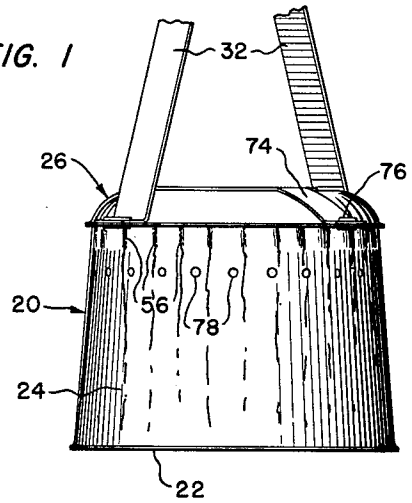
Nov. 24, 1964 J. J. ESTY 3,158,188

COLLAPSIBLE CONTAINER

Filed April 17, 1961

FIG. 1



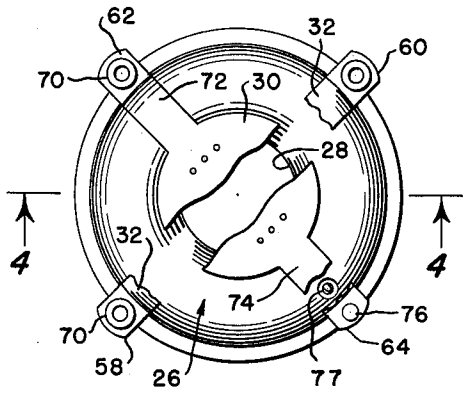


FIG. 2

FIG. 3

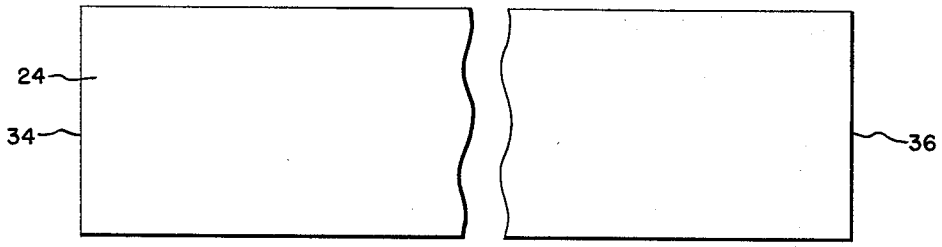


FIG. 4

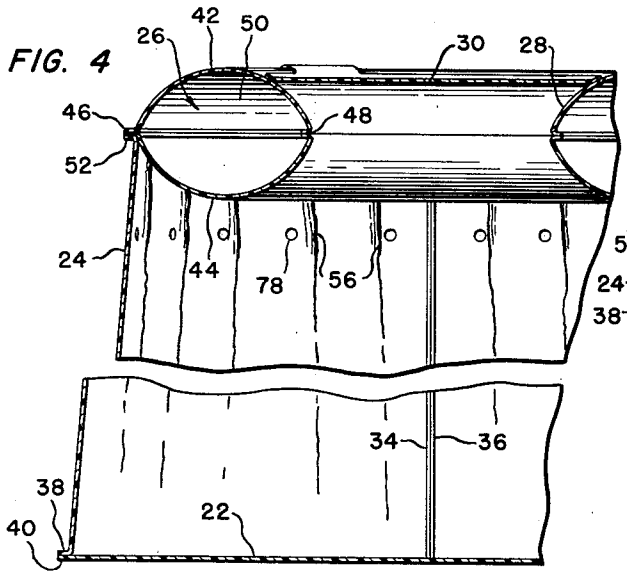
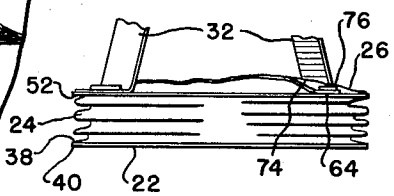


FIG. 5



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COLLAPSIBLE CONTAINER

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4 Claims. (Cl. 150—48)

The present invention relates to collapsible containers, such as collapsible buckets formed of flexible material.

The container of the present invention comprises a bottom wall, a top which is formed preferably of two sheets of material having an opening therethrough, which top is adapted to be inflated with gas, such as air. The container also includes a flexible side wall having substantially the same circumferential length throughout the entire height thereof. The circumferential lengths of the bottom wall and the top, when the top is deflated, are substantialy the same as the circumferential length of the side wall. When, however, the top is inflated, the circumferential length of the top is shortened, and therefore, when the top is inflated the periphery thereof lies inwardly of the periphery of the bottom wall.

The advantages of the present invention will be apparent from the following description, reference being had to the accompanying drawing wherein a preferred embodiment of the invention is illustrated.

In the drawings:

FIG. 1 is a side view of the container in its non-collapsed position.

FIG. 2 is a top plan view of the container shown in FIG. 1, part of the cover being broken away to show part of the opening in the top.

