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(54) **BEVERAGE CONTAINER CLOSURE AND DISPENSING DEVICE**

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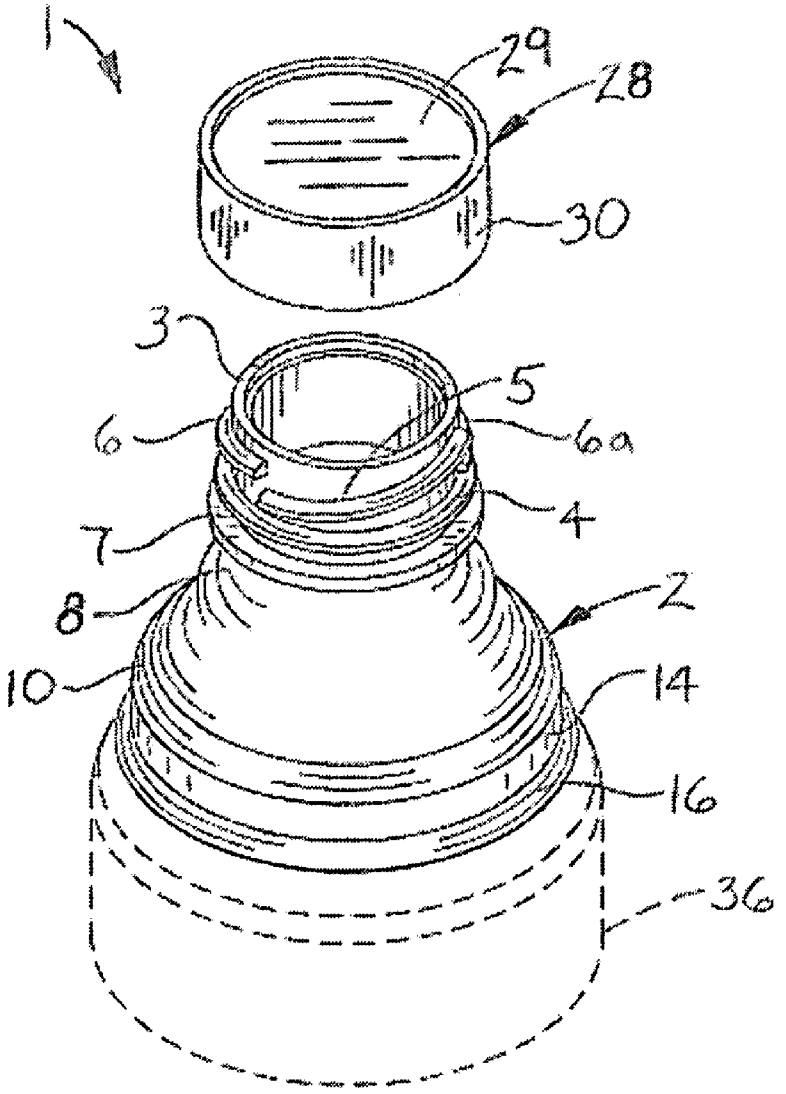
(52) **U.S. Cl.** **220/259.3**

(57) **ABSTRACT**

A beverage container closure and dispensing device. An illustrative embodiment of the device includes a generally funnel-shaped device body having a neck portion, at least one wall portion extending from the neck portion and a lip portion flaring outwardly from the at least one wall portion; a device body interior defined by the neck portion, the at least one wall portion and the lip portion; a catch ring extending from the device body into the device body interior; at least one drip ring extending from the lip portion into the device body interior; and a cap detachably engaging the neck portion of the device body.



