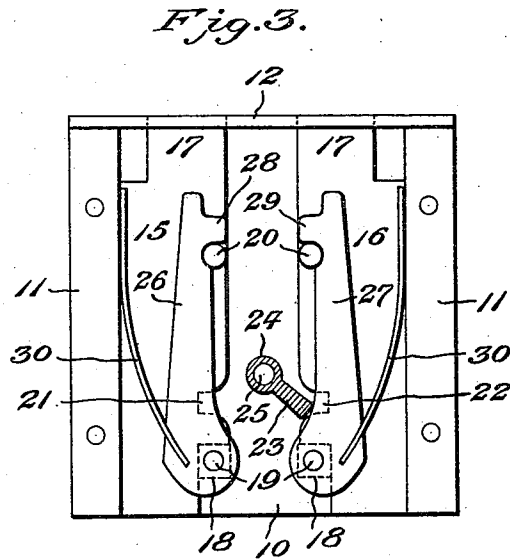
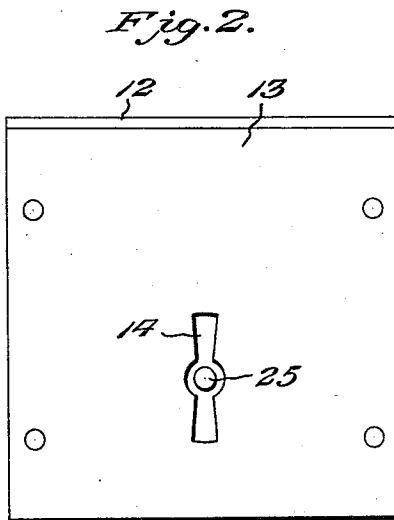
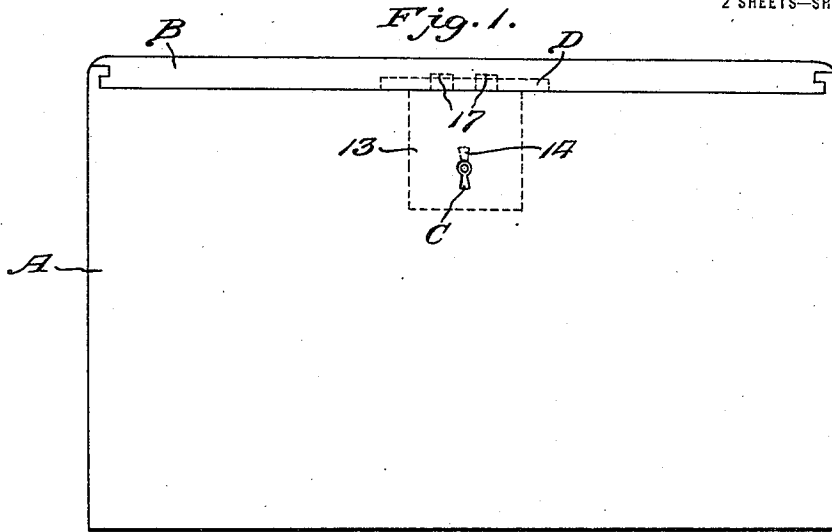


A. FERRARA.
 LOCK.
 APPLICATION FILED JAN. 2, 1920.

1,421,197.

Patented June 27, 1922.

2 SHEETS—SHEET 1.



WITNESS:

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2 SHEETS—SHEET 2.

Fig. 4.

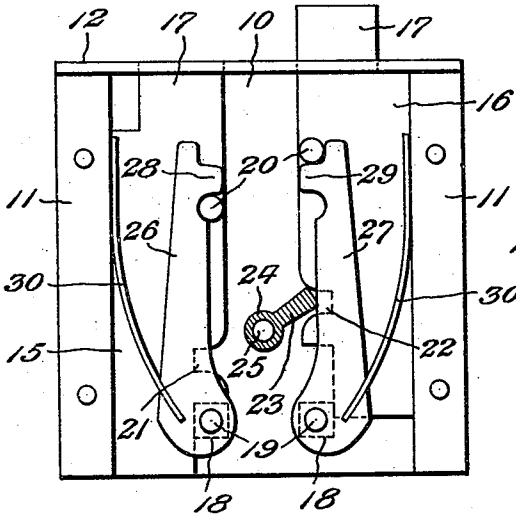


Fig. 5.

