

Petitioner's Demonstratives

**MPL Brands NV, Inc.
v.
BuzzBallz, LLC**

**PGR2024-00035
U.S. Patent No. 11,932,441**

Oral Hearing on September 17, 2025

Unpatentability Grounds

Ground	Basis	Reference(s)	Challenged Claims
1	§103	Coca-Cola PET Can alone or in view of AAPA	1-8
2	§103	Coca-Cola PET Can + AAPA + Protais	9-20
3	§103	Metzger + Protais + Kaminski	1-20
4	§103	Gardiner + Pedmo + Brown	1-20

Pet., p. 3-4.

Overview of Hearing Presentation

- **PGR Eligibility**
- **Ground 1: Claims 1-8**
 - Authentication of the Coke PET cans (also applies to Ground 2)
- **Ground 2: Claims 9-20**
 - Motivation to combine
 - Invalidity bases adequately set forth in Petition for claims 15-20
 - The first depression defines a first outline
- **Ground 3: Claims 1-20**
 - Motivation to combine
 - Resin and PET limitations obvious
- **Ground 4: Claims 1-20**
 - Motivation to combine
 - Resin and PET limitations obvious

U.S. Patent No. 11,932,441



US011932441B

(12) **United States Patent**
Kick

(10) **Patent No.:** US 11,932,441 B1
(45) **Date of Patent:** Mar. 19, 2024

(54) **CONTAINER**

D223,898 S	6/1972	Edwards
D224,516 S	8/1972	Amberg
D235,193 S	5/1975	Edwards
D254,716 S	4/1980	Mascia
4,936,482 A	6/1990	Gallagher et al.
D352,898 S	11/1994	Vacher
5,407,086 A	4/1995	Ota
D383,646 S	9/1997	Jeppesen
D448,666 S	10/2001	Fields
6,375,031 B1	4/2002	Kwan
D460,693 S	7/2002	Flowers

(Continued)

(71) Applicant: **Merrilee Kick**, Plano, TX (US)

(72) Inventor: **Merrilee Kick**, Plano, TX (US)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

(21) Appl. No.: 18/506,811

(22) Filed: **Nov. 10, 2023**

FOREIGN PATENT DOCUMENTS

Related U.S. Application Data

JP 05032248 A 2/1993
JP D1608809 S 7/2021
(Continued)

(63) Continuation of application No. 29/824,813, filed on Jan. 27, 2022, now abandoned, which is a continuation of application No. 16/800,195, filed on Feb. 25, 2020, now Pat. No. 11,338,955, which is a continuation of application No. 12/762,934, filed on Apr. 19, 2010, now Pat. No. 10,604,296.

OTHER PUBLICATIONS

Translation of Office Action with Search Report for Taiwanese Design Patent Application No. 111301016, dated Aug. 31, 2022; 3 pages.

(51) **Int. Cl.**
B65D 1/16 (2006.01)
B65D 17/28 (2006.01)

Primary Examiner — John K. Fristoe, Jr.
Assistant Examiner — Madison L. Poos
(74) Attorney, Agent, or Firm — HAYNES AND
BOONE, LLP

(52) **U.S. Cl.**
CPC *B65D 1/165* (2013.01); *B65D 1/16*
(2013.01); *B65D 17/4012* (2018.01)

(58) **Field of Classification Search**
CPC ... B65D 1/10; B65D 1/12; B65D 1/14; B65D
1/16; B65D 1/165; B65D 17/4012; B65D
2501/00; B65D 2501/0009

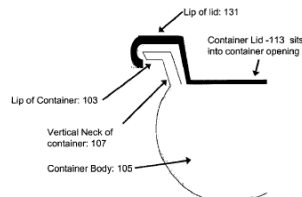
(57) **ABSTRACT**
A container for storing a liquid or a solid may include a container body having a container side wall and a container bottom and a container lid having a pop up arm to pivot and actuate with a wall of the bottom area to provide access to the interior of the container body. The container body may be formed from plastic and the container lid is formed from metal, and the container body may include a vertical neck. The container body may include a lip, and the bottom wall may include a center protrusion. The bottom wall may include a depression, and the bottom wall may include a radial extending depression.

(56) **References Cited**

U.S. PATENT DOCUMENTS

D49,555 S	8/1916	Vivaudou
D106,034 S	9/1937	Harrison
2,745,642 A	5/1956	Hermann
3,179,036 A	4/1965	Jackson
3,314,569 A	4/1967	Seiferth

Side View - Lid & Lip of Container
(Note: The lip and lid are enlarged to show hook)



EX-1001 PGR2024-00035

(54) **CONTAINER**

Ex. 1001, Title.

(57)

ABSTRACT

A container for storing a liquid or a solid may include a container body having a container side wall and a container bottom and a container lid having a pop top arm to pivot and cooperate with a weakened area to provide access to the interior of the container body. The container body may be formed from plastic and the container lid is formed from metal, and the container body may include a vertical neck. The container body may include a lip, and the bottom wall may include a center protrusion. The bottom wall may include a depression, and the bottom wall may include a radial extending depression.

Ex. 1001, Abstract.

Ex. 1001 ('441 patent).

U.S. Patent No. 11,932,441: Claims

What is claimed is:

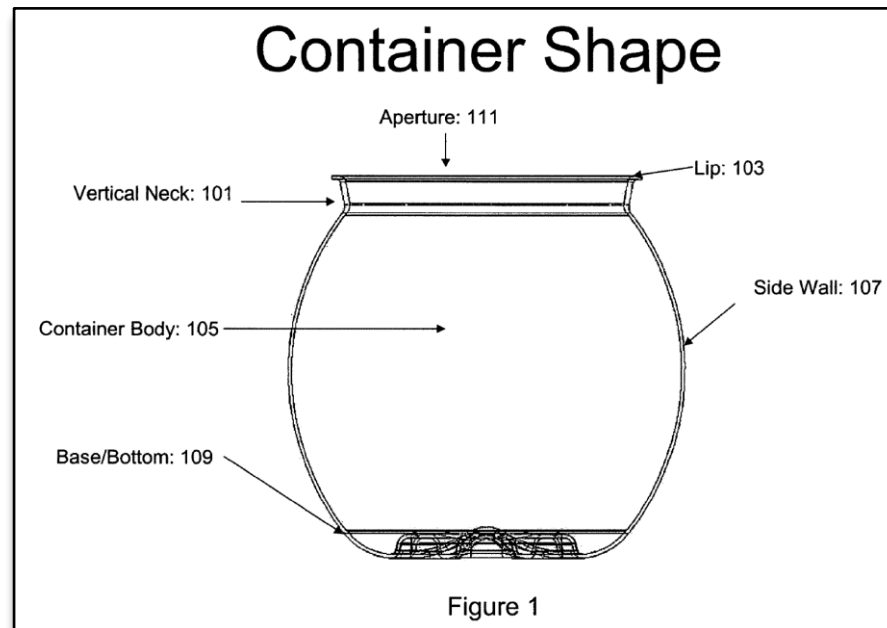
1. A container, comprising:

a container body, the container body defining a first opening to an interior of the container body; and
a lid connected to the container body and covering the first opening to the interior of the container body;
wherein the container body is made out of a resin;
wherein the lid is made out of a metal;
wherein the container body comprises a container side wall and a base portion connected to the container side wall;
wherein the base portion comprises a bottom and a first depression formed therein, the first depression extending upwardly from the bottom;
wherein the first depression at least partially defines a first outline;
wherein the base portion further comprises a center element centered with respect to the first outline at least partially defined by the first depression;
wherein each of the center element, and the first outline at least partially defined by the first depression, is centered with respect to the container side wall;
wherein each of the center element, and the first outline at least partially defined by the first depression, is centered with respect to the base portion;
wherein a cross-sectional diameter of the first opening to the interior of the container body is less than a cross-sectional diameter of a middle portion of the container side wall;
wherein the base portion defines a diameter that is less than the cross-sectional diameter of the middle portion of the container side wall;
wherein a lower portion of the container side wall extends downwardly from the middle portion of the container side wall to the base portion of the container body, the lower portion along its entirety being greater in diameter than the base portion, including the bottom, thereby rendering the container body stemless;
wherein the container body further comprises a circular neck extending from the container side wall so that the container side wall extends between the circular neck and the base portion;
wherein an upper edge of the container side wall is adjacent to the circular neck of the container body;
wherein the container body further comprises a lip at an end of the circular neck opposite the upper edge of the container side wall;
wherein the circular neck is adjacent to the lip;
wherein a first portion of the lid is above the lip of the container body;
wherein the first portion of the lid defines a first circular shape;
wherein the first portion of the lid further defines a second circular shape around which the first circular shape circumferentially extends;
wherein the second circular shape defined by the first portion of the lid is concentric with the first circular shape defined by the first portion of the lid;
wherein the first circular shape defined by the first portion of the lid is radially positioned between the container side wall and the second circular shape defined by the first portion of the lid;

wherein a second portion of the lid extends horizontally and is positioned so that the second circular shape is radially positioned between the second portion of the lid and the first circular shape;
wherein the second portion of the lid defines a total area across which the second portion of the lid extends horizontally;
wherein the second portion of the lid comprises a weakened or scored area;
wherein the weakened or scored area is less than the total area across which the second portion of the lid extends horizontally;
wherein the lid further comprises an arm connected to the second portion of the lid and radially positioned within the second circular shape;
wherein the arm comprises opposing first and second end portions;
wherein the arm is pivotable from a first position, in which the arm extends horizontally and the weakened or scored area is not deformed, to a second position, in which the arm does not extend horizontally and the weakened or scored area is deformed to provide a second opening to the interior of the container body;
wherein an upper portion of the container side wall extends upwardly from the middle portion of the container side wall to the upper edge of the container side wall, the upper portion along its entirety being greater in diameter than the first opening to the interior of the container body;
wherein the container body contains a liquid therewithin;
wherein the lid cooperates with the lip to provide a seal so that the liquid contained within the container body is sealed against leaking out from between the container body and the lid;
wherein, when the arm of the lid is in the first position and the weakened or scored area is not deformed:
the first end portion of the arm is not positioned above the weakened or scored area of the second portion of the lid; and
at least a portion of the second end portion of the arm is positioned above the weakened or scored area of the second portion of the lid;
wherein the container side wall extends between the circular neck and the base portion so that:
the upper portion of the container side wall defines a first angle:
between the upper portion of the container side wall and the bottom of the base portion, and
with respect to the bottom of the base portion;
the middle portion of the container side wall defines a second angle:
between the middle portion of the container side wall and the bottom of the base portion, and
with respect to the bottom of the base portion;
the lower portion of the container side wall defines a third angle:
between the lower portion of the container side wall and the bottom of the base portion, and
with respect to the bottom of the base portion;
the first angle is an acute angle;
the third angle is an obtuse angle;
the second angle is greater than the first angle; and
the third angle is greater than the second angle;
and
wherein the interior of the container body extends continuously across the cross-sectional diameter of the middle portion at a height midway between the circular

neck and the base portion so as to be interrupted, if at all, only by the liquid contained within the container body.

