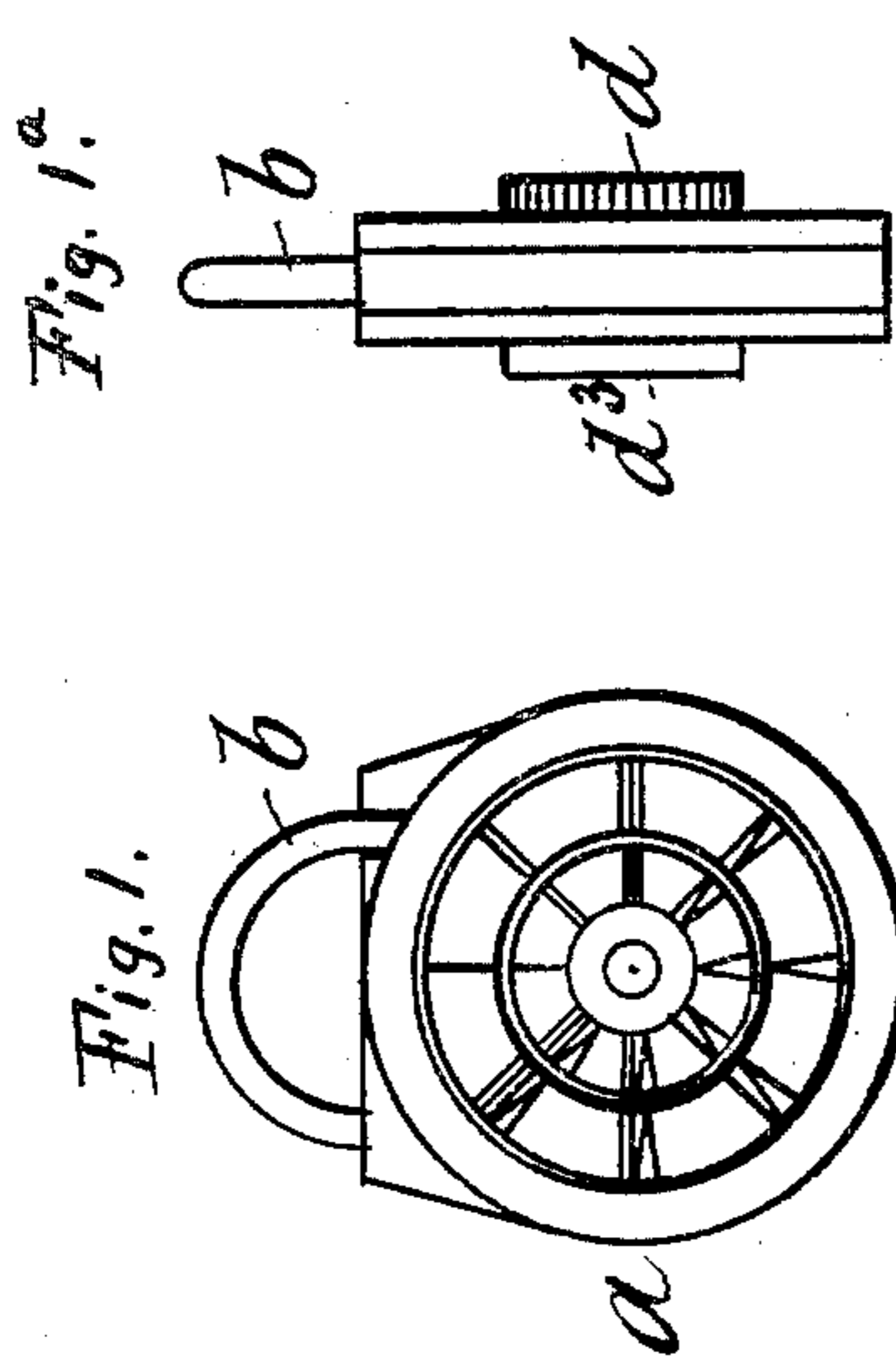
