United States Patent

[11] 3,587,846

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[73] Assignee **Owens-Illinois, Inc.**

[54] **CONTAINER PACKAGES**
28 Claims, 6 Drawing Figs.

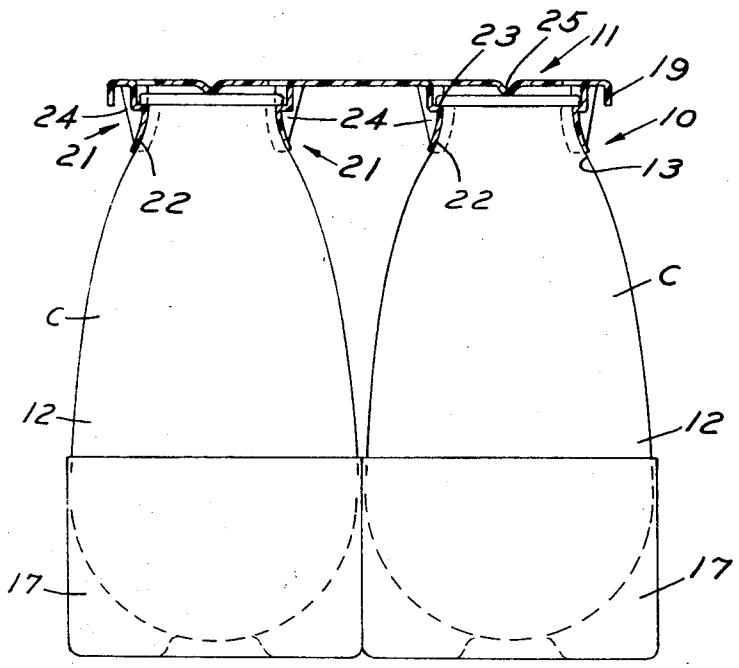
[52] **U.S. Cl.** **206/65,**
220/23.4, 294/87.2
[51] **Int. Cl.** **B65d 71/00,**
B65d 85/62, B65d 85/30
[50] **Field of Search** ..... 206/65 (C),
65 (C.T.), 65 (E); 215/1; 220/23.4; 224/45–1.5;
294/87.2

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ABSTRACT: A container package comprising a plurality of containers and a carrier. Each container includes a glass body having a bulbular lower portion and concavely curved upper portions with a peripheral lip defining a mouth that is closed by a cover having a peripheral skirt. The bulbular body portion is supported in a plastic cup that serves as a base for the container. The carrier comprises a body with portions overlying the caps and generally axially extending fingers with shoulders. The lower ends of the fingers engage the concavely curved portions of the containers and the shoulders are engaged by the free edges of the skirts of the caps.



