Oct. 18, 1927. 1,646,154

P. J. KROLL

CLOSURE MEMBER

Filed Oct. 9, 1925 2 Sheets-Sheet 1

Fig. 1.

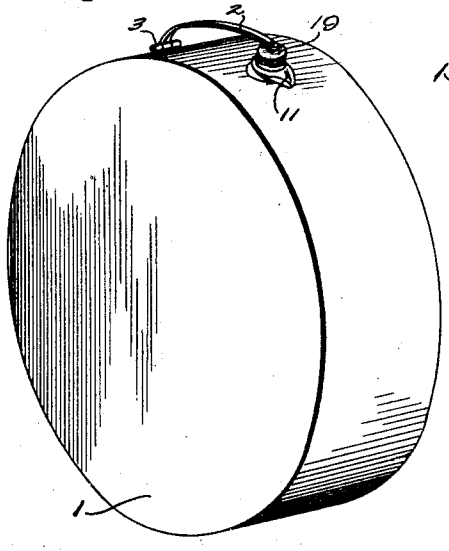


Fig. 2.

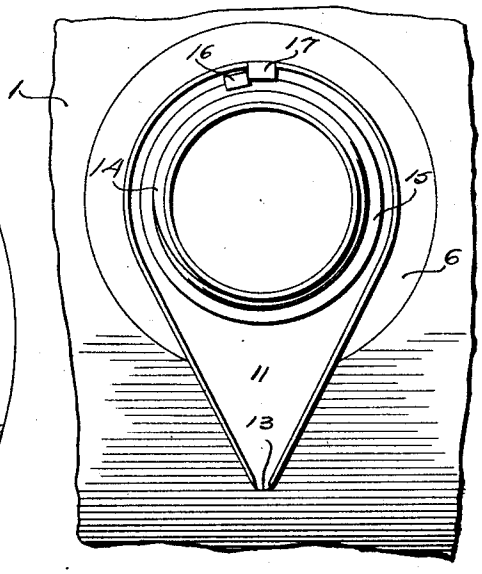


Fig. 3.

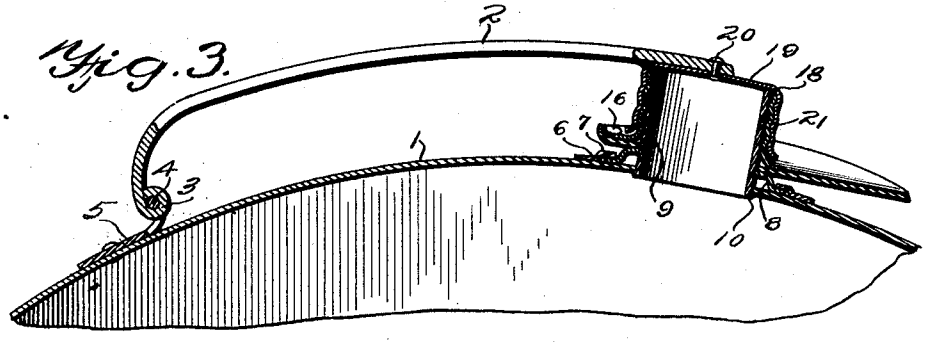
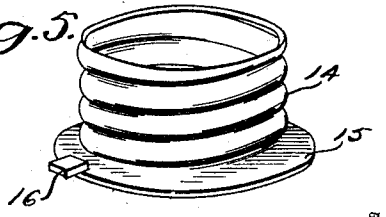


Fig. 5.



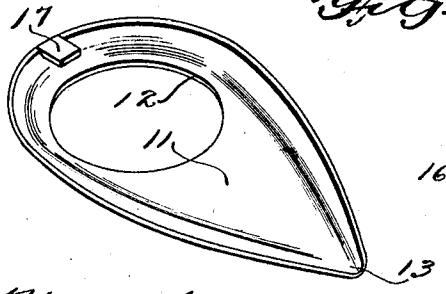


Fig. 4.

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Fig. 6.

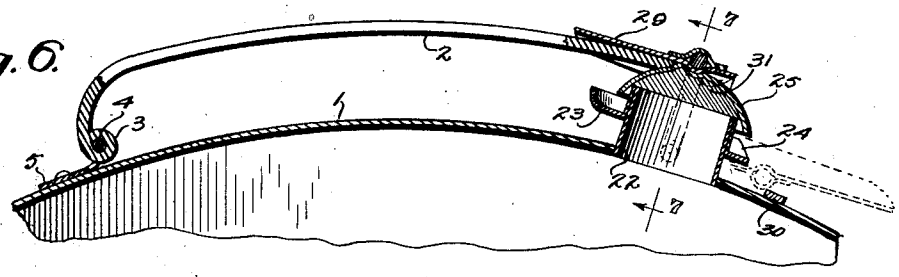


Fig. 7.

