

No. 730,831.

PATENTED JUNE 9, 1903.

J. LOCH.
LOCK.

APPLICATION FILED JUNE 28, 1902.

NO MODEL.

Fig. 1.

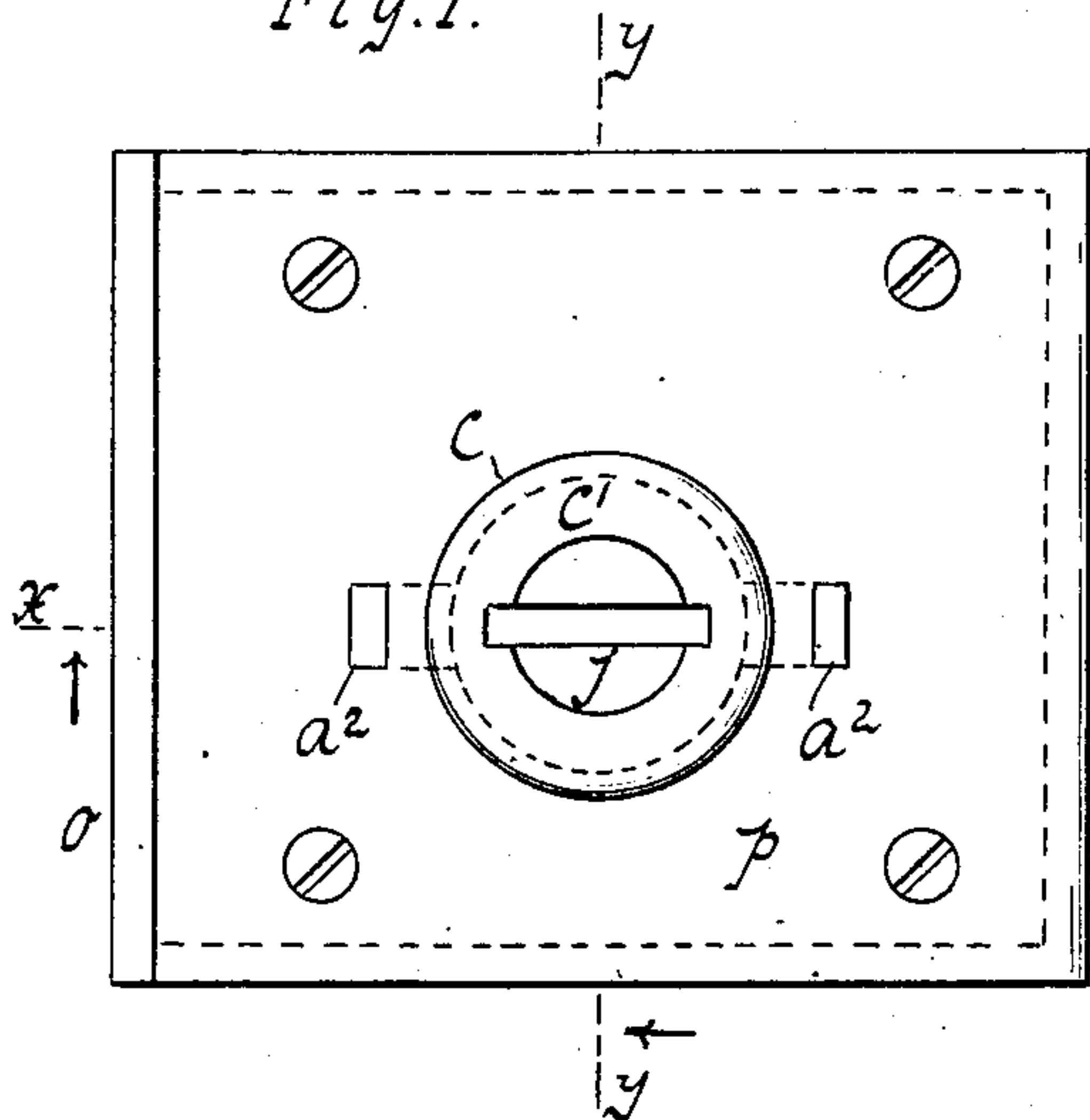


Fig. 2.

