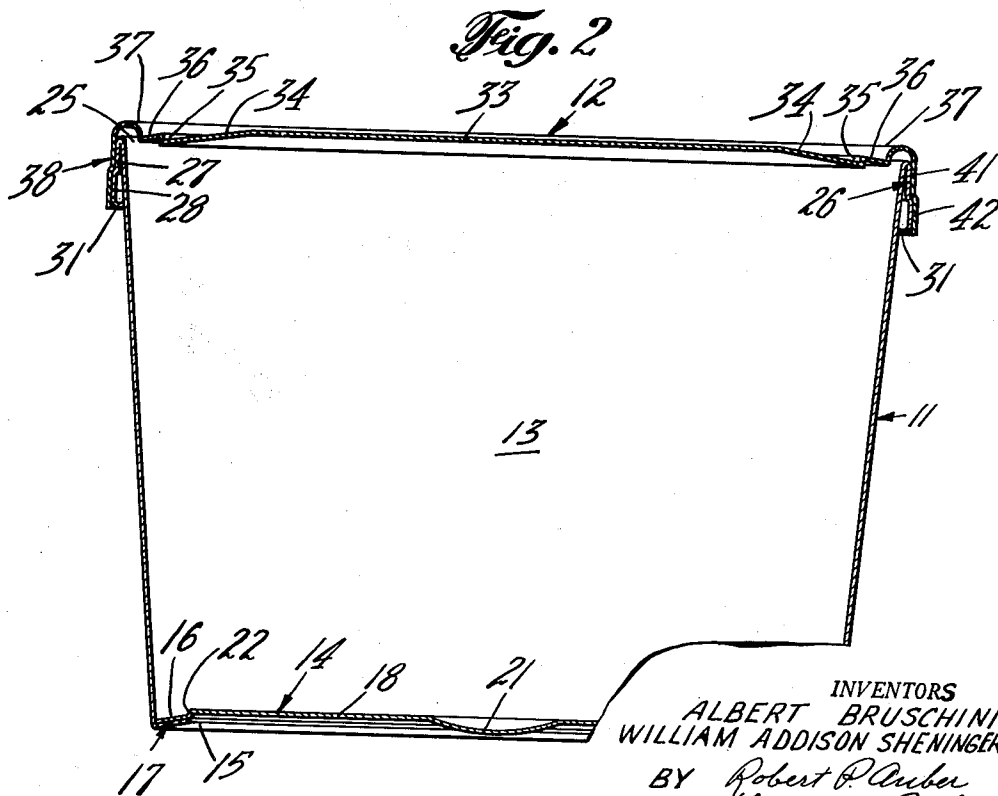
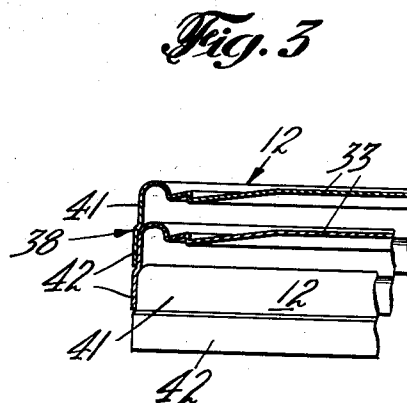
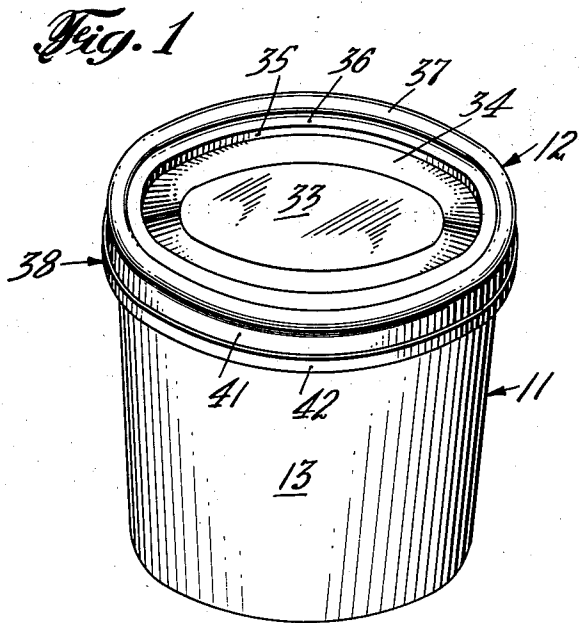


