Dec. 9, 1969 E. W. PENTON 3,482,729

TWO-PIECE AUXILIARY CONTAINER

Filed June 28, 1968

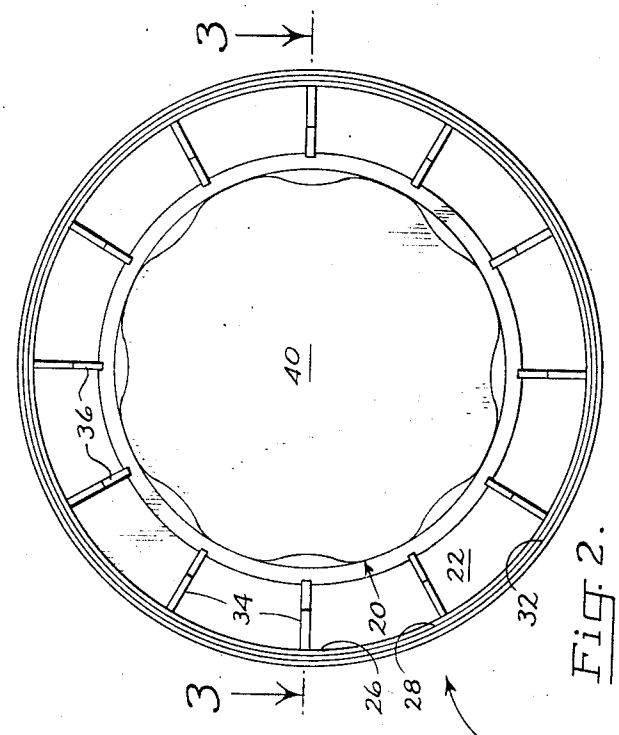


Fig. 2.

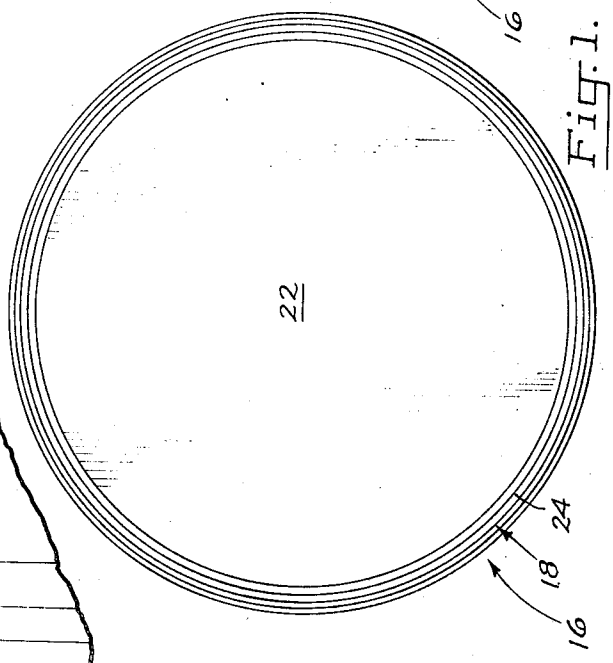


Fig. 1.

