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(54) **FLAVOR CHAMBER**

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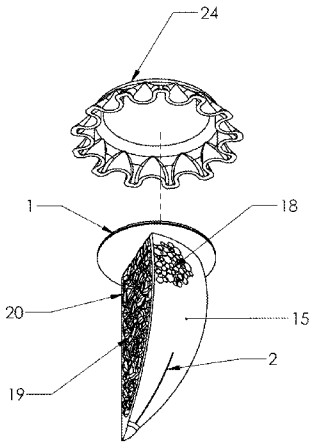
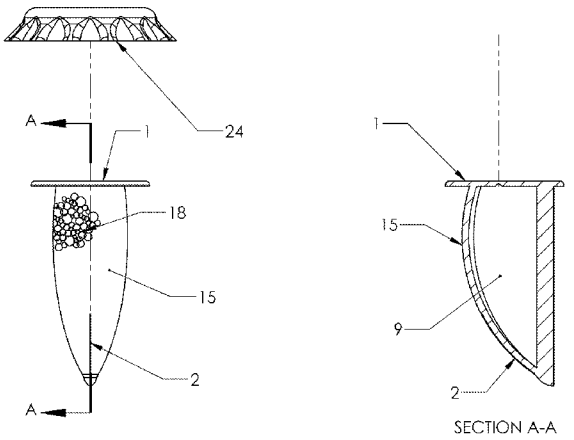
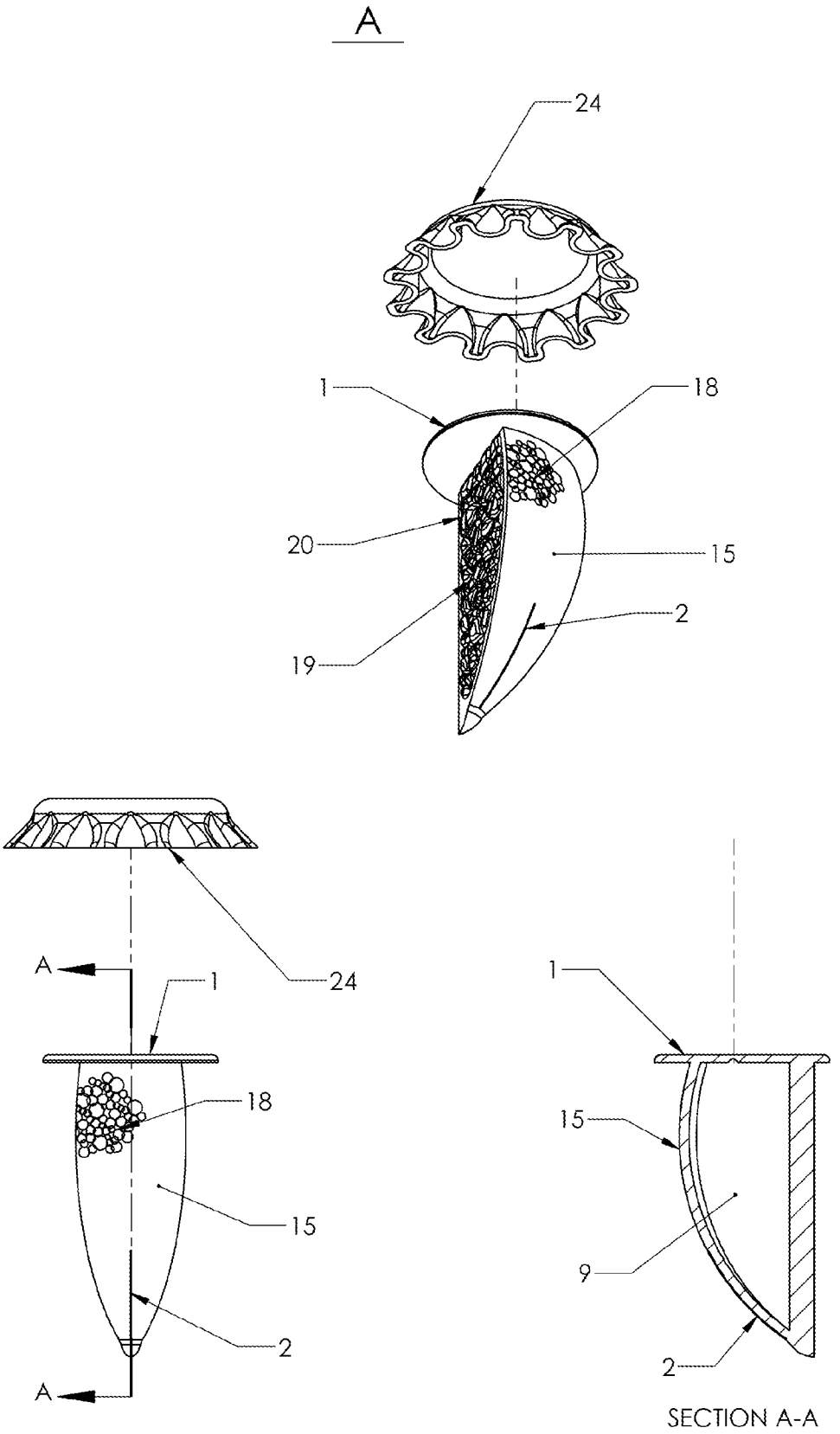
(57) **ABSTRACT**