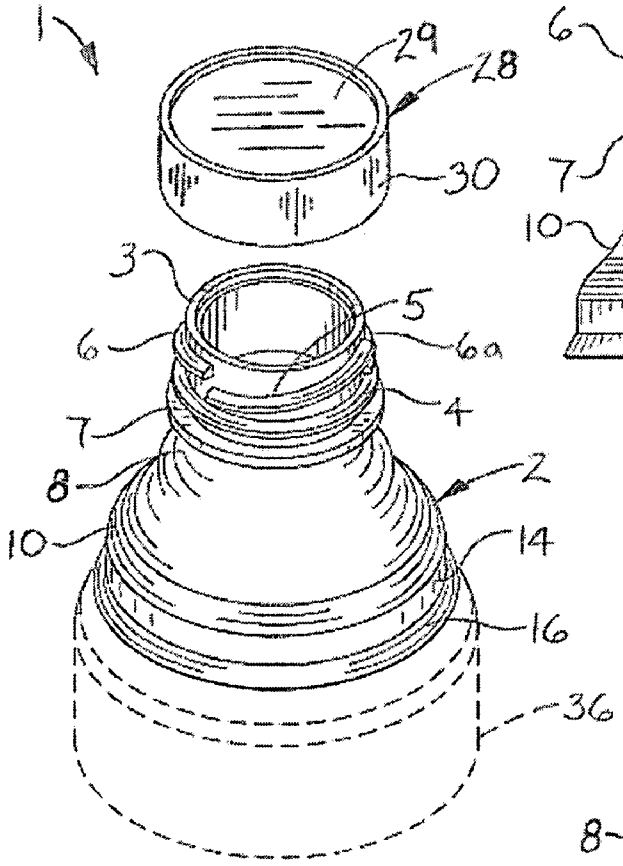


FIG. 1

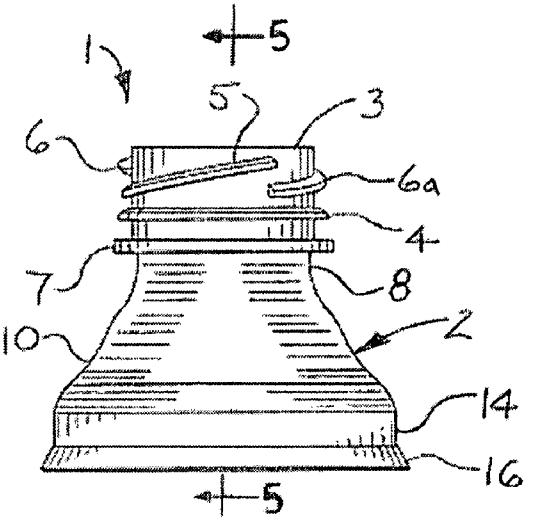


FIG. 2

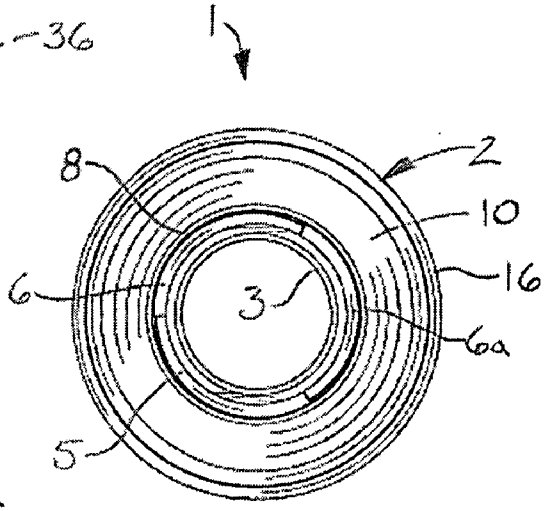


FIG. 3

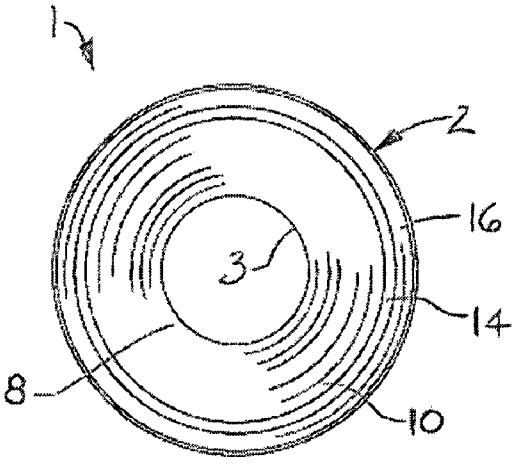


FIG. 4

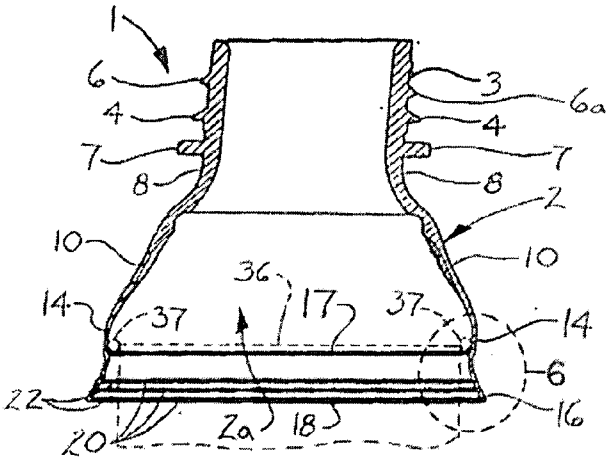


FIG. 5

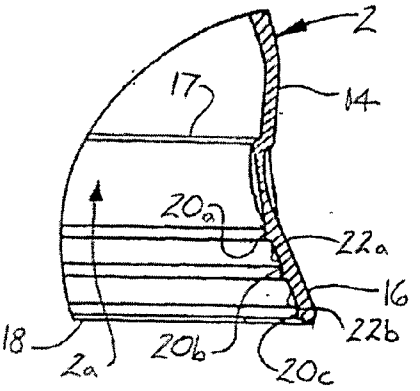


FIG. 6

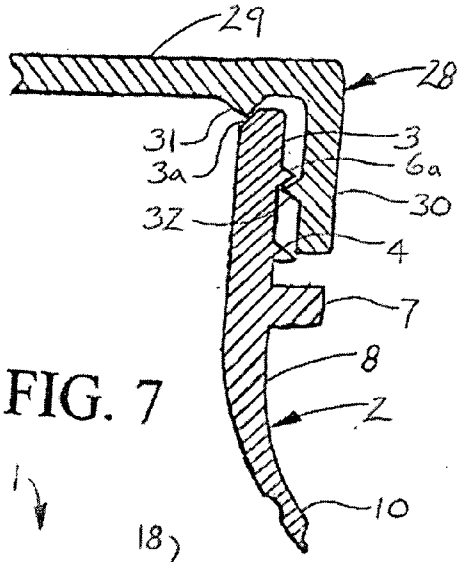


FIG. 7

