



US 20050211712A1

(19) **United States**

(12) **Patent Application Publication**  
**Moran**

(10) **Pub. No.: US 2005/0211712 A1**

(43) **Pub. Date: Sep. 29, 2005**

(54) **CONTAINER WITH HAND-GRIPPING BANDS AND STAINLESS STEEL FLASK**

**Publication Classification**

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(51) **Int. Cl.<sup>7</sup> ..... B65D 23/00**

(52) **U.S. Cl. .... 220/592.17; 215/12.1; 220/592.25**

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(57) **ABSTRACT**

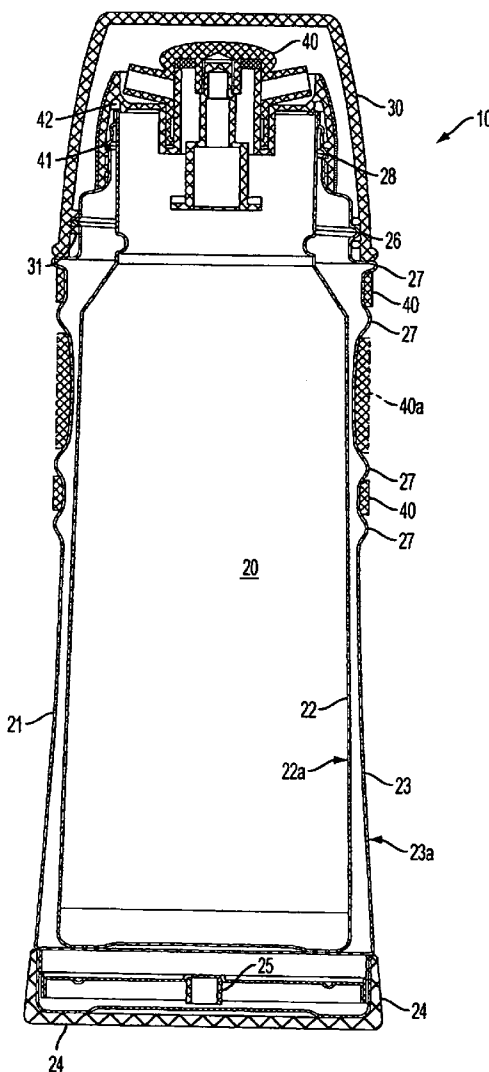
A container has a main chamber defined by a stainless steel flask. The flask may be vacuum insulated. A bottom cap is attached to the bottom of the flask. A cup and a stopper can be attached to the top of the flask. Threads for attaching the cup and the stopper can be formed directly on the flask. One or more elastomeric bands can be positioned around the exterior of the flask to facilitate gripping of the container by the user. The elastomeric bands can be positioned between raised ridges formed on the flask to protect the bands from damage and wear and to keep the bands in position during use.

(21) Appl. No.: **11/059,622**

(22) Filed: **Feb. 17, 2005**

**Related U.S. Application Data**

(60) Provisional application No. 60/544,339, filed on Feb. 17, 2004.