The invention is a flavor enhancement delivery system named The Flavor Chamber. A bladder (A), (B), (C) that is attached to the underside of a bottle cap (**24**) and is intended to replace the cap seal (**1**). In a can, the bladder (D) is attached to the underside of a multi-spout can top (E). The shape and color varies per the function and visualization of the product such as a green, yellow or orange citrus wedge bladder (A) to represent a lime, lemon or orange citrus flavor respectively as seen through a clear bottle. It may be a neutral colored dome shape bladder (B) for a generic look that does not represent a flavor well by shape and may not be seen such as in a darker bottle. It may be shaped to the dimensions and circumference of the underside of a multi-spout can top (E) and hold a flavor chamber (**10**) under each individual can top opening (**11**). Its intent is to offer the option of choosing a flavor enhancement to the beverage after opening the container or choosing not to enhance the original flavor. Other substances can be inserted into the bladders (A), (B), (C), (D) per design of the manufacture and non-beverage applications and industries may adopt the flavor chamber bladder idea for use with different products and chemicals.






A
24
1
18
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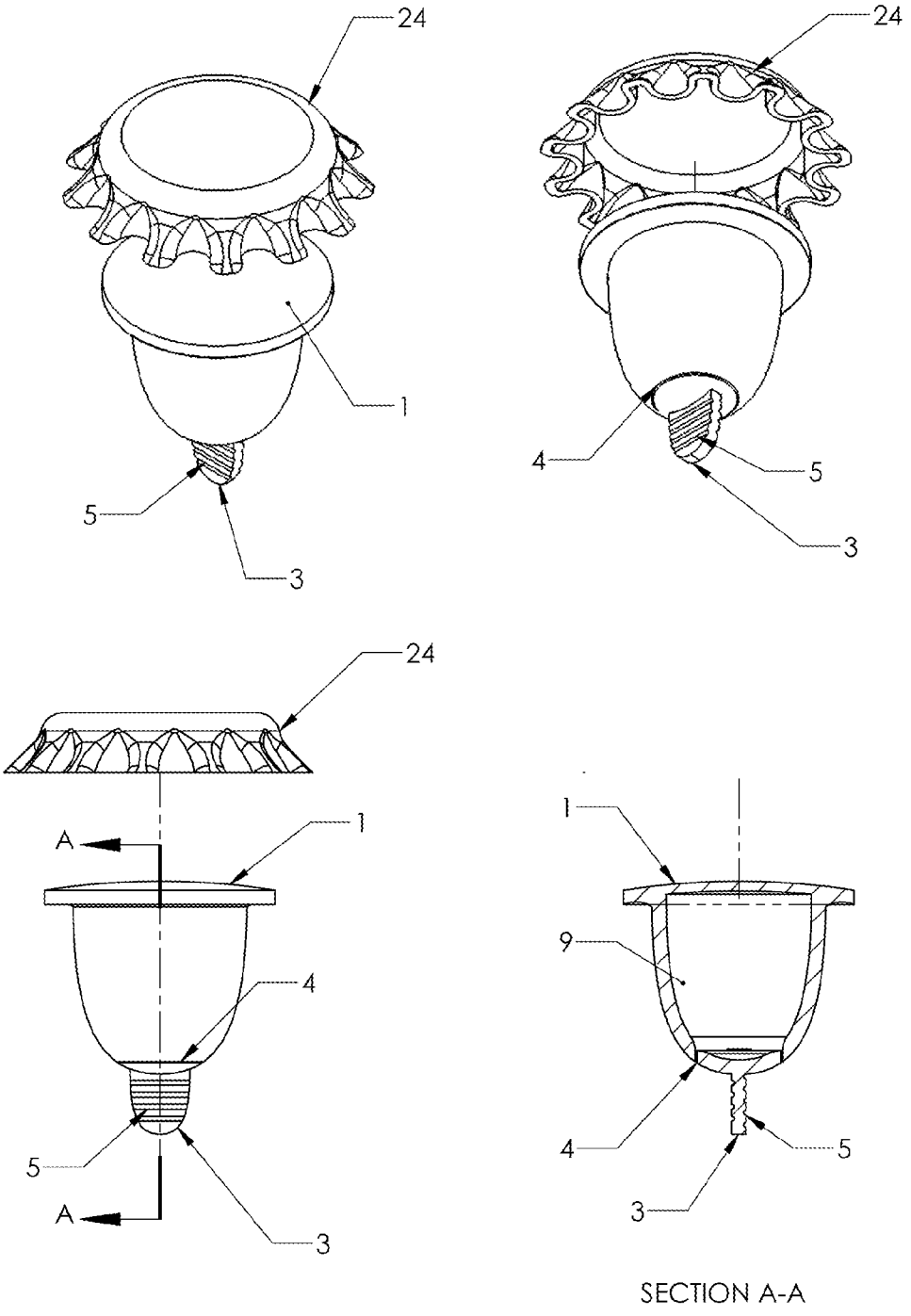
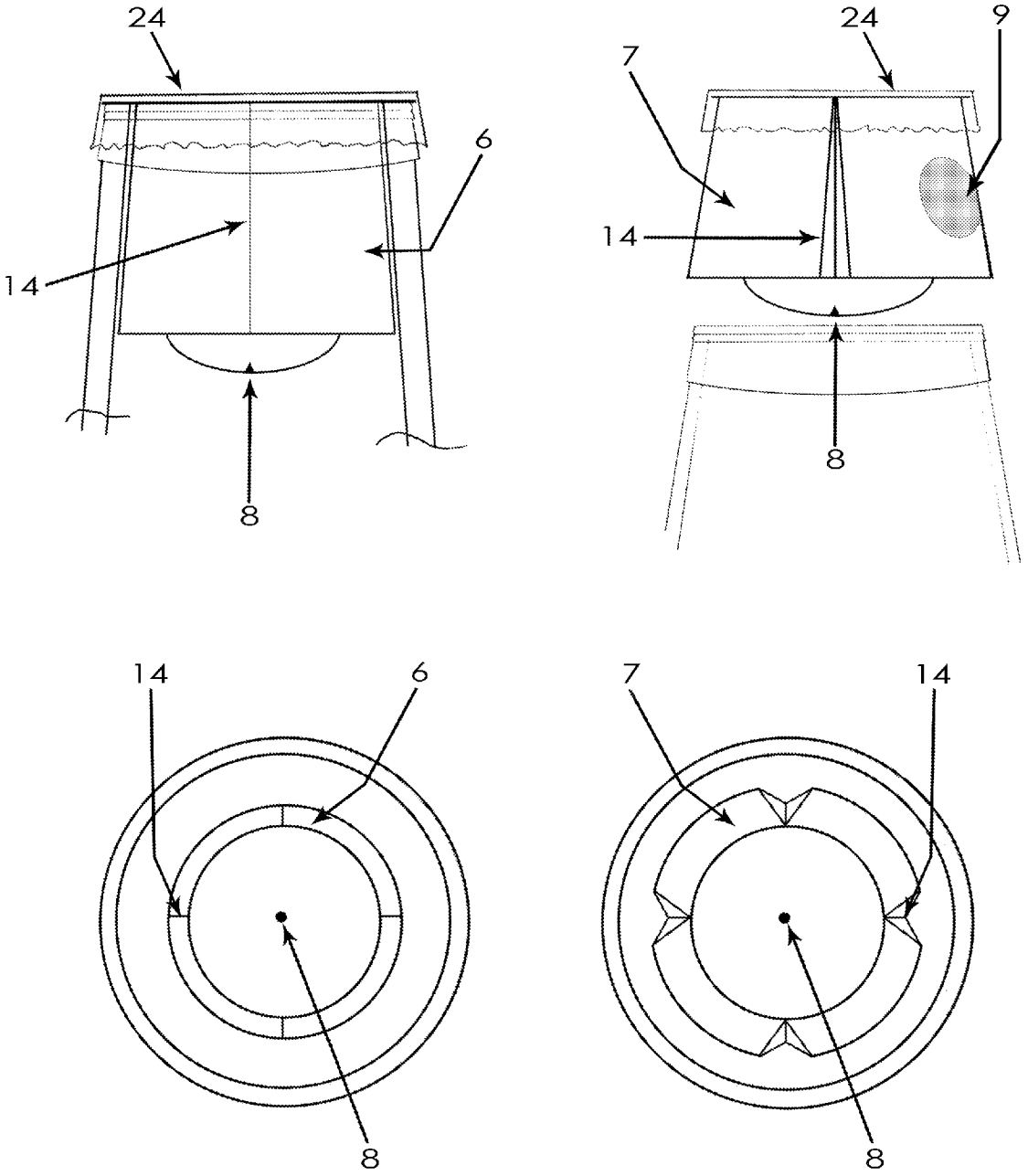
SECTION A-A