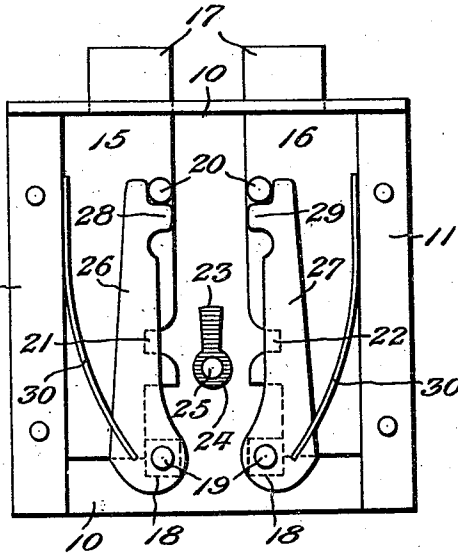


Fig. 6.

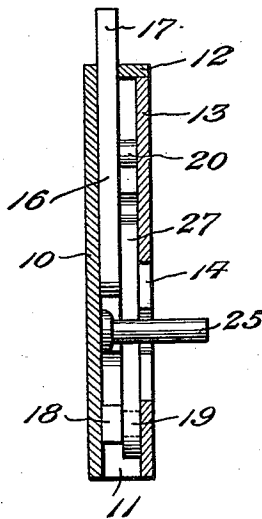
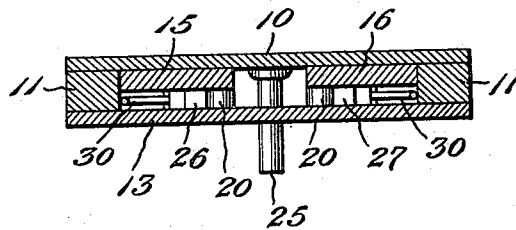


Fig. 7.



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UNITED STATES PATENT OFFICE.

ANTONIO FERRARA, OF TORRINGTON, CONNECTICUT.

LOCK.

1,421,197.

Specification of Letters Patent. Patented June 27, 1922.

Application filed January 2, 1920. Serial No. 348,896.

To all whom it may concern:

Be it known that I, ANTONIO FERRARA, a subject of the King of Italy, residing at Torrington, in the county of Litchfield and State of Connecticut, have invented new and useful Improvements in Locks, of which the following is a specification.

This invention relates to locks and has for its object the provision of a lock having two separate bolts operated by a single key by different movements thereof, the object being to provide a lock structure which will baffle any attempts at opening by an unauthorized person inasmuch as it is necessary to insert the key and rotate it first in one direction, then remove and reinsert it in the same position as originally and turn it in the opposite direction to effect opening of the lock.

An additional object is the provision of a lock of this character which will be very simple and inexpensive in manufacture, highly efficient and safe in service, and a general improvement in the art.

With the above and other objects and advantages in view, the invention consists in the details of construction to be hereinafter more fully described and claimed, and illustrated in the accompanying drawings in which

Figure 1 is a fragmentary front elevation of a structure equipped with my lock,

Figure 2 is an elevation of the lock by itself,

Figure 3 is a similar view with the cover thereof removed and showing the bolts in retracted or unlocked position,

Figure 4 is a similar view showing one bolt in locked position,

Figure 5 is a similar view showing both bolts in locked position,

Figure 6 is a longitudinal sectional view, and

Figure 7 is a cross sectional view.

Referring more particularly to the drawings, the letter A designates some article having a cover B. The letter C designates the key-hole in the article A.