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SHEET 1 OF 2

FIG. 1

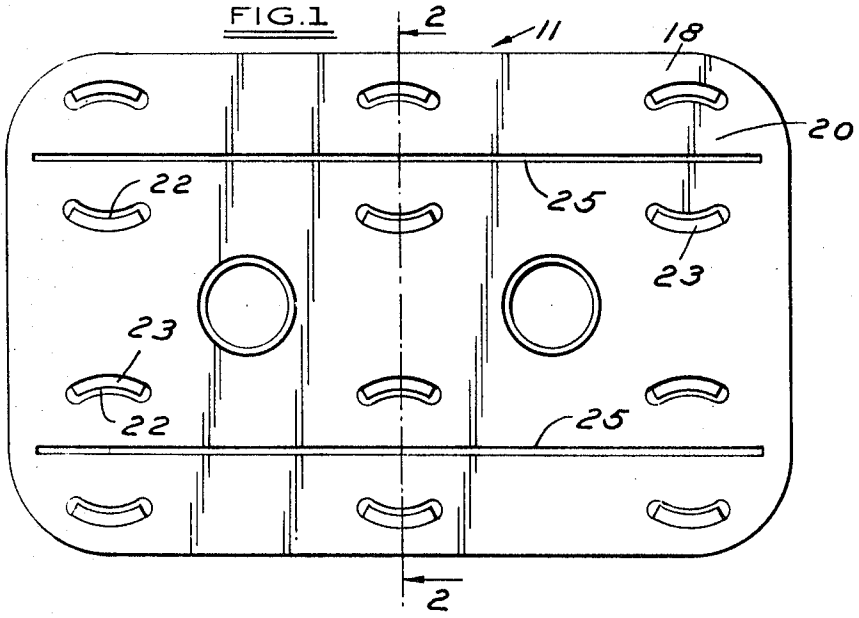


FIG. 2

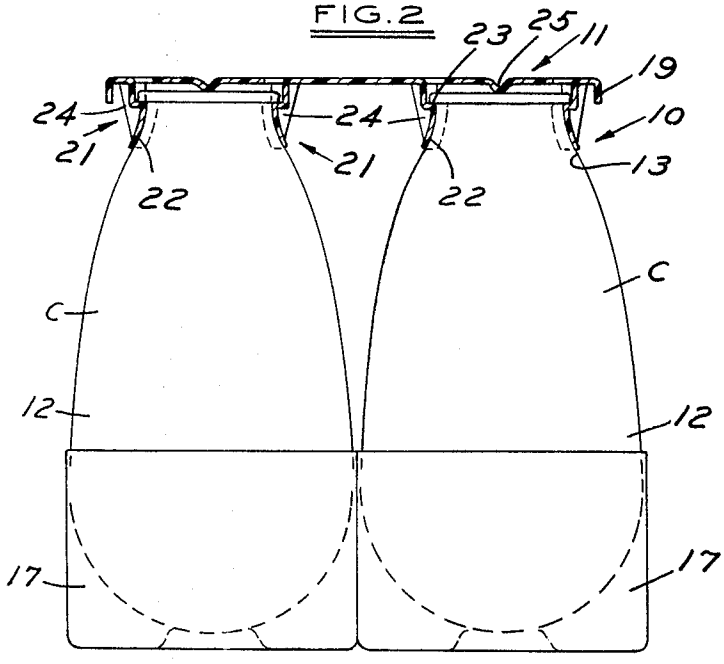
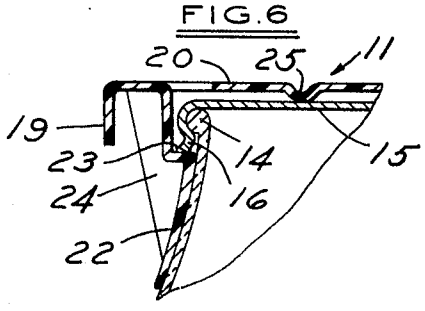