Ex. 1001, claim 1



Ex. 1001, Figure 1.

PGR Eligibility of the '441 Patent

PGR Eligibility

(n) EFFECTIVE DATE.--

(1) IN GENERAL.--Except as otherwise provided in this section, the amendments made by this section shall take effect upon the expiration of the 18-month period beginning on the date of the enactment of this Act, and shall apply to any application for patent, and to any patent issuing thereon, that contains or contained at any time--

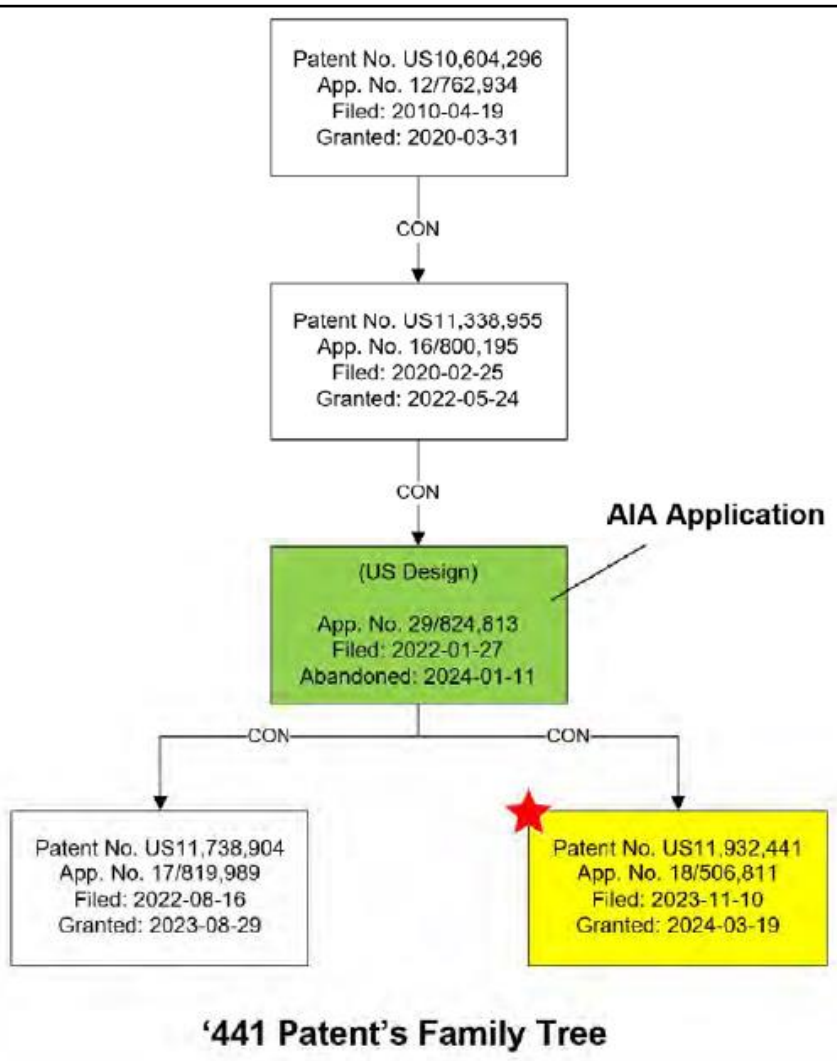
(A) a claim to a claimed invention that has an effective filing date as defined in [Section 100\(i\) of title 35](#), United States Code, that is on or after the effective date described in this paragraph; or

(B) a specific reference under section 120, 121, or 365(c) of title 35, United States Code, to any patent or application that contains or contained at any time such a claim.

Leahy-Smith AIA, Section 3(n).

Relevant priority date for PGR eligibility: on or after March 16, 2013

PGR Eligibility: '441 Patent Priority Data



Pet., p. 5.

(21) Appl. No.: **18/506,811**

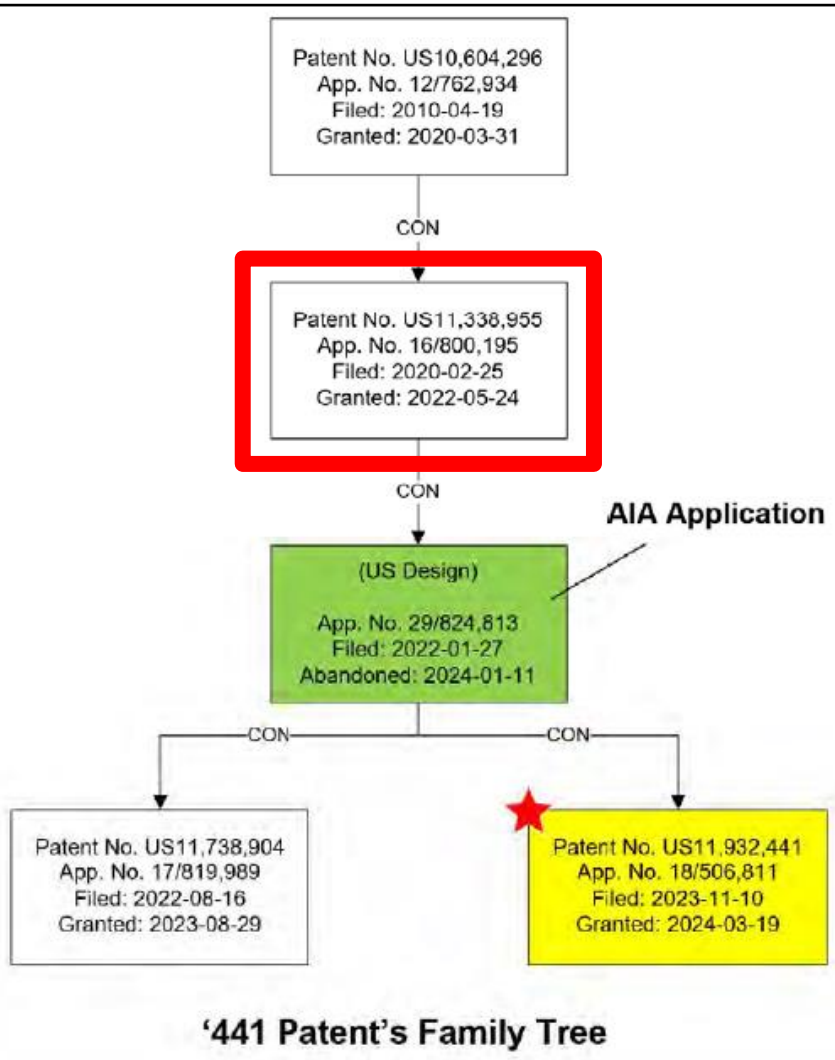
(22) Filed: **Nov. 10, 2023**

Related U.S. Application Data

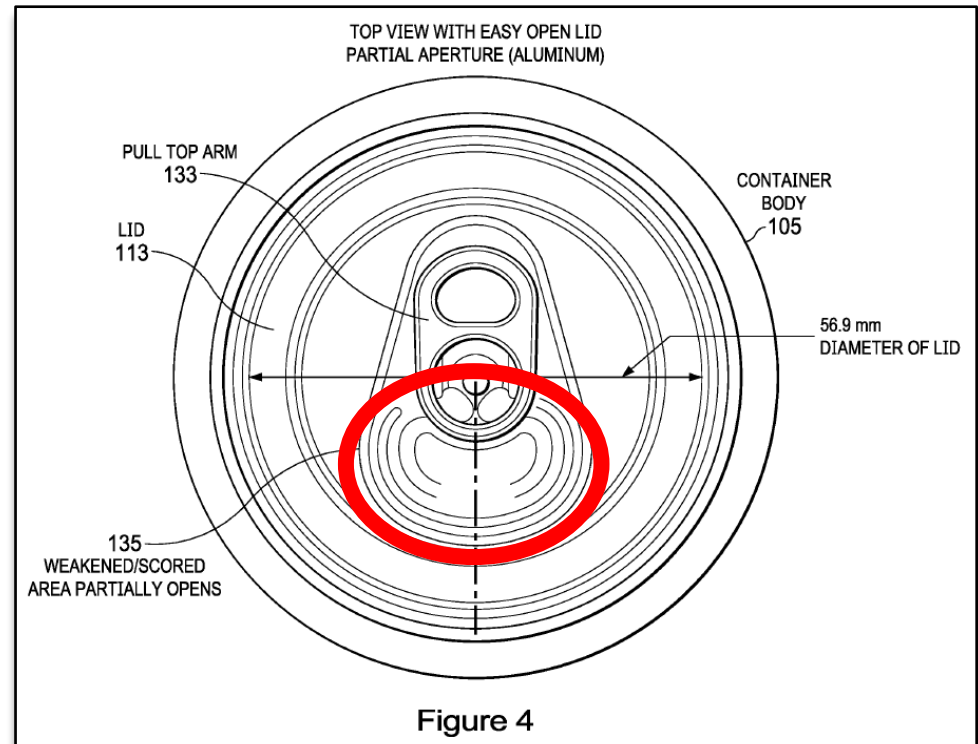
(63) Continuation of application No. 29/824,813, filed on Jan. 27, 2022, now abandoned, which is a continuation of application No. 16/800,195, filed on Feb. 25, 2020, now Pat. No. 11,338,955, which is a continuation of application No. 12/762,934, filed on Apr. 19, 2010, now Pat. No. 10,604,296.

Ex. 1001, Priority Data.

