

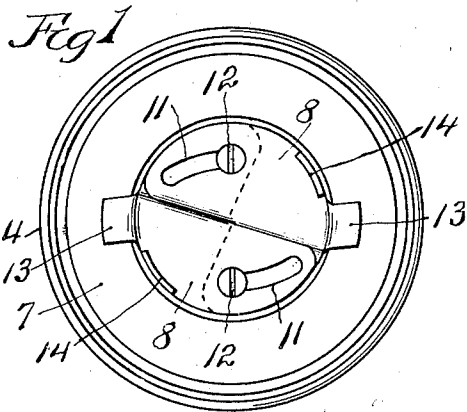
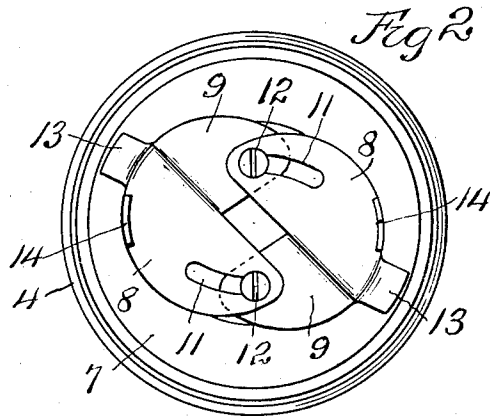
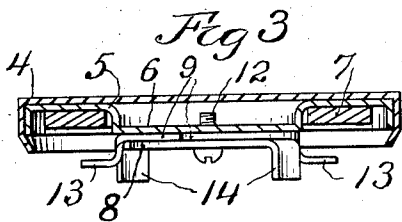
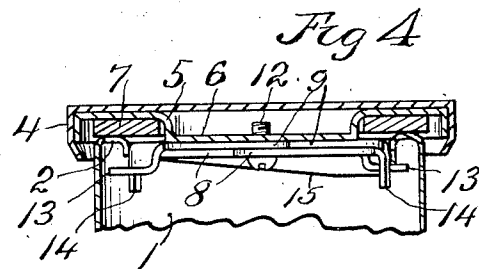
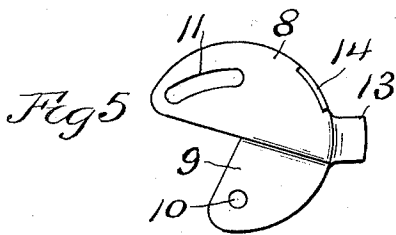
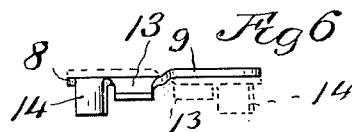
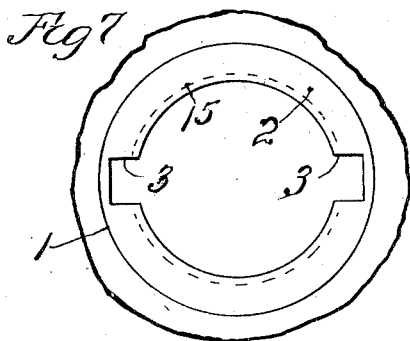
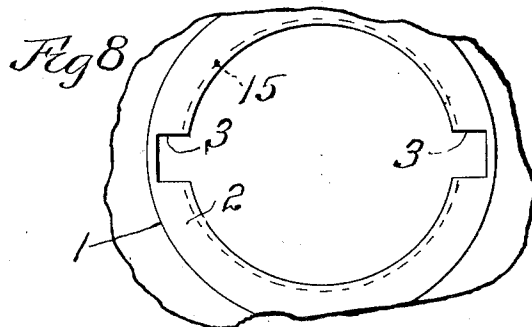
April 20, 1937.

H. E. WILLIAMS

2,078,211

ADJUSTABLE CLOSURE CAP

Filed Oct. 17, 1932



INVENTOR
Harold E. Williams
BY *Warren D. House*
His ATTORNEY

UNITED STATES PATENT OFFICE

2,078,211

ADJUSTABLE CLOSURE CAP

Harold E. Williams, Carthage, Mo.

Application October 17, 1932, Serial No. 638,152

4 Claims. (Cl. 220-40)

My invention relates to adjustable closure caps, particularly well adapted for closing the filler necks of tanks, such as are employed for holding gasoline or other liquid fuel.

One of the objects of my invention is to provide an adjustable closure cap adapted for being fitted to filler necks of different sizes and of the bayonet lock type, wherein the locking flange around the filler opening is provided with opposite notches for receiving the two locking lugs of a bayonet lock type of closure cap.

A further object of my invention is to provide novel means for centralizing and guiding the closure cap on the filler neck.

My invention provides further novel means by which the locking lugs and guiding means may be easily, quickly and securely adjusted on the closure cap to fit the filler neck with which the closure cap is to be used.

My invention provides further a novel closure cap of the type described, which is simple, cheap, strong, durable, not likely to get out of order, and which is adaptable to filler necks of different diameters.

The novel features of my invention are herein-after fully described and claimed.

In the accompanying drawing, which illustrates the preferred embodiment of my invention,

Fig. 1 is a bottom view of my improved closure cap, showing the locking lugs and guiding lips in their innermost positions.

Fig. 2 is a similar view showing the locking lugs and guiding lips in their outermost positions.

Fig. 3 is a central vertical sectional view of the closure cap with the locking lugs and guiding lips in the inner positions shown in Fig. 1.

