Dec. 6, 1966 J. L. CLARK 3,289,723

CLOSURE CONSTRUCTION FOR A FLEXIBLE CONTAINER

Filed March 9, 1964

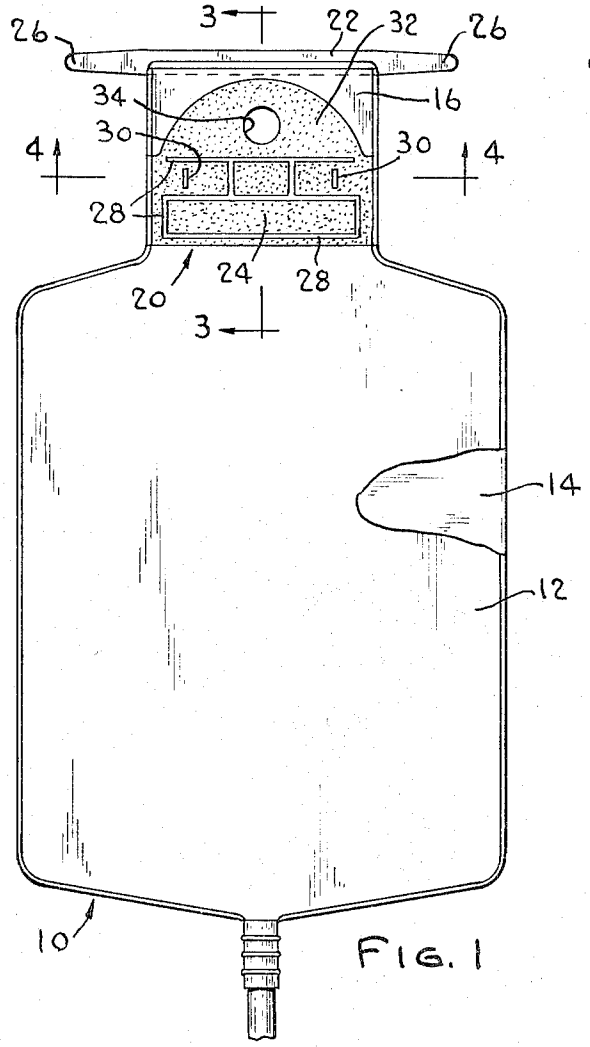


FIG. 1

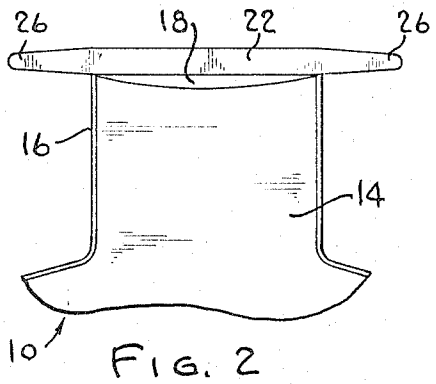


FIG. 2

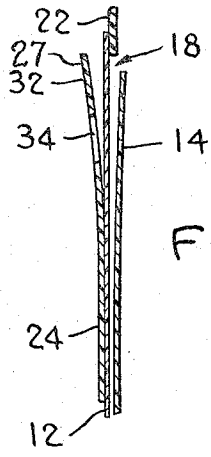


FIG. 3

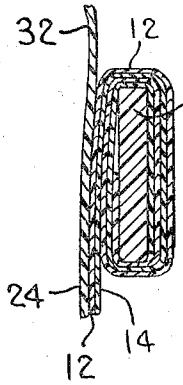


FIG. 5

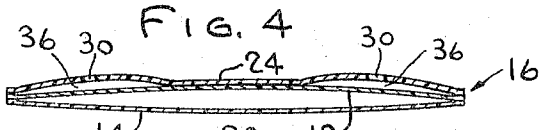


FIG. 4

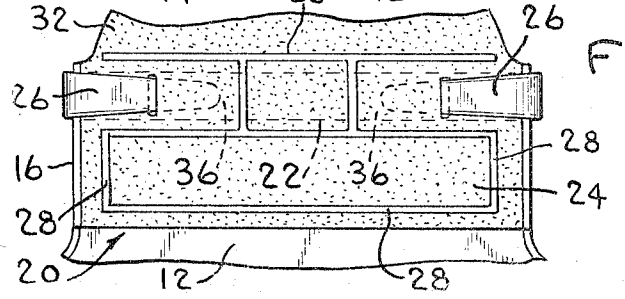


FIG. 6

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# CLOSURE CONSTRUCTION FOR A FLEXIBLE CONTAINER

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1 Claim. (Cl. 150—7)

This invention relates to an improved closure construction for a flexible container.