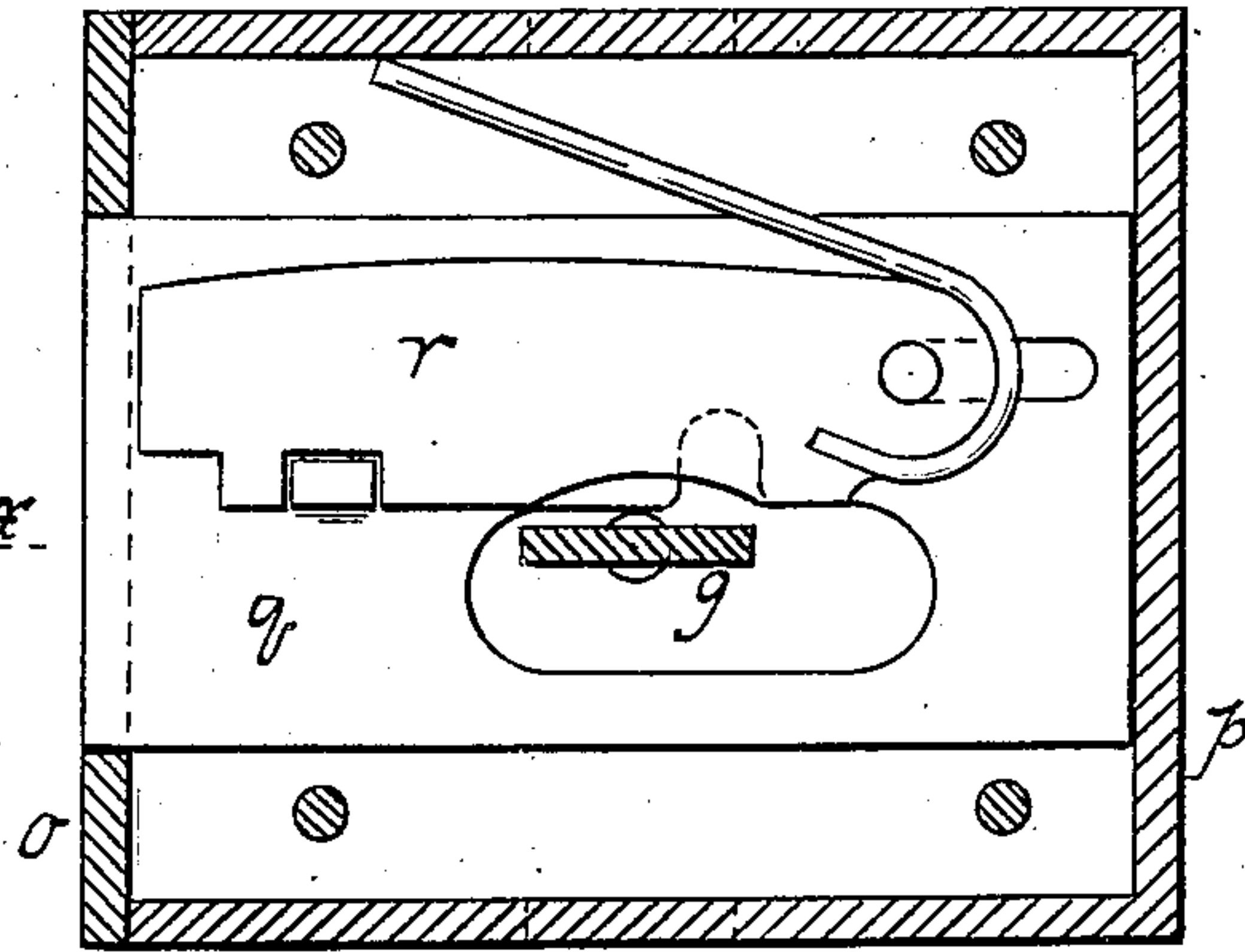


Fig. 3.

