

Title (en)
Beverage can cooling device.

Title (de)
Kühlvorrichtung für Getränkedosen.

Title (fr)
Dispositif refroidisseur de boîtes pour boissons.

Publication
EP 0279971 A1 19880831 (EN)

Application
EP 87301735 A 19870227

Priority
EP 87301735 A 19870227

Abstract (en)
A cooling device comprising a sealed closure structure (10 or 60) for containing liquidized cooling substance and a puncture device (30, 40 or 70) for puncturing the sealed closure structure (10 or 60). The closure structure (10 or 60) can be in the form of an accessory externally attachable to a beverage carrying can (50) or can be an integral part of the can. An appropriate cooling substance in a compressed liquidized form is charged into the closure structure (10 or 60). When an orifice is made through the sealed closure structure (10 or 60) by the puncture device (30, 40 or 70), the liquidized cooling substance therein will be vaporized to expand through the orifice. The vaporizing substance will absorb an amount of the heat of vaporization from the beverage can (50) so as to cool down the beverage therein.

IPC 1-7
F25D 3/10

IPC 8 full level
F25D 3/10 (2006.01)

CPC (source: EP)
F25D 3/107 (2013.01); **F25D 2331/805** (2013.01)

Citation (search report)

- [X] US 4584848 A 19860429 - BARNETT EUGENE R [US]
- [Y] GB 1516386 A 19780705 - SCHMALBACHLUBECA GMBH
- [Y] US 3309890 A 19670321 - BARNETT EUGENE R, et al
- [A] US 4319464 A 19820316 - DODD N RAY
- [A] US 3931905 A 19760113 - SHUMWAY ROGER R, et al
- [A] GB 1578017 A 19801029 - METAL BOX CO LTD
- [Y] US 3553976 A 19710112 - CUMINE ERIC, et al
- [Y] US 2059297 A 19361103 - WIDMAN CHARLES H, et al
- [E] US 4656838 A 19870414 - SHEN HWANG K [TW]
- [A] US 3696633 A 19721010 - MILLS EVAN D
- [A] US 3320767 A 19670523 - WHALEN GEORGE J
- [A] US 2898747 A 19590811 - WALES NATHANIEL B
- [A] US 3494143 A 19700210 - BARNETT EUGENE R, et al
- [A] US 4206805 A 19800610 - BECKETT RALPH R [US]

Cited by
FR2786715A1; US5555741A; GB2290131A; EP0632877A4; GB2313436A; US5961011A

Designated contracting state (EPC)
AT BE CH DE ES FR GR IT LI LU NL SE

DOCDB simple family (publication)
EP 0279971 A1 19880831; ZA 871417 B 19870916

DOCDB simple family (application)
EP 87301735 A 19870227; ZA 871417 A 19870226