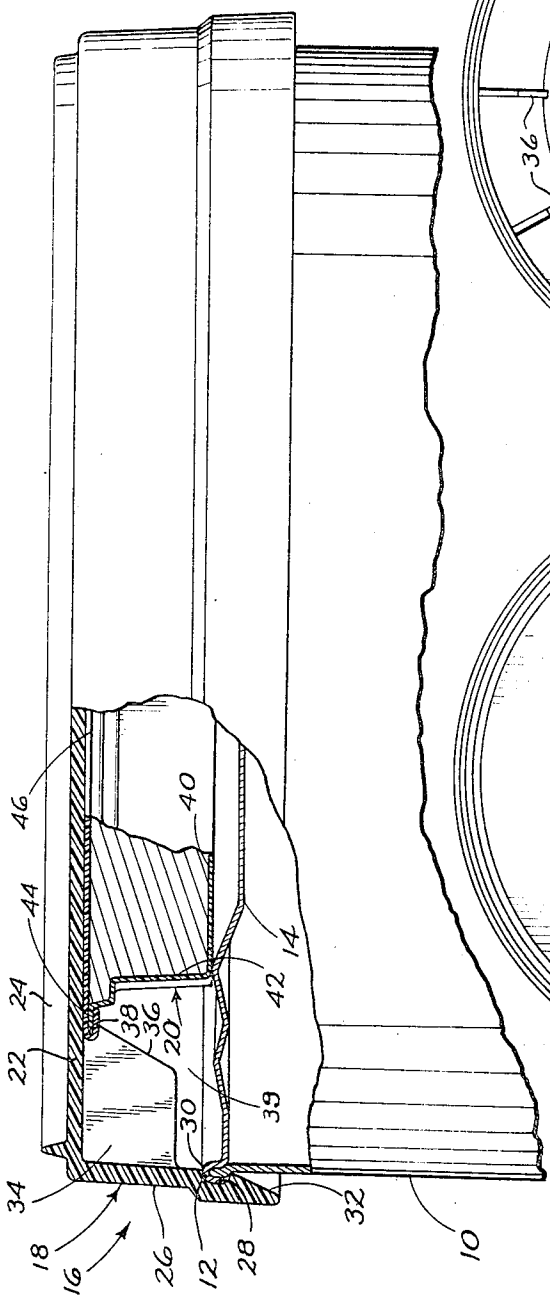


Fig. 3.

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TWO-PIECE AUXILIARY CONTAINER

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Continuation-in-part of application Ser. No. 687,908, Dec. 1, 1967. This application June 28, 1968, Ser. No. 741,080

Int. Cl. B65d 1/24, 41/16

U.S. Cl. 220—23 8 Claims

ABSTRACT OF THE DISCLOSURE

A two-piece auxiliary container comprises a top dimensioned to overlie a flanged, can-type principal container, containing a first product. The cap has means for releasably securing it to the flange, providing an inner recess. A cup is contained in the recess. It contains a second product and is provided with means releasably securing it to the cap.

This application is a continuation-in-part of the copending application of Edgar W. Penton for Auxiliary Container, Ser. No. 687,908, filed Dec. 1, 1967, now Patent No. 3,417,895.

This invention relates to two-piece auxiliary containers containing given products and adapted to be fixed releasably to principal containers holding related products.

In the aforesaid patent application of Edgar W. Penton, there are described auxiliary containers adapted to be fixed as caps to the ends of principal containers containing products related to those contained in the auxiliary containers. For example, the principal container may contain given food products, and the auxiliary container may contain sauces for such products.

In the manufacture and marketing of such container assemblies, a problem is encountered in that the cans or other principal containers to which the auxiliary containers are affixed are distributed commercially in a multiplicity of varying diameters. This means that a corresponding number of auxiliary containers must be provided, each requiring separate filling and handling apparatus and complicating the production of the assemblies correspondingly.

Another difficulty encountered is that of collapsing of the assemblies when they are stacked one upon the other on the shelves of stores in which they are sold. In some instances the weight of the superimposed assemblies is great enough to spread the side walls of the underlying units sufficiently to accomplish this destructive result.

It is a primary purpose of the present invention to provide an auxiliary container of the class described above which is formed in two parts: an outer part, or cap, which may be manufactured in a diversity of diameters corresponding to the diameter of a commercial principal container to which it is to be affixed; and an inner part, or cup, releasably secured to the first part and of standard size, fillable from a single filling apparatus, and releasably attachable to the cap.

It is a further object of the present invention to provide a two-piece auxiliary container which is of simplified construction but still sufficiently rigid to overcome the spreading and collapsing tendency characteristic of such containers when they are stacked.

Still a further object of the present invention is the provision of an auxiliary container which may be secured releasably to a principal container; which may be easily, rapidly and inexpensively produced, filled and assembled; and which is adaptable for use with a wide variety of associated products.

In the drawings:

FIG. 1 is a top plan view of the herein described two-piece auxiliary container;

FIG. 2 is a bottom plan view of the container; and

FIG. 3 is a sectional view taken along line 3—3 of FIG. 2 illustrating the construction of the container and its manner of application to the principal container.

In its broad aspect, the two-piece auxiliary container of my invention comprises a cap including a top dimensioned to overlie the flanged end of a conventional, can-type principal container. A skirt marginally is connected to the top. It extends angularly outwardly therefrom and is dimensioned to telescope over the flanged end of the principal container.

