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A. J. CHAMBERLAIN

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CLOSURE FOR CONTAINERS

Filed Sept. 30, 1929

Fig. 1

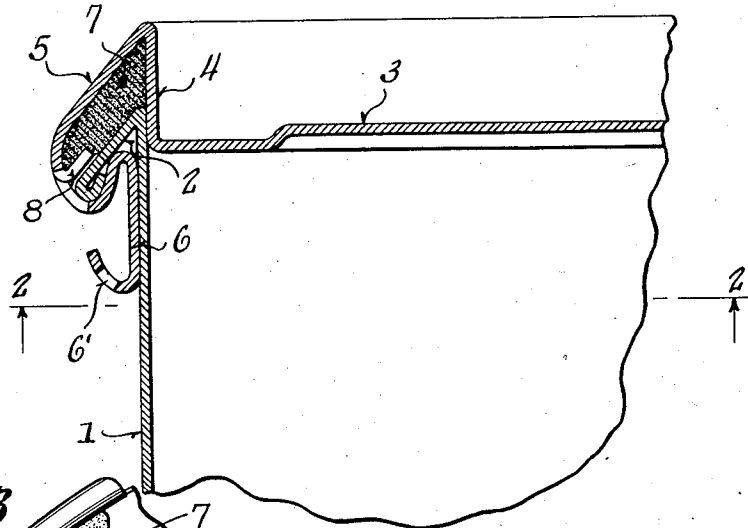


Fig. 3

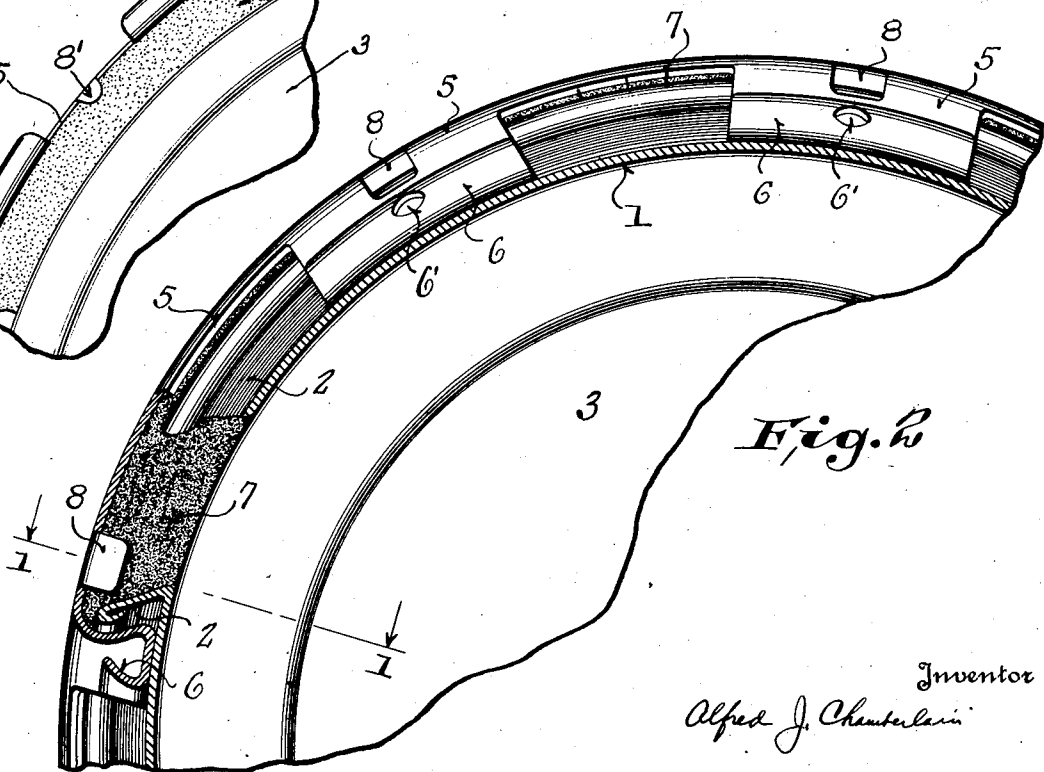
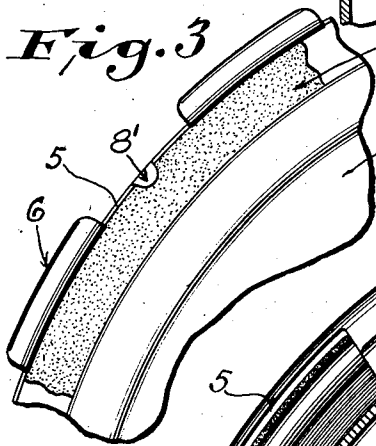