PGR Eligibility: '195 Patent Application

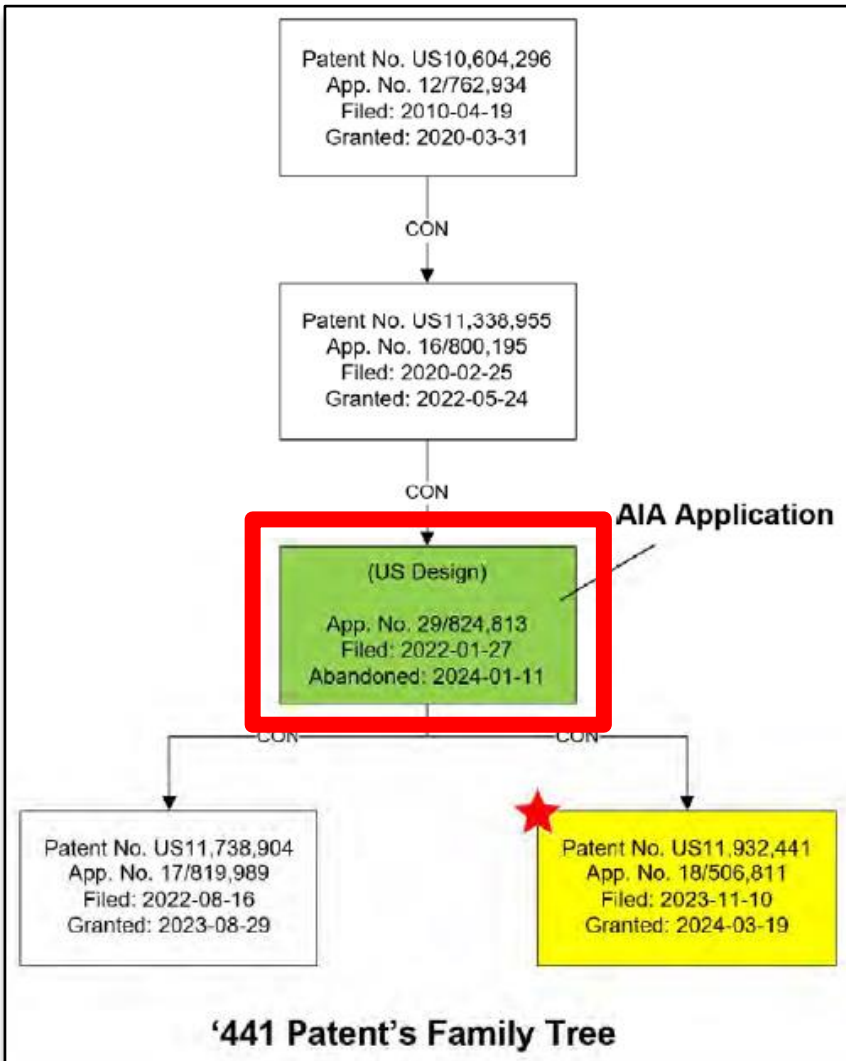


Pet., p. 5 (annotation added).

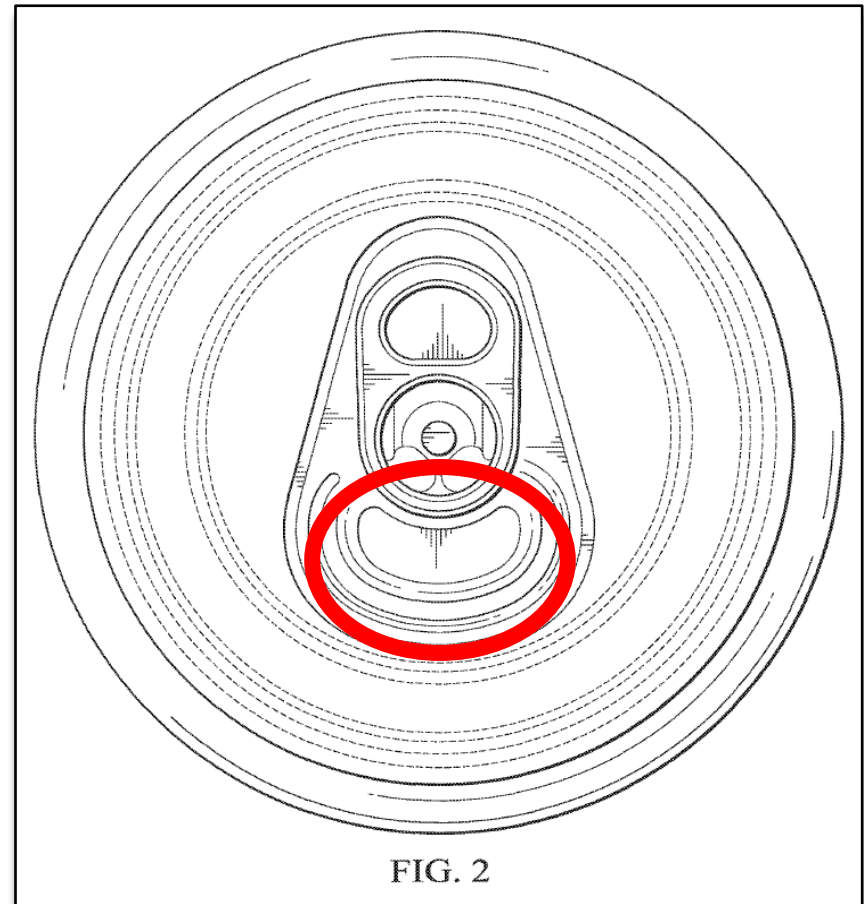


Ex. 2002, p. 106 (annotation added);
see also Pet., p. 6.

PGR Eligibility: '813 Design Patent Application



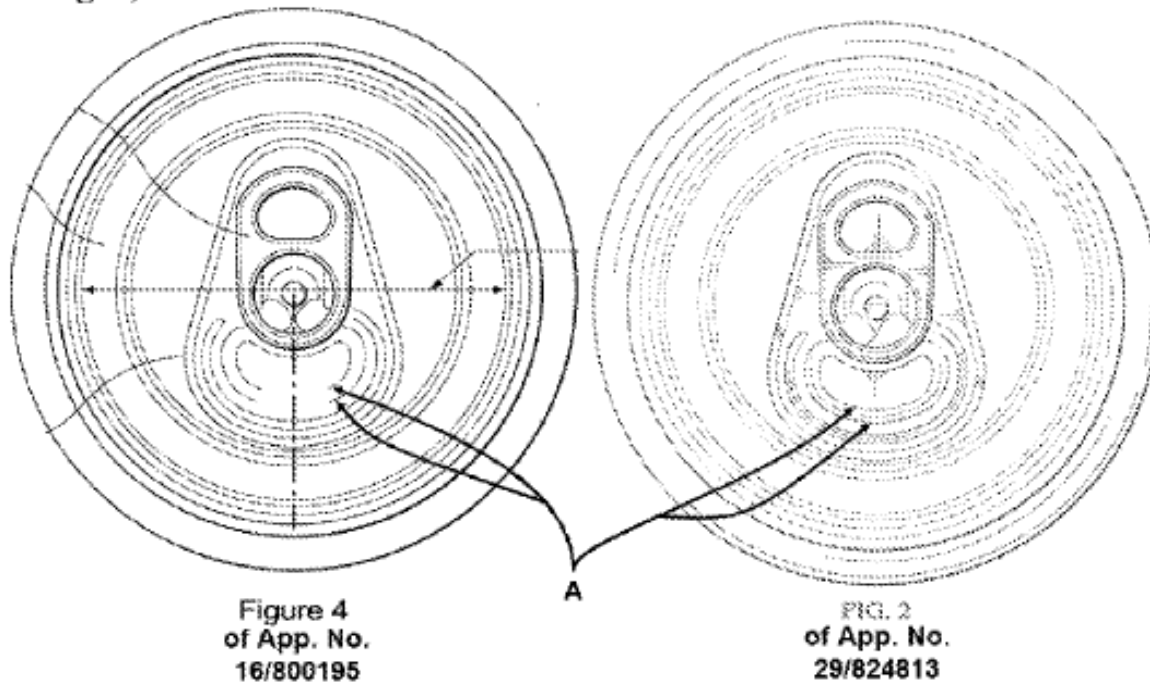
Pet., p. 5 (annotation added).



Ex. 1003, p. 187 (annotation added);
see also Pet., p. 6.

PGR Eligibility: Examiner Rejection in '813 File Hist.

- Shape of bottom contour of tear strip portion of popstop has been changed (see **Annotated Drawing A**)



Ex. 1003, p.107;
see also Pet., p. 6.

PGR Eligibility: Examiner Rejection in '813 File Hist.

Without additional directions or guidance in the prior-filed application, a design that includes the above feature could not have been recognizable upon filing of the earlier application.

In order to overcome the objection, it is suggested that Applicant may choose:

- To keep the changed tear strip appearance – Change the status from “Continuation” to “Continuation-In-Part” by filing a corrected Application Data Sheet (ADS) in compliance with 37 CFR 1.76(c) and amending the specification language as appropriate; **OR**,
- To keep the Continuation status – Convert the tear strip appearance in Fig. 2 to that which was shown in the parent application.

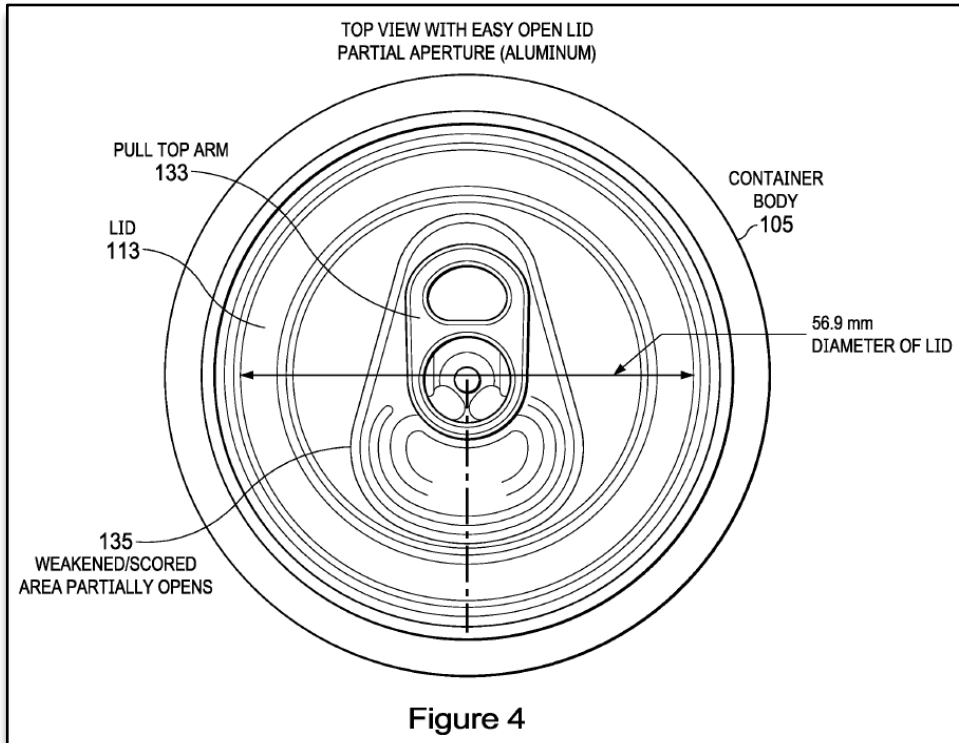
Ex. 1003, p. 108;
see also Pet., p. 6.

