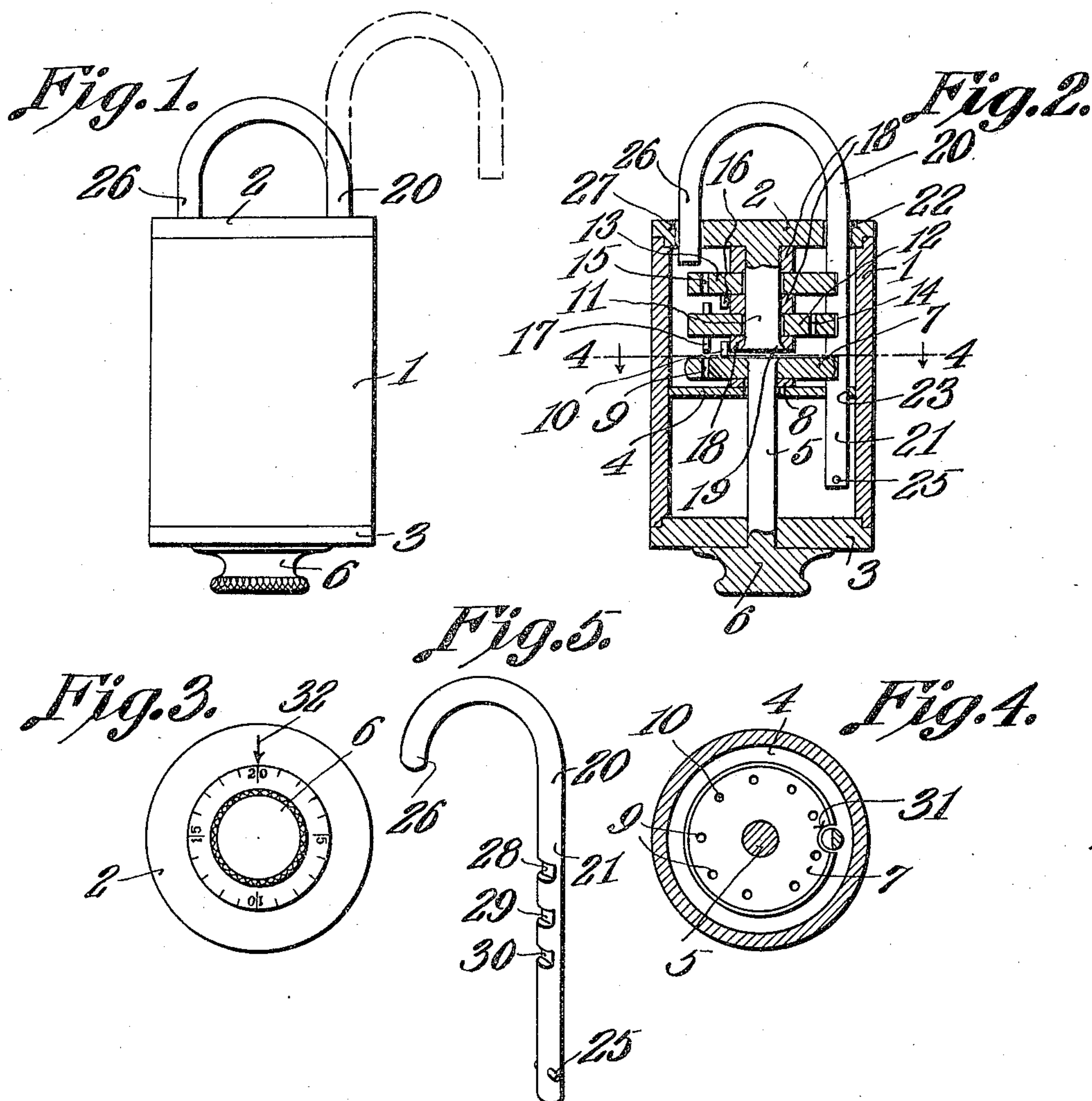


W. C. MALOZ.
 PERMUTATION PADLOCK.
 APPLICATION FILED OCT. 13, 1910.

999,460.

Patented Aug. 1, 1911.



Witnesses

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UNITED STATES PATENT OFFICE.

WALTER CHRISTIAN MALOZ, OF PATTERSON, LOUISIANA.

PERMUTATION-PADLOCK.

999,460.

Specification of Letters Patent.

Patented Aug. 1, 1911.

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To all whom it may concern:

Be it known that I, WALTER C. MALOZ, a citizen of the United States, residing at Patterson, in the parish of St. Mary and State of Louisiana, have invented a new and useful Permutation-Padlock, of which the following is a specification.

This invention pertains to a new and useful combination padlock; the primary object of the invention is to improve and simplify the general construction of such locks.

A further object of the invention is to provide a lock of this design, whereby when the shackle is withdrawn the long end thereof acts as a guide to maintain the tumblers in their relative positions, so that they cannot be moved until the shackle is again inserted in place.

Other features and combinations of parts will be hereinafter more fully set forth, shown in the drawings, and claimed.