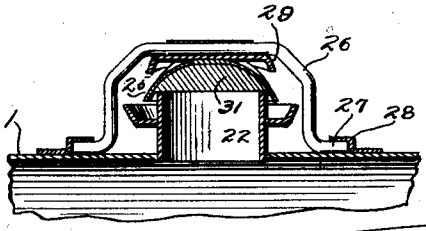


Fig. 9.

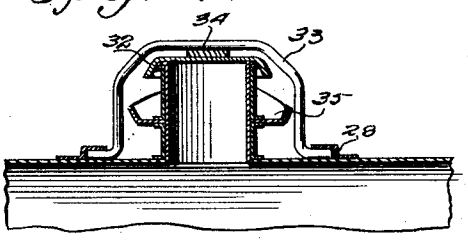


Fig. 8.

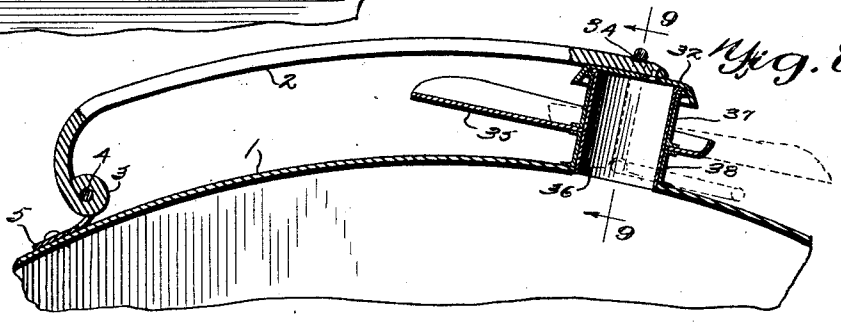
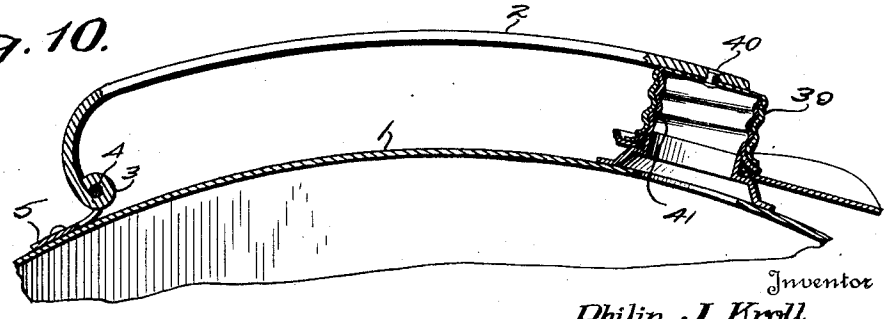


Fig. 10.



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Patented Oct. 18, 1927. 1,646,154

UNITED STATES PATENT OFFICE.

PHILIP J. KROLL, OF JOPLIN, MISSOURI.

CLOSURE MEMBER.

Application filed October 9, 1925. Serial No. 61,495.

This invention relates to closure members, and more particularly to closure members for liquid containers or cans.

An object of the invention is to provide a closure member consisting of a cap secured to a handle hingedly mounted on a container whereby the cap will be arranged over the outlet opening when the handle is in its normal position.

A further object is the provision of means for retaining the cap in closed position.

A still further object is the provision of a combined spout and fastening element for the cap.

In the accompanying drawings, I have shown several embodiments of the invention. In this showing:

Figure 1 is a perspective view of a container showing one form of the invention applied,

Figure 2 is an enlarged plan view of the outlet opening with the cap and handle removed,

Figure 3 is an enlarged vertical sectional view,

Figure 4 is a perspective view of a spout surrounding the outlet opening.

Figure 5 is a similar view of a threaded sleeve surrounding the outlet opening,

Figure 6 is a vertical sectional view through the outlet opening and handle showing another form of the invention,

Figure 7 is a vertical sectional view on line 7—7 of Figure 6,

Figure 8 is a view similar to Figure 6, showing another form of the invention,

Figure 9 is a vertical sectional view on line 9—9 of Figure 8, and,

Figure 10 is an enlarged vertical sectional view of a portion of a container showing another form of the invention.

Referring to Figures 1 to 5 of the drawings, the reference numeral 1 designates a container. While the invention is adapted for use in connection with containers of any type, I have illustrated a container of the type disclosed and claimed in my copending application filed November 4, 1924, Serial No. 747,861. This container is provided with an outlet opening in its curved wall and a handle 2 is mounted on the top of the container adjacent the outlet opening. As shown, a sleeve 3 is formed on one end of the handle, and this sleeve is adapted to receive a hinge pin 4 carried by a strap 5 secured to the exterior of the can to hingedly mount the handle. The handle is so mounted that its free end is arranged over the outlet opening.

