Feb. 12, 1929. 1,702,205

F. FREEDMAN

TANK CAP LOCK

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Fig. 1.

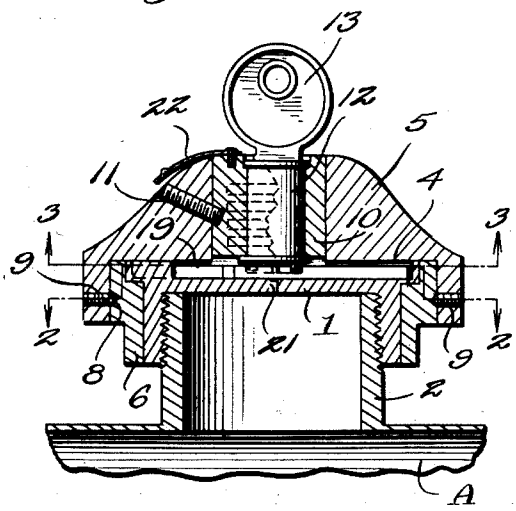


Fig. 3.

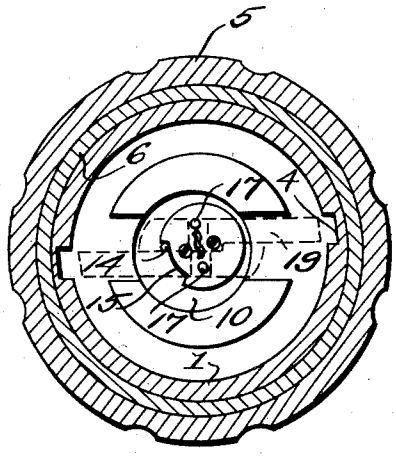


Fig. 2.

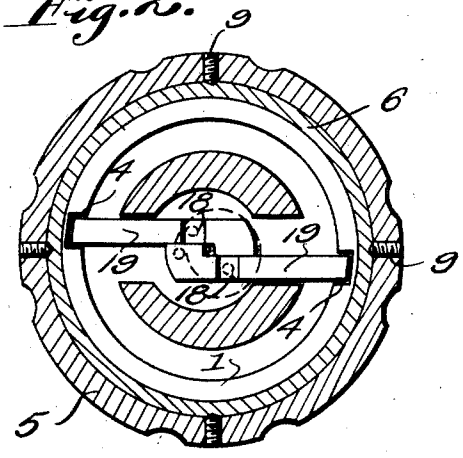
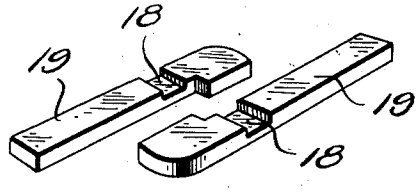


Fig. 4.



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Fig. 5.

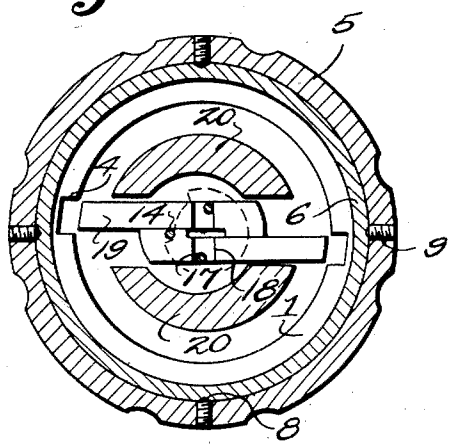


Fig. 7.

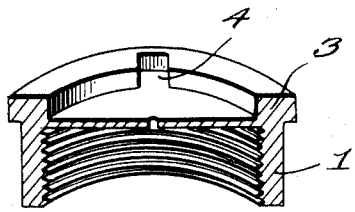


Fig. 8.

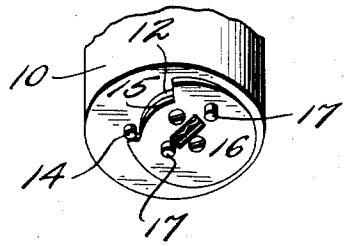


Fig. 6.

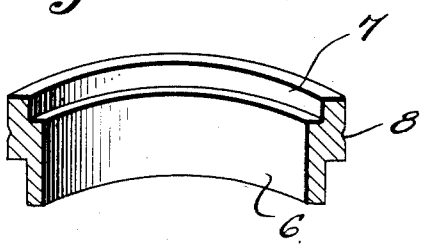
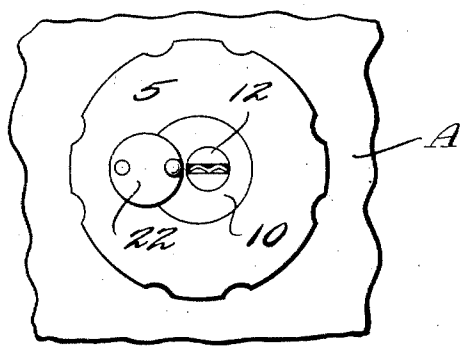


Fig. 9.