FIG. 3 is a side view of the sheet from which the side wall of the container is formed.

FIG. 4 is a fragmentary sectional view taken on line 4—4 of FIG. 2, but on a larger scale.

FIG. 5 is a side view of the container in its collapsed position.

Referring now more in detail to the drawing, the container is shown at **20** in the form of a bucket, such as a live bait bucket. It comprises generally a bottom wall **22**, a side wall **24**, a top **26** having an opening **28** therethrough; this opening is closed by a cover **30**; the bucket is provided with a flexible carrying strap **32**.

More specifically, the bottom wall **22** may be formed of either a stiff sheet of suitable material such as plastic but is preferably formed of thin flexible plastic. The side wall **24** and the top are also formed of a thin flexible plastic. As is seen more clearly from FIG. 3, the side wall **24** comprises a single sheet of flexible material having the same height throughout the entire length thereof. The ends **34** and **36** are joined with one another in any suitable manner as by welding to form an endless side wall.

The bottom edge **38** of this side wall **24** is suitably joined to the peripheral edge **40** of the bottom wall **22**, preferably by welding.

The top **26** is formed of two normally flat sheets of thin flexible plastic material **42** and **44**. The periphery edges of these sheets are suitably joined with one another as at **46** and preferably by welding. These sheets are ring shaped to form the opening **28**. The entire edges of these sheets are suitably joined with one another as at **48** and preferably by welding.

The space **50** between these sheets may be inflated through an air valve **76**, and, when the container is of

the circular type, the top **26** is substantially in the shape of a doughnut. When the top is inflated, as is more clearly shown in FIG. 4, the circumferential length of the top is decreased inherently, and obviously, when the top is inflated, the upper edge of the side wall **24** will be pulled inwardly since the periphery of the lower sheet **44** is joined, as by welding, to the upper edge **52** of the side wall **24**. The upper edge of the side wall **24** will be wrinkled somewhat, the wrinkles being shown at **56**.

It will be understood that all welded joins will form hermetical seals.

The sheets **42** and **44** are formed with four integrally formed, outwardly extending tabs **58**, **60**, **62** and **64**. The flexible strap **32** has its ends secured to tabs **58** and **60** as by rivets. The cover **30** is provided with integral straps **72** and **74**. Strap **72** is connected to the tab **62** by a rivet **70** and the strap **74** is connected to the tab **64** by a resilient type button fastener **76**.

Preferably the bucket or container is made generally cylindrical. When used as a live bait bucket, it is preferably provided with a series of holes **78** in the upper part of the side wall **24** for the ingress and egress of water, whereby fresh water is continuously supplied to the interior of the bucket. When the top is inflated, the bucket floats on water.

The wrinkles extend from the extreme top of the side wall and gradually diminish near the bottom. Obviously, they being at substantilly right angles to the direction of collapsibility, the side wall resists such collapsing. Thus the material of the side wall may be relatively thin with respect to the side wall not having vertically extending wrinkles. The material is of such thickness, and composition that, with the aid of the resistance to collapsing offered by the wrinkles, the side wall is inherently stable, that is, it supports the top with only slight lowering of the top even when the bucket is empty.

By virtue of the present invention, the side wall can be formed from a true rectangular piece of material. The top and bottom are in strict parallel relationship, yet there has been provided an upwardly inwardly tapering bucket.

It will be observed from FIGS. 1, and 2 that when the top **26** is inflated, the periphery thereof lies inwardly of the periphery of the bottom wall, that is, a bucket is tapered inwardly, upwardly. Such tapering materially enhances the stability of the flexible bucket when the bucket contains, for example water and when it is resting directly on the bottom wall **22** thereof. In fact, the tapered bucket is substantially inherently stable when filled with water and while resting on the bottom thereof.

While the form of embodiment herein shown and described constituted preferred form, it is to be understood that other forms may be adopted falling within the scope of the claims that follow.

I claim:

1. An upwardly-inwardly tapering, inherently stable and collapsible container comprising in combination, a bottom wall; a circumferentially endless side wall of flexible material; a closed hollow top of flexible material having an opening extending therethrough and joined with the upper edge of the side wall; and a valve in the top for the ingress of air, said hollow top being so shaped that the inflation thereof causes a reduction in the width of the top and the formation of substantially vertical

wrinkles in said side wall, the material of the side wall having substantially the same circumferential length throughout the entire height thereof when the top is deflated, said top and side wall having substantially the same circumferential length when the top is deflated.

2. A collapsible container as defined in claim 1, in which the bottom wall and top are substantially circular.

3. A collapsible container as defined in claim 1, in which the opening in the top is substantially centrally disposed.

4. A collapsible container as defined in claim 1, in which the opening in the top is substantially centrally disposed and in which the bottom wall and top are substantially circular.

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