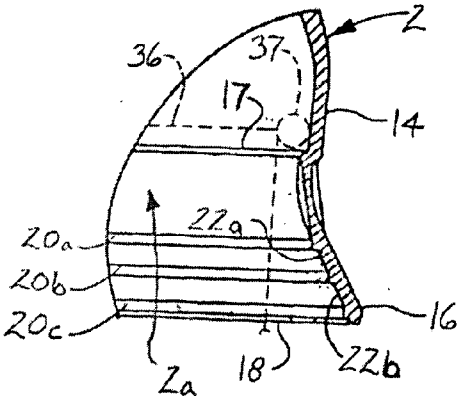


FIG. 8

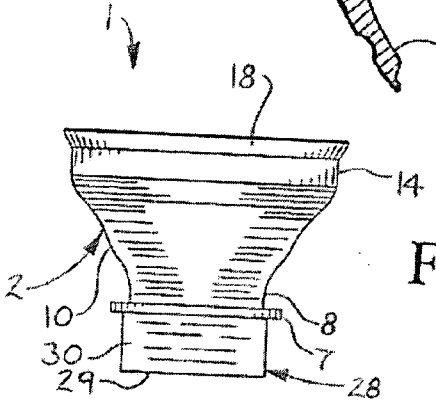


FIG. 9

BEVERAGE CONTAINER CLOSURE AND DISPENSING DEVICE

CROSS-REFERENCE TO RELATED APPLICATIONS

[0001] This application claims the benefit of and incorporates by reference in its entirety U.S. provisional application Ser. No. 60/843,199, filed Sep. 11, 2006 and entitled "Snap Capp".

