

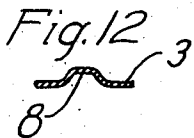
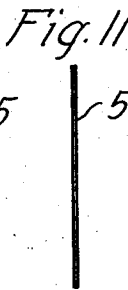
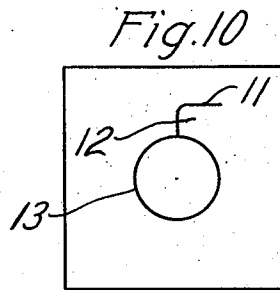
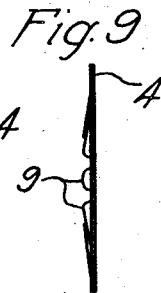
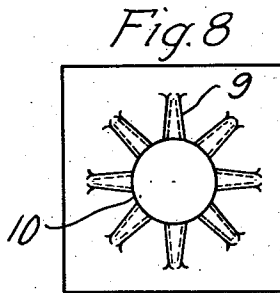
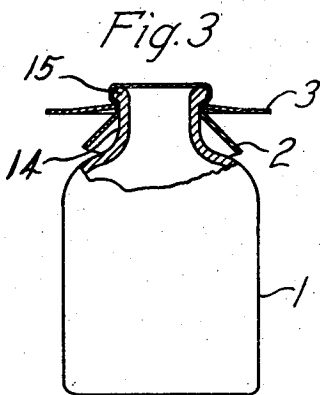
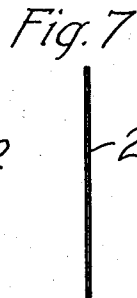
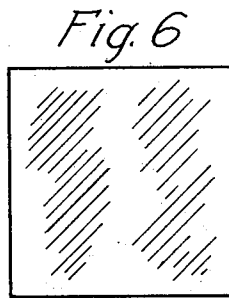
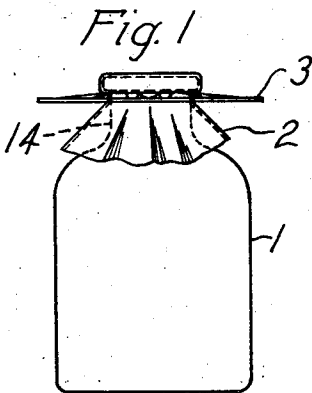
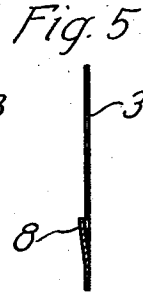
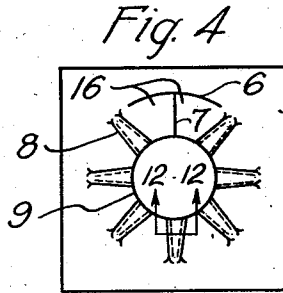
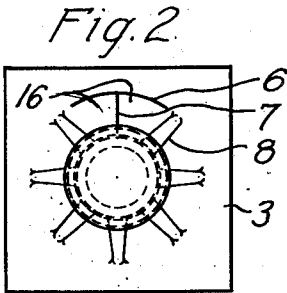
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R. W. HOAG

2,406,331

CONTAINER AND CLOSURE

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INVENTOR.

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UNITED STATES PATENT OFFICE

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CONTAINER AND CLOSURE

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2 Claims. (Cl. 215—95)

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My invention relates to containers and closures therefor, and has particular reference to the production of an inexpensive, sanitary closure for bottles and other containers.

My improved container closure is particularly adapted for use in hospitals and homes for closing nursery milk bottles to protect the contents until ready for use. It is to be understood, however, that my improved closure is intended for universal use for closing bottles and other receptacles.

In the preferred embodiment of my invention the container closure is composed of a cover element of flexible paper, foil, Cellophane or other suitable material, and a flat collar element of relatively stiff paperboard or like material having an annular opening therein the edges of which serve to frictionally hold the cover element to the mouth of a container.

One object of my invention is to provide a simple, inexpensive closure for containers.

Another object of my invention is to provide a container closure that is tighter and more secure than the frictionally secured, cellulosic container closures now in use.

With said objects in view, and others hereinafter explained, my invention consists in the container with closure as hereinafter described and claimed.

Of the accompanying drawing:

Fig. 1 is an elevation of the container with the closure in position closing the mouth of the container.

Fig. 2 is a plan view of Fig. 1.

Fig. 3 is a section through the container closure and the neck of the container.