Fig. 4 is a view similar to Fig. 3, showing the closure cap fitted on a filler neck and the locking lugs and guiding lips in their outermost positions.

Fig. 5 is a plan view of one of the locking members, both being alike, looking at the under side thereof.

Fig. 6 is a view showing in edge elevation the two locking members, one in solid lines and the other in dotted lines, and in their relative operative positions.

Fig. 7 is a top view of one of the usual bayonet lock type filler necks.

Fig. 8 is a top view, partly broken away, of a filler neck of larger diameter than the one shown in Fig. 7.

Similar characters of reference designate similar parts in the different views.

As shown in Figs. 4, 7, and 8, the filler neck 1, of usual bayonet lock type, has at its top an

annular inwardly extending flange 2 provided in its inner edge with two diametrically opposite notches 3 adapted to receive the usual locking lugs of the closure cap employed to close the filler neck opening.

My improved closure cap, in the form shown, is provided with an exterior cup shaped outer member 4 which has fitted in it an inner cup shaped member 5 having a central boss 6 encircled by a gasket 7 which bears against the under side of the cap member 5, and which is adapted to rest on the top of the flange 2 of a filler neck. The lower end of the outer cap member 4 is of large enough diameter to receive the filler neck, shown in Figs. 4 and 8.

Oscillatively mounted on the under side of the boss 6 are two locking members 8 each of which has a raised portion 9 bearing against the under side of the boss 6 and having a hole 10.

The depressed portion of each locking member 8 overlaps the raised portion 9 of the other locking member and is provided with a slot 11 concentric with the hole 10, as shown in Fig. 5.

The slot 11 of each locking member 8 registers with the hole 10 of the other locking member.

Pivotaly connecting the locking members 8 with the boss 6 are two vertical screws 12 which respectively extend through the slots 11 and through the holes 10 in register therewith, and are fitted at their upper ends in two threaded vertical holes in the boss 6 at opposite sides respectively of and at equal distances from the center of the closure cap and boss 6.

When the screws 12 are loosened, the locking members 8 may be swung respectively laterally thereon from the innermost position shown in Figs. 1 and 3 to the outermost position shown in Figs. 2 and 4, or to any desired intermediate position. By tightening the screws 12, the locking members will be respectively releasably fastened by the heads of the screws in the adjusted position.

Extending laterally from the periphery of each locking member 8 is a locking lug 13. The locking lugs 13 are disposed at the same distance from the center of the boss when in the inner position shown in Figs. 1 and 3, and they are at equal distances from the center of the boss when in the outermost position shown in Figs. 2 and 4. When in the innermost position they are adapted to pass respectively through the notches 3 of the smaller filler neck, shown in Fig. 7, and when the locking members 8 are adjusted to the outermost position, shown in Figs. 2 and 4, the locking lugs 13 are adapted to respectively pass through the

notches 3 of the larger filler neck, shown in Figs. 4 and 8.

To guide the closure cap centrally into the filler neck, so that the locking lugs will be made to readily enter the notches 3 of the filler neck, each locking member 8 is provided with a peripheral downwardly extending guiding lip 14 which extends below the locking lugs 8.

The guiding lips 14 are disposed at opposite sides respectively of the center of the closure cap and boss 6 and at equal distances from the center.

To adjust the closure cap to the filler neck with which it is to be used, the screws 12 are loosened and the locking members swung thereon to a position in which the guiding lips 14 will slidably fit the inner edge of the filler neck flange 2 between the notches 3. The screws 12 are then tightened, thus fastening the locking member 8 in the adjusted position. The lugs 13 will now enter the notches 3, when the cap is turned to a position in which the lugs will register with said notches. The cap may then be locked in the usual manner by turning the cap so that the locking lugs 8 will engage the lower bevelled flanges 15 on the underside of the flange 2, Fig. 4. The gasket 7 will then tightly fit on top of the filler neck flange 2.

I do not limit my invention to the specific structure shown and described, as many modifications, within the scope of the appended claims, may be made without departing from the spirit of my invention.

What I claim is:—

1. A closure of the bayonet lock type comprising a cap, a member having a slot and a neck engageable locking lug and pivoted concentric with said slot to the under side of said cap so as to be swung to positions in which said lug will be at different distances from the center of said cap, and a screw engaging said cap and extending through and movable lengthwise of said slot and

adapted to bear on said member for releasably fastening said member in said positions independently of said pivotal connection.

2. A closure of the bayonet lock type comprising a cap, a member having a neck engageable locking lug and a slot and pivoted to the under side of said cap at a point relative to which said slot is concentric, so as to be swung to positions in which said lug will be at different distances from the center of said cap, and means independent of said pivotal connection and extending through and movable lengthwise of said slot for releasably fastening said member in said positions.

3. A closure of the bayonet lock type comprising a cap, and two members pivoted to the under side of said cap on axes at like distances from and at opposite sides of the center of said cap, each of said members having a neck engageable lug, said lugs being at opposite sides of said center and movable with said members to different distances apart, the pivotal connection of each of said members with said cap being engageable with the other member for releasably fastening the latter in the position to which it may be adjusted.

4. A closure of the bayonet lock type comprising a cap, and two members overlapping each other and pivoted at opposite sides of the center of said cap to the under side thereof, and having at opposite sides of said center respectively two neck engageable lugs movable with said members to different distances apart, the pivot connection of each of said members being engageable with the other member for releasably fastening the latter in the position to which it may be adjusted, each of said members having a slot through which extends and is movable lengthwise thereof the pivot connection of the other member.

HAROLD E. WILLIAMS.