FIELD

[0002] The present disclosure relates to beverage containers. More particularly, the present disclosure relates to a beverage container closure and dispensing device which can be detachably attached to a beverage container to selectively seal the container and dispense beverage from the container.

BACKGROUND

[0003] Beverage containers include cylindrical aluminum cans which contain a soft drink, beer or other liquid beverage. Typically, beverage containers are available in 12-ounce and 16-ounce volumes, although additional volumes of some beverages may be available. A conventional beverage container includes a pull tab which initially seals an opening in the top of the container and can be pulled to expose the opening and facilitate access to the beverage contents of the container. However, one of the limitations of conventional can-type beverage containers is that the containers cannot be re-sealed in the event that some of the beverage in the container is not consumed. This causes carbonated beverages to become flat due to the escape of carbon dioxide from the beverage container.

SUMMARY

[0004] The present invention is generally directed to a beverage container closure and dispensing device. An illustrative embodiment of the device includes a generally funnel-shaped device body having a neck portion, at least one wall portion extending from the neck portion and a lip portion flaring outwardly from the at least one wall portion; a device body interior defined by the neck portion, the at least one wall portion and the lip portion; a catch ring extending from the device body into the device body interior; at least one drip ring extending from the lip portion into the device body interior; and a cap detachably engaging the neck portion of the device body.

BRIEF DESCRIPTION OF THE DRAWINGS

[0005] The invention will now be described, by way of example, with reference to the accompanying drawings, in which:

[0006] FIG. **1** is an exploded perspective view of an illustrative embodiment of the beverage container closure and dispensing device, attached to a beverage container (illustrated in phantom), with a cap detached from a device body of the device;

[0007] FIG. **2** is a side view of an illustrative embodiment of the beverage container closure and dispensing device;

[0008] FIG. **3** is a top view of an illustrative embodiment of the beverage container closure and dispensing device, with the cap detached from the device body of the device;

[0009] FIG. **4** is a bottom view of an illustrative embodiment of the beverage container closure and dispensing device;

[0010] FIG. **5** is a sectional view, taken along section lines **5-5** in FIG. **2**, with the device attached to a beverage container (illustrated in phantom);

[0011] FIG. **6** is an enlarged sectional view of an illustrative embodiment of the beverage container closure and dispensing device, taken along section line **6** in FIG. **5**;

[0012] FIG. **7** is a sectional view of the cap attached to the neck of an illustrative embodiment of the beverage container closure and dispensing device, more particularly illustrating an illustrative thread configuration for attaching the cap to the neck;

[0013] FIG. **8** is a sectional view, taken along section line **6** in FIG. **5**, with the device attached to a beverage container (illustrated in phantom); and

[0014] FIG. **9** is a side view of an illustrative embodiment of the beverage container closure and dispensing device, oriented in an inverted position for use as a shot glass.

DETAILED DESCRIPTION

[0015] Referring to the drawings, an illustrative embodiment of the beverage container closure and dispensing device, hereinafter device, is generally indicated by reference numeral **1**. The device **1** includes a device body **2** which is adapted to detachably and sealingly engage a beverage container **36** in a snap-fit configuration to facilitate selective closure and sealing of the beverage container **36** and/or dispensing of a beverage (not illustrated) from the beverage container **36**. The beverage container **36** may be a conventional can-type beverage container, for example, and typically includes an outwardly-rolled container rim **37** and a pull tab (not illustrated), as illustrated in FIG. **1**. The device **1** prevents insects, dirt, debris and other contaminants from entering the beverage container **36** and preserves the freshness and integrity of the beverage in the beverage container **36** after initial opening of the beverage container **36**. The device **1** is typically re-usable and can be detached from one beverage container **36** and attached to another beverage container **36** typically after the beverage contents of the first beverage container **36** have been consumed. In some embodiments, the device body **2** of the device **1** is any of various colors to differentiate multiple devices **1** from each other and aid in personal beverage container identification when multiple devices **1** are attached to multiple respective beverage containers **36** simultaneously.