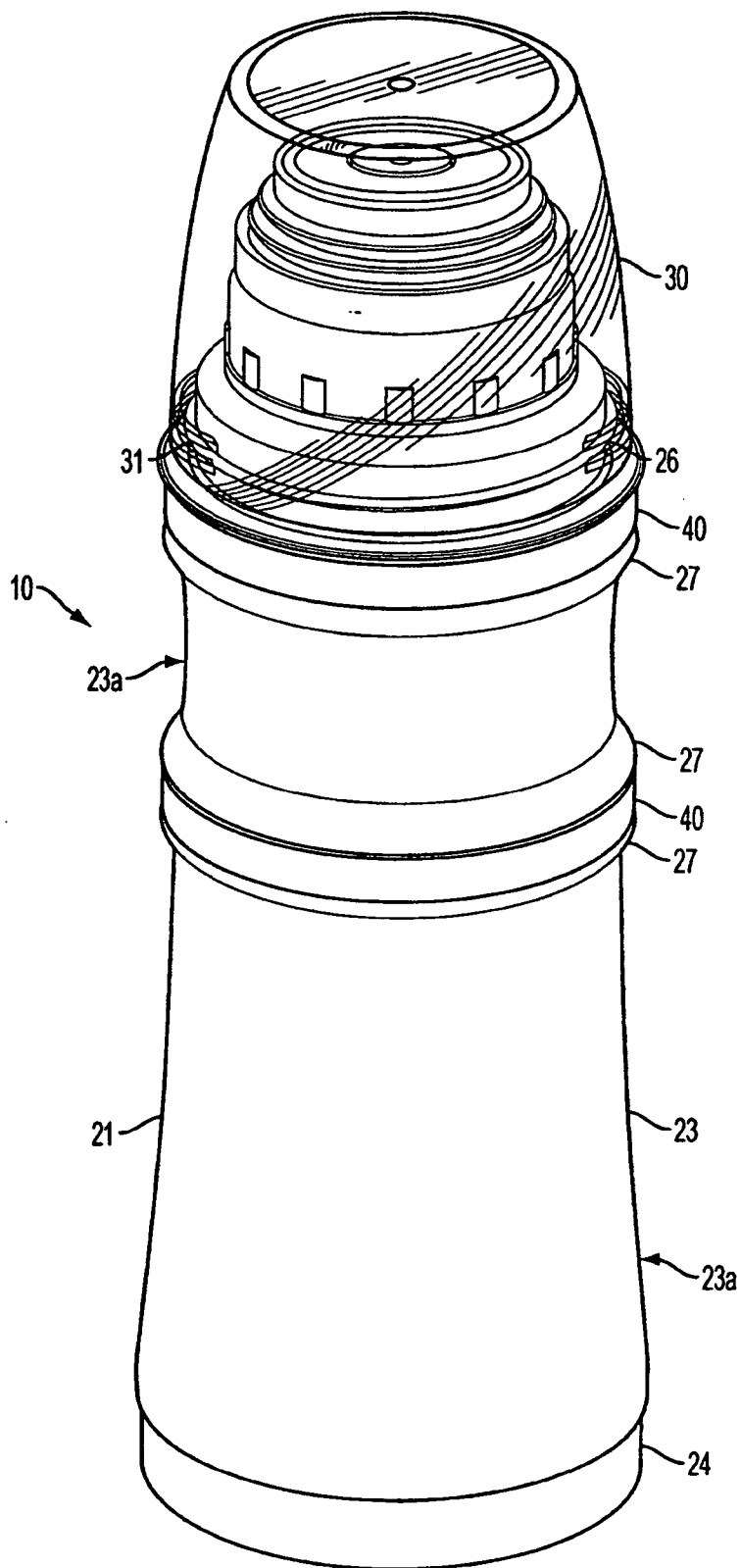


FIG. 1

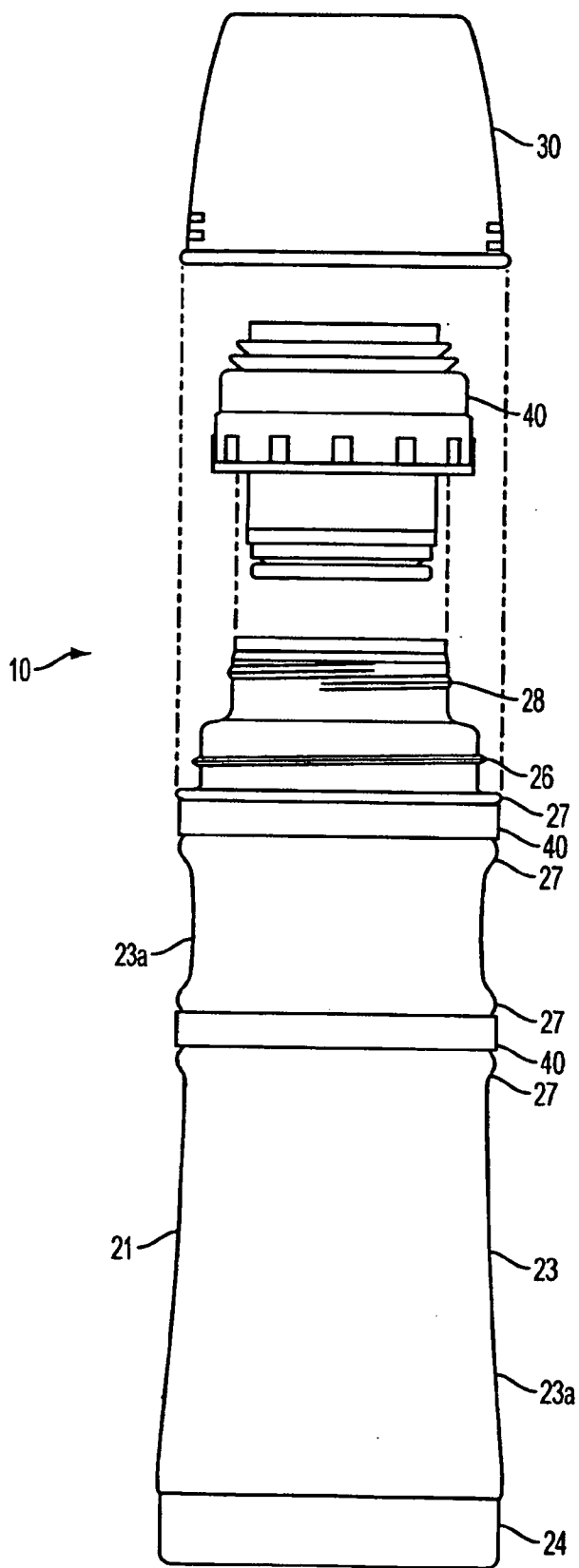


FIG. 2

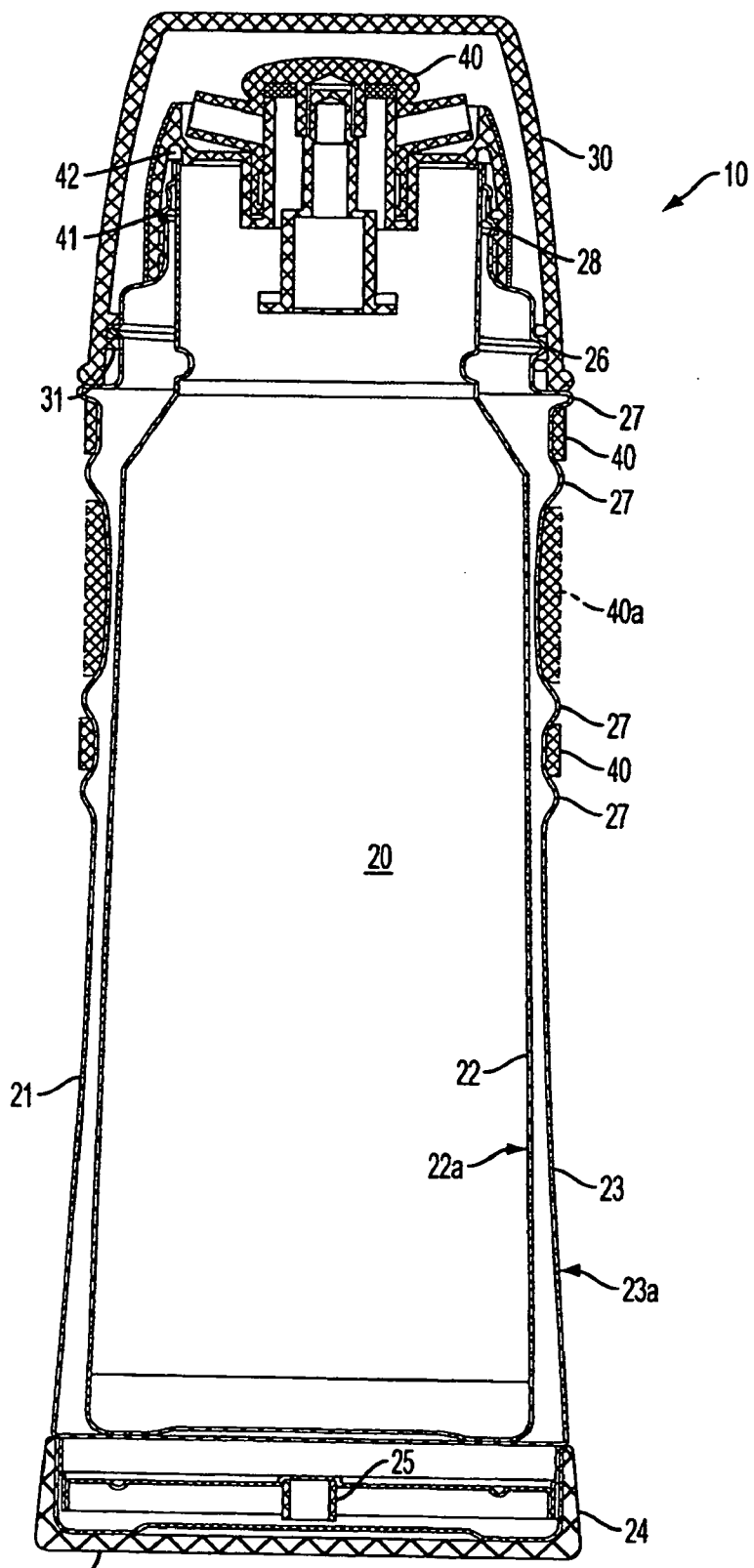


FIG. 3

## CONTAINER WITH HAND-GRIPPING BANDS AND STAINLESS STEEL FLASK

### BACKGROUND

[0001] The present invention relates to the field of personal, portable beverage storage containers. More particularly, the present invention relates to the field of personal, portable beverage storage containers with a vacuum insulated main chamber formed by a stainless steel flask, and elastomeric bands formed on the exterior of the flask for enhanced gripping and other purposes.

[0002] Many types of personal, portable beverage storage containers exist which allow persons to transport and store beverages. Some of these containers are vacuum insulated to help maintain the beverage at a desired temperature. While convenient in many respects, these existing containers are not as convenient and desirable for some users as the container described herein. The container of the present invention provides a unique combination of features and construction which enhances the containers usability, permits the container to be manufactured in a cost effective manner, and provides the user with a visually appealing, attractive, and durable product.

### BRIEF DESCRIPTION OF THE DRAWINGS

[0003] FIG. 1 is an isometric view of an exemplary embodiment of a container according to the invention with the stopper 40 and cup 30 attached to the flask 21.

[0004] FIG. 2 is an exploded view of the container of FIG. 1, with the stopper 40 and cup 30 removed from the flask 21.

[0005] FIG. 3 illustrates a sectional view of another exemplary container taken along a cutting plane parallel to the central axis of the flask 21.

### DETAILED DESCRIPTION OF THE INVENTION

[0006] The principles of the invention will be described through reference to a particular embodiment of the invention illustrated in the drawing figures. The principles of the invention may be used to create other embodiments that will differ from the illustrated embodiment in order to suit particular needs, but that will nonetheless fall within the scope of the invention. The scope of the invention is intended to be defined in the appended claims.