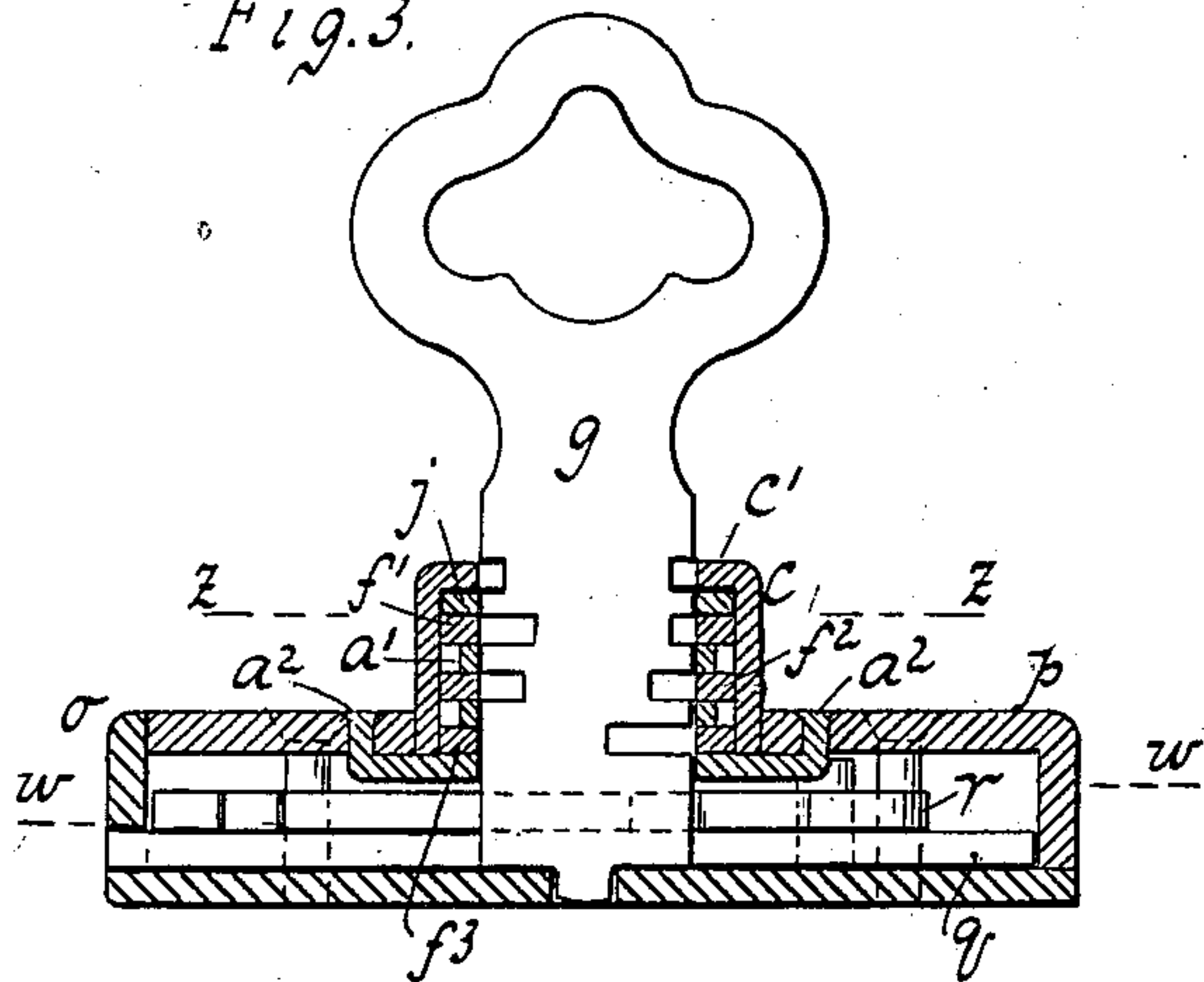


Fig. 4.