[0016] In some embodiments, the device body **2** of the device **1** is resilient plastic; however, the device body **2** may be any suitable alternative resilient material. The device body **2** may be a dishwasher-safe plastic, for example. Examples of materials which are suitable for fabrication of the device body **2** include, without limitation, polyethylene. However, some characteristics of the particular plastic which is used to fabricate the device **1** may vary depending on the specific nature of the efficient application of the device **1**. For example, characteristics which affect seal ability; resiliency; stretch; rigidity; elasticity; application force; translucence; and luminescence may determine selection of the material used.

[0017] The device body **2** of the device **1** has a generally inverted funnel shape and includes a generally cylindrical neck portion **3**. A generally cylindrical upper wall portion **8** extends from the neck portion **3**. A middle wall portion **10**

flares outwardly from the upper wall portion **8**. A generally cylindrical lower wall portion **14** extends from the middle wall portion **10**. A lip portion **16** having a lip edge **18** flares outwardly from the lower wall portion **14**. As illustrated in FIG. **5**, the neck portion **3**, the upper wall portion **8**, the middle wall portion **10**, the lower wall portion **14** and the lip portion **16** define a device body interior **2***a*. In some embodiments, a catch ring **17** circumscribes the device body **2** and generally delineates the lip portion **16** from the lower wall portion **14**. As used herein, relative terms such as "upper", "middle" and "lower" are intended to be descriptive and not limiting as those terms do not necessarily denote the positions of the indicated components during use of the device **1**.

[0018] As illustrated in FIG. **1**, a cap **28** is detachably attached to the neck portion **3**. The cap **28** typically includes a generally flat or planar cap top **29** and a generally cylindrical cap side **30** which extends from the cap top **29**. The cap **28** is detachably attached to the neck portion **3** of the device body **2** according to any suitable attachment technique which is known by those skilled in the art. As illustrated in FIG. **7**, in some embodiments, at least one cap thread **32** is provided on the interior surface of the cap side **30** of the cap **28**. As illustrated in FIGS. **1** and **2**, a base neck thread **4** and three side neck threads **5**, **6**, and **6***a*, respectively, are provided on the exterior surface of the neck portion **3**. As illustrated in FIG. **7**, the at least one cap thread **32** is adapted to engage the base neck thread **4** and the side neck threads **5**, **6** and **6***a* and detachably secure the cap **28** to the neck portion **3**. In some embodiments, the base neck thread **4** and the side neck threads **5**, **6** and **6***a* define a quarter-turn, steep-pitch thread pattern in which the cap **28** can be fully attached to and removed from the neck portion **3** by a quarter turn of the cap **28**. However, it is to be understood that any number of neck threads can be provided on the exterior surface of the neck portion **3** in any desired configuration to detachably secure the cap **28** to the neck portion **3**. A neck flange **7** may extend from the exterior surface of the neck portion **3**, between the base neck thread **4** and the upper wall portion **8** of the device body **2**.

[0019] As further illustrated in FIG. **7**, in some embodiments a neck bevel **3***a* is provided in the inside upper edge of the neck portion **3**. An annular retainer tab **31** extends from the bottom or interior surface of the cap top **29** of the cap **28** and seats against the neck bevel **3***a* when the cap **28** is attached to the neck portion **3**.

[0020] As illustrated in FIGS. **6** and **8**, in some embodiments, an upper drip ring **20***a*, a lower drip ring **20***c* and a middle drip ring **20***b* are provided between the lip edge **18** and the catch ring **17**. An annular upper space **22***a* is defined between the upper drip ring **20***a* and the middle drip ring **20***b*, and an annular lower space **22***b* is defined between the middle drip ring **20***b* and the lower drip ring **20***c*. Because of the outwardly-flared configuration of the lip portion **16**, the multiple drip rings **20** and respective adjacent annular spaces **22** have various diameters. In the embodiment of the device **1** illustrated in FIGS. **6** and **8**, the middle drip ring **20***b* has a diameter which is between that of the upper drip ring **20***a* and that of the lower drip ring **20***c*. Likewise, the diameter of the upper space **22***a* is less than that of the lower space **22***b*. The drip rings **20** and respective adjacent annular spaces **22** define a generally step-shaped cross-section, as further illustrated in FIGS. **6** and **8**.