PGR Eligibility: Dr. Rojas's Opinions

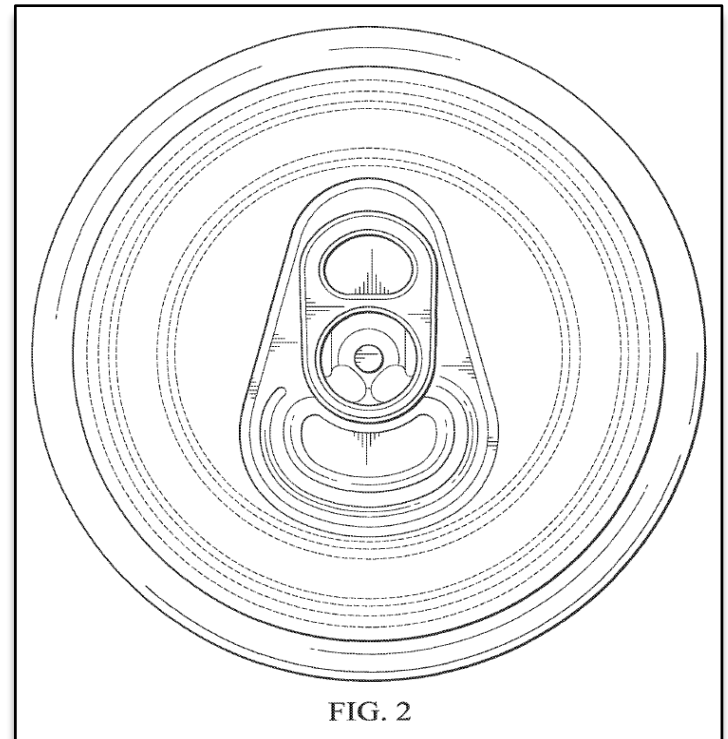
50. A POSITA, familiar with technical drawings and drawing conventions, would immediately recognize that the design as a whole shown in Figure 2 of the '813 Application was the same design shown in Figure 4 of the '195 Application. The specific feature Petitioner identifies as allegedly new matter is well understood by a POSITA, based on the drawings and detailed description of the '195 Application, as mere shading or contour lines. The two lines forming the shape within the tear strip in Figure 4 of the '195 Application illustrate that the slope of the surface forming the ridge shown by these lines is more steeply inclined at the top and gradually flatten toward the bottom. *See* Ex.2002, 106 ('195 Application, Fig. 4). This same feature is shown by the lines being connected in the '813 Application. A POSITA would have understood that this simple change in how the design was illustrated was not a new design or new matter included in Figure 2 of the '813 Application.

Ex. 2028, ¶ 50.

PGR Eligibility: Dr. Rojas's Opinions



Ex. 2002 ('195 Application), p. 106.



Ex. 1003 ('813 Application), p. 187.

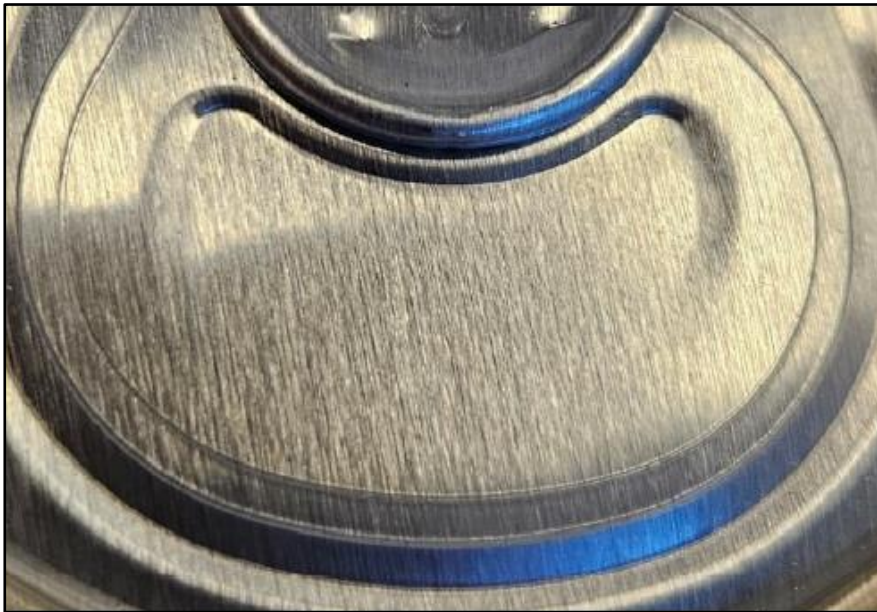
PGR Eligibility: Dr. Delson's Opinion

10. I disagree with Dr. Rojas' unsupported assertion that the differences in the two figures show "mere shading," as they reflect different lid designs with different physical structures, as demonstrated below.

12. In response to the assertions made by Mr. Kirkpatrick and Dr. Rojas, I inspected Fig. 4 of the '195 application (EX2002, 106) and Fig. 2 of the '183 application (EX1003, 87). A comparison of those two figures shows that they depict differing lid designs. Fig. 4 of the '195 application depicts a lid that has contour lines that start on either side of the tab, curve downward and inward, and then stop. The contour lines do not connect. Fig. 2 of the '183 application depicts a lid that has contour lines that start on either side of the tab, curve downward and inward, and continue until they connect.

Ex. 1019, pp. 4-5.

PGR Eligibility: Design Differences

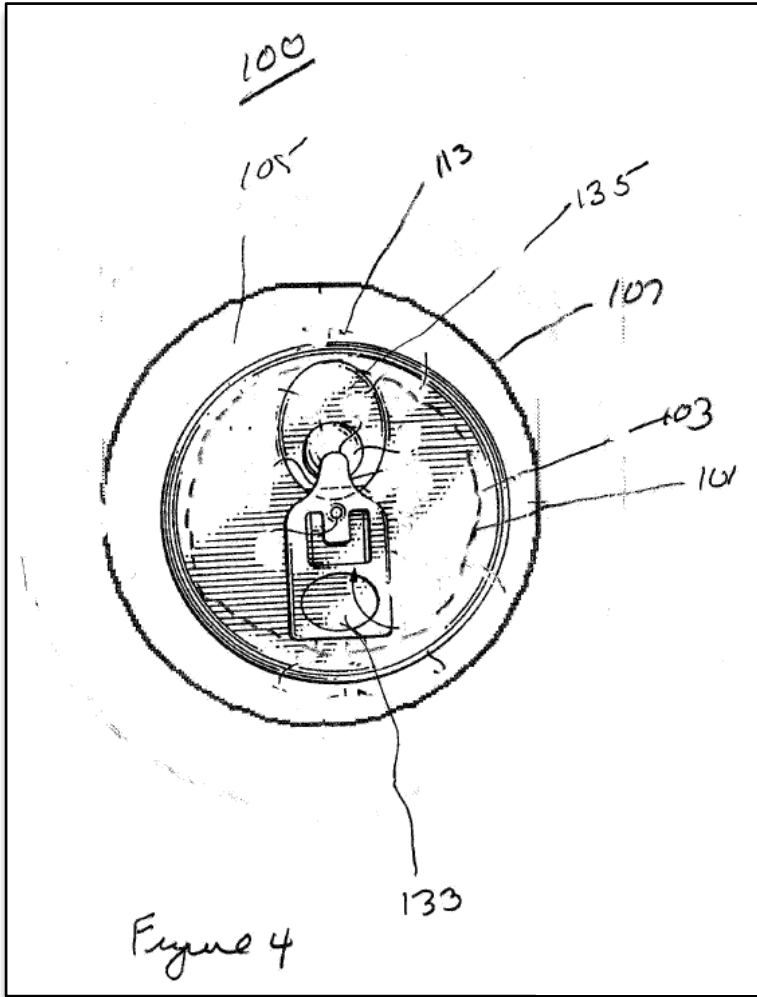


Pet. Reply, p. 5.

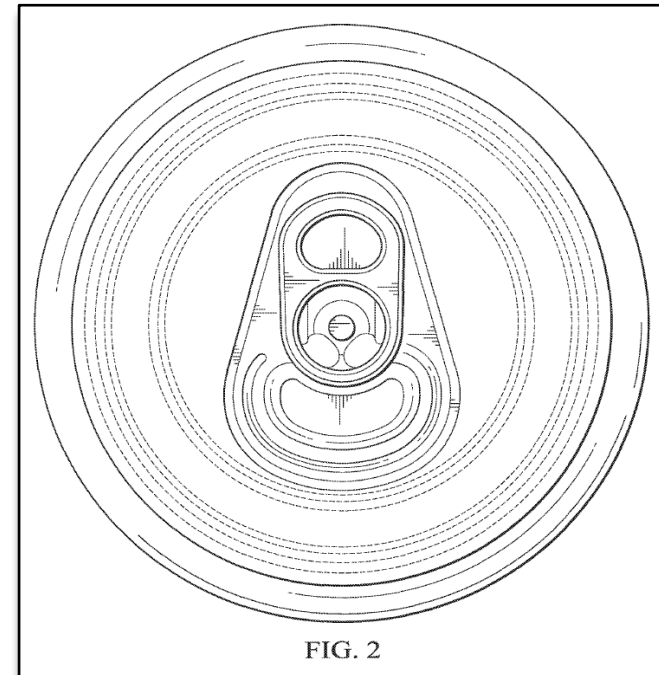


Pet. Reply, p. 6.

PGR Eligibility: Dr. Rojas' Opinion



Ex. 1021 ('934 Application), p. 17.



