

Search history

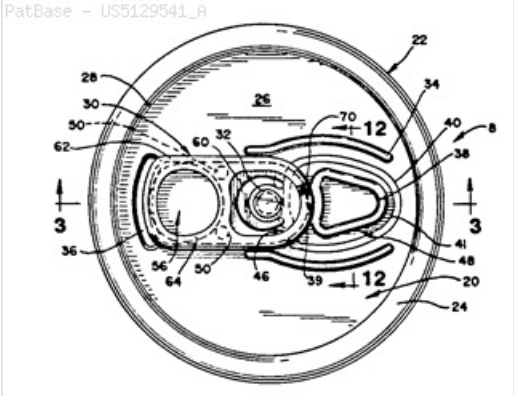
Search 1: TAC=(((can or beverage) W2 end) AND (full* W3 (aperture# OR open#))) and PD<20131108 and IC=(B65D* OR B65B) (Results 74)
Search 2: 2 AND (FT = puncture OR pierce# OR score#) (Results 282300)
Search 3: 1 AND (FT = puncture OR pierce# OR score#) (Results 42)
Search 4: 3 AND (FT = (panel OR plate) AND (tab OR hand*)) (Results 39)
Search 5: 4 AND (FT = rivet) (Results 35)

Title: EASY OPEN ECOLOGY **END** FOR **CANS**

Abstract: Source: US5129541A An easy open **can end** is disclosed having an attached tear strip across a portion of the **can end** outlined by a **score** line, and a round-shaped pull **tab** secured to the **can end** adjacent the attached tear strip, the pull **tab** including a nose portion having a clevis formed in an offset location relative to the pull **tab**'s longitudinal centerline, the **can end** including a pivot ridge member formed in a centered position relative to the logitudinal centerline of the attached pull **tab** for assisting in maximizing the offset forces applied by the pull **tab**'s nose portion. The offset clevis operates to create reduced opening forces when opening the **can end**, including a reduced initial "pop" pressure and a reduced "tear" pressure. These reduced forces result by having the offset clevis cause the initial "pop" opening to occur along only one side of the tear strip's **score** line and then the opening tear occurs sequentially along the remainder of the **score** line. This permits use of a **score** line of reduced depth, thereby leaving additional residual metal at the **score** line area, which increased residual metal results in less can leakage due to less incidents of unwanted **score** line fracture. The present invention's offset clevis **tab** pull is usable with **can ends** formed of steel and aluminum.

Classifications:

International (IPC 8-9): B65D17/32 B65D17/34
B65D47/36 (Advanced/Invention);
B65D17/28 B65D47/00 (Core/Invention)
International (IPC 1-7): B65D17/32 B65D17/34 B65D47/36
CPC: B65D2517/0073 B65D17/165 B65D2517/0014 B65D2517/0079
European: B65D17/16B2 L65D517/00Y2C L65D517/00Y7C3
US: 220/269



Family:

Publication number	Publication date	Application number	Application date
JP2549227 B2	19961030	JP19920141700	19920602
JP5162761 A2	19930629	JP19920141700	19920602
US5129541 A	19920714	US19910710165	19910604

Priority:

US19910710165 19910604

Probable Assignee: SILGAN CONTAINERS CORP

Assignee(s): (std): BUHRKE IND ; BAAKU IND INC

Assignee(s): BANK ONE MILWAUKEE NATIONAL ASSOCIATION ; BUHRKE IND INC ; TRANSELL INVESTMENT LTD ; BUHRKE TOOL AND DIE INC ; WELLS FARGO BUSINESS CREDIT INC ; SILGAN CONTAINERS CORP ; DEUTSCHE BANK TRUST CO ; LOWNEY PETER ; DEUTSCHE BANK TRUST CO AMERICAS ; TRANSELL INVESTMENT LTD A HONG KONG CO

Inventor(s): (std): DOBRZYNSKI JEFFREY A ; JIEFURII EI DOBURUJINSUKII ; RII AARU DABURIYU BOITO ; VOIGT LEE R W

Inventor(s): RII AARU DABURYU BOITO ; JEFURII EI DOBURUJINSUKII

Title: **Full-aperture** easy-**open** metal **can-end**

Abstract: Source: US5671860A **Full-aperture** easy-**open** metal **can-end** for a **can** of the lift-up type with a **tab**, having an endless **score**-line close to its outer circumference of the **can-end**, wherein the removable part is profiled with a plurality of terraces at different heights, including an outer terrace close to the outer circumference of the **can-end**, an innermost terrace and at least one intermediate terrace. Adjacent terraces merge into one another with a height transition. To achieve low tear-force and/or other advantages, the intermediate terrace is inclined in a direction opposite to that of the outwardly adjoining transition at an angle α in the range 3 to 20 degrees to a plane perpendicular to the can axis.