Means are provided on the skirt for engaging it with the flange in a position spaced outwardly a predetermined distance from the end of the principal container. This provides inside the cap a chamber sufficiently large to receive the second component of the auxiliary container: a cup filled with a product related to that contained in the principal container. The cup is provided with engaging means for engaging it releasably with the cap as required for filling, storage and use of the assembly.

Considering the foregoing in greater detail and with particular reference to the drawings:

As shown in FIG. 3, the auxiliary container of my invention may be attached to the end of a conventional, can-type container indicated at **10**. As is usual, the container is formed with an upstanding peripheral flange **12** at each end. It also is provided with a lid **14** of inwardly dished, stepped configuration.

The auxiliary container **16** mounted on the principal container comprises two parts: a cap, indicated generally at **18**, and a cup, indicated generally at **20**. Both of these are fabricated from a semi-rigid, container-forming material having the required degree of dimensional stability and resistance to deterioration by the agents to which it is subjected.

On the one hand, the material employed must be sufficiently rigid to retain its predetermined form. On the other hand, it should be somewhat flexible so that the parts may be assembled and applied in the desired manner. The two parts thus may be fabricated to advantage by molding them from a suitable inert, semi-rigid, plastic material such as polyethylene.

Cap **18** includes a top **22** of sufficient extent substantially to overlie the adjacent end of principal container **10**. It is formed with an upwardly extending flange **24** of slightly restricted diameter so that it will seat within the flange present on the bottom end of a stacked overlying principal container **10**, thereby enabling stacking the container assemblies on shelves on which they are to be stored.

Top **22** also is provided with a skirt **26** which extends angularly outwardly from the top, preferably at right angles thereto. The skirt is dimensioned to telescope over the flanged end of principal container **10**. Also it is provided with engaging means for engaging the flange, thereby releasably mounting the cap on the principal container.

In the illustrated form of the invention, the engaging means comprises a recess **28** of sufficient depth to contain the flange. The recess is formed with a shoulder **30**, forming its upper wall. This communicates directly with the planar, inner side wall of skirt **26**. Also, it serves as an abutment against which the upper edge of flange **12** bears.

The lower margin of skirt **26** is formed with an outwardly flared portion **32** which guides the cap over the end of the can, facilitating its application.

Cap **18** also is provided with a plurality of radially

extending ribs **34**. These preferably are anchored solidly to top **22** and skirt **26**, as by being integral therewith. They serve dual functions: That of stabilizing the cap and that of mounting cup **20**.

All of the elements of cap **18**, i.e. the top **22**, flange **24**, skirt **26**, flared terminal portion **32** of the skirt, and ribs **34** may be cast or molded integrally from the selected plastic material.

To the latter end they are provided with recesses **38** and guiding surfaces **36** which merge with the recesses so that the cup may be interengaged with the cap with facility.

Ribs **34** are of a length determined by the size of the principal container **10** on which the auxiliary container is mounted. This makes it possible to standardize the size of cup **29**, irrespective of the diameter of the principal container.

As is apparent from FIG. 3, the location of recess **28** on the skirt **26** is predetermined to maintain top **22** of the cap a spaced distance above top **14** of the can. This in turn provides a chamber **39** having a capacity sufficient to contain a cup **20** of the desired size and configuration.

Cup **20** may be molded integrally from a suitable plastic to provide a bottom **40**, a side wall **42**, and a lipped or flanged margin **44**.

Side wall **42** may be plain or fluted. Where the construction is such that bottom **40** bears against top **14** of the can in the manner shown in the drawings, fluting has the virtue of supplying the rigidity required to transmit the stacking load without collapse of the parts.

Lip **44** serves two functions. First, it serves as a support about which cup cover **46** may be bent, or to which it may be adhesively secured. Second, it serves as a support for the entire cup, since it is dimensioned to seat within recesses **38** of ribs **36**.

In the application of the herein described two-piece auxiliary container, principal container **10** is filled with a first product. Cup **20** is filled with a second product and sealed with lid **46**. The cup then is mounted within cap **18** by snapping lid **44** into place in recesses **38** of ribs **36**. This action is facilitated by the application of guiding surfaces **36** on the ribs.

The auxiliary container sub-assembly then is mounted on principal container **10** by inserting flange **12** on the latter into recess **28** on the former.

The resulting assembly is characterized by several features of the greatest significance.