Ex. 1003 ('813 Application), p. 187.

PGR Eligibility: Dr. Rojas's Testimony

Q. So would a POSITA with that background and experience in container design and development of fluid containers be familiar with the '202 patent which is Exhibit 2005?

A. They may or they may not. It depends on their background.

Ex. 1022 (Rojas Depo. Tr.), 44:4-9.

Q. And you described a POSITA in paragraph 14 of your declaration; correct?

A. Yes.

Q. So would the person -- a hypothetical person with the experience listed in paragraph 14 who has "a bachelor's degree or higher in mechanical engineering, materials science or

physics, and at least two years of practical experience in the field of container design and manufacturing, including experience performing engineering analysis, design, and product development in fluid containers," would that person have knowledge of the '202 patent?

MR. ERICKSON: Objection. Form.

THE WITNESS: I believe I answered that.

They may or may not, depending on their background of the POSITA.

I understand that you said it's a hypothetical, generic statement. But POSITAs are engineers that work in the field that have a particular background. One person may be working just with a very particular section of that engineering.

It doesn't mean that they have the full breadth of all patents, right. They may or may not, is the answer.

Ex. 1022 (Rojas Depo. Tr.), 44:19-45:19.

Ground 1: Obviousness in view of the Coke PET cans alone or combined with AAPA

Ground 1: Coke PET Can Alone or with AAPA

Coca-Cola Classic Can:



"New" Coke Can:



Diet Coke Can:



Sprite Can



Norris Reply Decl.
(Ex. 1020), pp. 4-10.

Ground 1: Coke PET Cans Were Authenticated

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

MPL BRANDS NV, INC.

Petitioner,

v.

BUZZBALLZ, LLC

Patent Owner.

PTAB Case No. PGR2024-00035

U.S. Patent No. 11,932,441

DECLARATION OF JOSEPH T. NORRIS

EX-1005 PGR2024-00035

Norris Declaration:

- “I am familiar with a PET can that Coca-Cola developed and commercialized in the mid-1980s. The project to commercialize a plastic can for Coca-Cola’s soft drink products (e.g., Coke (referred to a[s] ‘Coke Classic’ for a period of time), Diet Coke, Sprite) started in 1983 under the project name ‘PCAN.’”
- “I took over as project manager of PCAN in 1984.”
- “The PET cans were distributed via route trucks to retailers in Western Georgia and Eastern Alabama. Supermarkets like Winn Dixie and Piggly Wiggly carried them, along with convenience stores in the region.”
- “Coca-Cola went to market with four products in its PET can, starting in October 1985—Coca-Cola Classic, ‘New Coke,’ Diet Coke, and Sprite.”
- “As I state above, Coca-Cola PET can products were only on sale for around six months starting in October 1985.”

Norris Decl. (Ex. 1005), pp. 4, 11, 14-15.

Ground 1: Coke PET Cans Were Authenticated

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

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PTAB Case No. PGR2024-00035

U.S. Patent No. 11,932,441

DECLARATION OF JOSEPH T. NORRIS

EX-1005 PGR2024-00035

Norris Declaration:

- “I understand that MPL and its counsel are in possession of several Coca-Cola PET cans, including a Sprite, Diet Coke, Coca-Cola Classic, and New Coke can. I have reviewed images of these products, which I understand are exhibits to MPL’s petition and have compared them to the Coke PET cans from 1985 that I have in my personal collection. They have PETAINER on the base in CAPS and the patent # PAT 4,405,546 and other designs.”
- “Based on the markings of the PET can products in possession of MPL and a comparison of these products to the ones in my possession, I can verify that the Coca-Cola PET cans that I understand were submitted as prior art in this PGR proceeding by MPL are the same products that were commercialized by Coca-Cola in 1985 and 1986 and were publicly available to consumers for purchase. These cans have the same shape and markings that I describe above, which confirms that they were filled and assembled in Coca-Cola’s Columbus, Georgia facility from 1985 to 1986.”

Norris Decl. (Ex. 1005), pp. 16-17.

Ground 1: Coke PET Cans Were Authenticated

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

MPL BRANDS NV, INC.

Petitioner,

v.

BUZZBALLZ, LLC

Patent Owner.

PTAB Case No. PGR2024-00035

U.S. Patent No. 11,932,441

REPLY DECLARATION OF JOSEPH T. NORRIS

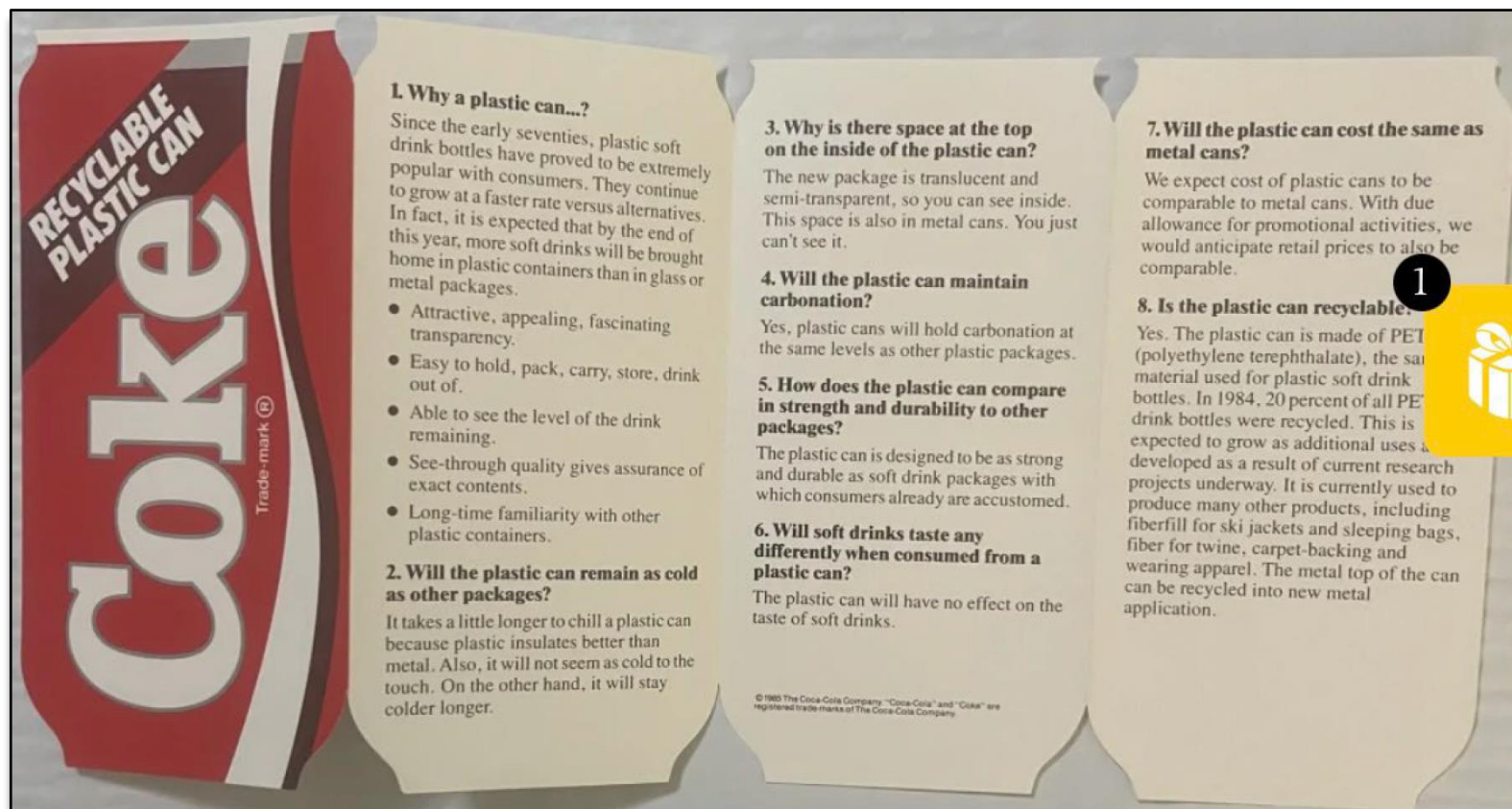
MPL Brands NV, EX-1020
MPL Brands NV, Inc. v. BuzzBallz, LLC
PGR2024-00035

Norris Reply Declaration:

- “My belief was based upon my inspection of those cans through those photographic images, my inspection of the cans during video streaming, as well as a comparison of those cans to cans in my own possession.”
- “To respond to Patent Owner’s argument that the images in my declaration do not show the four markings referenced above, I once again inspected the cans in the possession of MPL’s counsel via video conference. MPL’s counsel also shipped the cans to me, and I personally inspected them. These additional inspections merely confirmed my prior conclusion that these are four authentic PET cans sold by the Coca-Cola Company in 1985.”

Norris Reply Decl. (Ex. 1020), pp. 2-4.

Ground 1: Coke PET Cans Were Authenticated



Ex. 1006; see also Norris Decl. (Ex. 1005) at ¶¶ 37-38.

Ground 1: Coke PET Cans Were Authenticated

L.A. Times, Oct. 15, 1985

Coca-Cola plans to test market a plastic container.

The soft-drink company will begin testing the 12-ounce container this week at selected food stores in the Columbus, Ga., market. The announcement said plastic cans will contain Coca-Cola, Coca-Cola Classic, Diet Coke and Sprite. It said no other soft drinks in the United States are sold in a plastic can. The plastic used is the same as that in certain soft-drink bottles. The cans will be clear with an aluminum top. Petainer Development Co., in a joint venture with Coca-Cola, is building a factory in Atlanta in which machinery for possible production of plastic cans is being installed. It said the plant is scheduled to be completed in December. An important aspect of the test will be to study collection methods for recycling the plastic cans, the company said. Reverse vending machines that collect, crush and pay consumers for returned plastic cans will be at various Columbus locations during the test period.



Ex. 1015;
see also Pet., p. 15.

N.Y. Times, Oct. 14, 1985

Coca-Cola Test Of Plastic Cans

ATLANTA, Oct. 14 (AP) — Coca-Cola U.S.A. said today that it will begin testing a plastic soft-drink can this week in Columbus, Ga.

The announcement said plastic cans of Coca-Cola, Coca-Cola Classic, Diet Coke and Sprite would be delivered to selected food stores. It said no other soft drink in the United States is sold in a plastic can.