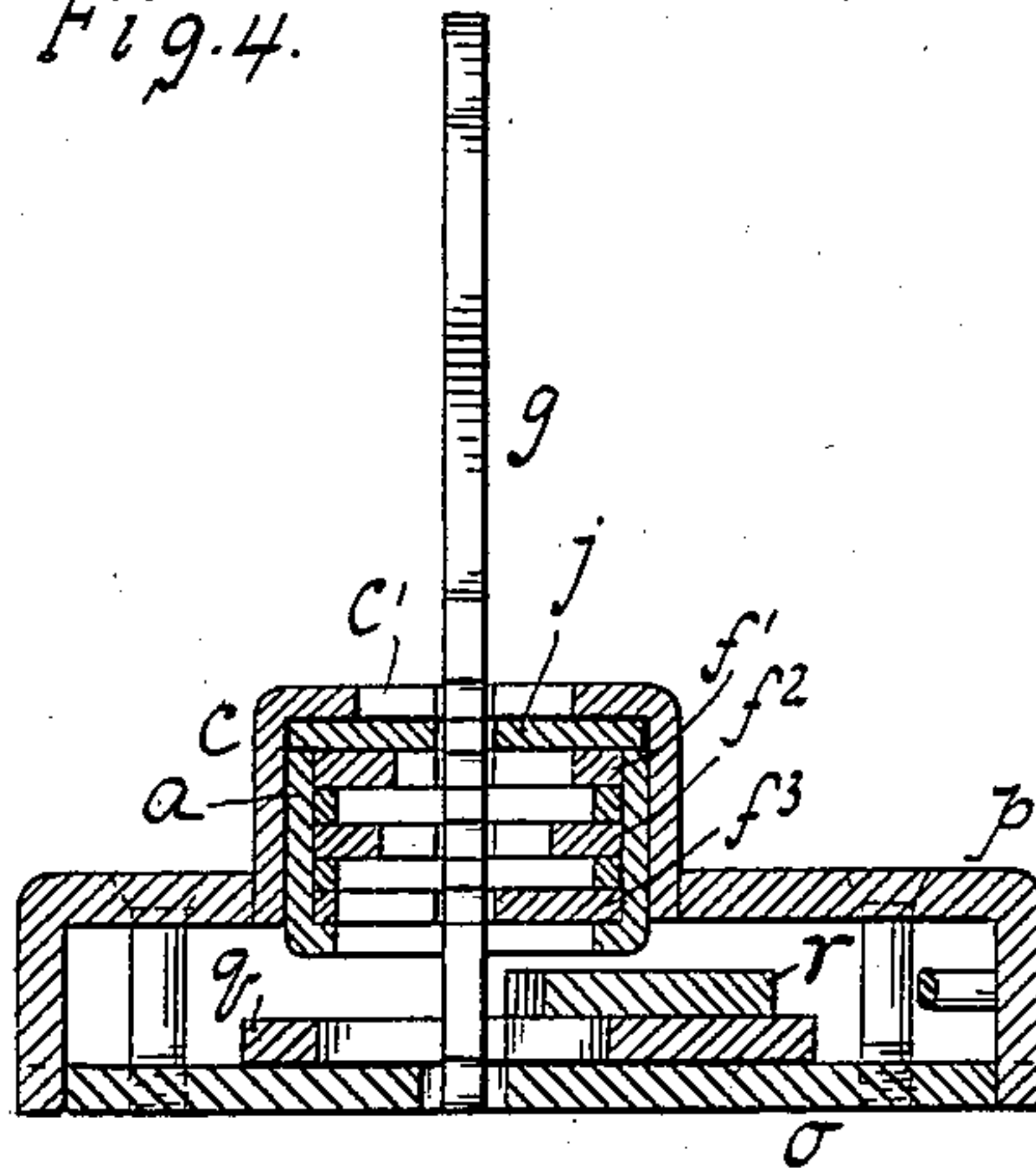


Fig. 5.