Classifications:

International (IPC 8-9): B65D17/34 B65D17/40

B65D17/44 (Advanced/Invention)

International (IPC 1-7): B65D17/34 B65D17/40 B65D17/44

CPC: B65D17/163

European: B65D17/16B1

US: 220/273 220/276

PatBase - US5671860_R

U.S. Patent Sep. 30, 1997 Sheet 1 of 3 5,671,860

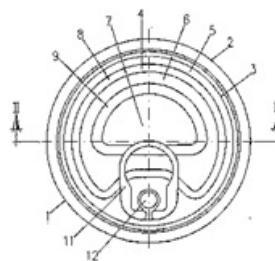


FIG. 1



FIG. 2

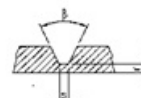


FIG. 3

Family:

Publication number	Publication date	Application number	Application date
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DE69401734 D1	19970327	DE19946001734	19941014
DE69401734 T2	19970612	DE19946001734T	19941014
DK0649793 T3	19970804	DK19940202993T	19941014
EP0649793 A1	19950426	EP19940202993	19941014
EP0649793 B1	19970212	EP19940202993	19941014
ES2097609 T3	19970401	ES19940202993T	19941014
NL9301812 A	19950516	NL19930001812	19931020
US5671860 A	19970930	US19940325103	19941017

Priority:

NL19930001812 19931020

Probable Assignee: HOOGOVS STAAL BV

Assignee(s): (std): HOOGOVS STAAL BV ; HOOGOVS GROEP BV

Assignee(s): HOOGOVS GROEP PO BOX BV ; HOOGOVS GROEP B V ; HOOGOVS STAAL PO BOX BV ; HOOGOVS STAAL B V ; HOOGOVS STAAL B V IJMUIDEN NL

Inventor(s): (std): LOUWERSE GERARD M ; LOUWERSE GERARD MARIE ; STEVENS EELCO A ; STEVENS EELCO ANTONIUS

Inventor(s): STEVENS EELCO ANTONIUS NL 1701 BL HEERHUGOWAARD NL ; LOUWERSE GERARD MARIE NL 1991 NG VELSERBROEK NL

Designated states: AT BE CH DE DK ES FR GB IT LI NL SE

Title: OPENABLE **CAN END** WITH SURPRISING OPENING PORTION

Abstract: Source: US6202880B An openable **can end** for a **beverage** can of usual type, having a first tear-out portion which seems to be openable, when a lever-type **tab** is operated. A second tear-out portion is also provided beside or outside the first portion, wherein the second tear-out portion tears out (or breaks in) instead of the expected first tear-out portion. Thus, it is possible to surprise the user upon opening such a beverage can, without impairing the simple and reliable opening of the beverage can.

Classifications:

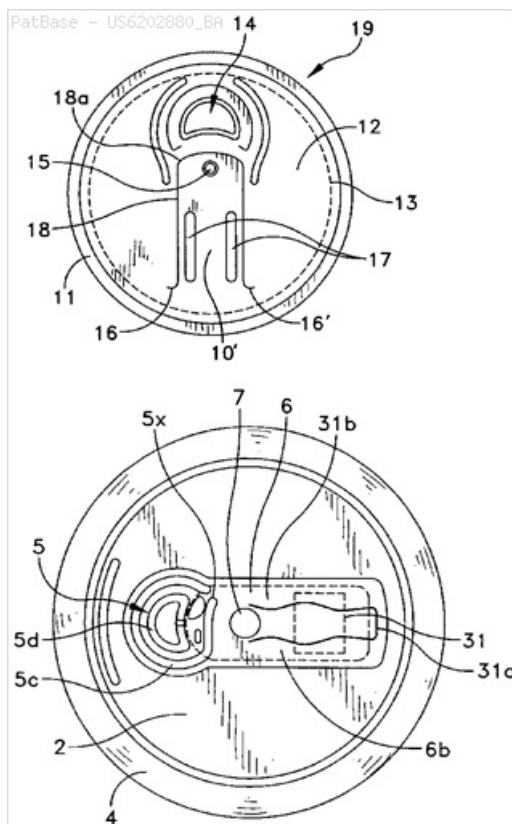
International (IPC 8-9): B65D17/28 B65D17/34 (Advanced/Invention); B65D17/28 (Core/Invention)