B



SECTION A-A

Figure C



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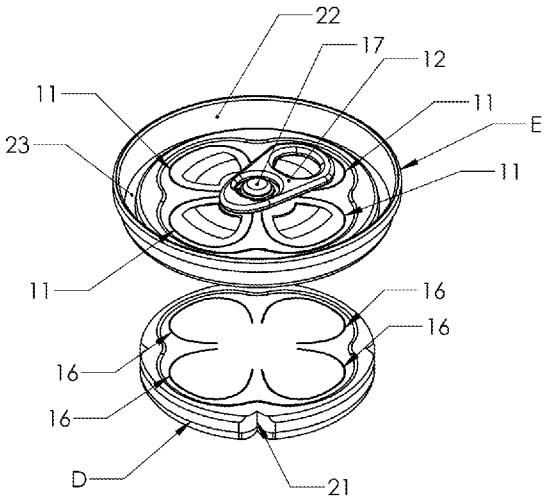

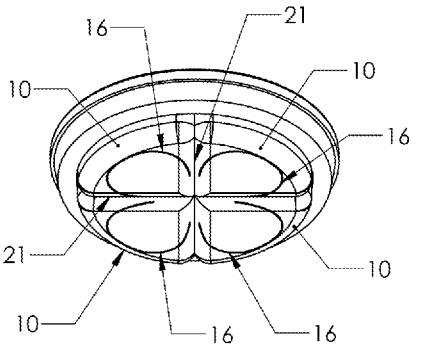

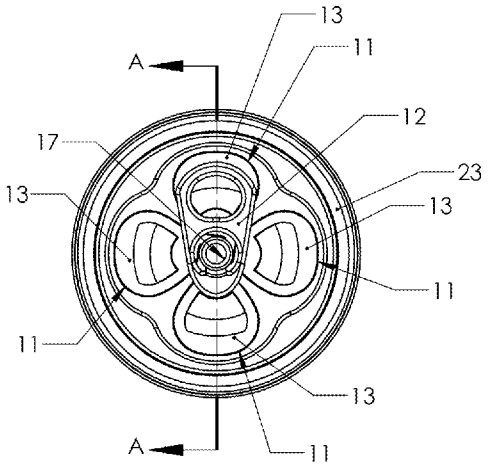

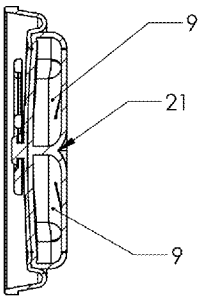

SECTION A-A

FLAVOR CHAMBER

RELATED APPLICATIONS

[0001] The present application is a continuation of U.S. provisional applications No. 61/595,582, filed Feb. 6, 2012, and entitled Flavor Option (A), No. 61/639,194, filed Apr. 27, 2012, and entitled Bottle Bladder (B), No. 61/642,028, filed May 3, 2012, and entitled Bottle Bladder 2 (C), No. 61/660,671, filed Jun. 15, 2012, and entitled Multi-Spout Can Top (E) with Flavor Enhancement Bladder (D).