[0021] As illustrated in FIGS. **1** and **5** and **8**, in use of the device **1**, which will be hereinafter further described, the device **1** is snap-fitted on the beverage container **36**. Accordingly, as illustrated in FIG. **8**, the interior surface of the lip portion **16** of the device body **2** guides the rolled upper container rim **37** of the beverage container **36** (shown in phantom) beyond and into engagement with the catch ring **17**, which snugly engages the container rim **37** in a snap-fit to provide an airtight seal between the device body interior **2***a* and the beverage container **36**.

[0022] Referring to FIGS. **1**, **5**, **7** and **8** of the drawings, in typical application of the device **1**, the beverage container **36** is initially opened typically by pulling the pull tab (not illustrated), in the conventional manner. The device body **2** of the device **1** is attached to the beverage container **36** by lowering the device body **2** over the beverage container **36** and snap-fitting the catch ring **17** in the device body **2** over and then against the outwardly-rolled container rim **37** of the beverage container **36**, as illustrated in FIG. **8**. The interior surface of the lip portion **16** guides the container rim **37** into engagement with the catch ring **17**. Because of the resiliency of the lip portion **16**, the catch ring **17** is capable of stretching to accommodate the diameter of the container rim **37** and then recoiling against the container rim **37** to achieve a snug, airtight fit between the catch ring **17** and the container rim **37**.

[0023] Under circumstances in which temporary storage of the beverage container **36** prior to dispensing of the beverage (not illustrated) from the beverage container **36** is desired, the cap **28** can be attached to the neck portion **3** of the device body **2**, as illustrated in FIG. **7**. Accordingly, in the event that the beverage in the beverage container **36** is a carbonated beverage, carbon dioxide gas from the beverage is unable to escape from the device body interior **2***a* through the capped neck portion **3** or from the lip portion **16** of the device body **2** due to the airtight seal between the device body interior **2***a* and the container rim **37** of the beverage container **36**. This prevents the carbon dioxide from escaping from the device **1** and maintains the carbonation integrity and freshness of the beverage. Furthermore, the cap **28** prevents insects, dirt, debris and other contaminants from entering the device body **2***a* and the beverage container **36** through the neck portion **3** of the device body **2**.

[0024] When dispensing of the beverage from the beverage container **36** is desired, the cap **28** is removed from the neck portion **3** of the device body **2**. Accordingly, the beverage can be selectively dispensed from the beverage container **36** through the device body interior **2***a* (FIG. **5**) of the device body **2** and from the neck portion **3**, respectively, of the device **1** and into a cup (not illustrated) or other receptacle. Alternatively, the beverage can be imbibed directly through the neck portion **3**. Under circumstances in which additional beverage remains in the beverage container **36** after the desired quantity of beverage has been dispensed from the beverage container **36**, the cap **28** can again be attached to the neck portion **3** to seal the device body interior **2***a* of the device body **2**. After the beverage has been completely dispensed from the beverage container **36**, the device **1** can be detached from the beverage container **36** and attached to a second beverage container **36** for similar use. It will be appreciated by those skilled in the art that multiple devices **1** can be stacked for dispensing purposes, for example, by inserting the neck **3** of a bottom device **1** into

the device body interior **2***a* of a top device **1**, with the interior surfaces of the top device **1** nesting against the exterior surfaces of the bottom device **1**.

[0025] Referring to FIG. **9** of the drawings, the device **1** with the cap **28** thereon can be inverted and used as a shot glass. Accordingly, the beverage (not illustrated) is poured into the device body interior **2***a* (FIG. **5**) of the device body **2** through the open lip portion **16**. The cap **28** prevents the beverage from flowing out of the neck portion **3** of the device body **2**.

[0026] While the illustrative embodiments of the disclosure have been described above, it will be recognized and understood that various modifications can be made in the disclosure and the appended claims are intended to cover all such modifications which may fall within the spirit and scope of the disclosure.

