

Title (en)
APPARATUS AND METHOD FOR REUSABLE, NO-WASTE COLLAPSIBLE TUBE DISPENSERS WITH CONTROL RIBS AND/OR DETENT, AND CAP CLOSURE

Title (de)
VORRICHTUNG UND VERFAHREN FÜR WIEDER VERWENDBARE, VERSCHWENDUNGSFREIE ZUSAMMENLEGBARE TUBENSPENDER MIT STEUERRIPPEN UND/ODER ARRETIERUNG SOWIE VERSCHLUSSKAPPE

Title (fr)
APPAREIL ET PROCÉDÉ POUR DES DISTRIBUTEURS EN TUBE DÉFORMABLES SANS PERTE, RÉUTILISABLE AVEC DES NERVURES ET/OU UN CRAN DE COMMANDE, ET FERMETURE À CAPUCHON

Publication
EP 2173627 A1 20100414 (EN)

Application
EP 07809124 A 20070522

Priority
US 2007012114 W 20070522

Abstract (en)
[origin: WO2008143617A1] At least one collapsible tube for containing at least one product, comprising flexible throat coupled to flexible shoulder which may include external flexible thread form on flexible throat coupled to flexible shoulder. The flexible throat and flexible shoulder flatten to dispense essentially all the contained product. The flexible shoulder may include a raised detent for stopping a cap and/or raised flexible ribs to control the direction of flattening the flexible shoulder. At least one cap for the collapsible tube including an interior bulge or an interior rim, both for urging an included interior thread form to engage with an external flexible thread form included in the flexible throat, and further including a lower surface to engage with the raised detent, and/or internal ribs and/or internal posts to engage with the raised flexible ribs. Manufacturing methods for the collapsible tubes and caps, and these items as products of the manufacturing processes.

IPC 8 full level
B65D 35/00 (2006.01); **B65B 7/28** (2006.01); **B65D 1/42** (2006.01); **B65D 1/46** (2006.01); **B65D 6/00** (2006.01); **B65D 6/28** (2006.01); **B65D 25/24** (2006.01); **B65D 35/08** (2006.01); **B65D 35/44** (2006.01); **B65D 43/18** (2006.01); **B65D 51/18** (2006.01)

CPC (source: EP)
B65D 35/08 (2013.01); **B65D 35/44** (2013.01); **B65D 2231/00** (2013.01); **Y02W 30/80** (2015.05)

Designated contracting state (EPC)
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC MT NL PL PT RO SE SI SK TR

Designated extension state (EPC)
AL BA HR MK RS

DOCDB simple family (publication)
WO 2008143617 A1 20081127; EP 2173627 A1 20100414; EP 2173627 A4 20111102

DOCDB simple family (application)
US 2007012114 W 20070522; EP 07809124 A 20070522