W. HADDOW.

LOCK.

APPLICATION FILED JUNE 26, 1909.

1,176,828. Patented Mar. 28, 1916.

Fig. 1.

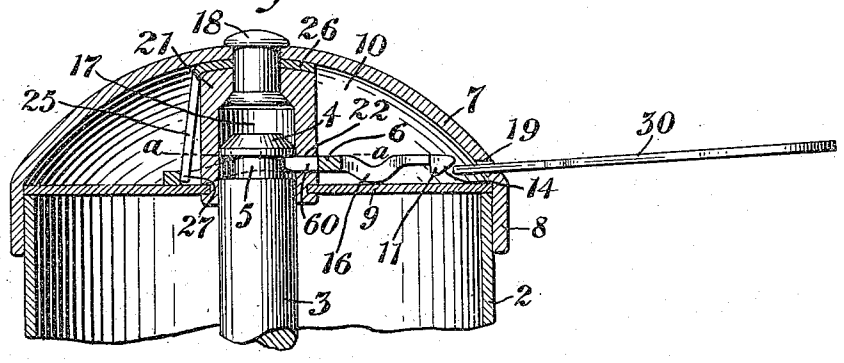


Fig. 2.

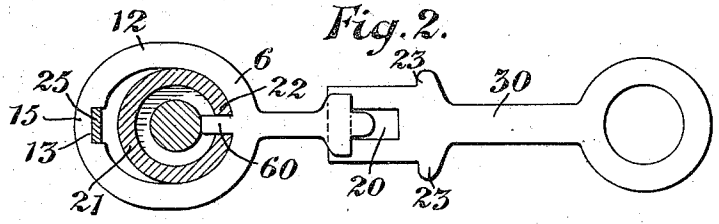


Fig. 3.

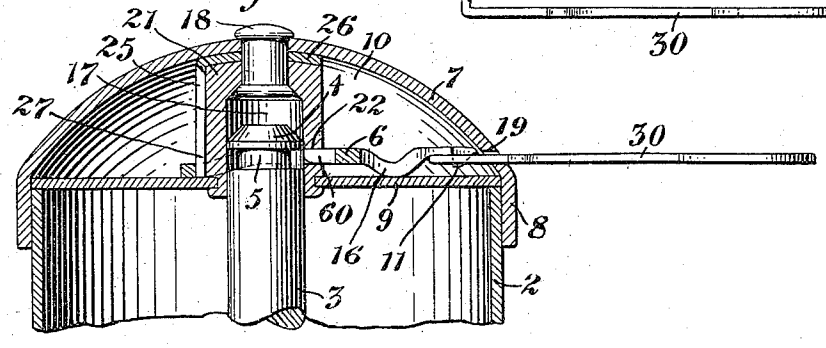
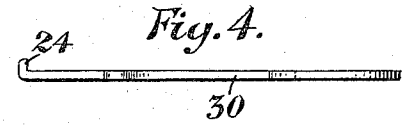


Fig. 4.



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UNITED STATES PATENT OFFICE.

WILLIAM HADDOW, OF OSSINING, NEW YORK.

LOCK.

1,176,828. Specification of Letters Patent. Patented Mar. 28, 1916.

Application filed June 26, 1909. Serial No. 504,564.

To all whom it may concern:

Be it known that I, WILLIAM HADDOW, a citizen of the United States, and a resident of Ossining, in the county of Westchester and State of New York, have invented certain new and useful Improvements in Locks, of which the following is a specification.

This invention relates to locks and has for its object to furnish simple and efficient means particularly adapted for locking removable caps or covers to receptacles.

In the drawing accompanying this specification is illustrated one embodiment of my invention and which may be the preferred embodiment thereof. Therein Figure 1 shows a vertical cross section of a portion of a tubular receptacle having a cap or cover. Fig. 2 is a sectional plan view on line *a—a* Fig. 1, of the lock with a key in operable position relatively thereto. Fig. 3 is a view similar to Fig. 1 but showing the parts in different positions from Fig. 1. Fig. 4 is an edge view of the key and showing a modification thereof.