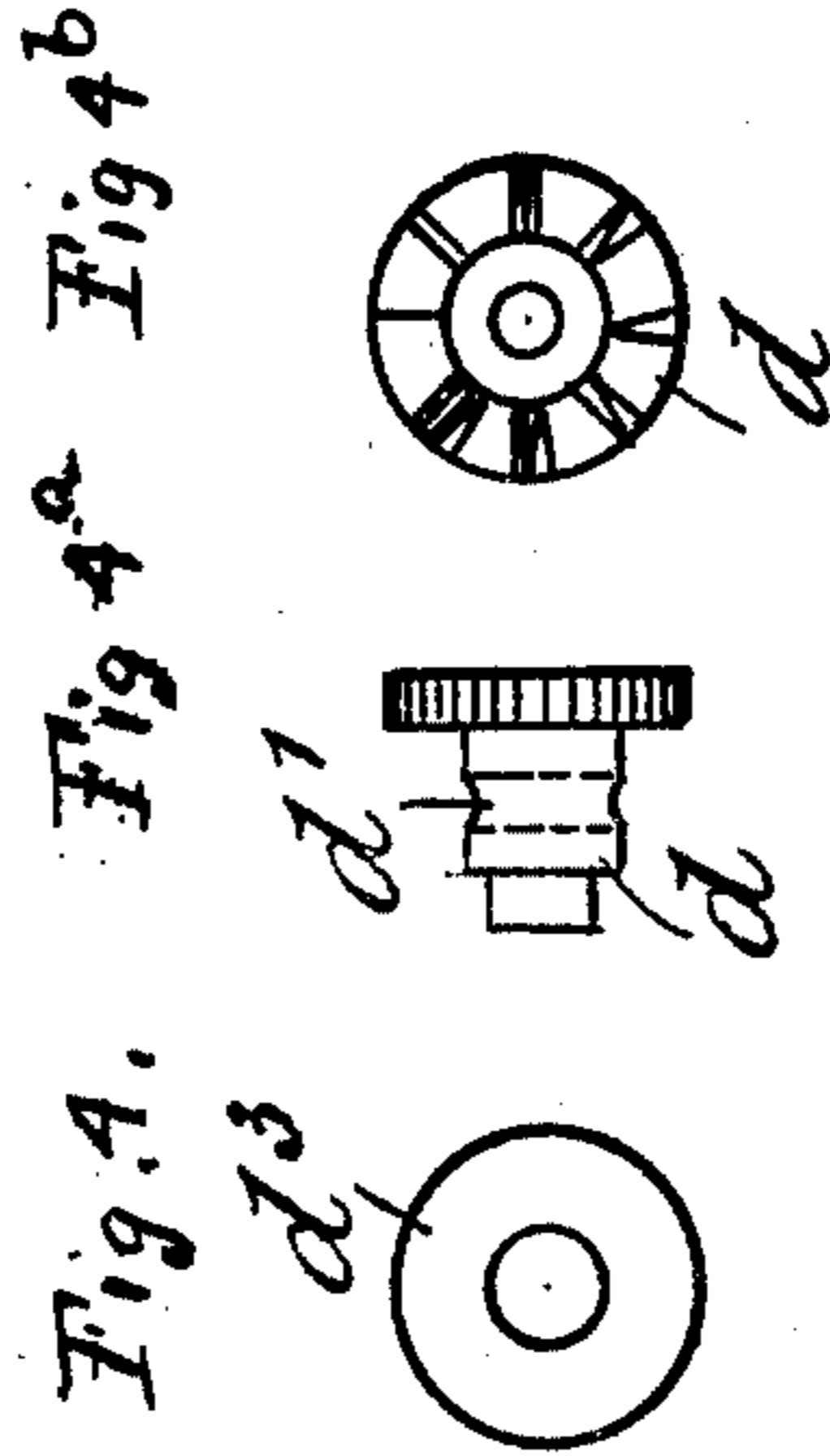