Fig. 2

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CLOSURE FOR CONTAINERS

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This invention relates in general to closures for containers and more particularly to that type of closure which employs a gasket compressed between parts of the container and closure when the closure is applied whereby to provide a fluid tight seal.

One of the principal objects of the present invention is to provide a closure of this character wherein the gasket is organized in a novel manner with the closure so as to avoid the use of cement and the same time more positively secure the gasket in position.

In connection with closures of this type it has been proposed to secure the gasket to the flange of the cover or closure by cement, but this has not been found satisfactory because the cement will discolor or otherwise impair the chemical products packaged in the container and also because the cement is dissolved or broken down by the contents of the container thus permitting the gasket to become loose and displaced or lost when the cover is removed.

With the present invention even after the closure has been removed from the container the gasket is positively held in proper position so that the container may be resealed without recementing the gasket or taking any other steps to secure the same in proper position on the closure.

In general, the present invention greatly facilitates the application of the closure in liquid tight relation to the container and eliminates much labor, difficulty and annoyance heretofore incurred. Further, the present invention lessens the first cost of the container and closure.

Other objects and advantages reside in certain novel features of the construction, arrangement and combination of parts which will be hereinafter more fully described and particularly pointed out in the appended claims, reference being had to the accompanying drawing forming a part of this specification, and in which:

Figure 1 is a fragmentary sectional view taken on line 1—1 of Figure 2;

Figure 2 is a fragmentary sectional view taken on line 2—2 of Figure 1, with parts broken away for the sake of illustration; and

Figure 3 is a fragmentary view in bottom plan showing another form of the invention.

Referring to the drawing, the numeral 1 designates generally the body of a container which may be of any suitable construction and which is shown as having an outwardly and downwardly inclined flange 2 around its upper open end, the flange 2 providing a gasket seat. A closure designated at 3 is provided for the container and has a rim 4 formed with an outwardly and downwardly inclined flange 5. At spaced points about its circumference, the flange 5 has integrally formed therewith bendable sealing lugs 6. When the closure is applied to the container a gasket 7 is interposed between the flanges 2 and 5 so that when the lugs 6 are bent up under the flange 2 as clearly shown in Figure 1 the gasket 7 is compressed between the flanges 5 and 2 to afford a liquid tight seal.

The present invention proposes to secure the gasket 7 to the flange 5 and for this purpose, retaining lugs 8 are struck out of the metal of the flange 5 adjacent the sealing lugs 6, the lugs 8 being deflected or depressed inwardly and being imbedded in the gasket to secure the same in position. Any suitable number of lugs 8 are provided, but preferably there is a retaining lug 8 for each sealing or clinching lug 6. It is to be noted that, even where the lugs 8 are struck out of the metal containing the clinching lugs 6 to the flange 5, the bending of lugs 6 does not affect the action of the retaining lugs or clips 8.

With this construction whenever the closure is applied to the container the gasket 7 is properly positioned for compression between the flanges 5 and 2. The means employed for holding the gasket in position is not affected by the contents of the container and will not impair their quality or character in any respect. The application or removal of the closure from the container does not impair the function of the retaining lugs 8 and these lugs by holding the gasket 7 in position during removal protect the gasket so that resealing may be effected without giving the gasket any further attention. It is to be noted that the lugs 6 have apertured hook-like extensions 6' to facilitate prying

out of the lugs 6 and removal of the closure.

Referring to Fig. 3, the gasket retaining lugs are designated at 8' and are in all respects similar to the retaining lugs 8 of Figures 1 and 2 except that they are positioned in between the sealing lugs 8 and are formed as integral extensions of the flange 5 instead of being struck from the metal connecting the sealing lugs 6 and flange 5 as in the other embodiment of the invention. The lugs 8' operate in the same manner and have the same advantages as the lugs 8.