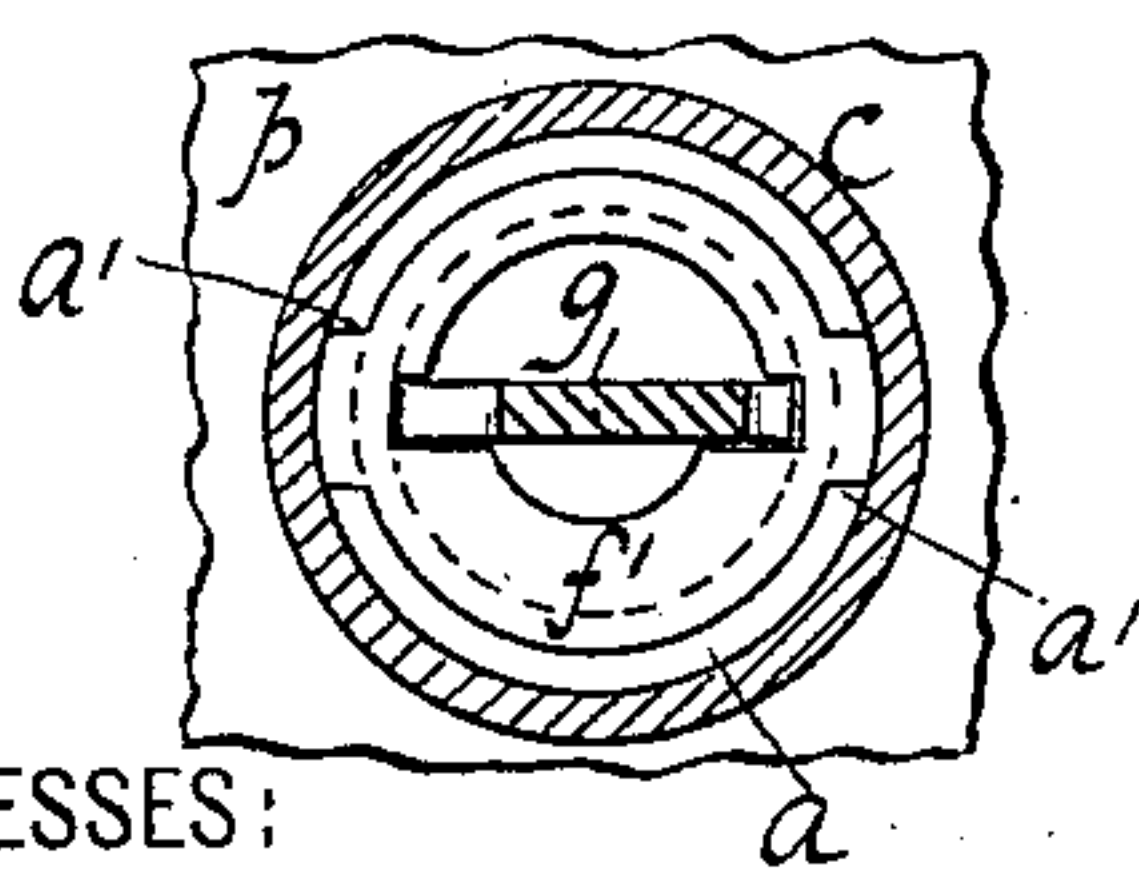


Fig. 6.

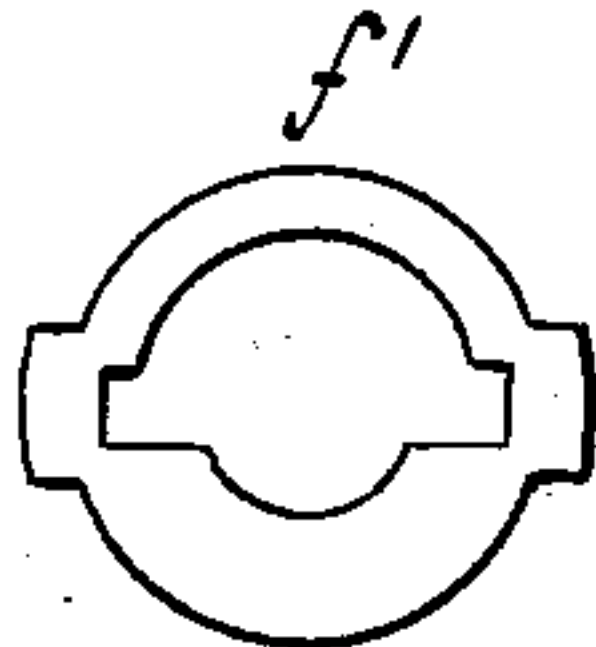


Fig. 7.