FIG. 6



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FIG. 3

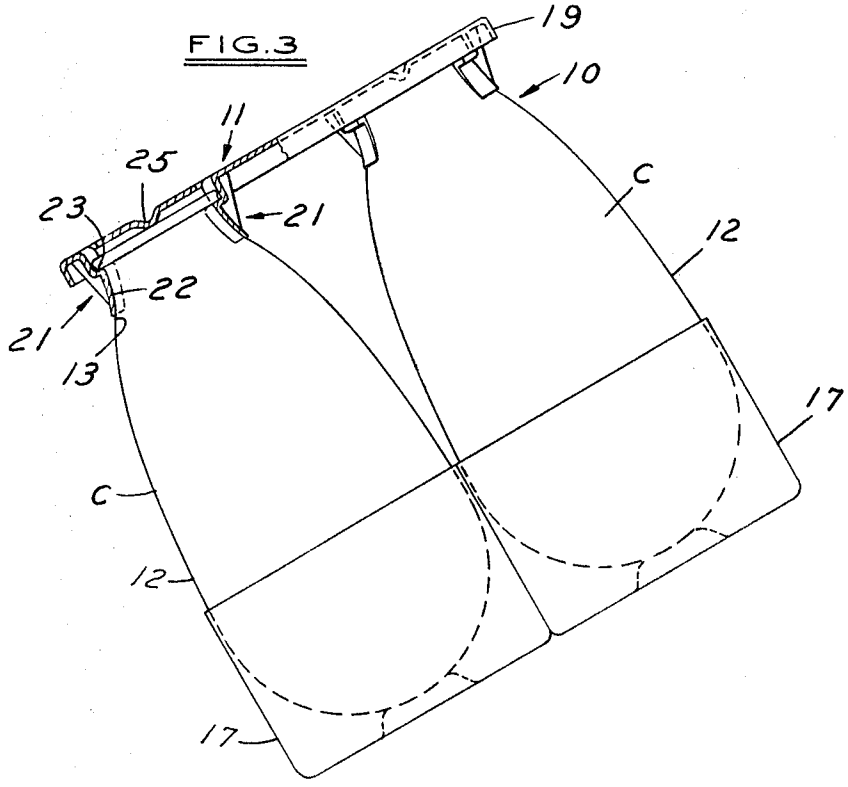


FIG. 5

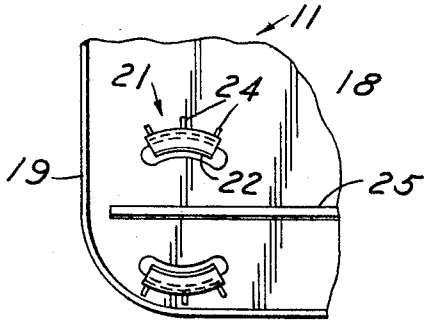
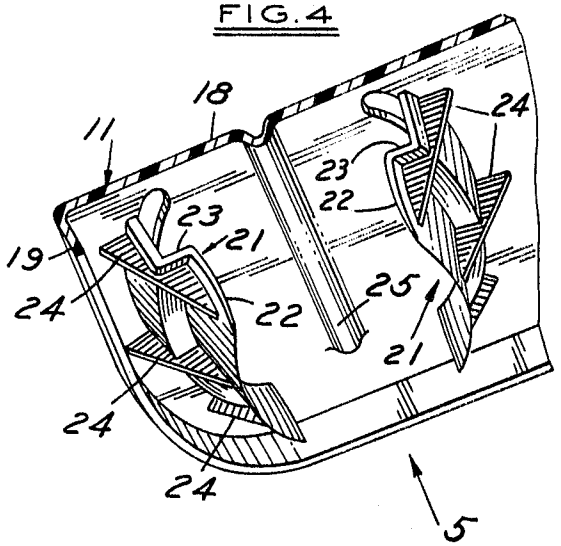


FIG. 4



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CONTAINER PACKAGES

This invention relates to container packages.

In the handling of the containers, it is convenient to utilize carriers for displaying, transporting and otherwise carrying the containers. In one type of container such as disclosed and claimed in U.S. Pat. No. 3,372,826, issued Mar. 12, 1968, the container comprises a glass body with a bulbular lower portion and a concavely curved upper portion with a peripheral lip defining a mouth. The mouth is closed by a cover having a peripheral skirt. The lower end of the bulbular portion of the glass body is secured in a plastic cup which serves as a base for the container.

Among the objects of the invention are to provide a container package incorporating the aforementioned type of containers; which package effectively holds the containers; which protects the cap; which holds the containers and prevents them from relative movement; to which advertising can be readily applied; and which package provides a ready release of the containers.

SUMMARY OF THE INVENTION

The invention comprises a container package comprising a plurality of containers and a carrier. Each container includes a glass body having a bulbular lower portion and concavely curved upper portions with a peripheral lip defining a mouth that is closed by a cover having a peripheral skirt. The bulbular body portion is supported in a plastic cup that serves as a base for the container. The carrier comprises a body with portions overlying the caps and generally axially extending fingers with shoulders, the lower ends of the fingers engage the concavely curved portions of the containers and the shoulders are engaged by the free edges of the skirts of the caps.

DESCRIPTION OF THE DRAWINGS

FIG. 1 is a plan view of a carrier embodying the invention.