International (IPC 1-7): B65D17/28 B65D17/34

CPC: Y10S220/906 B65D17/165 B65D17/163

European: B65D17/16B1 B65D17/16B2

US: 220/269 220/906



Family:

Publication number	Publication date	Application number	Application date
AT193260 E	20000615	AT19960942246T	19960926
CA2232871 AA	19980324	CA19962232871	19960926
DE19639619 A1	19970327	DE19961039619	19960926
DE59605318 D1	20000629	DE19965005318	19960926
DK0852554 T3	20001030	DK19960942246T	19960926
EP0852554 A1	19980715	EP19960942246	19960926
EP0852554 B1	20000524	EP19960942246	19960926
ES2148822 T3	20001016	ES19960942246T	19960926
GR3034160 T3	20001130	GR20000401855T	20000809
PL183337 B1	20020628	PL19960325974	19960926
PL325974 A1	19980817	PL19960325974	19960926
PT852554 T	20001031	PT19960942246T	19960926
US6202880 BA	20010320	US19980043685	19980706
WO9711892 A1	19970403	WO1996DE01838	19960926

Priority:

DE19951035827 19950926
DE19965005318 19960926

DE19961039619 19960926

WO1996DE01838 19960926

Probable Assignee: SCHMALBACH LUBECA AG

Assignee(s): (std): REICHINGER RICHARD ; SCHMALBACH LUBECA ; STRUBE LUTZ

Assignee(s): SCHMALBACH LUBECA AG 38112 BRAUNSCHWEIG DE ; SCHMALBACH LUBECA 38112 BRAUNSCHWEIG DE AG ; SCHMALBACH LUBECA AG

Inventor(s): (std): STRUBE LUTZ ; REICHINGER RICHARD

Inventor(s): REICHINGER RICHARD LIVERPOOL GB ; LUTZ STRUBE ; RICHARD REICHINGER ; STRUBE LUTZ 38162 CREMLINGEN DE

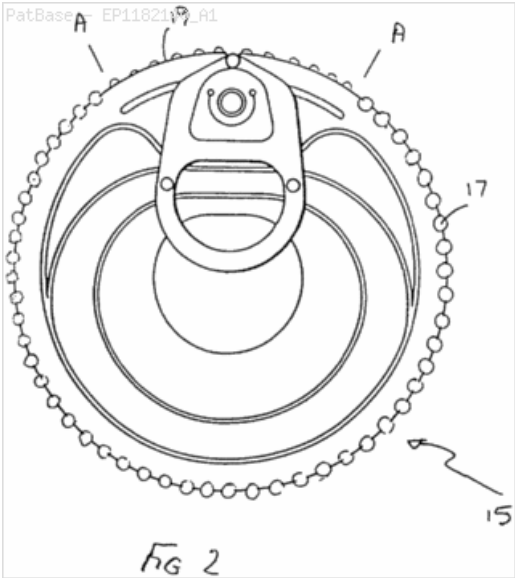
Agent(s): MARKS AND CLERK

Designated states: AT BE CA CH DE DK ES FI FR GB GR IE IT LI LU MC NL PL PT SE US

Title: Food can end

Abstract: Source: EP1182140A1 An easy open can end (1), for example of the full aperture type with a peripheral score (13) defining a removable portion, has deposits of protective material (17) provided on both sides of the end. The deposits are displaced relative to the score in different directions depending on their location. As a result, debonding of the deposit on opening can be controlled whilst ensuring that a user is protected from injury by the protective material preventing contact with cut edges when the can is opened.

Classifications:
International (IPC 8-9): B65D17/40 (Advanced/Invention); B65D17/28 (Core/Invention)
International (IPC 1-7): B65D17/40
CPC: B65D17/163 B65D2517/0016 B65D2517/0082 B65D2517/0089
European: B65D17/16B1 L65D517/00Y2D L65D517/00Y7D1 L65D517/00Y7Z



Family:

Publication number	Publication date	Application number	Application date
EP1182140 A1	20020227	EP20000301829	20000306

Priority:

EP20000301829 20000306

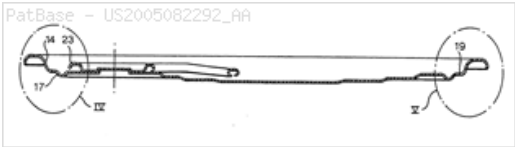
Probable Assignee: CROWN CORK AND SEAL TECH CORP
Assignee(s): (std): CROWN CORK AND SEAL TECH CORP
Assignee(s): CROWN CORK AND SEAL TECHNOLOGIES CORP
Designated states: AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

Title: **CAN END**

Abstract: Source: US2005082292A A **can end** (10) of the **full aperture** easy **open** end type, which comprises a seaming **panel** (12), a wall (14) depending from the seaming **panel**, a radiussed portion or "countersink" (16) and a centre **panel** (20). The end of the invention further includes a flat annulus or stepped portion (19) between the wall (14) and the countersink (16) such that, in the alternative, the **can end** is openable by engaging the blade of a can opener with the stepped portion.

Classifications:

International (IPC 8-9): B65D17/28 B65D17/40 B65D17/42 (Advanced/Invention)
International (IPC 1-7): B65D17/28 B65D17/40 B65D17/42
CPC: B65D17/163
European: B65D17/16B1
US: 220/270 220/276 220/619



Family:

Publication number	Publication date	Application number	Application date
AT358059 E	20070415	AT20030739439T	20030120
AU2003210171 AA	20030904	AU20030210171	20030120
DE60312823 D1	20070510	DE20036012823	20030120
DE60312823 T2	20070816	DE20036012823T	20030120
EP1336570 A1	20030820	EP20020251059	20020215
EP1474338 A1	20041110	EP20030739439	20030120
EP1474338 B1	20070328	EP20030739439	20030120
US2005082292 AA	20050421	US20030503218	20030120
WO03068615 A1	20030821	WO2003EP00521	20030120

Priority:

EP20020251059 20020215 EP20030739439 20030120 WO2003EP00521 20030120

Probable Assignee: CROWN CORK AND SEAL TECHNOLOGIES CORP

Assignee(s): (std): CROWN CORK AND SEAL TECH CORP ; CROWN CORK AND SEAL TECHNOLOGI ; CROWN CORK AND SEAL TECHNOLOGIES CORP ; CROWN PACKAGING TECHNOLOGY INC ; BENGE TERENCE ALEXANDER ; METAL BOX PLC ; WATKINS ROBERT

Assignee(s): DEUTSCHE BANK NEW YORK BRANCH AG AS ; CARNAUDMETALBOX PLC ; DEUTSCHE BANK AG ; BENGE TERENCE A

Inventor(s): (std): BENGE TERENCE A ; BENGE TERENCE ALEXANDER ; ROBERT WATKINS ; TERENCE ALEXANDER BENGE ; WATKINS ROBERT

Inventor(s): BENGE TERENCE

Agent(s): VINCENT L RAMIK, DILLER RAMIK AND WIGHT; VINCENT L RAMIK DILLER RAMIK AND WIGHT

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KP KR KZ LC LI LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NE NL NO NZ OM PH PL PT RO RU SC SD SE SG SI SK SL SN SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

Title: TOOLING FOR MAKING EASY OPEN **CAN END**

Abstract: Source: US2008066290A An improved convenience closure that is adapted for sealing an end of a can includes an end **panel** having a peripheral **score**, a **rivet** formation, a mustache **score** and a flex line **score** defined therein. The mustache **score** may include a central portion that is positioned radially inwardly on the end **panel** relative to the **rivet** formation. The central portion is preferably curved, with a concave side of the curvature facing the **rivet** formation. The mustache **score** also may include first and second preferably symmetrical end portions, each of which is continuous with the central portion. Most of the total length of each of the end portions may be curved away from a nearest portion of the peripheral **score**, with a convex side of curvature facing the nearest portion of the peripheral **score**. Tooling for making the convenience closure and a method of making such a convenience disclosure are also disclosed.