Surrounding the outlet opening of the can, I provide a ring 6 having an offset portion 7 and a second ring 8 is secured between the body of the can and this offset portion. A tube 9 is arranged in the outlet opening and is engaged by the ring 8. As shown, the inner end of the tube may be flattened, as at 10, to prevent displacement. A spout 11 is arranged around the tube, being provided with a central opening 12 through which the tube passes. As shown, the spout is dish-shaped and is provided with a pointed end 13 for pouring. A threaded sleeve 14 surrounds the tube and is provided with a flange 15 at its lower end. This flange is provided with a lug 16 adapted to be engaged by a lug 17 arranged on the spout to permit the sleeve to be rotated on the tube. As shown, the upper end of the tube 9 is provided with a flange or lip 18 to prevent displacement of the sleeve in rotating it. A cap 19 is secured to the free end of the handle in any suitable manner as by means of a pin 20 and this cap is provided with a threaded portion 21 adapted to engage the threads of the sleeve 14.

In the form of the invention shown in Figures 6 and 7 of the drawings, the handle is mounted in the can in the same manner. The outlet opening is provided with a tube 22 and a dished-shaped member 23 is arranged around this opening. At the side opposite the handle, the flange of the dish-shaped member is cut away, as at 24. A cap 25 is carried by the end of the handle and is adapted to fit over the outlet opening of the can. The cap and handle are retained in position by means of a bail 26. As shown, the bail is pivotally mounted on the exterior of the container, the ends 27 of the bail being arranged between the exterior wall of the can and plates 28 mounted thereon. A pouring lip 29 is carried by the bail and is adapted to be arranged beneath the free end of the dish-shaped member 23 when in operative position, as shown in dotted lines in Figure 6 of the drawings. As shown, a plate 30 is arranged on the exterior of the can and is adapted to properly position the lip 29. The cap 25 is provided with a depression 31, in which the bail is received to lock the cap and handle in closed position.

In the form of the invention shown in

Figures 8 and 9 of the drawings, I employ a cap 32 which is adapted to fit over the outlet opening. The cap is retained in position by means of a bail 33 which is pivotally mounted on the exterior of the can in the manner heretofore described and is adapted to be received in a depression 34 adjacent the end of the handle. A spout or pouring lip 35 is arranged around the outlet opening and is adapted to be turned to the full line position when not in use. As shown, the outlet opening is provided with a tube 36 surrounded by outer tubes 37 and 38 and these outer tubes are provided with flanges between which the pouring lip is arranged.

In the form of the invention shown in Figure 10 of the drawings, I provide a threaded cap 39 mounted on a pin 40 carried by the handle to permit rotation of the cap. The threads of the cap are adapted to engage threads 41 formed on a tube surrounding the outlet opening.

The operation of the device will be apparent from the foregoing description. In the form of the invention shown in Figures 1 to 5 of the drawings, the cap is closed by swinging the handle downwardly to the position shown in Figure 3 of the drawings and rotating the threaded sleeve 14 through the provision of the lugs 16 and 17. The spout member 11 is freely rotatable on the tube 9 and by turning this member, the sleeve 14 may be rotated when the lugs 16 and 17 come into engagement with each other, as shown in Figure 2 of the drawings. Similarly, the cap may be released by turning the sleeve in the opposite direction.

In the form of the invention shown in Figures 6 and 7 of the drawings, the cap is released by swinging the bail 26 downwardly to the dotted line position. The member 29 then forms a pouring lip or a continuation of the spout 23, which is not flanged on this side. When the bail is swung upwardly, it is received in the depression 31 to lock the handle and cap in closed position.

The operation of the form of the invention shown in Figures 8 and 9 of the drawings is substantially the same and in the form of the invention shown in Figure 10 of the drawings, the threaded cap is turned around the pin 40 as an axis to cause it to engage the threads of the tubular member 41.

It is to be understood that the forms of my invention herewith shown and described are to be taken as preferred examples of the same, and that various changes in the shape, size, and arrangement of parts may be resorted to without departing from the spirit of the invention or the scope of the subjoined claims.

I claim:

1. In a device of the character described, a handle hingedly mounted on the exterior of a container, said container being provided with an outlet opening in alinement with the free end of said handle, a cap carried by the free end of said handle and adapted to close said opening, and a bail mounted on said container and adapted to lock said handle and cap in closed position.

2. In a device of the character described, a handle hingedly mounted on the exterior of a container, said container being provided with an outlet opening in alinement with the free end of said handle, a cap carried by the free end of said handle and adapted to close said opening, a bail mounted on said container and adapted to lock said handle and cap in closed position, and a pouring lip carried by said bail.

3. In a device of the character described, a container having an outlet opening, an arm hinged to the exterior of said container, a cap carried by said arm and adapted to be disposed over said opening when said arm is in one position, and a bail mounted on the exterior of said container and adapted to be swung over said arm to lock said cap in closed position.

4. In a device of the character described, a container, a handle secured to the exterior of said container and provided with a movable end, said container being provided with an outlet opening, the movable end of said handle being adapted to be disposed over said opening, a cap carried by the movable end of said handle and adapted to close said opening, and movable means carried by said container for retaining said cap in closed position.

In testimony whereof, I affix my signature.

PHILIP J. KROLL.