In carrying out my invention I provide a lock structure comprising a rectangular casing including a back plate 10, side bars 11, an end plate 12, and a removable front plate 13 having a double key-hole 14 therein, one half of which registers with the key-hole C. Slidably disposed within this casing and engaging against the side bars 11 are bolts 15

and 16 which have reduced extensions 17 passing through corresponding openings in the end plate 12 and adapted to engage within openings in a keeper plate D carried by the cover B. Extending from the back plate 10 are spaced guide lugs 18 which are engaged by the bolts for guiding them in their movement and formed upon these lugs 18 are pins 19.

Extending from the bolts 15 and 16, are pins 20 and formed in the confronting edges of the bolts are recesses 21 and 22 adapted for engagement by a bit 23 of a key 24. The back plate carries a spindle 25 which extends centrally through the double key-hole 14 and which serves as a guide for the hollow shank of the key.

Associated with the bolts 15 and 16 are retaining members 26 and 27 which are pivoted upon the pins 19 and which have lateral extensions 28 and 29 engageable with the pins 20 for holding the bolts in their selected positions. Each retaining member carries a spring 30 which is secured thereto and which engages against the adjacent side bar 11.

The use of the lock is as follows:

The lock structure is associated with the box or other article A and is so arranged that the casing thereof is preferably spaced slightly inwardly of the front wall of the box a sufficient distance that the bit of the key may be turned between the front of the box and the coverplate 13. The reason for this is that from the outside of the box a single key-hole should appear whereas the lock has in reality, two key-holes and, as will be hereinafter described, the key must be inserted into the lock in different positions. In the operation of the lock the key is inserted through the key-hole C with its bit extending downwardly away from the cover, the hollow shank of the key being engaged upon the guide spindle 25. The operator then grasps the key and rotates it a half revolution in either direction whereupon the bit 23 will engage within either the recess 21 or 22, as the case may be, and move the corresponding retaining member 26 or 27 outwardly against the resistance of the spring 30 so that the extension 28 or 29 will be out of engagement with the pin 20 on the bolt. This movement occurs when rotary movement of the key is started and as rotation of the key is continued the bolt will be projected beyond the end plate and into engagement with the

keeper plate D. As soon as a half revolution has been made the bit of the key will be out of engagement with the retaining member and also the bolt whereupon the
5 spring will swing the retaining member to its initial position whereupon the extension 28 or 29 will engage behind the pin 20. Retraction of the bolt by exterior means will then be prevented. It is apparent that
10 one bolt will thus be locked, as shown in Figure 4. In order to extend the other bolt it is necessary to withdraw the key a sufficient distance that the bit thereof will be disposed between the cover plate and the front
15 of the article A, after which the key is rotated a half revolution and then reinserted through the double key-hole in the same position as at first. The operator then rotates the key in the opposite direction to the direction
20 of rotation previously described whereupon the other bolt will be moved to extended position in exactly the same manner. In unlocking the action is the reverse.

From the foregoing description and a
25 study of the drawings it will be apparent that it is impossible to shoot both bolts by rotating the key in any one direction, as it is absolutely requisite that after moving one bolt the key be removed, turned half
30 around, and reinserted to act upon the other bolt. In this way it will be seen that the lock will be very baffling and will frustrate any attempt of an unauthorized person to unlock an article or receptacle equipped
35 with this lock structure.

While I have shown and described the preferred embodiment of my invention, it is of course to be understood that I reserve the right to make such changes in the form, construction, and arrangement of
40 parts as will not depart from the spirit of the invention or the scope of the subjoined claim.

Having thus described my invention, I
claim:

A lock comprising a casing having a
45 double key-hole therein, a pair of bolts slidable within said casing and adapted to be projected therebeyond, the inner edges of the bolts being formed with key-bit receiving
50 recesses, in combination with a key having a bit engageable within either of said recesses whereby to move either bolt by movement of the key in one direction,
55 the key being reversible whereupon rotation thereof in the other direction will move the other bolt, and spring-pressed means for holding the bolts in either extended or retracted position, said means including
60 members pivoted within the lock casing and having lateral extensions, and pins on the bolts engageable either in advance of or behind said extensions, said members
65 extending in the path of movement of the key bit and being swung thereby into position with the extensions disengaging the pins.

In testimony whereof I affix my signature.

ANTONIO FERRARA.