

Title (en)  
CLOSING DEVICE WITH A PIERCING ELEMENT

Title (de)  
VERSCHLUSSVORRICHTUNG MIT EINEM DURCHSTOSSER

Title (fr)  
DISPOSITIF DE FERMETURE DOTE D'UN PERFORATEUR

Publication  
**EP 1399366 B1 20061004 (DE)**

Application  
**EP 02727153 A 20020610**

Priority  
• CH 0200307 W 20020610  
• CH 11822001 A 20010627

Abstract (en)  
[origin: US6851576B2] A closing device arranged above a pierceable point of a closed container including a lower part with a cylindrical discharge nozzle, a screw cover and a piercing element. The piercing element, which is open on both sides, is displaced downwards in an axial direction in a screw-like manner in a screw cover in the lower part of the closing device. The piercing element has two cutting elements offset at an angle which produce a continuous, interconnected cutting line, and a displacing element which shifts a partially cut-out tab of the container from a region of the discharge nozzle.

IPC 8 full level  
**B65D 5/74** (2006.01); **B65D 51/22** (2006.01)

CPC (source: EP US)  
**B65D 5/748** (2013.01 - EP US); **B65D 2251/0015** (2013.01 - EP US); **B65D 2251/0056** (2013.01 - EP US); **B65D 2251/0096** (2013.01 - EP US)

Cited by  
DE102012012937B3; DE102012212776A1; WO2014012692A1; WO2014001507A1; US9738427B2; US10676261B2; US11718457B2

Designated contracting state (EPC)  
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR

DOCDB simple family (publication)  
**US 2004149786 A1 20040805; US 6851576 B2 20050208**; AT E341494 T1 20061015; AU 2002257483 B2 20061130; BR 0210540 A 20040622; CA 2451751 A1 20030109; CN 1251932 C 20060419; CN 1522216 A 20040818; DE 50208344 D1 20061116; DK 1399366 T3 20070115; EP 1399366 A1 20040324; EP 1399366 B1 20061004; ES 2274030 T3 20070516; IL 159592 A0 20040601; IL 159592 A 20080413; RU 2004102050 A 20050310; RU 2288146 C2 20061127; WO 03002419 A1 20030109

DOCDB simple family (application)  
**US 48171603 A 20031219**; AT 02727153 T 20020610; AU 2002257483 A 20020610; BR 0210540 A 20020610; CA 2451751 A 20020610; CH 0200307 W 20020610; CN 02813144 A 20020610; DE 50208344 T 20020610; DK 02727153 T 20020610; EP 02727153 A 20020610; ES 02727153 T 20020610; IL 15959202 A 20020610; IL 15959203 A 20031225; RU 2004102050 A 20020610