[0007] FIGS. 1-3 illustrate a container 10 that exemplifies the principles of the invention. As seen in FIG. 3, the container 10 includes a vacuum insulated main chamber 20. The main chamber 20 is defined by flask 21. Flask 21 also defines an opening for dispensing the beverage from the main chamber 20. The flask 21 may be vacuum insulated in a known manner, as illustrated, to help maintain the temperature of the beverage contained in the main chamber 20. In FIGS. 1-3, the flask is formed by an interior shell 22 and an exterior shell 23, with an interior surface 22a formed on the interior shell 22, and an exterior surface 23a formed on the exterior shell 23. A vacuum insulated space resides between the interior shell 22 and the exterior shell 23. In other embodiments, the flask 21 need not be vacuum insulated.

[0008] The flask 21 can be made of stainless steel for durability and easy maintenance, or other metallic materials such as aluminum or titanium. The flask could also be made from plastic materials. Exterior surface 23a of flask 21 is gripped by the user when holding the container 10. Thus the exterior surface 23a of flask 21 is viewable and touchable by the user, and is especially appealing and durable when the flask is made from stainless steel. Stainless steel is also an economic material for flask 21 because it does not require any further surface treatments such as paint. However, surface treatments can be provided to the exterior surface 23a of flask 21, if desirable.

[0009] The flask 21 has a bottom cap 24 attached to the bottom. The bottom cap 24 has a smooth, flat bottom surface to facilitate the container 10 being placed on a table top, and to facilitate handling of the container 10. The bottom of flask 21 includes a port 25 used in the vacuum insulating of the flask. The port 25 can often include rough edges or protruding surfaces. The port 25 is advantageously covered by the bottom cap 24, along with other surfaces on the bottom of flask 21 which may have rough edges or protrusions. As illustrated in FIG. 3, bottom cap 24 can be injection molded from plastic and bonded to the flask 21 in a known manner. Or, as illustrated in FIGS. 1 and 2, the bottom cap can be made of stainless steel and bonded to the flask 21 in a known manner.

[0010] The top of flask 21 includes threads and other attachment means for attaching a cup 30 and a stopper 40. In the illustrated embodiment, flask 21 provides threads 26 for the cup 30. Threads 26 are formed directly on the exterior shell 23 of flask 21. Cup 30 has mutual threads 31 that mate with threads 26 to hold cup 30 on the container 10 for storage. The cup 30 can advantageously be injection molded from plastic, and may or may not include a handle to facilitate grasping by the user. The cup 30 can be made more visually appealing if it is made from a transparent plastic material, as shown in FIG. 1.

[0011] Stopper 40 closes the opening in the main chamber 20 to retain the beverage, and includes means for opening the main chamber so that the beverage can be dispensed. Any suitable stopper can be used for these purposes. Threads 28 can be formed directly on the exterior shell 23 of flask 21 for attaching stopper 40. Stopper 40 includes mating threads 41 that engage with threads 28 to hold the stopper on the flask 21. A seal 42 may also be used between the flask 21 and stopper 40 to ensure the retention of the beverage by preventing leaks. A "pop-up" valved stopper is shown employed in FIGS. 1 and 2. A two-spouted pull-up stopper is shown employed in FIG. 3.

[0012] Elastomeric bands 40 can be included on the exterior surface 23a of flask 21 to assist the user in gripping the container 10. Elastomeric bands 40 can be made from any appropriate elastomeric material, such as PVC. Elastomeric bands 40 provide an area of increased friction where the user's fingers can form a stronger hold on the container 10. Elastomeric bands 40 may also be visually appealing to the user, and the visual effect may also serve an additional functional purpose of assisting in the identification of the container 10. The elastomeric bands 40 can be made in one of several different colors to differentiate one container from another similar container. This differentiation, while potentially adding some cost to the manufacture of the container

10, can be achieved with varying the color of a relatively small component of the container 10 to minimize the additional cost.

