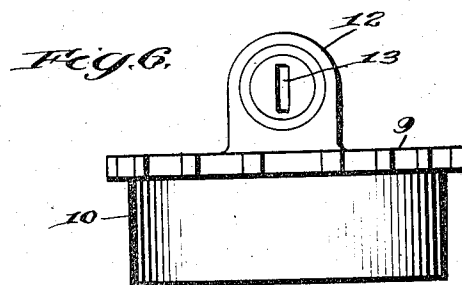
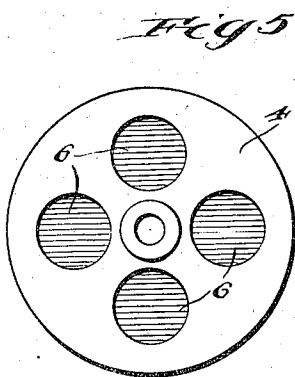
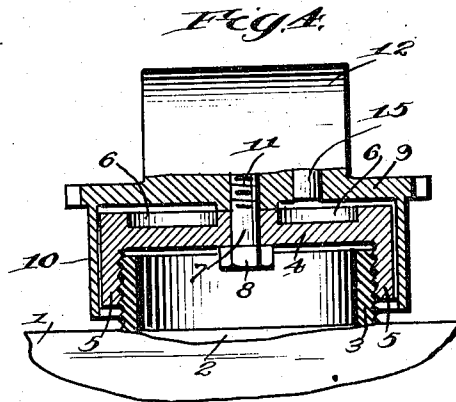
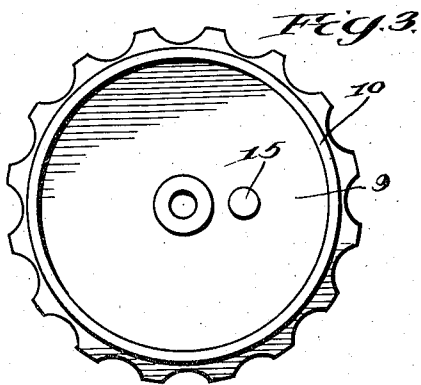
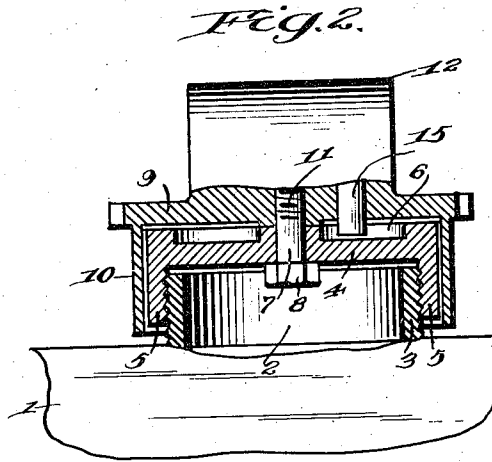
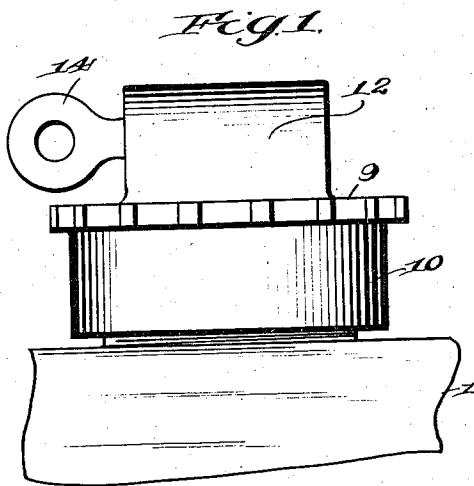


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G. R. BOOMER ET AL
PROTECTIVE CLOSURE STRUCTURE

Filed Jan. 4, 1927



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PROTECTIVE CLOSURE STRUCTURE.

Application filed January 4, 1927. Serial No. 158,917.

The object of this invention is to provide a closure structure for containers.

A further object is to provide a structure that will protect the contents from ingress by unauthorized persons.

The invention involves what will be termed a closure member, and a protecting member, and one of the novel features is that means is provided for locking said members together when it is desired to remove or apply the structure from or to the container, and said members being unlocked from each other when the structure is in normal protective use.

In accordance with this invention, the protecting member in the performance of its protecting function, is always free for movement and is always in a position to prevent unauthorized access to the closure member.

It is a special feature of this invention to provide means for locking said member together, which means is interposed between said members and is therefore inaccessible from the exterior of either of said members.

The invention will be more fully described in connection with the accompanying drawing and will be more particularly pointed out in and by the appended claim.

In the drawing:

Fig. 1, is an exterior view in elevation of a closure structure embodying the most improved form of the invention, applied to a container.

Fig. 2, is a similar view with parts in section.

Fig. 3, is a bottom plan view of the protecting member.

Fig. 4, is a view similar to Fig. 2, with the members in unlocked relation.

Fig. 5, is a top plan view of the closure member.

Fig. 6, is a view of the protecting member looking from the left of Fig. 1.

Like characters of reference designate similar parts throughout the different figures of the drawing.

The device of this invention is adapted for any utility to which this type of closure may be useful but the particular object is to provide a closure structure for gasoline tanks of automobiles. Thus, we have broadly indicated a gasoline tank at 1, the same having a bung 2 provided with a projecting neck 3, the latter being shown exteriorly threaded.