Classifications:**International (IPC 8-9):** B21C3/02 B21D11/10 B21D51/38

B21D51/44 B65D17/34 B65D17/347 B65D17/353

B65D17/40 (Advanced/Invention);

B21C3/00 B21D11/00 B21D51/38 B65D17/28 (Core/Invention)

CPC: B65D17/163 B65D17/24 B65D2517/0016 B65D2517/0092

B65D2517/0013 B65D2517/0052 Y10S220/906 Y10T29/5147

B21D51/383

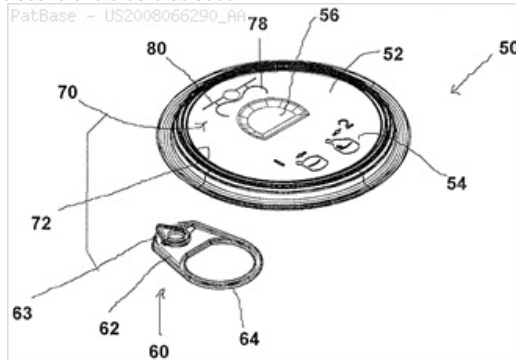
European: B21D51/38B B65D17/16B1 B65D17/24 L65D517/00Y2B

L65D517/00Y2D L65D517/00Y6B L65D517/00Y8A

US: 220/265 220/269 220/270 220/271 220/273 220/906 29/566

29/566P 413/12 413/12P 413/14 413/15 413/17 413/67 413/8

72/379.4 723/794

**Family:**

Publication number	Publication date	Application number	Application date
CA2662199 AA	20090302	CA20072662199	20070917
CA2662199 C	20160503	CA20072662199	20070917
DE602007028928 D1	20130502	DE200760028928T	20070917
EP2081709 A1	20090729	EP20070820261	20070917
EP2081709 B1	20130306	EP20070820261	20070917
ES2405267 T3	20130530	ES20070820261T	20070917
MX2009002894 A1	20090401	MX20090002894	20070917
US2008066290 AA	20080320	US20060533130	20060919
US2008067171 AA	20080320	US20060533114	20060919
US2008067174 AA	20080320	US20070678161	20070223
US2008067175 AA	20080320	US20070678165	20070223
US2008069666 AA	20080320	US20060533136	20060919
US2008069667 AA	20080320	US20070678164	20070223
US2010028104 AA	20100204	US20090578070	20091013
US7673490 BB	20100309	US20060533136	20060919
US7721906 BB	20100525	US20070678161	20070223
US7784322 BB	20100831	US20070678165	20070223
US7784323 BB	20100831	US20090578070	20091013
US7909555 BB	20110322	US20070678164	20070223
US7922025 BB	20110412	US20060533114	20060919
US8047754 BB	20111101	US20060533130	20060919
WO08034801 A1	20080327	WO2007EP59794	20070917

Priority:

EP20070820261 20070917	US20060533114 20060919	US20070678164 20070223
US20060533136 20060919	US20070678161 20070223	US20060533130 20060919
US20070678165 20070223	WO2007EP59794 20070917	US20090578070 20091013

Probable Assignee: CROWN PACKAGING TECHNOLOGY INC**Assignee(s):** (std): CROWN PACKAGING COMPANY L P ; CROWN PACKAGING TECH INC ; CROWN PACKAGING TECHNOLOGY INC ; CROWN PACKAGING UK PLC ; HEINICKE PAUL R**Assignee(s):** DEUTSCHE BANK NEW YORK BRANCH COLLATERAL AGENT AG AS ; CROWN PACKAGING CO LP ; CROWN PACKAGING TECHNOLOGY INC ALSIP**Inventor(s):** (std): HEINICKE PAUL ; HEINICKE PAUL R**Inventor(s):** HEINICKE PAUL R NW CANTON ; PAUL R HEINICKE**Agent(s):** FETHERSTONHAUGH AND CO; MARKS AND CLERK LUXEMBOURG LLP; RATLIFF ISMAY HILARY; CARPINTERO MARIO; KNOBLE YOSHIDA AND DUNLEAVY; KNOBLE YOSHIDA AND DUNLEAVY LLC; KNOBE YOSHIDA AND DUNLEAVY LLC; RATLIFF ISMAY**Designated states:** AE AG AL AM AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: **FULL APERTURE BEVERAGE END**

Abstract: Source: US2011056945A A **full aperture beverage end** has a center **panel**, a countersink surrounding the centre **panel**, a main **score** arranged in proximity to the countersink to define a removable aperture **panel** and a vent **score**. The **beverage end** is adapted for use with products that are pressurized to over 30 psi (200 kPa) when opened, and during opening the vent **score** is adapted to sever first, controlling the pressure differential between the external surface and internal surface of the centre **panel**, thereby allowing the main **score** to tear in a controlled and reliable manner.