[0013] To protect the elastomeric bands 40 and to assist in their proper placement on the container 10 during manufacture, they can be situated between raised ridges 27 on the exterior shell 23 of flask 21. The raised ridges 27 can be formed on each side of each elastomeric band 40. The raised ridges 27 are raised from the profile of the immediately surrounding exterior surface 23a by a height equal to or greater than the thickness of the elastomeric bands 40. The ridges 27 can be formed inexpensively as an integral part of the exterior shell 23 of flask 21. The raised ridges 27 are formed by bending of the material used in manufacturing the exterior shell 23. The thickness of the exterior shell is approximately the same at the raised ridges 27 as the thickness at other portions of the exterior shell, i.e. the thickness of the exterior shell is approximately uniform throughout.

[0014] The raised ridges 27 help keep the elastomeric bands 40 in position and help protect the bands from wear, scratches, and tears. The elastomeric bands 40 are made from an elastomeric material to increase their friction against a user's fingers. However, as a result the elastomeric material may not be as durable as is desirable, so the raised ridges 27 perform an important function in protecting the bands.

[0015] Two elastomeric bands 40 are shown in FIGS. 1-3. More or fewer elastomeric bands 40 may also be used, as desirable for a particular container.

[0016] Although the invention has been described through a description of a particular arrangement of components in one embodiment, those in the art will recognize that various modifications and variations can be made without departing from the spirit or scope of the invention. The foregoing descriptions are illustrative only and are not intended to limit the scope of the invention in any way. The scope of the invention shall be defined by the appended claims.

I claim:

- 1. A container for holding beverages comprising:
  - a flask defining a main chamber with an opening in the top of flask for accessing the main chamber, the flask having an exterior surface that a user can grip when holding the container;
  - a cup attached to the top of the flask;
  - a stopper attached to the top of the flask for sealing the opening and retaining and dispensing the beverage;
  - an elastomeric band situated on the exterior surface of the flask and extending circumferentially around the flask, the elastomeric band facilitating gripping of the container by the user.
- 2. The container of claim 1 wherein the flask is vacuum insulated and comprises:

an interior shell and an exterior shell and a vacuum insulated space between the interior shell and the exterior shell, the exterior surface being formed on the exterior shell.

3. The container of claim 2 wherein the interior shell and the exterior shell are made from stainless steel.

4. The container of claim 3 further comprising:

raised ridges formed on each side of the elastomeric band, the raised ridges being integrally formed as part of the exterior shell of the flask; and

wherein the thickness of the exterior shell is approximately uniform at the raised ridges and at the other portions of the exterior shell.

5. The container of claim 4 further comprising:

a bottom cap covering the bottom portion of the flask 21, the bottom cap having a generally flat and smooth surface.

6. The container of claim 4 wherein the cup has threads for attaching to the flask, and the flask has mating threads formed directly the exterior shell and as an integral part of the exterior shell.

7. The container of claim 6 wherein the cup is made from a generally transparent plastic.

8. The container of claim 2 further comprising:

raised ridges formed on each side of the elastomeric band, the raised ridges being integrally formed as part of the exterior shell of the flask; and

wherein the thickness of the exterior shell is approximately uniform at the raised ridges and at the other portions of the exterior shell.

9. The container of claim 8 further comprising:

a bottom cap covering the bottom portion of the flask, the bottom cap having a generally flat and smooth surface.

10. The container of claim 8 wherein the cup has threads for attaching to the flask, and the flask has mating threads formed directly the exterior shell and as an integral part of the exterior shell.

11. The container of claim 10 wherein the cup is made from a generally transparent plastic.

12. The container of claim 8 wherein the container comprises at least two elastomeric bands, each elastomeric band being situated on the exterior surface of the flask and extending circumferentially around the flask, and each elastomeric band facilitating gripping of the container by the user.

13. The container of claim 12 further comprising:

raised ridges formed on each side of the elastomeric bands, the raised ridges being integrally formed as part of the exterior shell of the flask; and

wherein the thickness of the exterior shell is approximately uniform at the raised ridges and at the other portions of the exterior shell.

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