The object of this invention is to provide a closure construction which is simple and relatively inexpensive to manufacture, is easy to operate and is effective to seal the container opening under normal conditions of use.

Other objects and advantages will be pointed out in, or be apparent from the specification and claim, as will obvious modifications of the single embodiment shown in the drawings, in which:

FIG. 1 is a front elevation view of a flexible container equipped with a closure construction of this invention with parts broken away;

FIG. 2 is a fragmentary rear elevation view of the upper portion of the container shown in FIG. 1;

FIGS. 3 and 4 are sectional views taken along lines 3—3 and 4—4, respectively, of FIG. 1;

FIG. 5 is a sectional view similar to FIG. 3 but with the parts in closed position; and

FIG. 6 is a fragmentary front elevation view showing the container in closed position.

Referring to the drawings, FIGS. 1 and 2 show a flexible container 10 having front and rear walls 12 and 14 (sealed to each other along the edges thereof) and neck portion 16 formed therein and provided with a top opening 18.

The closure construction of this invention is designated generally by a reference numeral 20 and is comprised of a locking member or bar 22 and a holding strip 24. Locking member 22 is secured to the front wall 12 of neck portion 16 adjacent opening 18 by welding or other suitable means and has end portions 26, 26 which extend outwardly on each side of opening 18. As clearly shown in FIG. 3, locking bar 22 is secured to the portion 27 of front wall 12 which extends beyond the edge of rear way 14 at opening 18.

Holding strip 24 is also secured to the front wall 12 of neck portion 16 by welding or other suitable method along the lines indicated by numeral 28. Strip 24 is provided with a pair of slots 30, 30 adapted to accommodate the end portions 26, 26 of locking member 22, as will be described hereinafter. Strip 24 is also provided with a hanging flap 32 having an opening 34 therein for supporting bag 10 when in use.

Strip 24 as well as walls 12 and 14 of bag 10 are made from a soft flexible plastic material such as polyvinyl chloride sheet. Locking member 22 on the other hand, while also made from a somewhat flexible plastic material, is preferably quite stiff and is thus made from thicker, less flexible plastic material. Thus, while locking member 22 is preferably made from polyvinyl chloride, it is of a thicker and stiffer type than is used for holding strip 24 and walls 12 and 14 of bag 10.

With the parts in open position as shown in FIG. 3 the bag is closed by folding bar 22 in a clockwise direction (as viewed in FIG. 3) to thus cause the material of neck portion 16 to be wrapped snugly around the bar as shown in FIG. 5. Bar 22 in the preferred embodiment is folded four times which will position it in alignment

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with slots 30, 30 in holding strip 24. With the parts so positioned the bag is locked in its closed position by bending the ends 26, 26 of bar 22 around to the front of the bag as shown in FIG. 6, and then inserting such ends into slots 30, 30 as shown.

As shown in FIGS. 4 and 6, the weld areas 28 between strip 24 and front wall 12 of the bag are configured to produce a pair of confined spaces 36, 36 adjacent slots 30, 30 into which the ends 26, 26 of bar 22 will extend when the parts are in closed position. Such confined spaces 36, 36 serve to maintain bar 22 securely in locked position. With the parts in locked position a fluid seal is provided which will be maintained for example when a filled bag is laid on its side. Repeated opening and closing of the bag can be accomplished with the closure structure of this invention. If, after the bag is closed, it is desired to add further liquid, for example, the parts are simply opened to the FIG. 1 position, the liquid added, and the locking bar is again folded to locking position and the ends thereof inserted into slots 30, 30.

Although but one embodiment of the present invention has been illustrated and described, it will be apparent to those skilled in the art that various changes and modifications may be made therein without departing from the spirit of the invention or from the scope of the appended claim.

I claim:

Closure means for a flexible container comprising:

a neck portion formed in the container and having a front and a rear wall and an opening therein, one wall of said neck portion extending beyond the edge of the other wall at the opening;

a lock bar member mounted on the portion of said one wall which extends beyond the edge of said other wall, said lock bar member being of a relatively stiff bendable material and having ends which extend outwardly from the side edges of said neck portion; and

a holding means mounted on said one wall of said neck portion and positioned to retain the bent ends of said lock bar after said bar has been folded a plurality of times to a closed position whereby the material of the neck portion is folded snugly therearound to seal the opening, said holding means including a strip of plastic material fastened to said one wall of said neck portion and having a pair of slots therein through which the ends of said lock bar extend when said lock bar has been folded and bent to closed position, said strip having a hanging flap integral therewith at the top portion thereof which will extend upwardly beyond the container when the lock bar is folded to a closed position.

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