Classifications:

International (IPC 8-9): B65B43/26 B65D1/12 B65D17/00

B65D17/28 B65D17/34 B65D17/347 B65D17/353

B65D17/40 (Advanced/Invention);

B65D (Subclass/Invention)

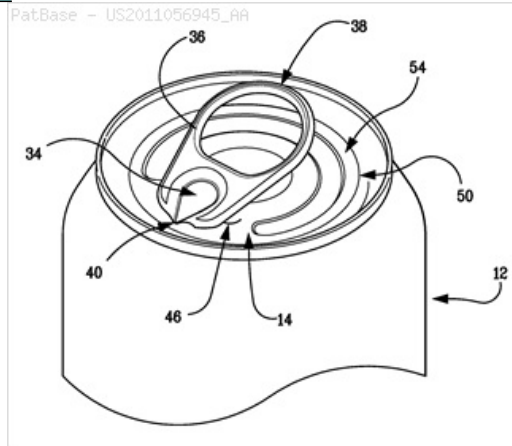
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CPC: B65D17/24 B65D17/165 B65D1/12 B65D2517/0013 B65D17/163

European: B65D17/16B1 B65D17/24

US: 220/269 220/270 220/273 426/122 53/492 53/492S D7/387 D9/434 D9/435

Locarno class: 09/07



Family:

Publication number	Publication date	Application number	Application date
AU2010291195 AA	20110310	AU20100291195	20100902
CA138254 S	20110720	CA20100138254F	20101208
CA2772712 AA	20110310	CA20102772712	20100902
CN102625769 A	20120801	CN201080050055	20100902
CN102625769 B	20160113	CN201080050055	20100902
CO6511215 A2	20120831	CO20120039169	20120306
DE602010032367 D1	20160602	DE201060032367T	20100902
DK2878547 T3	20160725	DK20100151688T	20100902
EP2473414 A1	20120711	EP20100747877	20100902
EP2878547 A1	20150603	EP20150151688	20100902
EP2878547 B1	20160413	EP20150151688	20100902
ES2575203 T3	20160627	ES20150151688T	20100902
HK1174313 A1	20170317	HK20130101318	20130130
HU030328 T2	20170529	HU20150151688T	20100902
JP2013503788 T2	20130204	JP20120527320T	20100902
MX2012002712 A1	20120419	MX20120002712	20100902
RU2012112951 A	20131010	RU20120112951	20100902
RU2558341 C2	20150727	RU20120112951	20100902
SG10201405480P A1	20141030	SG20141005480	20100902
SG178957 A1	20120427	SG20120014874	20100902
TH121544 A	20130228	TH20121000924	20100902
US2011056945 AA	20110310	US20100797171	20100609
US2012269934 AA	20121025	US20100393974	20100902
US2016207661 AA	20160721	US20150598886	20150116
US2017190462 A9	20170706	US20150598886	20150116
US8939308 BB	20150127	US20100797171	20100609
USD641239 S1	20110712	US20100363492F	20100610
WO11026900 A1	20110310	WO2010EP62877	20100902
ZA201201609 A	20121128	ZA20120001609	20120302

Priority:

EP20090169559	20090904	EP20100747877	20100902	US20100797171	20100609
US20100363492F	20100610	US20100393974	20100902	EP20150151688	20100902
WO2010EP62877	20100902	US20150598886	20150116		

Probable Assignee: CROWN PACKAGING TECHNOLOGY INC

Assignee(s): (std): CHANT GARRY RICHARD ; CROWN PACKAGING TECH INC ; CROWN PACKAGING TECHNOLOGY INC ; RAMSEY CHRISTOPHER PAUL ; LOCKLEY ANDREW ROBERT ; FIELDS BRIAN ; WATSON MARTIN JOHN ; HYDE ELEANOR RACHEL ANN ; KRAUN PEHKEHDZHING TEKNOLODZHI INK

Assignee(s): CROWN PACKAGING TECHNOLOGY INC ALSIP ; DEUTSCHE BANK NEW YORK BRANCH COLLATERAL AGENT AG AS

Inventor(s): (std): ANN HYDE ELEANOR RACHEL ; BRIAN FIELDS ; CHANT GARRY RICHARD ; CHANT GARRY RICHARD ; FIELDS BRIAN ; FILDZ BRAJAN ; HYDE ELEANOR RACHEL ANN ; JOHN WATSON MARTIN ; KHAJD EHLINOR REJCHEL EHNN ; LOCKLEY ANDREW ROBERT ; HYDE ELEANOR RACHEL ; HYDE ELEANOR RACHEL ANN ; LOKLI EHNDRIJU ROBERT ; PAUL RAMSEY CHRISTOPHER ; RAMSEY CHRISTOPHER ; RAMSEY CHRISTOPHER PAUL ; REHMSI KRISTOFER POL ; RICHARD CHANT GARRY ; ROBERT LOCKLEY ANDREW ; WOTSON MARTIN DZHON ; WATSON MARTIN JOHN