[0002] The invention is a flavor enhancement delivery system named The Flavor Chamber. A bladder (A), (B), (C) that is attached to the underside of a bottle cap (**24**) and is intended to replace the cap seal (**1**). In a can, the bladder (D) is attached to the underside of a multi-spout can top (E). The shape and color varies per the function and visualization of the product such as a green, yellow or orange citrus wedge bladder (A) to represent a lime, lemon or orange citrus flavor respectively as seen through a clear bottle. It may be a neutral colored dome shape bladder (B) for a generic look that does not represent a flavor well by shape and may not be seen such as in a darker bottle. It may be shaped to the dimensions and circumference of the underside of a multi-spout can top (E) and hold a flavor chamber (**10**) under each individual can top opening (**11**). Its intent is to offer the option of choosing a flavor enhancement to the beverage after opening the container or choosing not to enhance the original flavor. Other substances can be inserted into the bladders (A), (B), (C), (D) per design of the manufacture and non-beverage applications and industries may adopt the flavor chamber bladder idea for use with different products and chemicals.

BACKGROUND

The Problem

[0003] Often times a situation arises where a bottled or canned beverage is offered with no thought to bring a flavor enhancement that may complement the beverage. Some enjoy a lemon in their tea or water, a lime, orange, salt or chili powder in their beer, vitamins and ginseng for their juice, chocolate or strawberry in their milk, or any other liquid or dry-mix that may complement a beverage. Many people like these substances with their beverages but the availability of them is often scarce. Companies often advertise with flavor enhancements such as a lime wedge in the top of a beer bottle but don't provide it when sold. Some beverages come with these enhancement flavors already added in them, but if not desired there is no choice to deny the enhancement. There is also a certain enjoyment to have a tingling on the lips when the juice is at the rim of the bottle as opposed to have just a lime flavored beverage. Another common concern is when a lime wedge may be inserted when not requested, containing germs from the unknown origins of the product. The answer to these problems is The Flavor Chamber.

Field of the Invention

[0004] The present invention is in the field of beverage and pertains to squeezing, cutting, severing or perforating a plastic bladder for releasing a flavoring into a beverage.

SUMMARY OF THE INVENTION

Prototype Production

[0005] The prototype bladders (A), (B), (C),(D) were developed on a rapid prototype machine from a three dimensional CAD design from polymer type full cure 73/20 tango shore 50A material. The bladders were made to be soft and squeezable with an opaque appearance that can display a color change dependent upon the flavor enhancer in the bladder.

[0006] The multi-spout can top (E) is a hard white plastic with a rotating lift tab (**12**).

BRIEF DESCRIPTION OF THE DRAWINGS

[0007] FIG. A shows No. 61/595,582, filed Feb. 6, 2012, and entitled Flavor Option

[0008] FIG. B shows No. 61/639,194, filed Apr. 27, 2012, and entitled Bottle Bladder

[0009] FIG. C shows No. 61/642,028, filed May 3, 2012, and entitled Bottle Bladder 2

[0010] FIG. D shows No. 61/660,671, filed Jun. 15, 2012, and entitled Flavor Enhancement Bladder

[0011] FIG. E shows No. 61/660,671, filed Jun. 15, 2012, and entitled Multi-Spout Can Top