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CONTAINER AND CLOSURE THEREFOR

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CONTAINER AND CLOSURE THEREFOR

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1 Claim. (Cl. 229-43)

This invention relates to containers and more particularly to a container and to a cover therefor of the slip-on type, which cover may be applied and removed easily by hand for the application of the cover onto an outer relatively rigid, yet yieldable, friction engaging flange wall of the container.

The instant invention is directed to a container which may be formed from fibre or paperboard for the bulk shipment of products such as cottage cheese, salads, ice cream and other chilled and frozen products. The container may also be used to receive dry or semi-dry products or commodities. The cover or closure for the container may be made from sheet material such as fibre or paperboard wherein the material may be of single thickness or it may be laminated wherein a layer of plastic is interposed between sheets of paper, each layer having substantially the same thickness. Other suitable covers may be made from relatively light gauge sheet metal or from plastic material.

An object of the invention is the provision of a container having a relatively rigid, yet yieldable, friction engaging flange wall and a cover therefor which will fit securely and stay in place upon a container during shipment and storage, which is airtight and leakproof and which may be easily closed for sealing the contents and also readily removable for gaining access to the product.

Another object is the provision of such a container and a cover therefor of the slip-on type wherein the container and cover are both provided with a plurality or series of stepped friction wall surfaces which will permit assembly of the cover on the container in a loose fit in one position and when pushed to a closed position results in a relatively tight fitting closure.

A further object is the provision of a container having a tapered container body and of a cover provided with a flange having a series of stepped friction wall surfaces, which containers and covers may be nested separately in respective groups, packed in cartons for shipment and storage and which may be stacked readily in container filling and cover applying mechanisms for individual separation and feeding preparatory to filling such containers and applying covers thereto.

Numerous other objects and advantages of the invention will be apparent as it is better understood from the following description, which taken in connection with the accompanying drawing, discloses a preferred embodiment thereof.

Referring to the drawings:

FIGURE 1 is a perspective view of a container and a cover therefor embodying the instant invention, showing the cover in closed position;

FIGURE 2 is a vertical sectional view of the container and cover shown in FIGURE 1 drawn to an enlarged scale; and

FIGURE 3 is a fragmentary view with part in section showing the container covers in nested position.

As a preferred or exemplary embodiment of the instant invention, the drawing discloses a container 11 having a cover 12 in closed position thereon. The container 11 includes a tubular container body 13 which preferably is formed from fibre or paperboard and is tapered, having a bottom end member 14, also formed from fibre or paper-

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board, secured to the lower or smaller end of the container body. For the purpose of uniting these parts the container body 13 has a peripheral edge portion 15 extending inwardly and upwardly at a slightly inclined angle which engages with and is secured by a suitable adhesive to a peripheral inwardly sloping marginal edge portion 16 of the bottom end member 14 in a lapped bottom end seam joint 17.

The bottom end member 14 preferably is formed with a substantially flat panel wall 18 which has a centrally disposed outwardly domed portion 21 which is coplanar with the bottom edge of the container. Adjacent the outer peripheral edge of the bottom end member 14, the panel wall 18 merges into one end of a countersink wall 22. The opposite end of this countersink wall merges into the sloping marginal edge portion 16.

At the upper or opposite end, the container body 13 is formed to provide an open end for the container, the surrounding edge portion of which is reinforced to add rigidity at this end and also to provide a suitable seat for the reception of a cover for closing the container. Hence, the upper marginal edge portion of the container body is bent outwardly and downwardly to form an upper curved rim portion 25 at the mouth of the container and a surrounding depending flange 26 which provides at least one friction engaging wall of the container. As a preferred embodiment, however, the depending flange 26 is stepped to form a pair of friction engaging walls of different dimension. FIGURE 2 of the drawing illustrates an upper friction engaging wall 27 having a predetermined diameter and a lower friction engaging wall 28 having a slightly larger diameter.