Cylindrical receptacle or main member 2 is provided with a central stem 3 supported in the lower part thereof by means not shown. Said stem is chamfered at its upper end into conical shape at 4 and directly thereunder is provided with an annular groove 5. Cap 7 is illustrated as of dome-shaped contour and having a flange portion 8 fitting over the upper end of receptacle 2. Annular disk 9 is provided as a bottom for chamber 10 of said cover containing my improved locking mechanism. Locking member 6 comprises a bolt 60 for engagement with groove 5 of post 3 of receptacle 2 and said locking member is further provided with an arm terminating in a downwardly reaching projection or hook 11 for engagement with the forward end of slot 20 of key 30. Said hook has its end face chamfered upwardly at 14 to allow the key to enter freely thereunder. Said locking member 6 has its rear end 15 bent downwardly for support on bottom 9 adjacent to its point of engagement by spring 25. Said locking member 6 is also provided with a downwardly reaching portion 16 lying between its bolt 60 and key engaging hook 11. Said portion 16 engages bottom 9 to hold hook 11 above said bottom to allow space for the entrance of key 30. Locking member 6 comprises an elongated annular ring 12 which encircles hollow post 21 of cap 7. Said locking member is provided with a notch 13 on the inside of the annular ring portion opposite bolt 60 for the engagement of spring 25 of cap 7. Hollow post 21 has slot 22 through the wall thereof for the passage therethrough of bolt 60 of locking member 6 for engagement with groove 5 of post 3. Said slot 22 and spring 25 are efficient to hold locking member 6 in proper alinement for engagement with key 30 when said key is thrust through key hole 19 of cap 7. Spring 25 has an annular head 26 for engagement with holding means and a downwardly reaching arm 27 for engagement with locking member 6. Cap 7, spring 25 and hollow post 21 may be held rigidly together by means of rivet 18. Said hollow post 21 is located concentric with post 3 and has a cylindrical cavity 17 therein which fits over said post, thereby providing guiding means for the engagement of said post and locking member 6.

Directing attention now more particularly to key 30 said key is illustrated as having a slot 20, as already described, the forward edge of which upon insertion through key-hole 19 engages hook 11 of locking member 6. Said key is provided with one or more stops 23 to prevent its being thrust too far through key-hole 19. If desired slot 20 in said key may be dispensed with and upturned lip 24 substituted therefor for engagement with hook 11, see Fig. 4.

My improved locking device may be assembled as follows: Locking member 6 is first placed in position about hollow post 21 with bolt 60 projecting through slot 22 of said post. Post 21 is thereupon thrust into bottom 9 and riveted over as shown. Rivet 18 is now placed in position in cap 7, spring 25 in position with its annular portion 26 on top of hollow post 21 and arm 27 thereof in engagement with slot 13 of locking member 6; hollow post 21 carrying said locking member 6 and bottom 9 is thereupon thrust upwardly into cap 7, rivet 18 projecting downwardly through spring 25 and into said hollow post. Then by suitable means rivet 18 is headed within cavity or socket 17 of hollow post 21 thereby holding all the members securely together.

It is obvious that said locking means

would be equally efficient for receptacles of other contours than cylindrical as shown, but it is only the cylindrical contour that would permit the locking cap to be rotated on the receptacle.

The operation of locking my improved device is as follows: Cap 7 being thrust downwardly over receptacle 2 bolt 60 engages and is thrust outwardly by conical head 4 of stem 3 of said receptacle, thereby pressing spring 25. Upon the further downward movement of said cap, bolt 60 reaches a position opposite groove 5 in stem 3 and is urged thereinto by means of spring 25. The engagement of said bolt 60 under the upper wall of said groove 5 furnishes an efficient lock against the removal of said cap while allowing free rotation of said cap about stem 3 and receptacle 2.

The operation of unlocking the device is as follows: Key 30 being thrust into keyhole 19 and inclined somewhat downwardly in direction the forward end of slot 20 engages hook 11 of locking member 6. The handle end of the key is then pressed slightly downwardly and pulled outwardly thereby withdrawing the locking member and freeing the bolt from engagement with groove 5 of post 3. While in this position the cap may be lifted and removed from the receptacle.

I claim:

1. A locking device for a receptacle and a cover including in combination, a hollow post in the cover, a stem in the receptacle adapted to enter the hollow post, a locking member having stem engaging means projecting through a mortise in said post, a leaf spring for moving the locking member into engagement with the stem, and means for securing the hollow post, spring and cover together.

2. A locking device for a receptacle and a cover including in combination, a hollow post in the cover, a stem in the receptacle adapted to enter the hollow post, stem engaging means projecting through the mortise in a hollow post, means for moving the stem engaging means to its work, and key engaging means on said stem engaging means.

Signed this 25th day of June, 1909, at Ossining, New York, before two subscribing witnesses.

WILLIAM HADDOW.

Witnesses:
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GEO. W. HADDOW.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."