[0012] FIG. **1** shows Cap seal

[0013] FIG. **2** shows Perforated split

[0014] FIG. **3** shows Pull tab

[0015] FIG. **4** shows Circumscribed perforation

[0016] FIG. **5** shows Horizontal ridges

[0017] FIG. **6** shows Compressed

[0018] FIG. **7** shows Expanded

[0019] FIG. **8** shows Perforated hole

[0020] FIG. **9** shows Hollow internal cavity

[0021] FIG. **10** shows Flavor chamber

[0022] FIG. **11** Can top opening

[0023] FIG. **12** shows Rotating lift tab

[0024] FIG. **13** shows Metallic drop down

[0025] FIG. **14** shows Vertical folds

[0026] FIG. **15** shows Rind

[0027] FIG. **16** shows Perforated flaps

[0028] FIG. **17** shows Lift tab pivot point

[0029] FIG. **18** shows Dimples

[0030] FIG. **19** shows Pulp

[0031] FIG. **20** shows Convex bumps

[0032] FIG. **21** shows Separators

[0033] FIG. **22** shows Lifted sides

[0034] FIG. **23** shows Drip canal

[0035] FIG. **24** shows Bottle Cap

DETAILED DESCRIPTION OF THE EMBODIMENTS

[0036] Referring now to the drawings wherein the showings are for purposes of illustrating a preferred embodiment of the present invention and not for purposes of limiting the same, a flavor delivery system. All bottle bladders FIGS. (A), (B), (C), are attached via adhesive or heat melding, as per the manufacture, to a cap (**24**) as the cap seal (**1**) inside the beverage and house a flavor enhancer in a hollow internal cavity (**5**). Bladder FIG. (A) has the flavor enhancer delivered through a perforated split (**2**). Designed as a one handed approach, the perforated split (**2**) will separate upon pressure of being squeezed, allowing for the flavor enhancer to be dispensed into the top of the beverage container.

[0037] In another preferred embodiment bladder FIG. (B) has a pull tab (**3**) and requires a two handed delivery approach. One hand holds the cap (**24**) above the bottle opening and the other pulls the pull tab (**3**), tearing the perforation (**4**) and releasing the flavor enhancer into the bottle.

[0038] In another preferred embodiment bladder FIG. (C) is compressed (**6**) while in the bottle via collapsing vertical folds (**14**) and becomes expanded (**7**) when removed from the bottle. When the expanded (**7**) bladder (C) is pushed back down upon the rim of the bottle rim, creating pressure within the bladder (C) which squeezes the flavor enhancer through a perforated hole (**8**) in the bottom center of bladder (C).

[0039] Bladder (D) is attached to the underside of the multi-spout can top (E). The perforated chambers (**10**) are placed directly below each of the can top openings (**11**). In the case of no flavor enhancement being chosen, the original drink opening has no flavor enhancement below it. When the rotating lift tab (**12**) is rotated to a can top opening (**11**) other than the original flavor, the flavor enhancement is released by the metallic drop down (**13**) tearing the perforated flaps (**16**) and releasing the flavor enhancer.

[0040] The Shapes:

[0041] For bottles, the cap seal (**1**) of the bladders FIGS. (A), (B) (C) are on top and made to replace and resemble the conventional seal of the container, being circular and disk shaped while conforming to the top rim of the container and attached to the underside of the container cap (**24**).

[0042] Bladder FIG. (A) is shaped to resemble a slice of citrus fruit and may be colored accordingly in manufacturing to green for lime flavor, yellow for lemon flavor, orange for orange flavor or any other shapes and colors that may be express the type of flavor enhancer that is in the bladder (A). Also disclosed any fruit shaped bladder such as grape or banana that can hold a flavor enhancer and colored to represent fresh fruit.

[0043] Bladder FIG. (B) is a dome shape, intended to house flavors that do not represent themselves well by shape and that may not be readily visualized such as in a darker bottle. The bladder has a pull tab (**3**) at the bottom that is also dome shaped with a thin profile and horizontal ridges (**5**) to improve grip.

[0044] Bladder FIG. (C) is designed with four vertical folds (**14**) along the sides increasing in depth from top to bottom allowing distal contraction (**6**) of the bladder FIG. (C) when inside the bottle and distal expansion (**7**) of the bladder (C) when removed from the bottle. It contains a perforated hole (**8**) on the bottom center of a convex protrusion for the release of the flavor enhancer.