First, by providing a series of caps **18**, sized for all the various commercial sizes of cans **10**, and providing in each ribs **34** of appropriate length, it is possible to standardize the size of cups **20** to a single diameter. This greatly simplifies the apparatus required for filling, handling and applying the cups, and reduces the investment and operating costs correspondingly.

Second, the assembled units may be stacked, one above the others, making use of flanges **24** on caps **18**. This conserves storage space and facilitates handling.

Third, when thus stacked, the load is supported by one or both of two bearing areas: shoulders **30** on recesses **28** of the caps which bear against flanges **12** of the cans, and by fluted side walls **42** of cups **20**, which bear against lids **14** of the cans.

Fourth, the presence of ribs **34** not only enables mounting cups **20** within the caps, but also stiffens the caps so that the construction of recesses **28** is greatly simplified. The recesses thus may be made simply in L-shaped configuration in cross section, as opposed to U-shaped, without hazard of spreading of skirt **26** and collapsing the stacked assemblies. The skirt is retained in position by ribs **36**. This in turn conserves material and makes much easier the molding of the caps.

Having thus described my invention in preferred embodiments, I claim as new and desire to protect by Letters Patent:

1. For use with a sealed, can-type principal container provided with a flange projecting from one end and adapted to contain a first product, an auxiliary container for holding a second product, the auxiliary container comprising

(a) a cap comprising

(1) a top dimensioned to overlie said one end of the first container,

(2) a skirt marginally connected to the top, extending angularly outwardly therefrom and dimensioned to telescope over said one end of the first container,

(3) flange-engaging means on the skirt for engaging the flange projecting from said one end of the first container for mounting the cap on the first container with the top of the cap spaced outwardly a predetermined distance from the end of the first container, thereby providing a recess,

(b) a cup adapted to contain a second product and having a marginal outwardly extending flange and dimensioned for reception in said recess, and

(c) interengaging means on the cap for releasably interengaging the marginal flange of the cup and the cap.

2. The auxiliary container of claim **1** wherein the top of the cap has a peripheral flange extending outwardly therefrom, the flange being dimensioned to seat within the flange of a superimposed, can-type first container.

3. The auxiliary container of claim **1** wherein the flange engaging means on the skirt comprises an internal recess dimensioned to receive the flange, the recess providing an abutment shoulder for abutting against the end of the flange which thereby affords bearing support.

4. The auxiliary container of claim **3** wherein the shoulder communicates directly with the inner side wall of the skirt and lies at substantially right angles thereto.

5. For use with a sealed, can-type principal container provided with a flange projecting from one end and adapted to contain a first product, an auxiliary container for holding a second product, the auxiliary container comprising

(a) a cap comprising

(1) a top dimensioned to overlie said one end of the first container,

(2) a skirt marginally connected to the top, extending angularly outwardly therefrom and dimensioned to telescope over said one end of the first container,

(3) flange-engaging means on the skirt for engaging the flange projecting from said one end of the first container for mounting the cap on the first container with the top of the cap spaced outwardly a predetermined distance from the end of the first container, thereby providing a recess,

(4) a plurality of radial ribs along the inner margin of the cap,

(b) a cup adapted to contain a second product and dimensioned for reception in said recess,

(c) the radial ribs interengaging the cap with the cup.

6. For use with a sealed, can-type principal container provided with a flange projecting from one end and adapted to contain a first product, an auxiliary container for holding a second product, the auxiliary container comprising

(a) a cap comprising

(1) a top dimensioned to overlie said one end of the first container,

(2) a skirt marginally connected to the top, extending angularly outwardly therefrom and dimensioned to telescope over said one end of the first container,

(3) flange-engaging means on the skirt for engaging the flange projecting from said one end

of the first container for mounting the cap on the first container with the top of the cap spaced outwardly a predetermined distance from the end of the first container, thereby providing a recess,

(4) a plurality of marginal, radially extending ribs on the inside of the cap having recesses in their inner ends,

(b) a cup adapted to contain a second product and dimensioned for reception in said recess, and

(c) a marginal outwardly extending flange on the cup dimensioend for snap reception in the recesses of the ribs.

7. The auxiliary container of claim 6 wherein the inner ends of the ribs are provided with sloping, guiding surfaces arranged to guide the cup flange into the rib recesses.

8. The auxiliary container of claim 6 wherein the ribs are integral with both the top and skirt of the cap.

References Cited

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JAMES B. MARBERT, Primary Examiner