Dan Haas, packaging manager for Coca-Cola U.S.A., said in a statement that use of the plastic can "is a market test, and we have made no firm decision on the long-term commercial application of the can in the soft-drink market."

An important aspect of the test will be to study collection methods for recycling the plastic cans, the company said. Vending machines that collect, crush and pay consumers for returned plastic cans will be at various Columbus locations.

Ex. 1016;
see also Pet., p. 15.

Ground 2: Obviousness in view of the Coke PET cans, Protais, and AAPA

Ground 2: Protais Overview



US008524349B2

(12) United States Patent Protais et al.

(10) Patent No.: **US 8,524,349 B2**
(45) Date of Patent: **Sep. 3, 2013**

(54) **BOTTOM OF HOLLOW WARE OBTAINED BY THE BLOW MOULDING OR STRETCH-BLOW MOULDING OF A THERMOPLASTIC HOLLOW WARE PREFORM HAVING SUCH A BOTTOM**

(58) **Field of Classification Search**
USPC 428/66.3; 215/373, 375; 220/608
See application file for complete search history.

(56) References Cited

(75) Inventors: **Pierriek Protais**, Octeville sur Mer (FR); **Michel Boukobza**, Octeville sur Mer (FR)
(73) Assignee: **Sidel Participations**, Octeville sur Mer (FR)

U.S. PATENT DOCUMENTS
5,549,210 A 8/1996 Cheng
2004/0094302 A1* 5/2004 Boukobza 215/375
FOREIGN PATENT DOCUMENTS
FR 2 822 804 A1 10/2002

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 635 days.

* cited by examiner
Primary Examiner — Alexander Thomas
(74) Attorney, Agent, or Firm — Sughrie Mion, PLLC

(21) Appl. No.: **12/376,412**

(22) PCT Filed: **Jul. 13, 2007**

(86) PCT No.: **PCT/FR2007/001208**

§ 371 (c)(1),
(2), (4) Date: **Aug. 4, 2010**

(87) PCT Pub. No.: **WO2008/017747**

PCT Pub. Date: **Feb. 14, 2008**

(65) **Prior Publication Data**

US 2010/0297375 A1 Nov. 25, 2010

(30) **Foreign Application Priority Data**

Aug. 8, 2006 (FR) 06 07213

(51) **Int. Cl.**
B65D 1/42 (2006.01)

(52) **U.S. Cl.**
USPC 428/66.3; 215/373; 215/375; 220/608

17 Claims, 2 Drawing Sheets

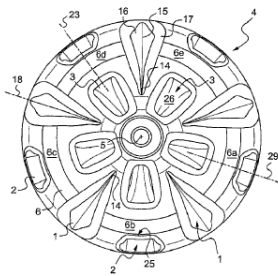
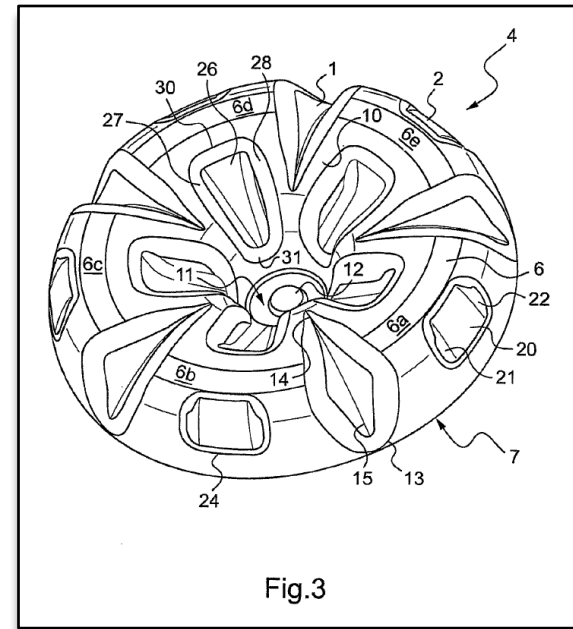


Fig.3

In various embodiments, the bottom has the following characteristics, combined as needed:

the concave inner wall is provided with reinforcing grooves the distal end portion of which is in proximity to one segment of the transverse support surface but without reaching said segment, the proximal end portion of said reinforcing grooves being in proximity to the transverse central part but without reaching said transverse central part;

EX-1008 PGR2024-00035

Protais (Ex. 1008), 3:53-61.

Ground 2: Motivation to Combine

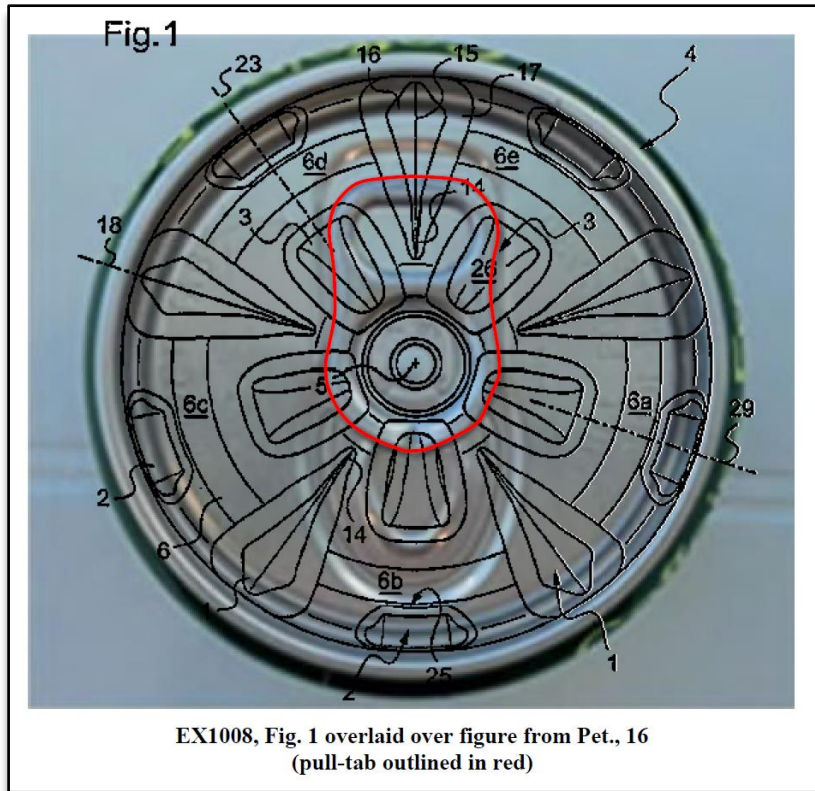
subsequent deformation, whether it is full or not. The invention seeks to provide a new bottle bottom structure, wherein all of the individual characteristics make it possible to obtain a strength that exceeds that of most currently known bottoms, and allows it to recover its shape after deformation.

For an identical wall thickness, a bottom according to the invention will be stronger than most previously known bottle bottoms. In particular, it will have a better strength under vacuum.

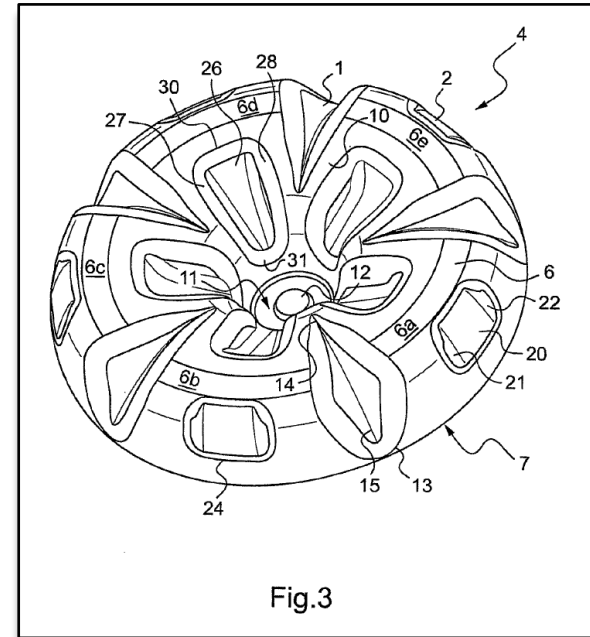
For a desired strength, a bottom according to the invention can be produced with less material than most previously known bottoms.

Protais (Ex. 1008), 3:14-25;
see also Pet., p. 70.

Ground 2: PO's Lack of Motivation Arguments Fail



PO Response, p. 43.

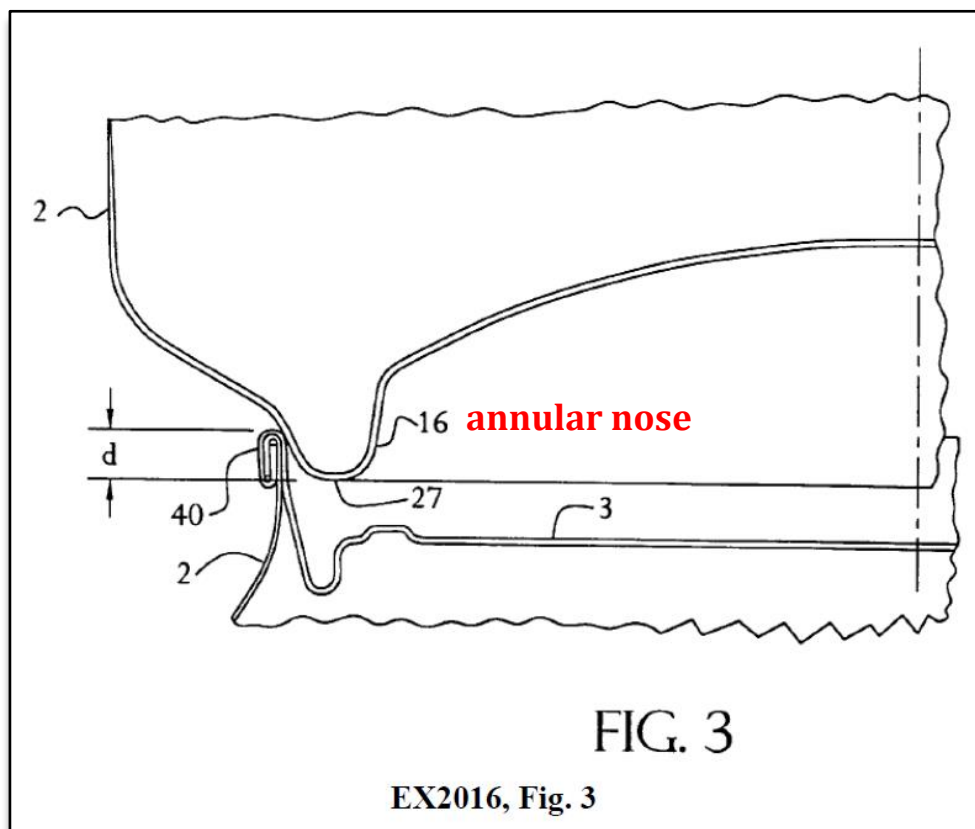


In various embodiments, the bottom has the following characteristics, combined as needed:

the concave inner wall is provided with reinforcing grooves the distal end portion of which is in proximity to one segment of the transverse support surface but without reaching said segment, the proximal end portion of said reinforcing grooves being in proximity to the transverse central part but without reaching said transverse central part;

Protas (Ex. 1008), Fig. 3, 3:53-61.