Fig. 4 is a plan view of the closure collar.

Fig. 5 is a vertical section through the center of the closure collar shown in Fig. 4.

Fig. 6 is a plan view of the closure cover element.

Fig. 7 is an edge view of Fig. 6.

Fig. 8 is a modified form of my invention wherein there is no cut extending from the central opening.

Fig. 9 is an edge view of Fig. 8.

Fig. 10 is another modified form of my invention.

Fig. 11 is an edge view of Fig. 10.

Fig. 12 is a section at 12—12 of Fig. 4.

Similar reference characters indicate similar parts or features in all of the views.

Referring to Figs. 1, 2 and 3, the container 1 has a neck portion 14 for dispensing the contents of the container. An annular bead 15 is usually provided at the upper portion of the neck of the

container. It is not necessary that the container be of any particular construction, so long as there is an area around the mouth of the opening to which the cover element may be secured by an exteriorly positioned collar.

The cover element 2 is preferably made of flexible sheet material such as paper, foil, or cellulosic material. It may be made to any desired shape and dimensions. It will be obvious that if the cover is of more than ample proportions, it will be easily held in place while the collar is being pressed over the cover to close the container.

The collar 3 (Fig. 4) may be made of any desired material such as paper, paperboard, or the like. For most purposes, paper or paperboard has been found to be adequate.

The collars 3 are in practice produced by automatic machinery, a web of material being drawn from a roll and cut, punched and creased to provide finished collars. In some cases a printing unit is provided to print or impress any desired indicia on the collars for advertising or instructional purposes.

In using this improved container closure, the cover element 2 is first laid over the mouth and neck of the container. The collar 3 is then superimposed over the cover element 2 and manipulated and forced downward over the exterior circumference of the neck of the container. The collar is then adjusted to make certain that the circumference of the opening 9 fits tightly to frictionally secure the downwardly extending portions of the cover element 2 to the neck of the container.

The cuts 7 and 6 provide two flaps 16. In assembling the cover element 2 and the collar 3 to the container, these flaps bend upwardly to permit the collar opening to expand sufficiently to allow the collar 3 to pass over the bead 15 of the container. When the collar is in place the flaps 16 are brought into position parallel with the main portion of the collar.

The creases or ribs 8 (Figs. 2, 4, 5 and 12) radially extending from the opening 9, are formed by pressing the collar between dies which stretch and press the collar 3 to form the said ribs 8. These ribs 8 aid greatly in permitting the expansion of the opening 9 as the collar is pressed over the mouth of the container. The said ribs 8 also tend to bring the opening 9 back to substantially the diameter of the opening before the collar was applied to the container.

Figs. 8 and 9 represent a modified form of collar 4 wherein the cuts 6 and 7 of the collar shown in Figs. 4 and 5 are omitted. This em-

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bodiment is adapted for use in cases where the bead on the neck of the container is very slightly larger than the exterior diameter of the neck of the container. The ribs 9 (Figs. 8 and 9) serve to permit the expansion of opening 10 to allow the collar to pass over the bead 15 on the neck of the container, without tearing the collar.

Figs. 10 and 11 represent another modified form of collar 5. This embodiment is similar to the collar shown in Figs. 4 and 5 except that ribs 8 and part of cut 6 are omitted. There is a single cut 11 (Fig. 10) extending from the opening 13 and curved to form a single flap 12.

My invention is not limited to the embodiments herein shown and described, its scope being set forth in the appended claims.

Having now described my invention, what I claim is:

1. In combination, a container having a neck with an annular, exteriorly positioned bead, and a closure for the container, the said closure comprising a cover element and a substantially flat collar for frictionally holding the cover element over the neck of the container, the said cover element comprising a foldable, flexible cellulosic

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sheet wrapped over the neck of the container, the said collar made from a flat sheet of paperboard and having a central opening smaller than the annular bead on the neck of the container and having a plurality of radially directed ribs extending outwardly from said central opening, and a single radially directed cut extending outwardly from the said central opening, and a cut extending at substantially right angles from the radially directed cut.

2. A container in combination with a closure therefor which comprises a flexible cover element frictionally secured to the said container by an annular, substantially flat collar made from a flat sheet of resilient material and having a central opening and a plurality of radially directed ribs extending outwardly from said central opening and a single cut extending outwardly from the said central opening, and within the outer perimeter of the collar, another cut intersected by the cut extending from the central opening, said collar being positioned with the central portion of the cover element projecting through the central opening in the collar.

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