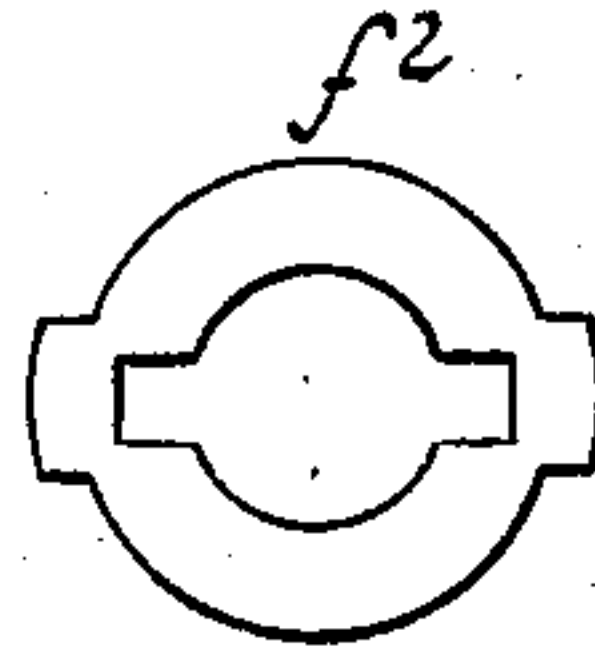
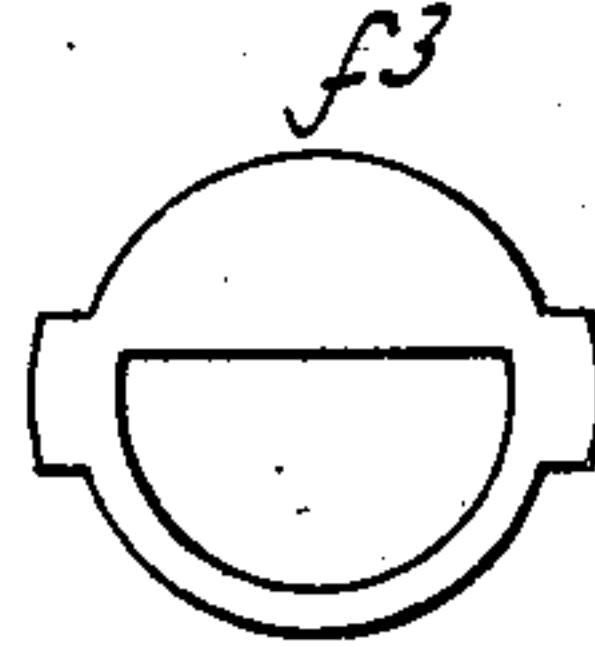


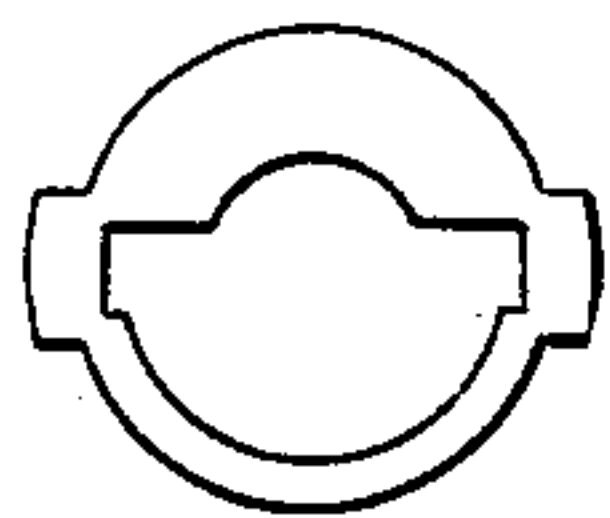
Fig. 8.



WITNESSES:

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Fig. 9.



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UNITED STATES PATENT OFFICE.

JOSEPH LOCH, OF BROOKLYN, NEW YORK, ASSIGNOR OF ONE-HALF TO
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LOCK.

SPECIFICATION forming part of Letters Patent No. 730,831, dated June 9, 1903.

Application filed June 28, 1902. Serial No. 113,660. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH LOCH, a citizen of the United States, residing in Brooklyn borough, New York city, in the county of Kings and State of New York, have invented new and useful Improvements in Locks, of which the following is a specification.