FIG. 2 is a sectional view taken along the line 2–2 in FIG. 1 showing the containers in position.

FIG. 3 is a view similar to FIG. 2 showing the manner in which the containers are firmly held in the carrier.

FIG. 4 is a fragmentary perspective view of the underside of the carrier shown in FIG. 1.

FIG. 5 is a fragmentary bottom plan view of a portion of the container shown in FIG. 1.

FIG. 6 is a fragmentary sectional view on an enlarged scale of a portion of the package shown in FIG. 2.

DESCRIPTION

Referring to FIG. 2, the package 10 embodying the invention comprises a carrier 11 and a plurality of containers C. Each container C includes a bulbular lower portion 12 and a generally concavely curved upper portion 13 that defines a lip 14 which, in turn, forms the mouth of the container. A cover or cap 15 with a peripheral skirt 16 is provided and closes the upper end of each container. The lower end of the bulbular portion 12 is secured in a cuplike base 17 that holds the glass body in upright position when the base engages a horizontal surface.

Referring to FIGS. 1 and 2, the carrier 11 is made of plastic and comprises a generally flat body 18 and a peripheral skirt 19. The flat body 18 includes spaced portions 20 that are adapted to overlie the caps of the containers and spaced axially extending fingers 21. Each finger 21 includes a lower generally convexly curved portion 22 that is adapted to engage the complementary concave surface of the container and an upper portion defining a shoulder 23. The shoulder 23 is engaged by the free edge of the skirt 16 of the cap. Each finger 21 includes axially extending ribs 24 on the outer surface thereof which merge into the underside of the flat body 18.

The flat body 18 is formed with spaced longitudinally extending ribs 25, portions of which overlie the caps and engage the caps to hold the free edge of the skirts of the caps against the shoulders 23. The arcuate extent of each finger 21 is such

that the container cannot be removed by movement in a direction parallel to the plane of the body 18, preferably on the order of 45°. As shown in FIGS. 1 and 5, body 18 of carrier 11 is formed with arcuate openings 26 overlying the fingers 21 and having an arcuate extent at least as great as the shoulders 23, to facilitate molding of the carrier in one piece.

To facilitate handling, carrier 11 is formed with finger receiving openings 27. The carrier 11 is applied by axial movement onto the upper ends of the containers, the fingers flexing outwardly to clear the skirts of the caps and then radially inwardly to engage the free edges of the skirts of the caps. In this position, the carrier holds the containers in rigid relationship with the bases 17 in engagement with one another (FIGS. 2 and 3). When the carrier is tilted as shown in FIG. 3, the containers remain in their position relative to the carrier and do not hang downwardly in a fingerlike banana manner.

Carrier 11 is preferably made of plastic which has some rigidity but permits flexing and return of the fingers to their original position. A satisfactory plastic comprises linear polyethylene.

I claim:

1. A container package comprising:
a plurality of containers;
each said container comprising a glass body with a bulbular lower portion;
and a concavely curved upper portion with a mouth defined by a lip at the upper end;
a cap having a peripheral skirt closing said mouth;
and a plastic cup in which the bulbular lower portion is secured;
a carrier comprising a plastic body having a plurality of generally longitudinally and transversely spaced integral portions;
adjacent portions being relatively rigid and interconnected;
each said portion overlying a cap on the mouth of a container;
and a plurality of integral fingers extending generally axially from said body adjacent each said portion;
each said finger having a generally convexly curved container engaging portion and a shoulder above said portion;
the skirt of said cap engaging said shoulder;
each said finger being sufficiently flexible to permit flexing for insertion of a container; and
the spacing of said carrier body portions and said fingers being such that said plastic bases abut one another when said containers are in position on said carrier and maintain the axis of each container in predetermined relation to the carrier.

2. The combination set forth in claim 1 wherein said portions of said fingers have substantially the same curvature as the adjacent portions of the container.

3. The combination set forth in claim 1 wherein said fingers have an arcuate extent such that the containers cannot be removed by lateral movement in a direction generally parallel to the axis thereof.

