



(51) International Patent Classification:
B65D 3/06 (2006.01) **B65D 3/20** (2006.01)

(21) International Application Number:
PCT/EP2009/065854

(22) International Filing Date:
25 November 2009 (25.11.2009)

(25) Filing Language: English

(26) Publication Language: English

(72) Inventors: and

(71) Applicants : **LU, Wei** [IE/IE]; 26 Longdale Terrace, Ballymun, Dublin 9 (IE). **DUGGAN, Kenneth** [IE/IE]; 73 Charlemont, Griffith Avenue, Dublin 9 (IE).

(74) Agents: **SYRTSOVA, Ekaterina** et al.; Maclachlan & Donaldson, 47 Merrion Square, Dublin 2 (IE).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO,

DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PE, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report (Art. 21(3))

(54) Title: A CUP WITH INTEGRAL CLOSURE FLAPS

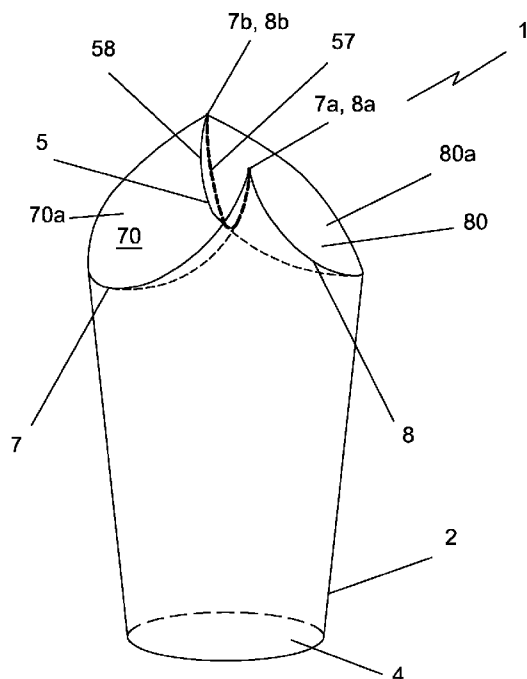


FIGURE 5

(57) Abstract: A frusto-conical cup (1, 20, 30, 40, 50) made from a flexible resilient material, having a circular rim (5) defining the top opening (6) of the cup. A pair of arcuate crease lines (7, 8) is formed at the opposing sides of the wall (2) of the cup below the rim defining a pair of flaps (70, 80) for closing the top opening of the cup by folding the flaps along the crease lines. Due to the resilience of the cup material, each flap can toggle between two stable positions on application of an initial external force on the flap, namely an open upright position in which the flap is convex and forms part of the wall of the cup, and a closed slanted position in which the flap changes its shape to concave. In the closed mode, the rim of one flap impinges against the inner face of the second flap and forms a spill-tight seal between the flaps. The seal is maintained due to static opposing forces acting between the flaps.