Inventor(s): WATSON MARTIN JOHN WANTAGE ; ANDREW ROBERT LOCKLEY ; RAMSEY CHRISTOPHER WANTAGE ; MARTIN JOHN WATSON ; HYDE ELEANOR RACHEL ANN WANTAGE ; LOCKLEY ANDREW ROBERT WANTAGE ; GARRY RICHARD CHANT ; FIELDS BRIAN LEMONT ; CHANT GARRY RICHARD WANTAGE ; CHRISTOPHER PAUL RAMSEY ; ELEANOR RACHEL ANN HYDE ; ELEANOR RACHEL ANN HYDE

Agent(s): DAVIES COLLISON CAVE ; DAVIES COLLISON CAVE PTY LTD ; FETHERSTONHAUGH AND CO ; SILVANA MARIA LOPEZ DIAZ ; MARKS AND CLERK LUXEMBOURG LLP ; SMITH DEBRA JANE CLARE ; WHITE

DUNCAN ROHAN; CARPINTERO MARIO; INO SARI; KURASAWA ICHIRO; MATSUSHITA MITSURU;
DESHIMARU TAKESHI; KUMAKURA YOSHIO; SPRUSON AND FERGUSON ASIA PTE LTD; BAKER AND
HOSTETLER LLP; WOODCOCK WASHBURN LLP; SMITH DEBRA

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU
CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL
IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT
MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST
SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: **CAN END** WITH FILM INSERT

Abstract: Source: US2012312815A A container end (20) having a dispensing aperture (50) with a closed position, in which the dispensing aperture is sealed, and an open position, in which product may be dispensed through the aperture (50). The end (20) includes a flexible film (70), which has at least one tongue (75) anchored to the end (20) outside the periphery of the aperture (50) and having a free end, which is visible in the dispensing aperture once the aperture is opened. The free end of the tongue (75) is concealed when the aperture (50) is closed, but becomes visible to a user once the aperture (50) is opened. Thus the film tongue (75) provides opportunities for promotional activities e.g. Prize award.

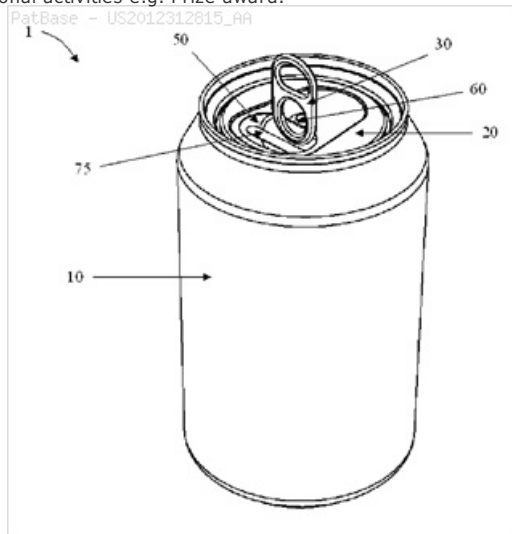
Classifications:

International (IPC 8-9): B65D17/00 B65D17/28 B65D17/34
B65D51/00 B65D51/24 (Advanced/Invention)

CPC: Y10S220/906 B65D17/165 B65D2517/0014 B65D2517/0052
B65D2517/0062

European: B65D17/16B2 L65D517/00Y2C L65D517/00Y6B
L65D517/00Y7A1A

US: 206/459.1 220/212 220/694 220/703 220/906 40/307



Family:

Publication number	Publication date	Application number	Application date
DE602010027925 D1	20151112	DE201060027925T	20101209
EP2509878 A1	20121017	EP20100787143	20101209
EP2509878 B1	20150930	EP20100787143	20101209
ES2554654 T3	20151222	ES20100787143T	20101209
GB200921551 A0	20100127	GB20090021551	20091209
TR201516780 T4	20160121	TR20150016780T	20101209
US2012312815 AA	20121213	US20100514462	20101209
US8998028 BB	20150407	US20100514462	20101209
WO11070107 A1	20110616	WO2010EP69267	20101209

Priority:

EP20100787143 20101209 GB20090021551 20091209 WO2010EP69267 20101209

Probable Assignee: CROWN PACKAGING TECHNOLOGY INC

Assignee(s): (std): CROWN PACKAGING TECH INC ; CROWN PACKAGING TECHNOLOGY INC ; FARROW SYLVIA MARIA ; RAMSEY CHRISTOPHER PAUL ; HYDE ELEANOR RACHEL ANN

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Inventor(s): ELEANOR RACHEL ANN HYDE

Agent(s): MARKS AND CLERK LUXEMBOURG LLP; SMITH DEBRA JANE CLARE; LIND ROBERT; CARPINTERO MARIO; TOLGA CAYLAK; BAKER AND HOSTETLER LLP; SMITH DEBRA

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: FLAP SCORE VENTING OF CAN END

Abstract: Source: US2011303672A A vent **score** lacks features to arrest **score** propagation. Rather encourages fast **score** propagation upon initial rupture. Venting is achieved through a flap configuration formed by the vent **score**.

Classifications:

International (IPC 8-9): B21D51/38 B26D3/08 B65B43/38 B65D

B65D17/00 B65D17/28 B65D17/34 (Advanced/Invention);

B65D17/34 (Core/Invention);

B65D (Subclass/Invention)

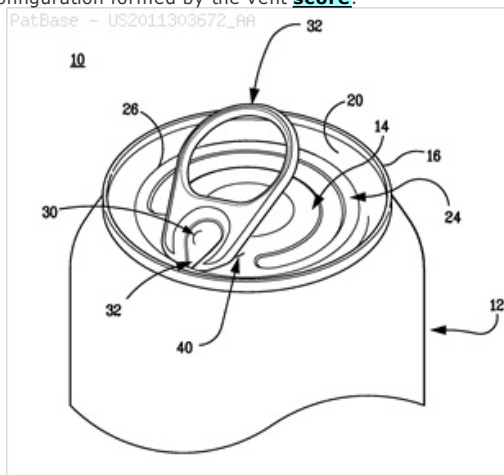
CPC: B65D17/165 B65D17/163 B21D51/383 B65D2517/0016

B65D2517/0062 B65D2517/0092 Y10T83/0333

European: B21D51/38B B65D17/16B1 L65D517/00Y2D

L65D517/00Y7A1A L65D517/00Y8A

US: 220/269 53/492 53/492S 83/879 83/879S



Family:

Publication number	Publication date	Application number	Application date
AU2011264511 AA	20111215	AU20110264511	20110526
AU2011264511 BB	20151210	AU20110264511	20110526
BR112012031527 A2	20161108	BR20121131527	20110526
CA2802053 AA	20121207	CA20112802053	20110526
CN103221314 A	20130724	CN201180039326	20110526
CN103221314 B	20170301	CN201180039326	20110526
DK2580135 T3	20170116	DK20110792880T	20110526
EP2580135 A1	20130417	EP20110792880	20110526
EP2580135 A4	20140430	EP20110792880	20110526
EP2580135 B1	20160921	EP20110792880	20110526
ES2607602 T3	20170403	ES20110792880T	20110526
HU031011 T2	20170628	HU20110792880T	20110526
JP2013531590 T2	20130808	JP20130514201T	20110526
JP5921532 B2	20160524	JP20130514201T	20110526
MA34367 B1	20130703	MA20130035545	20130107
MX2012014419 A1	20130226	MX20120014419	20110526
SA3933 B1	20150309	SA20110320517	20110608
SG186245 A1	20130130	SG20120090486	20110526
TH127573 A	20130920	TH20121006428	20110526
TR201618414 T4	20170123	TR20160018414T	20110526
US2011303672 AA	20111215	US20100796972	20100609
WO11156140 A1	20111215	WO2011US38050	20110526
ZA201209642 A	20150729	ZA20120009642	20121219

Priority:

EP20110792880 20110526 US20100796972 20100609 WO2011US38050 20110526

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Inventor(s): (std): FIELDS BRIAN ; KEANE BRENDAN

Inventor(s): BRENDAN KEANE ; BRIAN FIELDS

Agent(s): PETER MAXWELL AND ASSOCIATES; FETHERSTONHAUGH AND CO; SMITH DEBRA JANE CLARE; WHITE DUNCAN ROHAN; CARPINTERO MARIO; INO SARI; KURASAWA ICHIRO; MATSUSHITA MITSURU; DESHIMARU TAKESHI; KUMAKURA YOSHIO; TOLGA CAYLAK; FULLMER HAROLD H ET AL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW