

Title (en)
CLOSURE FOR A BOTTLE OR THE LIKE

Title (de)
VERSCHLUSS FÜR EINE FLASCHE ODER DERGLEICHEN

Title (fr)
SYSTEME DE BOUCHAGE POUR BOUTEILLE OU SIMILAIRE

Publication
EP 0858416 B2 20030409 (DE)

Application
EP 96937235 A 19961025

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Abstract (en)
[origin: US6021912A] PCT No. PCT/EP96/04646 Sec. 371 Date Apr. 17, 1998 Sec. 102(e) Date Apr. 17, 1998 PCT Filed Oct. 25, 1996 PCT Pub. No. WO97/16356 PCT Pub. Date May 9, 1997A closure for a bottle, comprising a cap-shaped closure component; a projection directed inwardly from an edge of the cap-shaped closure component to grip behind an outwardly directed projection at a neck of a bottle; a substantially cylindrical sealing element extending axially from a bottom of the closure component, the sealing element being disposed within the closure component; and a radial projection formed outside of the sealing element and disposed away from the bottom and having a diameter larger than the inside diameter of the neck of the bottle to be sealed by the closure means in such a way that a sealing surface formed by the radial projection tightly rests against an inside surface of the neck in a closed mode. The bottom comprises a cross-sectional slimming disposed radially beyond the cylindrical sealing element, the slimming having a thickness less than the thickness of an adjacent portion of the bottom such that the slimming functions as a hinge. The bottom and the sealing element form an elbow lever pivotable about the hinge. At least one rib is disposed in a space formed between the bottom and the sealing element to brace the sealing element against movement relative to the bottom, such that upon bulging of the bottom the radial projection is substantially radially detached from the inside surface of the neck by a lever action of the elbow lever pivotable about the hinge.

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B65D 41/0421 (2013.01 - EP US); **B65D 51/1661** (2013.01 - EP US)

Citation (opposition)
Opponent :
• DE 9314226 U1 19950126 - OBERLAND GLAS [DE]
• EP 0316167 A2 19890517 - DAINIPPON INK & CHEMICALS [JP]

Cited by
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US 6021912 A 20000208; AT E182853 T1 19990815; AU 708953 B2 19990819; AU 7492196 A 19970522; BR 9611204 A 19990406; CA 2235743 A1 19970509; CN 1076304 C 20011219; CN 1201429 A 19981209; CZ 130798 A3 19990616; CZ 290059 B6 20020515; DE 29623290 U1 19980219; DE 59602656 D1 19990909; DK 0858416 T3 20000306; DK 0858416 T4 20030728; EP 0858416 A1 19980819; EP 0858416 B1 19990804; EP 0858416 B2 20030409; ES 2137019 T3 19991201; ES 2137019 T5 20031216; GR 3031694 T3 20000229; HK 1016141 A1 19991029; HU 225530 B1 20070129; HU P9900731 A2 19990628; HU P9900731 A3 20000628; JP 3712419 B2 20051102; JP H11514614 A 19991214; MX 9803279 A 19980930; NO 324160 B1 20070903; NO 981960 D0 19980430; NO 981960 L 19980430; PL 185699 B1 20030731; PL 327989 A1 19990104; TR 199800758 T2 19980721; WO 9716356 A1 19970509

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