

H. SCHMIDT.
LOCK.
APPLICATION FILED APR. 27, 1914.

1,127,291.

Patented Feb. 2, 1915.

2 SHEETS-SHEET 1.

FIG. 1

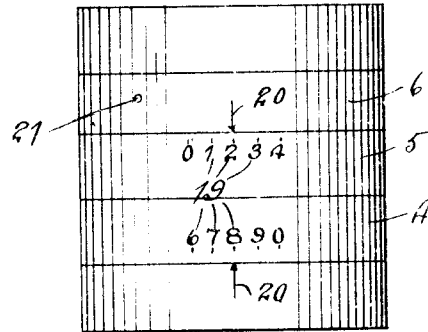


FIG. 6

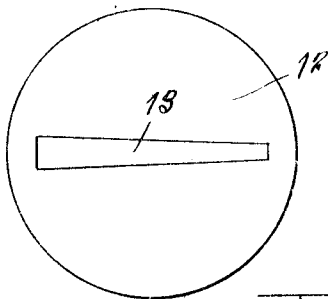


FIG. 5

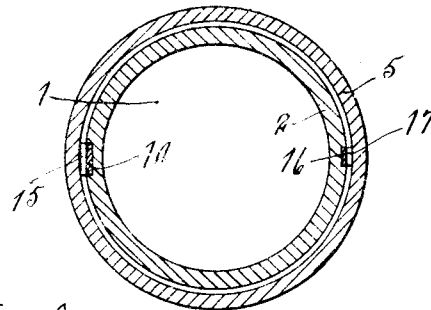


FIG. 4

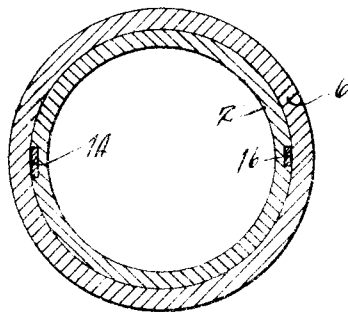
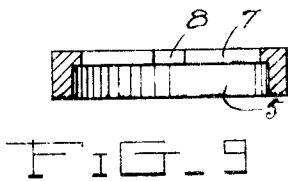


FIG. 9

Inventor
H. Schmidt

Witnesses

Chas. H. Trotter.

Wm. J. Fowler

By *A. H. Murphy Jr.*
Attorney

H. SCHMIDT.

LOCK.

APPLICATION FILED APR. 27, 1914.

1,127,291.

Patented Feb. 2, 1915.

2 SHEETS-SHEET 2.

FIG. 2

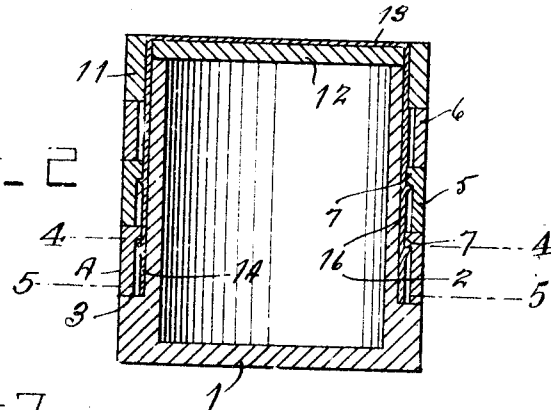


FIG. 7

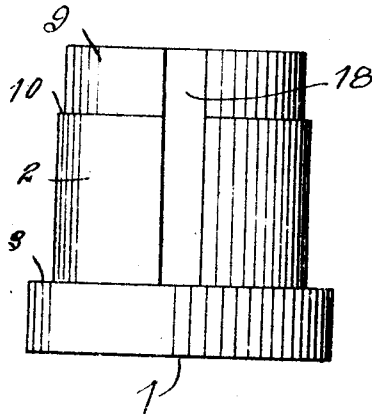


FIG. 3

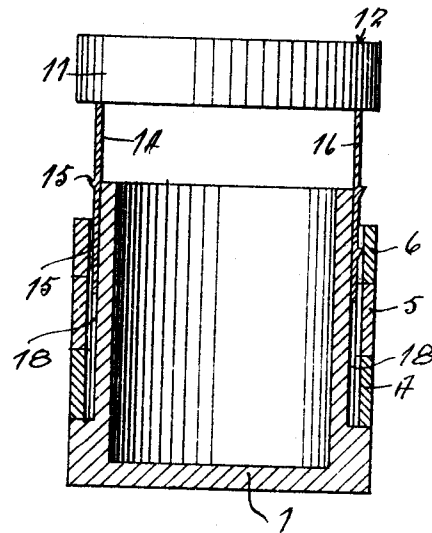
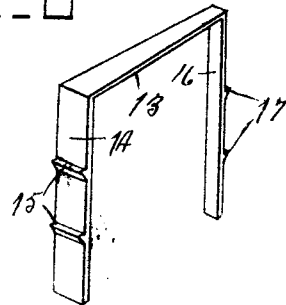


FIG. 8



Inventor

H. Schmidt

Witnesses

Chas. H. Trotter

Wm. J. Fowler

By

A. K. Kaulph J. Attorney

UNITED STATES PATENT OFFICE.

HENRY SCHMIDT, OF COLLEGE POINT, NEW YORK.

LOCK.

1,127,291.

Specification of Letters Patent.

Patented Feb. 2, 1915.

Application filed April 27, 1914. Serial No. 834,786.

To all whom it may concern:

Be it known that I, HENRY SCHMIDT, a citizen of the United States, residing at College Point, in the county of Queens and State of New York, have invented certain new and useful Improvements in Locks, of which the following is a specification.