This invention relates to certain details of construction set forth in the following specification and claims and illustrated in the annexed drawings, in which—

Figure 1 shows a cover view of a lock. Fig. 2 is a view like Fig. 1 with the cover partly sectioned off, the section being taken along $w w$, Fig. 3. Fig. 3 is a section along $x x$, Fig. 1. Fig. 4 is a section along $y y$, Fig. 1. Fig. 5 is a section along $z z$, Fig. 3. Figs. 6, 7, and 8 show three tumbler-disks as an example, the invention not being limited to any special number. Fig. 9 also shows a tumbler-disk.

In the drawings at o is shown a box or case of a lock with cover at p . This cover is shown provided with a casing c , secured to or forming part of the cover. This case c is shown with a flange at c' . In the case c is shown a tumbler-box a , which is slotted. The slots a' are shown in Fig. 5 as two in number and located diametrically opposite one another. The tumbler-box or slotted cylinder a is placed inside the case c and is retained in said case by means of the arms, laps, or flanges a^2 , Fig. 3. These arms or flanges a^2 may be attached to the cover p of the lock in any suitable manner, such as by riveting or clenching, and project downwardly and inwardly under the lower edge of the box or slotted cylinder a , so as to retain said slotted cylinder in place within the case c , or the arms a^2 may be formed integral with the slotted cylinder a and may project up through the cover p and be clenched or riveted therein. In the box are a series of tumbler-disks, or rather "passes," as these tumbler-disks might be called, since they do not rotate, but are held or locked against turning. These tumbler-disks, as seen in Figs. 5 to 8, have wings or extensions fitted or formed to engage the slots a' for holding the tumbler-disks against rotation. The tumbler-disks can be slid along in the box with their wings or shoulders in the

slots, so that these tumbler-disks can be readily slid into and out of the box.

In assembling the parts the slotted washer or keyhole-plate j is seated in the case against flange c' , after which the box a , with the tumbler-disks, is slipped into the case and secured by the fastening a^2 . The tumbler-disks can be put in the box before the latter is inserted into the case, and these tumbler-disks, if necessary, are suitably spaced by rings or washers of suitable thickness interposed therebetween. As shown, the tumbler-disk f^3 is first inserted into the box, and the tumbler-disks $f^2 f'$ in succession, the tumbler-disk f' coming next the key-slot plate j .

The tumbler-disk f^3 is shown with a cut or passage of such eccentricity as to require the key g to be slotted or cut only from one edge, while tumbler-disk f^2 is centrally or symmetrically cut to call for slots of equal size at each edge of the key. Tumbler-disk f' is cut eccentrically, but not exactly the same as tumbler-disk f^3 . The key is cut to correspond to the eccentricities or shapes of the tumbler-disks. The key operates a bolt q , which may be of any well-known construction, the form shown having the bolt-tumbler r ; but other suitable forms of bolts can be used.

The changes of which the lock is capable are practically unlimited, as the tumbler-disks are readily slipped out of the box and transposed or tumbler-disks with other cuts or key-receiving or hole portions and in any desired number inserted, calling for correspondingly different keys. A fourth tumbler-disk is shown in Fig. 9, and if this tumbler-disk is used to replace one of the tumbler-disks of Figs. 6 to 8 a correspondingly different key is required. Should four tumbler-disks in place of three be assembled, a suitably-sized tumbler-box and corresponding key would of course be needed. Each eccentrically-cut tumbler-disk can effect two changes, since by turning the tumbler-disk so that one face or another is presented to the key-entrance j the key has to be turned one way or another to operate the bolt.

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

1. A lock comprising a lock-casing, an outer

cylindrical casing mounted thereon, a non-rotatable slotted cylinder in said outer casing, a plurality of tumbler-disks in said slotted cylinder, and downwardly and inwardly extending flanges on said lock-casing projecting under said slotted cylinder and retaining it in place in said outer cylindrical casing.

2. A lock comprising a lock-casing, an outer cylindrical casing mounted thereon, a non-rotatable cylinder in said casing, downwardly and inwardly extending flanges on said lock-casing projecting under said slotted cylinder and retaining it in place in said outer cylin-

drical casing, and a plurality of tumbler-disks in said cylinder, each of said tumbler-disks having a slot in its center and having semi-circular cut-away portions of varying dimensions, along the side portions of said slot. 15

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses. 20

JOSEPH LOCH.

Witnesses:

ALEXANDER A. ELLIS,
JOHN B. REITZ.