[0045] Bladder FIG. (D) is attached to the underside of the multi-spout can top FIG. (E) and has flavor chambers (**10**) located below each of the can top openings (**11**). The multi-spout can top FIG. (E) has a centrally located rotating lift tab (**12**) which rotates in circle around the lift tab pivot point (**17**) in order to choose a desired flavor enhancer. The individual flavor chambers (**10**) of the bladder FIG. (D) are pie-shaped within the circumference of the multi-spout can top FIG. (E). The number of flavor chambers (**10**) is dependent upon the number of can top openings (**11**). The flavor chambers (**10**) converge in the center under the lift-tab pivot point (**17**). Each flavor chamber (**10**) includes perforated flaps (**16**) on the top and bottom of bladder FIG. (D) that will tear and create two holes when the metallic drop down (**13**) of the can top opening (**11**) protrudes through the flavor chamber (**10**).

[0046] Texture:

[0047] Bladders FIGS. (A), (B), (C), (D) are made from flexible Oxy cap CS 25 medical grade silicon representing the material used in the seal of a beverage cap (**24**), or any other material considered a soft, flexible polymer type plastic that can be used as a seal as per the manufacturer.

[0048] Bladder FIG. (A) is a soft, flexible silicon rubber texture that was scanned from an actual slice of lime so as to create the look and contours of a slice of citrus. The rind (**15**) is consistent in feel with a citrus peel which is smooth, combined with multiple minute dimples (**18**) across the surface. The pulp (**19**) has numerous convex bumps (**20**) consistent with the feel of real pulp. It is flexible material allowing it to be squeezed.

[0049] Bladder FIG. (B) is smooth and uniform in feel, that being a soft, flexible silicon rubber texture. On the bottom of bladder FIG. (B) is a pull tab (**3**) that contains multiple indented horizontal ridges (**5**) allowing for firm gripping and pulling. There is a circumscribed perforation (**4**) just above the pull tab (**3**) which creates a thinner area designed for tearing when the tab (**3**) is pulled.

[0050] Bladder FIG. (C) is smooth and uniform in feel, that being a soft, flexible silicon rubber texture with the seams of the vertical folds (**14**) having a more solid expression in order to maintain expansion (**7**) memory when removed. There is a perforated hole (**8**) on the bottom of bladder FIG. (C) where the flavor enhancer comes out during pressure.

[0051] Bladder FIG. (D) is smooth and uniform in feel, that being a soft, flexible silicon rubber texture. The separators (**21**) between the flavor chambers (**10**) and the center where the separators (**21**) converge have a more ridged feel with a rounded contour extending from the separators (**21**) to the surface of the flavor chambers (**10**). The multi-spout can top FIG. (E) is an aluminum beverage can top with lifted sides (**22**), a drip canal (**23**) along the rim, a centrally located rotating lift tab (**12**), **2-4** multiple can top openings (**11**) each with a metallic drop down flap (**13**).

[0052] Additional modifications and improvements of the present invention may also be apparent to those skilled in the art. Thus, the particular combination of parts described and illustrated herein in intended to represent only one embodiment of the invention, and is not intended to serve as limitations of alternative devices within the spirit and scope of the invention.

We claim:

1. A beverage flavor enhancer system comprising a bladder with a hollow internal cavity capable of holding a flavor enhancer in a sealed manner with a cap seal the cap seal further attached to a bottle cap and wherein the hollow bladder has a perforated slit at the opposite end of the cap seal.

2. The beverage flavor enhancer system of claim **1** wherein the bladder has a texture and a fruit shape.

3. The beverage flavor enhancer system of claim **1** wherein the flavor enhancer is colored.

4. A beverage flavor enhancer system comprising a bladder with a hollow internal cavity capable of holding a flavor enhancer in a sealed manner with a cap seal the cap seal further removeably attached to a bottle cap and wherein the hollow bladder has a perforated slit in the cap seal.

5. The beverage flavor enhancer system of claim **4** wherein the bladder has a texture and a fruit shape.

6. The beverage flavor enhancer system of claim **4** wherein the flavor enhancer is colored.

7. A beverage flavor enhancer system comprising a bladder with a hollow internal cavity capable of holding a flavor enhancer in a sealed manner with a cap seal the cap seal further attached to a bottle cap and wherein the hollow bladder has a perforated slit that is sealed with a pull tab.

8. The beverage flavor enhancer system of claim **7** wherein the bladder has a texture and a fruit shape.

9. The beverage flavor enhancer system of claim **4** wherein the flavor enhancer is colored.

* * * * *