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UNITED STATES PATENT OFFICE.

FRED FREEDMAN, OF PHOENIX, ARIZONA.

TANK-CAP LOCK.

Application filed September 24, 1926. Serial No. 137,535.

This invention relates to a lock for caps of tanks and the like, the general object of the invention being to provide means for preventing removal of the cap until the locking device is removed by a key or the like into inoperative position so that the contents of the tank cannot be stolen.

Another object of the invention is to provide a cover in which the cap is rotatably mounted so that when the cover is turned, with the lock in inoperative position, the cover will turn on the cap so that the cap will not be unscrewed from the filling spout but when the lock is in operative position, the cover will be fastened to the cap and therefore the cap must turn with the cover.

This invention also consists in certain other features of construction and in the combination and arrangement of the several parts, to be hereinafter fully described, illustrated in the accompanying drawings and specifically pointed out in the appended claim.

In describing my invention in detail, reference will be had to the accompanying drawings wherein like characters denote like or corresponding parts throughout the several views, and in which:—

Figure 1 is a sectional view through the invention showing the same in place on the filling spout of a tank.

Figure 2 is a section on line 2—2 of Figure 1.

Figure 3 is a section on line 3—3 of Figure 1, but showing the lock in inoperative position.

Figure 4 is a view of the locking bolts.

Figure 5 is a horizontal sectional view with the bolts retracted.

Figure 6 is a sectional view of the ring which fastens the cap to the cover.

Figure 7 is a sectional view through the cap.

Figure 8 is a view of the lower part of the lock.

Figure 9 is a plan view of the lock.

In these views, 1 indicates the cap which is adapted to be threaded to the filling spout 2 of a tank A. This cap is provided with a flange 3 at its top and the interior wall of the flange is provided with a pair of oppositely arranged notches 4. The cap is rotatably held in a cover 5 by means of a ring 6 which is formed with an annular interior groove 7 to receive the outer part of the flange 3, the lower part of the ring fitting over the lower part of the cap, as clearly shown in Figure 1, so that the cap is covered by the ring. The ring is provided with notches 8 on its exterior wall for receiving the ends of the screws 9 which are threaded into the flange of the cover and act to hold the ring in place. The heads of the screws are blank so that they cannot be removed after once being put in place.

A lock carrying member 10 is held in the center of the cover by the screw 11 and the lock barrel 12 is rotatably mounted in the said member so that it can be turned by a key 13. This turning movement is limited by a stop pin 14 on the bottom of the member 10 engaging a long notch 15 in a plate 16 which is fastened to the bottom of the barrel. This plate carries a pair of pins 17 which engage notches 18 formed in the locking bolts 19 which are placed between the cap and cover and are guided in their movement by the guiding projections 20.

From the foregoing, it will be seen that as long as the bolts are in retracted position, the cover will turn on the cap so that it will be impossible to unscrew the cap from the spout 2 as the cover will rotate on the cap without moving the cap. When it is desired to remove the cap, the key is inserted in the keyhole of the lock barrel and given a turn to cause the pins 17 to project the bolts so that the ends of the bolts will enter the notches 4, when the bolts come into register with such notches, due to the rotation of the parts. Then the cover will be locked to the cap and thus the cap will rotate with the cover so that it can be removed from the spout. I prefer to so form the lock that the key cannot be withdrawn from the barrel as long as the bolts are in projected position.

The vent 21 in the cap is directly under the keyhole so that air passing through the keyhole can enter the tank through the vent. A cover 22 is also provided for the keyhole when the key is not in place.

This device is mainly intended for the caps of gasoline tanks of motor vehicles but it will, of course, be understood that it can be used for locking other types of caps in place.

It is thought from the foregoing description that the advantages and novel features of my invention will be readily apparent.

I desire it to be understood that I may make changes in the construction and in the

combination and arrangement of the several parts, provided that such changes fall within the scope of the appended claim.

What I claim is:—

In combination, a cap adapted to be threaded to its receiving member, an upstanding annular flange at the top of the cap having diametrically opposed notches in its interior wall, a cover fitting over the cap and resting on said flange, and defining a space therebetween, said cap and its flanges, a ring extending into the cover and covering the exterior wall of the cap, said ring having an annular groove therein for receiving the flange of the cap, means for fastening the ring to the cover for rotation therewith, with relation to the cap, horizontally disposed locking bolts in the space between the cap and cover and movable in opposite directions to cause their outer ends to engage the notches in the flanges of the cap, a key actuated locking tumbler, spaced pins depending from the bottom of said tumbler, and said locking bolts having transverse grooves to receive said pins whereby said bolts are actuated incident to the rotation of said tumbler.

In testimony whereof I affix my signature.

FRED FREEDMAN.