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Forgac et al.

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(54) **USING CARBON DIOXIDE REGULATORS TO EXTEND THE SHELF LIFE OF A CARBONATED BEVERAGE**

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(51) **Int. Cl.**
G01F 11/00 (2006.01)

(52) **U.S. Cl.** **426/474**; 426/477; 426/561; 426/591

(58) **Field of Classification Search** 222/1, 222/394; 426/561, 591, 474, 477
See application file for complete search history.

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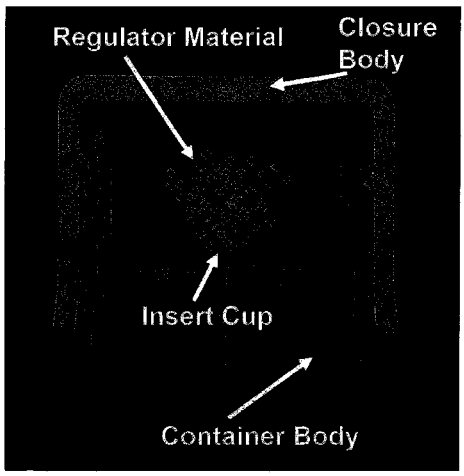
(57) **ABSTRACT**

A method for replenishing carbon dioxide gas in a carbonated beverage container where a carbon dioxide regulator releases carbon dioxide at a rate approximately equal to the rate of carbon dioxide loss from said container. Also shown is a packaging system for maintaining a consistent pressure of a carbonated beverage having a closure, a plastic container, and a carbon dioxide regulator. Also shown is a method for making a packaging system for maintaining a consistent pressure in a carbonated beverage having overmolding a preform around an assembly for a carbon dioxide regulator, or blending a carbon dioxide regulator into the plastic material used to form the body of a container for said carbonated beverage. Also shown is a carbon dioxide regulator composition for replenishing carbon dioxide gas in a carbonated beverage container having polymeric carbonates, organic carbonates, or materials that absorb and subsequently release carbon dioxide.

10 Claims, 10 Drawing Sheets

Regulator Cap Assembly with Regulator Disk and Liner