Feb. 14, 1939. R. E. L. WARBURTON 2,147,565

CLOSURE FOR CONTAINERS

Filed Dec. 5, 1934

Fig. 1.

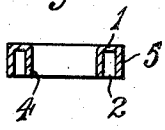


Fig. 3.

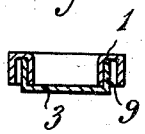


Fig. 2.

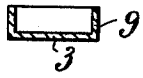


Fig. 4.

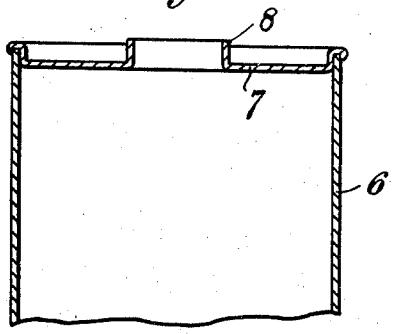
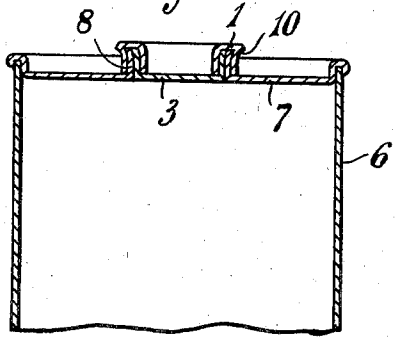


Fig. 5.



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Patented Feb. 14, 1939 2,147,565

UNITED STATES PATENT OFFICE

2,147,565

CLOSURE FOR CONTAINERS

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Application December 5, 1934, Serial No. 756,170
In Great Britain August 22, 1934

1 Claim. (Cl. 220—24)

This invention relates to closures for containers having ends of flexible material, and has for its object to provide a closure and a method of applying same to the container opening, by the use of which undetectable tampering with the container or its contents is effectively prevented, without rendering difficult either the operation of closing the container when the contents are packed or that of opening the container when the contents are to be used.

To this end, a closure according to the invention is in the form of a two-part cap or lid which can be handled and applied to the container opening as a single entity. One outer part is in the form of a press-over lid having a central aperture and an inner depending flange, and the other inner part is in the form of a press-in lid, which fits the container opening and can be frictionally engaged over the inner depending flange of the outer part to enable the two parts to be handled as a single entity.

When applying the closure to the rim or flange of the container opening, the outer part is seated outside and the inner part inside said rim or flange and at least the outer part secured to the rim or flange, as by bending or crimping, whereby a permanent attachment of said outer part is effected, while the attachment of the inner part permits of its subsequent removal but precludes its replacement.

The invention will be best understood by the following description of one constructional form thereof illustrated in the accompanying drawing.

In the said drawing:—

Figure 1 is a vertical section of the outer part of the two-part cap;

Figure 2 is a corresponding view of the inner part;

Figure 3 is a sectional view of the parts assembled;

Figure 4 is a vertical section of the upper part of one form of container to which the cap may be applied, and

Figure 5 is a view corresponding to Figure 4 with the cap in position over the container opening.

According to the constructional form of the invention illustrated in the drawing, the above mentioned outer part of the cap or lid, i. e., that which is permanently secured to the container, is in the form of a ring 1 (Figure 1), having a flange 5 depending from its outer edge and adapted to fit over the rim or flange of the container opening, and an inner depending flange 4 forming with the outer flange 5 an annular channel or recess 2, so that the ring is substantially U-shaped in cross-section. The second part of the lid, as illustrated in Figure 2, is in the form of a cap 3 which closes the ring 1 by fitting tightly around the outer wall of the flange 4 and within the annular recess 2, without contacting with the inner wall of the flange 5. The assemblage of the two parts just described thus forms a dished press-over lid as illustrated in Figure 3, and the cap 3 serves also as a press-in lid for the container opening.

The application of the form of lid just described to a container opening will be understood by reference to Figures 4 and 5, which represent a container 6 having an end 7 secured to the body of the container by crimping, the opening in said end being surrounded by a cylindrical flange or rim 8. In order to effect the closure of the container, the assembled two-part lid is pressed over the flange 8 which enters the annular recess 2 and susbtantially fills the space in said recess between the outer wall 9 of the cap and the inner wall of the flange 5. A crimping or bending tool is then applied to the top outer edge of the ring 1, whereby the said ring, the cap 3 and the flange 8 lying within its recess 2, are bent together outwardly as shown in Figure 5. In this way, the ring 1 is permanently secured to the flange 8, and an annular lip 10 is formed on the ring, which is advantageous for example in facilitating the pouring of liquid contents from the container.

The cap 3 by which the ring 1 is closed before attachment of the ring to the container, is of a material light enough to enable it to be subsequently separated from the ring by pushing it downwardly into the body of the container 6, and when the container has been opened by so doing, the parts cannot be reassembled. Should it be necessary to temporarily close the container, in the event of only part of its contents being used on opening as above described, a bung or cork may be inserted in the aperture of the ring.

In the constructional form illustrated the inner and outer flanges 4, 5 of the ring are both straight and of equal length. In this respect, however, the construction may be modified; for example the outer flange 5 may be slightly longer than the inner flange 4 and may further be formed with an annular flange adapted to fit tightly to the face of the container end 7.

Moreover, although the closure has been described as in the form of a ring, it will be understood that its general configuration may be made to conform with the configuration of the con-

tainer opening, and the crimping or bending may act only on the outer lid and the container rim.

The improved two-part closure may be made of sheet metal, foil, cardboard, leather or other suitable material, and the container end may also be made of similar substances. In cases where it is necessary to take special precautions for rendering the joints leak-proof, binding solutions or liquids may be applied to any or all of the parts during assemblage.

The improved closure may be produced conveniently as a separate article of manufacture, in sizes and materials suitable for different forms of containers. The attachment of the closures to the containers presents no difficulty and the simple manner in which the opening of the container is provided for and undetectable tampering therewith prevented, affords considerable advantages, especially where there is a risk of the contents being abstracted and substituted by materials of a quality different from that originally packed.

Having described my invention I declare that what I claim and desire to secure by Letters Patent is:—

The combination with a container having a substantially flat top with an opening surrounded by an upstanding flange, of a two-part closure for said opening comprising a channel-shaped outer member the outer limb of which is fitted over and permanently secured to the said upstanding flange, and an inner inverted cap-shaped member the upstanding flange of which is fitted solely by frictional engagement within the flange surrounding the container opening and over the inner limb of the channel-shaped outer member so as to be slidable between said flange and limb towards the interior of the container.

RUPERT EVELYN LAW WARBURTON.