In order to reinforce and add rigidity to the friction engaging walls 27, 28 the lower terminal edge portion of the depending flange 26 is formed into a curved inwardly extended portion 31 which engages against the container body side wall and which thus provides an outer relatively rigid, yet yieldable, friction engageable flange wall of the container.

The fibre or paperboard material used for producing the container body 13 and the bottom end member 14 above described may be treated to render this material resistant to moisture and also to heat, oil and greases if desired. Such treatment may be performed on the material before it is formed into the container parts or it may be applied after the container is in the form as shown in FIGS. 1 and 2 of the drawing.

The cover 12, like the container body 11, may also be formed from fibre or paperboard material, from laminated material, plastic or the like. When fibre or paperboard material is used it can be treated in the same manner as described above in connection with the container to render it resistant to moisture, heat, etc.

The cover 12 preferably is formed with a relatively flat central panel wall 33 which merges into a downwardly and outwardly sloping annular wall portion 34 defining an inclined recess in the cover. The wall 34 at its outer lower end merges into the bottom end of an upwardly extending countersink wall 35 and which at its upper end extends outwardly in a relatively flat annular wall portion 36. This wall portion 36 merges into a rounded circumferential rim section 37 which at its outer end extends downwardly in a depending flange wall 38, which like the depending wall 26 of the container may also provide a single friction engaging wall of the cover.

As a preferred embodiment the depending flange 38 is stepped to form a pair of friction engaging walls of different diameter, namely, an upper friction engaging wall 41 which is adapted to frictionally engage with the upper friction wall 27 of the container, and a lower friction engaging wall 42 which is adapted to frictionally engage the

lower friction wall 28 of the container when the instant cover is in fully closed position on the container.

The container and cover above described lends itself to relatively slip-fit engagement for example when the cover 12 is temporarily positioned on the container 11 in which case the lower friction engaging wall 42 engages loosely with the upper frictional engaging wall 27 of the container, which is a desirable feature of the instant container.

Due to the stepped flange wall 38 of the cover 12, the covers may be arranged in nested position as illustrated in FIG. 3 of the drawing. Similarly, the containers 11 because of the tapered body also may be arranged in nested position, one within the other, thereby conserving space in packaging, shipment and storage.

The instant container 11 with its cover 12 in fully closed positions as for example when such containers are filled with a product and closed, may be stacked readily one upon the other. This is brought about by interengaging of the bottom end of a container 11 with the inclined recess formed in the cover 12. The contour outlined by the outwardly and downwardly sloping wall portion 34 and the countersink wall 35 provides a container receiving recess wherein containers having inwardly inclined end seam joints as hereinbefore described may be placed for stacking purposes.

It is thought that the invention and many of its attendant advantages will be understood from the foregoing description and it will be apparent that various changes may be made in the form, construction, and arrangement of the parts without departing from the spirit and scope of the invention or sacrificing all of its material advantages, the form hereinbefore described being merely a preferred embodiment thereof.

We claim:

A fibre container comprising: a tapered, tubular body wall; a bottom end member at the smaller end of said wall; a cover for said container having a top panel wall and a surrounding cylindrical depending skirt, said skirt being formed with an upper portion of predetermined diameter and a lower portion of slightly larger diameter; said body wall terminating at its upper end in an outwardly and downwardly extending annular depending flange spaced from said tapered body wall and formed with upper and lower portions for frictional engagement with said upper and lower cover skirt portions respectively; the margin adjacent the free edge of said flange extending substantially horizontally inwardly toward the outer surface of said body wall with said free edge in contact with said outer surface, whereby said free edge serves both to reinforce said depending flange and to provide a fulcrum about which said flange rocks when inwardly directed pressure is applied thereto by said cover skirt so that said depending flange is provided with added resiliency.

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