Ground 2: PO's Lack of Motivation Arguments Fail



PO Response, pp. 38-42 (showing Ex. 2016 (Cheng), Fig. 3).

Ground 2: PO's Lack of Motivation Arguments Fail

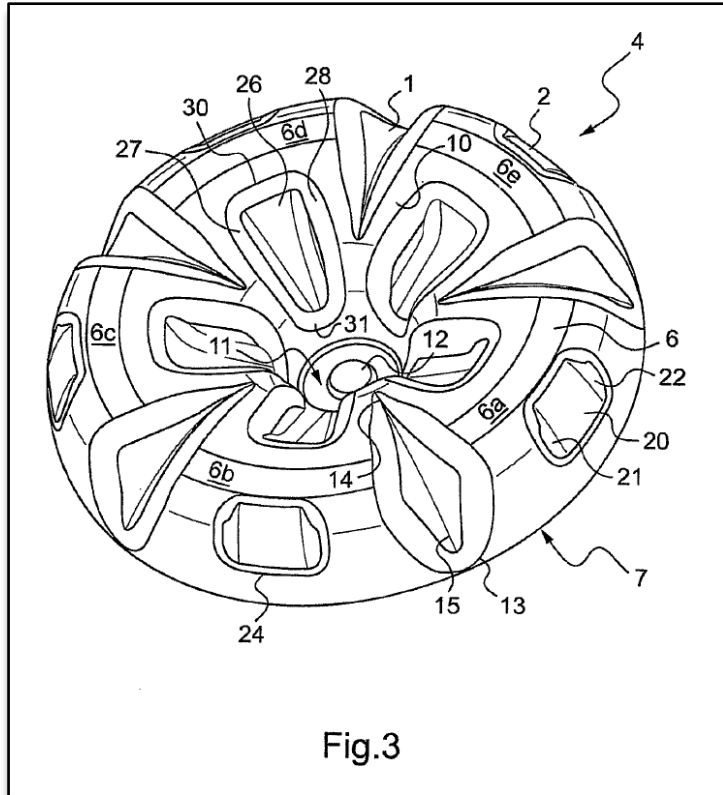


Fig.3

Protais (Ex. 1008), Fig. 3; Pet. Reply, pp. 18-19.



Ex. 1019 (Delson Reply Decl.), ¶ 23.

Ground 2: PO's Lack of Motivation Arguments Fail

Struct Multidisc Optim (2005) 29: 304–311
DOI 10.1007/s00158-004-0485-x

INDUSTRIAL APPLICATIONS

J. Han · R. Itoh · S. Nishiyama · K. Yamazaki

Application of structure optimization technique to aluminum beverage bottle design

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Abstract This paper deals with shape optimization of two-piece aluminum beverage bottle bottoms by applying the structural optimization technique. Nonlinear finite element analyses were performed to study the influence of the design parameters on the buckling strength and the stiffness of the bottom under an axial load and internal pressure, respectively. On the basis of sensitivity analyses, the most effective dimensions are selected as design variables in the first stage design optimization, while the dimensions with relatively small influences are optimized in the secondary and following stages. In the design optimization of the bottom shape, the column strength is maximized subjected to the bottom growth and the axial displacement constraints, while the bulge strength is restricted to fall into a predetermined range. Optimizing the design variables progressively can avoid unrealistic geometrical connectivity problems during the arrangement of design points using the orthogonal array in the design-of-experiment, and can ensure the design space for the important design variables as well as the reduction of optimization cost.

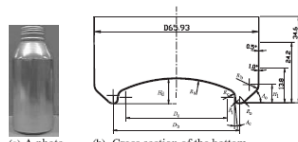
Keywords Nonlinear structural response · Progressive optimization · Response surface approximation · Two-piece aluminum beverage bottle

1 Introduction

Aluminum beverage bottles (Fig. 1a) have been attracting more consumers because they have the advantages of regular aluminum beverage cans such as the high capability to

be recycled as well as the advantages of PET bottles such as the capability to be resealed (Nishiyama 2001; Ueno 2003). Can makers are showing an increasing interest in two-piece (2-Pc) aluminum bottles because they can be manufactured by existing equipment for regular 2-Pc cans. 2-Pc bottles and regular cans have a similar shape at the bottom but do not have the same structural performance requirements. High strength and stiffness are required, while the bulge strength of the bottle bottom is also expected to be lower than a limiting value so that the bottom may buckle before the cap flies off due to an unexpected high internal pressure. In order to improve the structural performance of regular 2-Pc can bottoms, studies on the influence of the geometrical shape have been done experimentally and numerically in recent years (Trageser and Dick 1988, 1991; Han et al. 2004). Reference Trageser and Dick (1991) has utilized two-level full factorial design in experimental design to predict the influence of geometrical parameters. Structural optimization technology has been applied to the optimization of crushing characteristics of triangulated aluminum beverage cans (Han et al. 2004), but no application has been found for 2-Pc bottles.

On the other hand, it is becoming popular for engineers to apply the response surface approximation (RSA) method to carry out optimization based on finite element analysis because RSA is included in structure optimization software packages. Research on how to improve RSA and how to ap-



Ground 2: PO's Lack of Motivation Arguments Fail

28. I further note that Protrais specifically addresses issues concerning the strength of the bottom of a container that arise specifically in the context of blow molded plastic containers. Protrais explains a number of these issues as follows:
. . .

Delson Reply Decl. (Ex. 1019), ¶¶ 28-30.

Ground 2: Petition Adequately Identified Bases for Claims 15-20

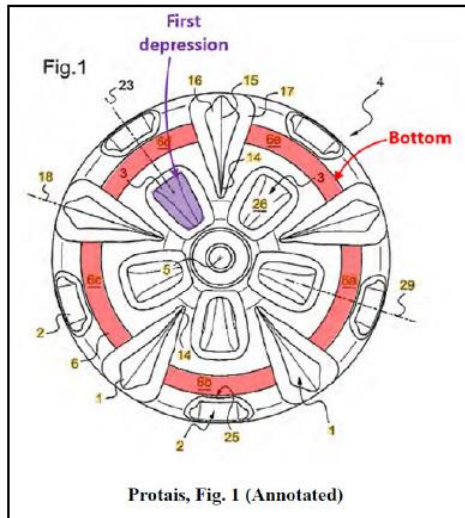
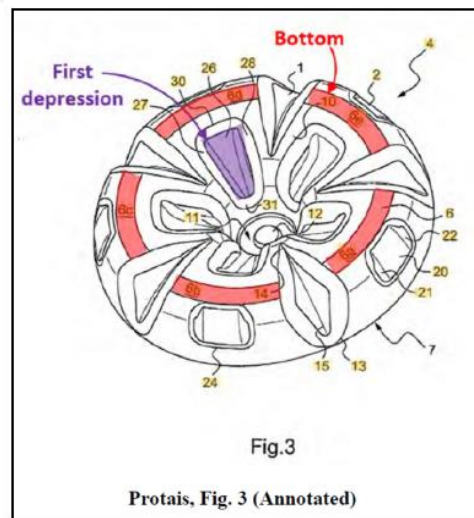
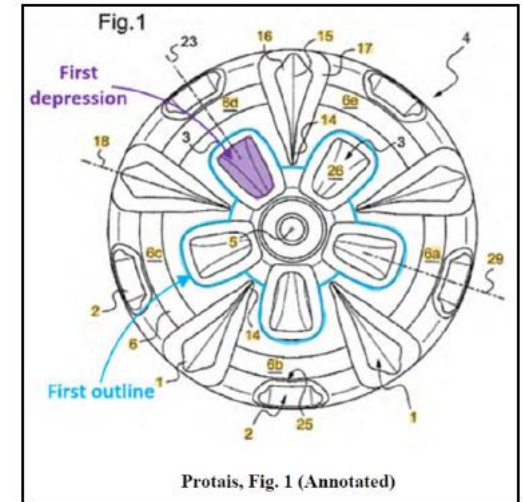
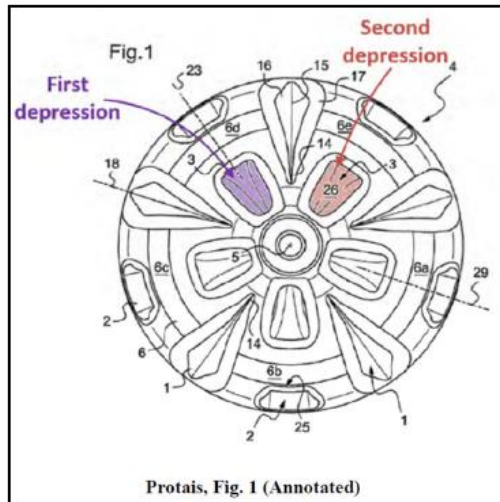
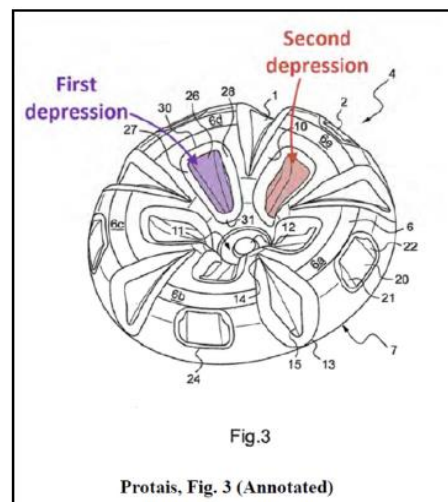
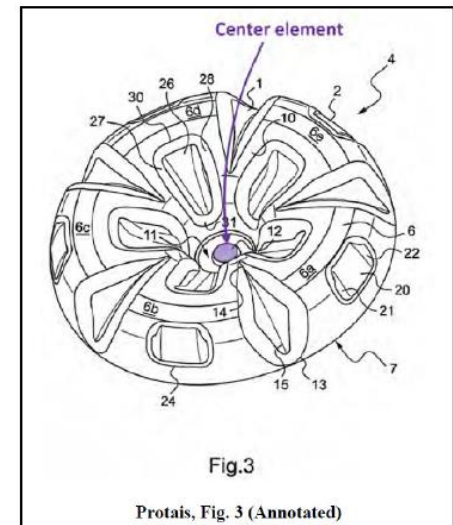
Motivation to Combine: A POSITA would have found it obvious to make a container that has the body and lid of the Coca-Cola PCAN, and Protais' bottom.