4. The combination set forth in claim 1 wherein each said portion of said body which overlies the cap has a downwardly extending rib which engages the cap.

5. The combination set forth in claim 4 wherein said rib extends diametrically of the cap of the underlying container.

6. The combination set forth in claim 1 wherein each said finger has a plurality of axially extending reinforcing ribs on the exterior thereof.

7. The combination set forth in claim 1 including openings in said body overlying said shoulders, said openings having an arcuate extent at least as great as the arcuate extent of said shoulders.

8. The combination set forth in claim 1 wherein said body is substantially flat.

9. The combination set forth in claim 8 wherein said body has a peripheral lip extending generally axially.

10. The combination set forth in claim 1 including means for forming a handle on said carrier.

11. The combination set forth in claim 10 wherein said last-mentioned means comprises spaced finger receiving openings.

12. A carrier comprising:

a plastic body having a plurality of generally longitudinally and transversely spaced integral portions;

adjacent portions being relatively rigid and interconnected;

each said portion adapted to overlie the cap on the mouth of a container;

and a plurality of integral relatively flexible fingers extending generally axially from said body adjacent each said portion;

each said finger having a convexly curved container engaging portion and a shoulder above said portion adapted to be engaged by a surface of the container; and

each said finger being sufficiently flexible to permit flexing for insertion of a container.

13. The combination set forth in claim 12 wherein said curved portions of said fingers have substantially the same curvature as the adjacent portions of the container.

14. The combination set forth in claim 12 wherein said fingers have an arcuate extent such that the containers cannot be removed by lateral movement in a direction generally parallel to the axis thereof.

15. The combination set forth in claim 12 wherein each said portion of said body which is adapted to overlie the cap has a downwardly extending rib.

16. The combination set forth in claim 12 wherein said rib extends diametrically of the cap which it overlies.

17. The combination set forth in claim 12 wherein each said finger has a plurality of axially extending reinforcing ribs.

18. The combination set forth in claim 12 including openings is said body overlying said shoulders, said openings having an arcuate extent at least as great as the arcuate extent of said shoulders.

19. The combination set forth in claim 12 wherein said body is substantially flat.

20. The combination set forth in claim 12 wherein said body has a peripheral lip extending generally axially.

21. The combination set forth in claim 12 including means for forming a handle on said carrier.

22. The combination set forth in claim 21 wherein said last-mentioned means comprises spaced finger receiving openings.

23. For use with a plurality of containers, each said container comprising a glass body with a bulbular lower portion, and a concavely curved upper portion with a mouth defined by a lip at the upper end, a cap having a peripheral skirt closing said mouth, and a plastic cup in which the bulbular lower portion is secured, a carrier comprising:

a substantially flat plastic body having a plurality of generally longitudinally and transversely spaced integral portions;

adjacent portions being relatively rigid and interconnected;

each said portion adapted to overlie a cap on the mouth of a container;

and a plurality of integral relatively flexible fingers extending generally axially from said body adjacent each said portion;

each said finger having a generally convexly curved container engaging portion and a shoulder above said portion adapted to engage the edge of the skirt of a cap;

each said finger being sufficiently flexible to permit flexing for insertion of a container; and

the spacing of said portions of said body and said fingers being such that said plastic bases will abut one another when said containers are in position on said carrier and maintain the axis of each container in predetermined relation to the carrier.

24. The combination set forth in claim 23 wherein said body has spaced parallel ribs, portions of said ribs extending across the portions of said body which are adapted to overlie said caps.

25. The combination set forth in claim 23 wherein each said finger has a plurality of axially extending reinforcing ribs.

26. The combination set forth in claim 23 including openings in said body overlying said shoulders, said openings having an arcuate extent at least as great as the arcuate extent of said shoulders.

27. The combination set forth in claim 23 wherein said body has a peripheral lip extending generally axially.

28. The combination set forth in claim 27 wherein said body has spaced finger receiving openings.