This invention comprehends certain new and useful improvements in locks and relates more particularly to permutation locks and has for its primary object to provide a device of this character which will be of extremely simple construction and operation as well as highly efficient in use.

Another object is to provide a device of this character which may be constructed in such manner as to be incorporated in pill boxes and the like and forming a part of the same, by making it impossible for unauthorized parties to open the pill box.

Another object is to provide a device of this character which will be constructed in such manner that the receptacle with which the lock is formed, may be readily secured in closed position and the rings rotated to locked position, thereby making it very difficult, if not impossible, for a party to open the receptacle in the dark or even in the light, when not familiar with the combination.

A further object is to provide a device of this character which will be formed of the minimum number of parts, which will be strong and durable, and which will be constructed in such manner that should any of the parts become worn or broken, they may be readily replaced at a small cost.

With these and other objects in view as will become more apparent as the description proceeds, the invention consists in certain novel features of construction, combination and arrangement of parts as will be hereinafter more fully described and claimed.

For a complete understanding of my invention, reference is to be had to the following description and accompanying drawings, in which—

Figure 1 is a side elevation of the complete device in locked position, Fig. 2 is a longitudinal section through the same, Fig. 3 is a view similar to Fig. 2 with the rings in unlocked position and the top partially removed, Fig. 4 is a transverse sectional view taken on the plane of line 4—4 of Fig. 2, Fig. 5 is a transverse sectional view on

the line 5—5 of Fig. 2, Fig. 6 is a top plan view of the device, Fig. 7 is an elevational view of the body of the box with the cover and movable parts removed, Fig. 8 is a detail perspective view of the U-shaped locking member, and Fig. 9 is a detail sectional view through one of the rotatable locking rings.

Referring in detail to the drawings by 65 numerals, 1 designates the bottom, and 2 the body of the box of cylindrical form, the outer portion of the body being cut away, thereby reducing the thickness of the body, except at the lower edge, the purpose of 70 which will presently appear. This forms a stop shoulder 3 to limit downward movement of the lower locking ring 4 engaged around the reduced body 2. While any number of locking rings may be employed, 75 I have shown three such rings, the lowermost locking ring being designated by the numeral 4, as previously mentioned, while the central ring is designated by the numeral 5, and the upper ring is designated by 80 the numeral 6. Each of the locking rings 4 and 5 has an inwardly directed annular flange 7 formed around its upper edge with diametrically opposite portions cut away to form the lock openings 8, the purpose of 85 which will presently be clearly apparent. The upper portion of the body 2 is still further reduced in diameter by cutting away the outer portion thereof, as shown at 9, to form a stop shoulder 10 to limit downward 90 movement of the circular flange 11 of the cover 12, the lower edge of said flange resting upon the stop shoulder 10 and upon the upper edge of the upper locking ring 6, as will be readily understood by referring 95 to the drawings.

The cover 12 carries the U-shaped locking member 13, the main portion of which is engaged over the upper face of the cover 12 and tapers toward one end, thereby providing a wide leg 14 having the transverse locking ribs 15, and a narrow locking leg 16 having the transverse locking ribs 17, opposite the ribs 15, said legs 14 and 16 depending through suitable openings in the 100 cover 12. It will be understood that the locking ribs 15 and 17 are positioned upon the outer faces of the legs 14 and 16 and that the locking ribs on each leg are spaced from one another to correspond with the 105 height of the locking rings 4, 5 and 6. The legs 14 and 16 of the U-shaped locking mem-

ber 13 are adapted for sliding movement in the longitudinal guide channels 18 formed in diametrically opposite portions of the body 2 as the cover 12 is placed in position or removed. It will be readily seen that the cover 2 can only be placed in position or removed when the locking rings 4 and 5 are in unlocked position with the wide and narrow leg openings 8 opposite the guide channels 18 to allow the locking ribs 15 and 17 carried by the legs 14 and 16 respectively, to pass through the lock openings 8.

After the cover 12 has been placed in position upon the body 2, the locking rings 4 and 5 may be rotated to locked position, thereby bringing the inwardly directed flange 7 of said rings to position above the locking ribs 15 and 17 and preventing removal of the cover 12.

It will be understood that when it is desired to open the receptacle, it is necessary to rotate the rings 4 and 5 until the proper numerals 19 are brought to position opposite the arrows or other pointers located upon the lower enlarged portion of the body 2 and upon the ring 6 and directed toward the rotatable rings 4 and 5, the ring 6 being held stationary by a rivet 21 or other suitable means engaged therethrough and through the body 2, after the rings 4 and 5 have been rotated in position upon the body 2. By securing the upper ring 6 against movement, danger of the lock rings being withdrawn from the body 2 during an attempt to open the receptacle, will be eliminated.

While I have shown my invention applied

to a cylindrical receptacle, it will be understood that this lock may be incorporated in various forms of receptacles and other devices.

While I have shown and described the preferred embodiment of my invention, it will be understood that minor changes in the details of construction, combination and arrangement of parts may be made without departing from the spirit and scope of the invention as claimed, or sacrificing any of the advantages thereof.

What is claimed is:—

A device of the class described comprising a receptacle body having longitudinal grooves in its outer face, rotatable rings mounted upon said body and having inwardly directed flanges provided with opposite cut-away portions, a flange formed at the lower end of said body to limit downward movement of the said rings, a cover, a flat U-shaped locking member having its central portion mounted in said cover and provided with depending legs engaged in said grooves, an upper stationary ring above the rotatable ring for preventing upward movement of said rotatable rings, and transverse locking ribs mounted on said legs of the U-shaped locking member for engagement beneath the flanges of said rotatable rings to prevent removal of the cover.

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

HENRY SCHMIDT.

Witnesses :

JOHN HANNFELDER,
JAMES F. RYAN.