What is claimed is:

1. A beverage container closure and dispensing device, comprising:

a generally funnel-shaped device body having a neck portion, at least one wall portion extending from said neck portion and a lip portion flaring outwardly from said at least one wall portion;

a device body interior defined by said neck portion, said at least one wall portion and said lip portion;

a catch ring extending from said device body into said device body interior;

at least one dip ring extending from said lip portion into said device body interior; and

a cap detachably engaging said neck portion of said device body.

2. The device of claim **1** wherein said at least one wall portion comprises a generally cylindrical first wall portion extending from said neck portion, a second wall portion flaring outwardly from said first wall portion and a generally cylindrical third wall portion extending from said second wall portion, and wherein said lip portion extends from said third wall portion.

3. The device of claim **1** further comprising a neck flange extending from said neck portion.

4. The device of claim **1** further comprising at least one neck thread provided on said neck portion and at least one cap thread provided in said cap and detachably engaging said at least one neck thread.

5. The device of claim **4** wherein said at least one neck thread comprises a plurality of neck threads.

6. The device of claim **5** wherein said plurality of neck threads comprises a base neck thread and three side neck threads.

7. The device of claim **1** wherein said catch ring delineates said lip portion from said at least one wall portion.

8. The device of claim **1** wherein said cap comprises a generally planar cap top and a generally cylindrical cap side extending from said cap top.

9. The device of claim **8** further comprising a neck bevel provided in said neck, portion and an annular retainer tab provided on said cap top and engaging said neck bevel.

10. The device of claim **9** further comprising at least one neck thread provided on said neck portion of said device body and at least one cap thread provided on said cap side of said cap and detachably engaging said at least one neck thread.

11. The device of claim **10** wherein said at least one neck thread comprises a plurality of neck threads.

12. The device of claim **11** wherein said plurality of neck threads comprises a base neck thread and three side neck threads.

13. A beverage container closure and dispensing device, comprising:

a generally funnel-shaped device body having a generally cylindrical neck portion, a generally cylindrical first wall portion extending from said neck portion, a second wall portion flaring outwardly from said first wall portion, a generally cylindrical third wall portion extending from said second wall portion and a lip portion flaring outwardly from said third wall portion;

a device body interior defined by said neck portion, said first wall portion, said second wall portion, said third wall portion and said lip portion;

a catch ring extending from said device body into said device body interior;

a plurality of drip rings extending from said lip portion into said device body interior;

wherein said plurality of drip rings vary in diameter; and

a cap detachably engaging said neck portion of said device body.

14. The device of claim **13** wherein said cap comprises a generally planar cap top and a generally cylindrical cap side extending from said cap top.

15. The device of claim **14** further comprising a neck bevel provided in said neck portion and an annular retainer tab provided on said cap top and engaging said neck bevel.

16. The device of claim **14** further comprising at least one neck thread provided on said neck portion of said device body and at least one cap thread provided on said cap side of said cap and detachably engaging said at least one neck thread.

17. The device of claim **16** wherein said at least one neck thread comprises a plurality of neck threads.

18. The device of claim **17** wherein said plurality of neck threads comprises a base neck thread and three side neck threads.

19. A beverage container closure and dispensing device, comprising:

a generally funnel-shaped device body having a generally cylindrical neck portion, a generally cylindrical first wall portion extending from said neck portion, a second wall portion flaring outwardly from said first wall portion, a generally cylindrical third wall portion extending from said second wall portion and a lip portion flaring outwardly from said third wall portion and having a lip edge;

a catch ring extending from said device body into said device body interior; a device body interior defined by said neck portion, said first wall portion, said second wall portion, said third wall portion and said lip portion;

a plurality of drip rings provided in said lip portion in said device body interior;

a plurality of spaces between said plurality of drip rings, respectively;

wherein said plurality of drip rings vary in diameter and said plurality of spaces vary in diameter;

a plurality of neck threads provided on said neck portion of said device body;

a cap having a generally planar cap top and a generally cylindrical cap side extending from said cap top; and

at least one cap thread provided on said cap side and detachably engaging said plurality of neck threads.

20. The device of claim **19** further comprising a neck bevel provided in said neck portion and an annular retainer tab provided on said cap top of said cap and engaging said neck bevel.

* * * * *