This neck 3, forms the ingress for legitimately filling the tank 1, and usually forms the egress for unauthorized emptying of the contents of the tank.

We will next refer to what more particularly constitutes our invention.

We have shown a closure member having a top wall or portion 4 which is adapted to cover the neck 3, said wall 4 having a flange 5 which is adapted to exteriorly surround the neck 3. Said flange 5 is provided with interiorly disposed threads adapted to coact with the exterior threads of neck 3, whereby the closure member may be turned into or out of a closing position with respect to neck 3, as will now be clear. On the outer face, or as shown, the upper face of wall 4, we provide locking portions 6, which may be in the form of annular recesses, as shown. These recesses are concentrically disposed about the center of the closure member so that any one of the same may coact with a locking device to be presently described. Further, these recesses are purposely made somewhat larger than would otherwise be necessary to facilitate registration of the same with said locking device. In the center of the closure member, we dispose a swivel connecting member which may be in the form of a bolt 7, the same having a head 8, engaging the bottom of wall 4.

Reference will next be made to our protecting member which is associated with the closure member in a novel manner.

Said protecting member is of generally cup form having a top wall 9 adapted to overhang wall 4, and a flange 10 adapted to extend downwardly over flange 5, as shown. It will be advisable to proportion the protecting member so as to afford a slight clearance between the same and the closure member, as shown, in order to provide a gasoline vent. In order to render the protecting member more effective than usual, the flange 10 extends downwardly slightly below flange 5, so that it will be practically impossible to gain physical access to flange 5 for purposes of manipulation of the latter. In the present form, the swivel member 7, extends upwardly into the stock of the protecting member and may be secured thereto in any desirable manner as by means of threaded engagement, as shown at 11. Thus, it will be seen that the closure and protecting members

are swivelled in rotative relation with respect to each other whereby each may turn or be turned independently of the other. Further, this swivelled connection is enclosed, when the structure is in the position shown in Figs. 2 and 4.

On top of wall 9, there is mounted, preferably integrally a lock casing 12, adapted to contain any desired form of locking mechanism of a key operated type, a key slot being shown at 13 and the key at 14. As the invention does not relate to any particular type of locking mechanism, the same is not shown in full. However we have shown the same provided with a locking element or portion which may be in the form of a tumbler or plunger 15, adapted to be reciprocated by the locking mechanism upwardly and downwardly along its axis. When in the adjustment shown in Fig. 2, the tumbler 15 is in a locking position and when in the adjustment shown in Fig. 4, it is in an unlocked position.

While it is believed that the device of our invention will be clear from the foregoing description, it may be briefly recapitulated as follows:

When in the position shown in Fig. 4, the closure structure is in the normal position of protecting the contents of the tank, in other words, the device is effective in the performance of its function when unlocked. The tumbler, as shown in said figure is in a retracted position leaving the protecting member free to be turned with respect to the closure member. Thus, the owner, or anyone else, could turn the protecting member freely without either turning the closure member off from or onto the neck 3. In other words, it will be clear that when the tumbler 15 is retracted, the locking mechanism is not functioning in any capacity.

Now assuming that the owner wanted to fill his tank, well, he would insert his key 14 and actuate the locking mechanism to project the tumbler 15. If the tumbler 15 was in a rotative position with respect to the recesses of a non-registry character, then the protecting member would be slightly turned until the tumbler came into registry with one of the recesses 6, so that the locking mechanism could be fully thrown. This is why, for one reason at least, that the recesses are made relatively large with respect to the tumbler, namely, to facilitate registry. After registry has been effected, and the tumbler is

in the locked position shown in Fig. 2, then by turning the protecting member, the owner would also turn the closure member because the two members are rotatively locked together. Thus, the user may unscrew the closure member, through the instrumentality of the protecting member, and gain access to the tank for filling purposes. After the tank has been filled, and while the parts are in the same adjustment shown in Fig. 2, the closure member can be screwed onto the neck 3, as tightly as desired. After this is done, the user will turn key 14 to retract plunger 15, and disconnect the members from locked relation, whereupon the structure will be in a position to perform its protecting function.

It is now believed that the device of our invention will be fully understood and while we have shown and described one specific form of our invention, we do not wish to be limited thereto except for such limitations as the claim may import.

We claim:

In a protective closure structure, a closure cap provided with a threaded flange adapted to be screwed onto or off from a threaded bung, said cap having a locking portion on its top wall radially inwardly of said flange and radially outwardly from the turning axis of said cap, a protective cap rotatably telescoped over said closure cap and having a swivelled connection therewith against axial displacement from each other, a locking mechanism rigidly mounted on the top wall of said protective cap and disposed over said swivelled connection to render the latter inaccessible from the exterior of said protective cap, a tumbler disposed radially from said swivelled connection a distance to register with said locking portion and being slidable through the top wall of said protective cap and into said locking mechanism, said tumbler being actuated by said locking mechanism to engage said locking portion and lock said caps together thereby permitting both caps to be unscrewed from said bung, or said mechanism being adapted to withdraw said plunger from said locking portion to permit free rotation of said protective cap and thereby prevent rotation of said closure cap off from said bung.

In witness whereof, we hereby affix our signatures.

GEORGE R. BOOMER.
WILLIAM S. LITTELL.