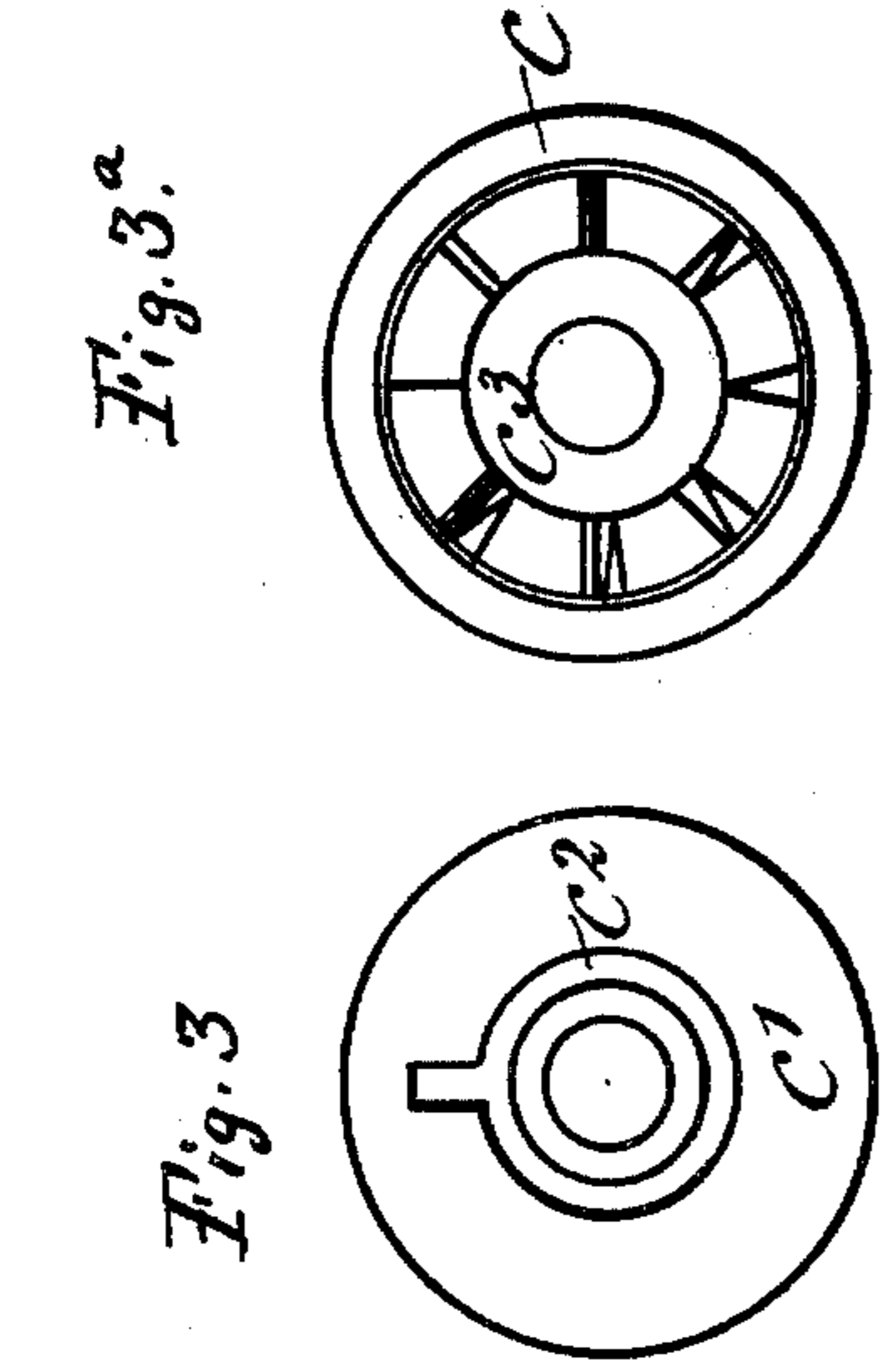
No. 679,419.