In the drawings:—Figure 1 is a view in side elevation of the combination padlock, showing the shackle thrown to one side in dotted lines. Fig. 2 is a longitudinal sectional view through the combination padlock. Fig. 3 is an end view of the padlock, showing the dial whereby the combination of the lock is effected, and further showing the superficial means for moving the dial and the tumblers. Fig. 4 is a sectional view on a line 4—4 of Fig. 2, illustrating the fact that the tumblers are provided with one or more apertures, in which the pins or screws of the tumblers may be interchanged in order to alter the combination of the padlock. Fig. 5 is a perspective of the shackle.

Attention is directed to the annexed drawings, in which the preferred form of the invention is disclosed; 1 designates a cylindrical casing, which as shown in Fig. 2, is open at both ends. These ends, however, are closed by the disks or closure members 2 and 3. These disks or closure members may be secured within the casing in any suitable manner, so as to prevent their removal without mutilating them or the casing.

Arranged upon the interior of the casing and secured there in any suitable manner is a fixed member or disk 4, the purpose of which will presently appear. Extending through the disk or closure member 3 is the shaft or rod 5, which forms a part of the revoluble dial 6. Before the disk or

closure 2 is secured in position, the disk tumbler 7 is secured to the rod or shaft 5 in order to move therewith, there being a washer 8 located between the disk tumbler and the disk 4, in order to hold the two separated, and also to hold the disk tumbler 7 in place when once moved. The purpose of the disk 4 is to hold the disk tumbler 7 at the proper location from the disk or closure 3, and furthermore, to hold the revoluble dial member 6 adjacent the disk or closure 3. The disk tumbler 7 is provided with a plurality of apertures 9, in any one of which the pin or screw 10 may be arranged. This pin or screw 10 may be interchanged in the various apertures in order to change the combination of the lock.

The disk closure 2 has projecting downwardly therefrom a stud or pin 11, and rotatably mounted upon this pin or stud are two disk tumblers 12 and 13, each of which is supplied with a plurality of apertures 14 and 15, similar to the apertures 9 of the disk tumbler 7, and the purpose of which is also the same, that is to say, in order to permit the combination of the lock to be changed. Interchangeable in the apertures 14 and 15 are the pins 16 and 17. The pin 16 extends downwardly from the disk tumbler 13, while the pin 17 passes entirely through the disk 12 in order that each end of the pin 17 may extend downwardly and upwardly of the tumbler. To hold the disk tumblers equally spaced apart upon the stud or pin 11, washers 18 are provided, the lower washer, however, is secured to the pin or stud 11 by riveting the stud as indicated at 19. These washers not only hold the disk tumblers equally spaced apart, but also prevent the tumblers from dislocation after once having been moved in the desired positions so as to unlock the shackle 20. This shackle 20 has one end longer than the other, and the longer end 21 thereof extends through an aperture 22 of the disk closure 2 and also through an aperture 23 of the disk 4, there being a transversely arranged pin 25 in the extreme lower end of the portion 20 of the shackle, so that when the end of the shackle is withdrawn from the aperture 27 of the disk closure 2, the transversely arranged pin 25 prevents the shackle from being entirely withdrawn from the lock. The longer portion 20 of the shackle is provided with a plurality of notches 28, 29 and 30. The disk tumbler 13 coöperates with

the notch 28, the disk tumbler 12 coöperates with the notch 29, while the disk tumbler 7, which is movable with the rod or shaft 5, coöperates with the notch 30. Each one of the tumblers 7, 12 and 13 is supplied with a semicircular curved recess or notch 31, and when the plurality of disk tumblers are adjusted so that the recesses or notches 31 are all in registration with one another and with the longer portion 20 of the shackle, the shackle may be withdrawn until the portion 26 thereof is free from the aperture 27, with the transversely arranged pin 25 in contact with the disk 4.

In practical operation, the dial 6 is rotated, causing a rotation of the shaft 5, and of the tumbler 7 which is secured thereto. The pin 10 in the tumbler 7 will engage the lower end of the pin 17 in the tumbler 12, causing a rotation of the tumbler 12; the upper end of the pin 17 engaging the pin 16 in the tumbler 13, and causing a rotation of the tumbler 13. This rotation of the tumbler 13, will aline the notch 31 in said tumbler, with the long leg 21 of the shackle. By reversing the rotation of the dial 6, the notch 31 in the tumbler 12 may be alined with the long leg 21 of the shackle, and by again reversing the rotation of the dial 6, the notch 31 in the tumbler 7 may be alined with

the long leg 21 of the shackle. The shackle may then be withdrawn, and swung into the dotted line position shown in Fig. 1. The proper alinement of the several notches 31 with the long leg 21 of the shackle may be secured by bringing successive graduations upon the dial 6, into coincidence with a mark 32 upon the casing 1.

The invention having been set forth, what is claimed as new and useful is:

In a device of the class described, a casing; a removable closure therefor; a fixed member in the casing; a shaft rotatable in the closure and in the fixed member and having a dial overlapping one face of the closure; a tumbler secured to the shaft and overlapping the opposite face of the fixed member; a slidable shackle rotatable in the fixed member and engageable by the tumbler; and means upon the shackle to engage the fixed member to prevent a complete withdrawal of the shackle.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

WALTER CHRISTIAN MALOZ.

Witnesses:

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