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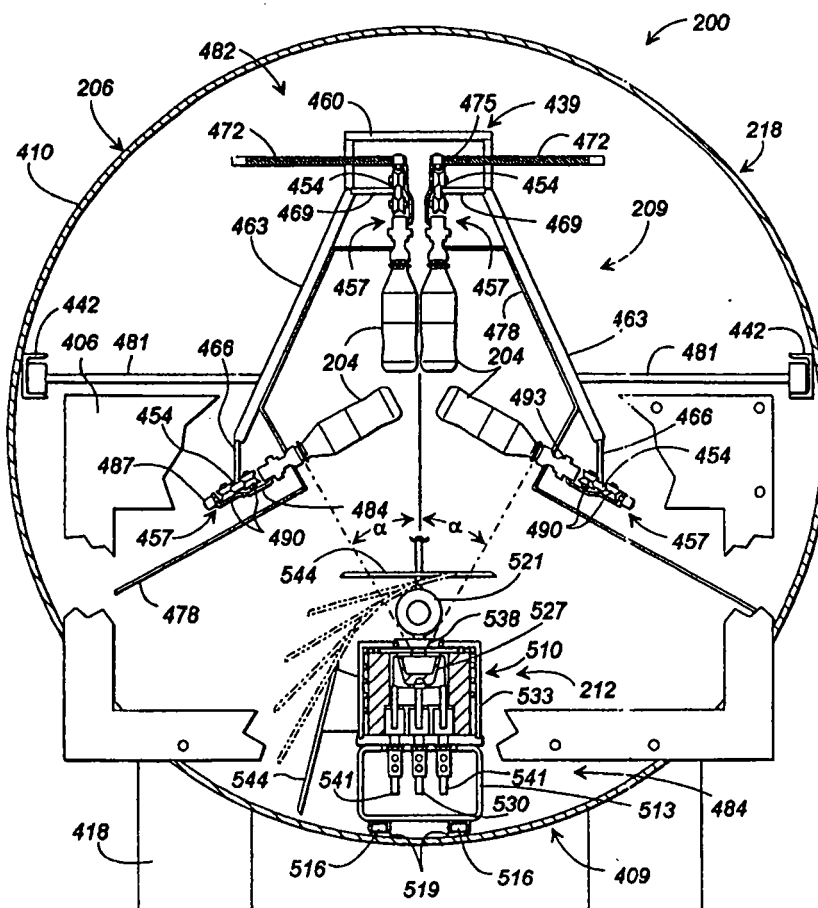


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(54) Title: PLASTIC CONTAINERS WITH AN EXTERNAL GAS BARRIER COATING

(57) Abstract

A coated plastic container provides for low permeability to gases and vapors. A method and system for coating plastic containers includes applying a thin inorganic oxide layer to the external surface of the containers with plasma-assisted vacuum vapor deposition. For example, the coating can include silica which is bonded to the external surface of the container. This coating is flexible and can be applied regardless of the container's internal pressure or lack thereof. The coating firmly adheres to the container and possesses an enhanced gas barrier effect after pressurization even when the coating is scratched, fractured, flexed and/or stretched. Moreover, this gas barrier enhancement will be substantially unaffected by filling of the container. A method of recycling coated plastic containers and a method and system for packaging a beverage using the coated containers are also disclosed.



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