Patented July 30, 1901.

L. DOVE.
PERMUTATION PADLOCK.

(Application filed Feb. 8, 1901.)

(No Model.)



WITNESSES:
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UNITED STATES PATENT OFFICE.

LIONEL DOVE, OF LONDON, ENGLAND.

PERMUTATION-PADLOCK.

SPECIFICATION forming part of Letters Patent No. 679,419, dated July 30, 1901.

Application filed February 8, 1901. Serial No. 46,535. (No model.)

To all whom it may concern:

Be it known that I, LIONEL DOVE, a subject of the King of England, and a resident of London, England, have invented certain new and useful Improvements in Permutation-Padlocks, of which the following is a specification.

This invention consists in forming on the outside of the case of the lock one or more sliding disks, which may be round, hexagonal, octagonal, or of any convenient shape suitable for the purpose. On the surface of these disks I mark numbers or signs--as, for instance, "1" up to any number that may be required. These numbers are preferably set in a circle, as on a dial, or arranged as may be desired. The figured disks are movably connected in the center or other suitable part to the case of the lock by a pivot or bolt, upon which they revolve. Upon turning the disks to a set number or arranging a combination of certain numbers or signs in juxtaposition the lock can be opened, for when the numbers are placed in the required position to constitute the key number or sign a detent or locking-pinion by sliding the said disks backward be inserted in the pivot-bolt, thus releasing the staple-bow or other catch of the lock. Upon closing the staple by withdrawing the bolt from the detent-pin and turning either of the disks the lock is immediately fastened and cannot be opened until the disk or disks are reset to the correct number or combination, as before.

I will now describe the invention with reference to the accompanying drawings, in which--

Figures 1 and 1^a show a front and edge view of one form of the lock. Figs. 2 and 2^a show a front and back view of the lock-case proper with the disks and bolt removed. Figs. 3 and 3^a show a front and back view of the two disks, one of which is fitted on the front and one on the back of the lock-case proper and which are identical, or nearly so. Figs. 4, 4^a, and 4^b show a side and front view of the center pivot-bolt, the face of which also bears figures or signs and the tail end en-

gages with the washer, shown separately, and is screwed or riveted thereto.

a is a front view of the lock-case proper. *a'* is a back view of same, showing enlarged pivot end of bow, which turns in a recess *a*², formed in lock-case.

*a*³ is a recess in which the free end of bow engages.

*a*⁴ is a stud on lock-case to engage with channels in disks.

*a*⁵ is the slot through which the bolt passes.

*a*⁶ is the detent-pin, which engages with the hole in the bolt *d*.

b is the bow or staple. *b'* is the free end of same. *b*² is the pivot end of same.

c is the front view of one of the covering-disks on which the figures or signs are shown, with center hole *c*³, through which the bolt *d* passes. *c'* is a back view of same, showing channels or grooves *c*², which engage with studs *a*⁴.

d is the center pivot-bolt, which holds the disks *c c'* against the lock-case *a a'*.

d' is a hole or opening through the bolt *d*, which engages with the pin *a*⁶ when the lock is opened by drawing back the disks *c c'*.

*d*² is a washer placed at back of lock to engage with and secure the end of bolt *d*.

The method of working my improved lock is as follows:

To open the lock, the figures or signs forming the key-sign on the disks are brought in an exact line with each other and with a mark on the lock-case of the lock near the bow. When this is done, the lock-case can be drawn away upward from the disks and center pin. This action uncovers and releases the bow, and thus allows the bow to open.

To close the lock, the bow is first put in position in its recess. The lock-case is then dropped between the disks until the free end of the bow is covered by the edge of the front disk. The bolt and plates are then rotated, when the studs *a*⁴ engage with the annular groove and the center bolt *d* turns around and no longer engages with the pin *a*⁶.

I claim—

In a permutation-padlock, a lock-case, a sliding disk connected thereto, a bow of substantially U shape having one arm swiveled
5 in said lock-case whereby said bow is adapted to swing in a plane at right angles to the plane of movement of said sliding disk, and permutation-controlling means for holding said disk in engagement with the free end of

said bow or permitting its sliding out of engagement therewith, substantially as described.

In witness whereof I have hereunto set my hand in presence of two witnesses.

LIONEL DOVE.

Witnesses:

SAMUEL S. BROMHEAD,
ALBERT GENNESSON.