The invention claimed is:

1. The combination with a container having an outwardly extending surrounding flange at its upper end, of a closure for the container having its marginal portion formed to provide a flange to overlie the container flange and extend toward the outer edge thereof on applying the closure to the container, a gasket to be compressed between said flanges, bendable lugs connected with the closure flange and extending below the same to be bent under the container flange for locking the closure to the container and compressing the gasket between said flanges, and gasket retainer clips connected with the closure flange and extending into the space between said flanges for connecting the gasket to the closure and for holding the gasket at all times in position for compression between said flanges on locking the closure to the container.

2. The combination with a container having an outwardly extending downwardly inclined surrounding flange at its upper end, of a closure for the container having its marginal portion formed to provide a complimentary flange to overlie the container flange and extend toward the outer edge thereof on applying the closure to the container, a gasket to be compressed between said flanges, bendable lugs connected with the closure flanges and extending below the same to be bent under the container flange for locking the closure to the container and compressing the gasket between said flanges, and gasket retainer clips pressed out of the portion of the closure flange above the lugs and extending into the space between said flanges for connecting the gasket to the closure and for holding the gasket at all times in position for compression between said flanges on locking the closure on the container.

3. The combination with a container having an outwardly extending surrounding flange at its upper end, of a closure for the container having its marginal portion formed to provide a flange to overlie the container flange and extend toward the outer edge thereof on applying the closure to the container, a gasket to be compressed between said flanges, spaced bendable lugs connected with the closure flange and extending below the same to be bent under the container flange for

locking the closure to the container and compressing the gasket between said flanges, and gasket retainer clips connected with the closure flange between the lugs and extending into the space between said flanges for connecting the gasket to the closure and for holding the gasket at all times in position for compression between said flanges on locking the closure to the container.

4. In a container closure having an annular gasket-seating flange cooperable with a similar flange on a container, bendable closure securing lugs carried by the closure and cooperable with the flange of the container to compress a sealing gasket between said flanges, and a gasket for the closure, the combination with said gasket of gasket-securing lugs carried by the said closure and clamping said gasket firmly against the flange of the closure, said gasket-securing lugs being positioned above the circumferential line of bend of the closure-securing lugs as defined by the outer edge of the container flange so as to extend into the space between the flanges of the container and closure and overlie the flange of the container when the closure is in place thereon, whereby the holding action of the gasket-securing lugs is unaffected by the bending of the closure-securing lug into and out of clamping relation with the flange of the closure.

5. In a container closure having an annular gasket-seating flange cooperable with a similar flange on a container, spaced bendable closure-securing lugs carried by the closure and cooperable with the flange of the container to compress a sealing gasket between said flanges, and a gasket for the closure, the combination with said gasket of gasket-securing lugs carried by the said closure and clamping said gasket firmly against the flange of the closure, said gasket-securing lugs being positioned between the closure-securing lugs and above the circumferential line of bend of the closure-securing lugs as defined by the outer edge of the container flange so as to extend into the space between the flanges of the container and closure and overlie the flange of the container when the closure is in place thereon, whereby the holding action of the gasket-securing lugs is unaffected by the bending of the closure-securing lug into and out of clamping relation with the flange of the closure.

6. In a container closure having an annular gasket-seating flange cooperable with a similar flange on a container, bendable closure-securing lugs carried by the closure and cooperable with the flange of the container to compress a sealing gasket between said flanges, and a gasket for the closure, the combination with said gasket of gasket-securing lugs carried by the said closure and clamping said gasket firmly against the flange of the closure, said gasket-securing lugs being posi-

tioned in substantial axial alignment with
the closure securing lugs and above the cir-
cumferential line of bend of the closure-se-
curing lugs as defined by the outer edge of
5 the container flange so as to extend into the
space between the flanges of the container
and closure and overlie the flange of the con-
tainer when the closure is in place thereon,
whereby the holding action of the gasket-
10 securing lugs is unaffected by the bending
of the closure-securing lug into and out of
clamping relation with the flange of the
closure.

In witness whereof, I hereto affix my signa-
15 ture.

ALFRED J. CHAMBERLAIN.

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