Pet., p. 69.

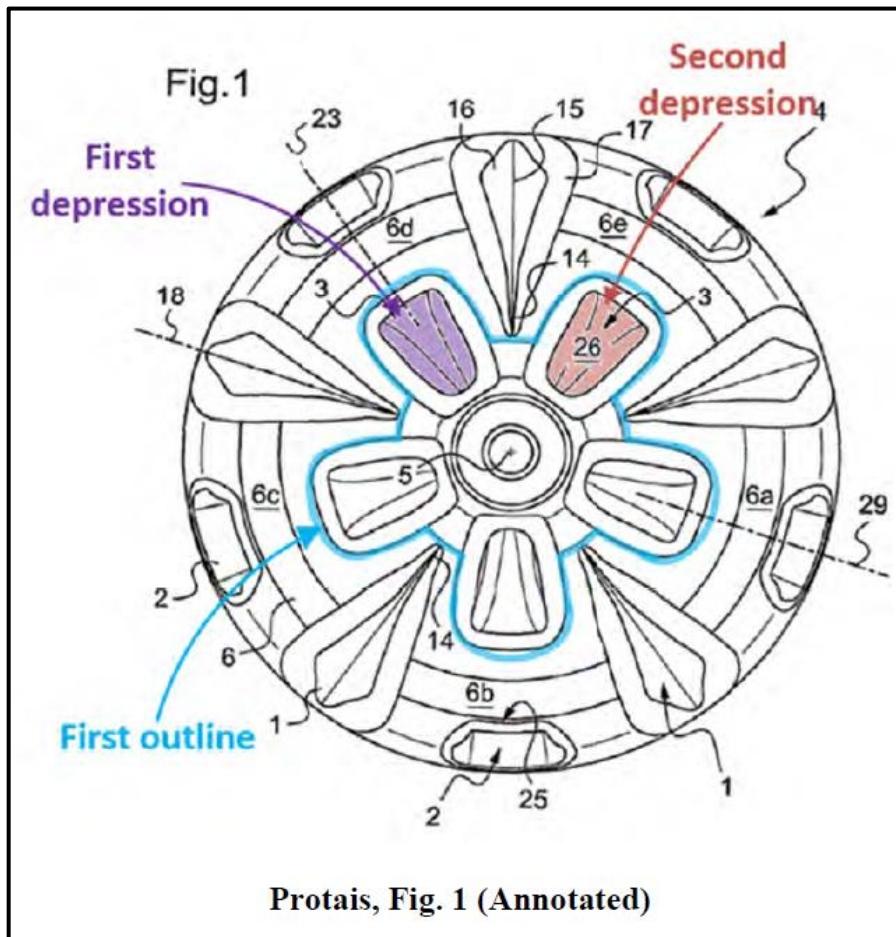
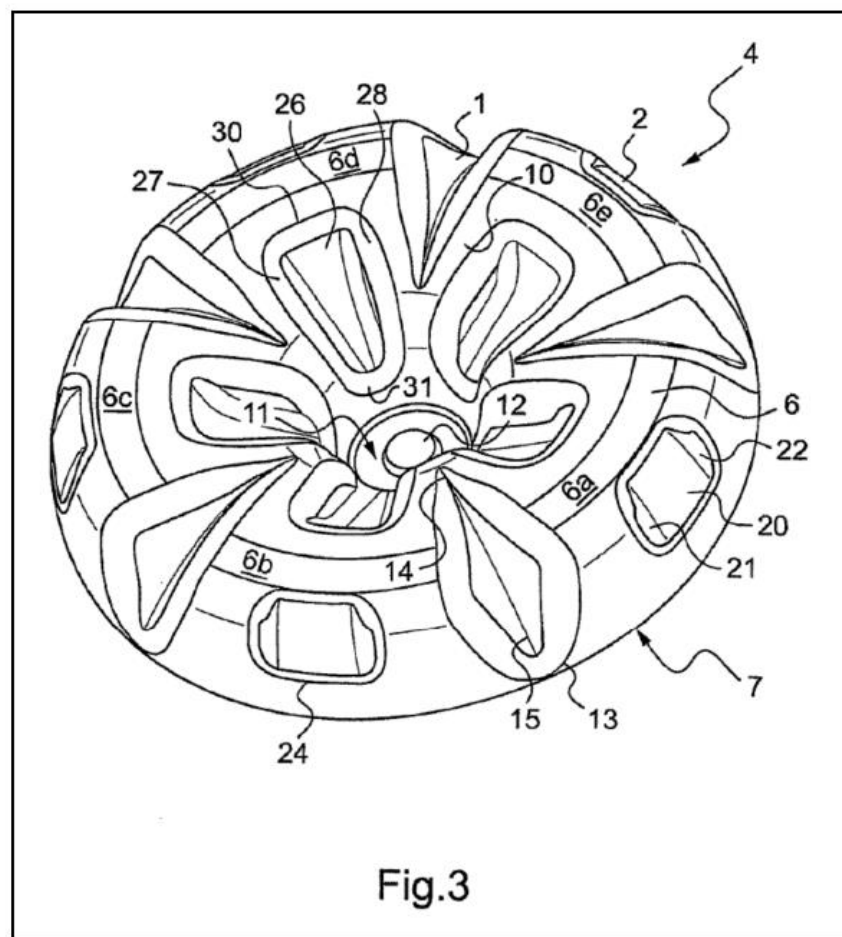
6:56-61; 6:47-48). A POSITA would have been motivated to modify the Coca-Cola PCAN to use features of Protais' base, e.g., Protais' ribs, notches, and/or grooves, to achieve increased strength and resistance to deformation. Additionally,

Pet., p. 70.

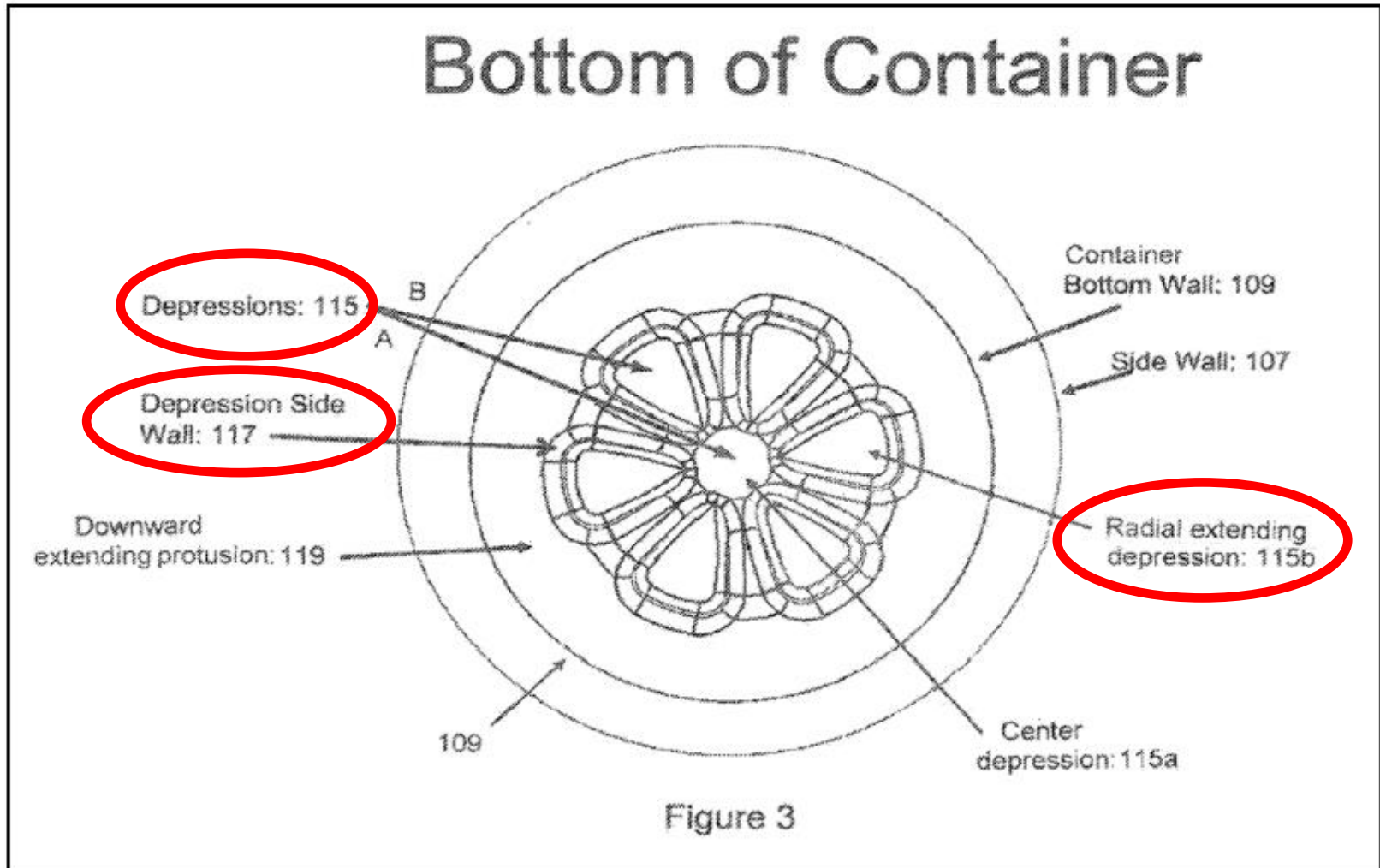
Ground 2: Petition Adequately Identified Bases for Claims 15-20



Pet., pp. 73-75, 77-78, 80-81.

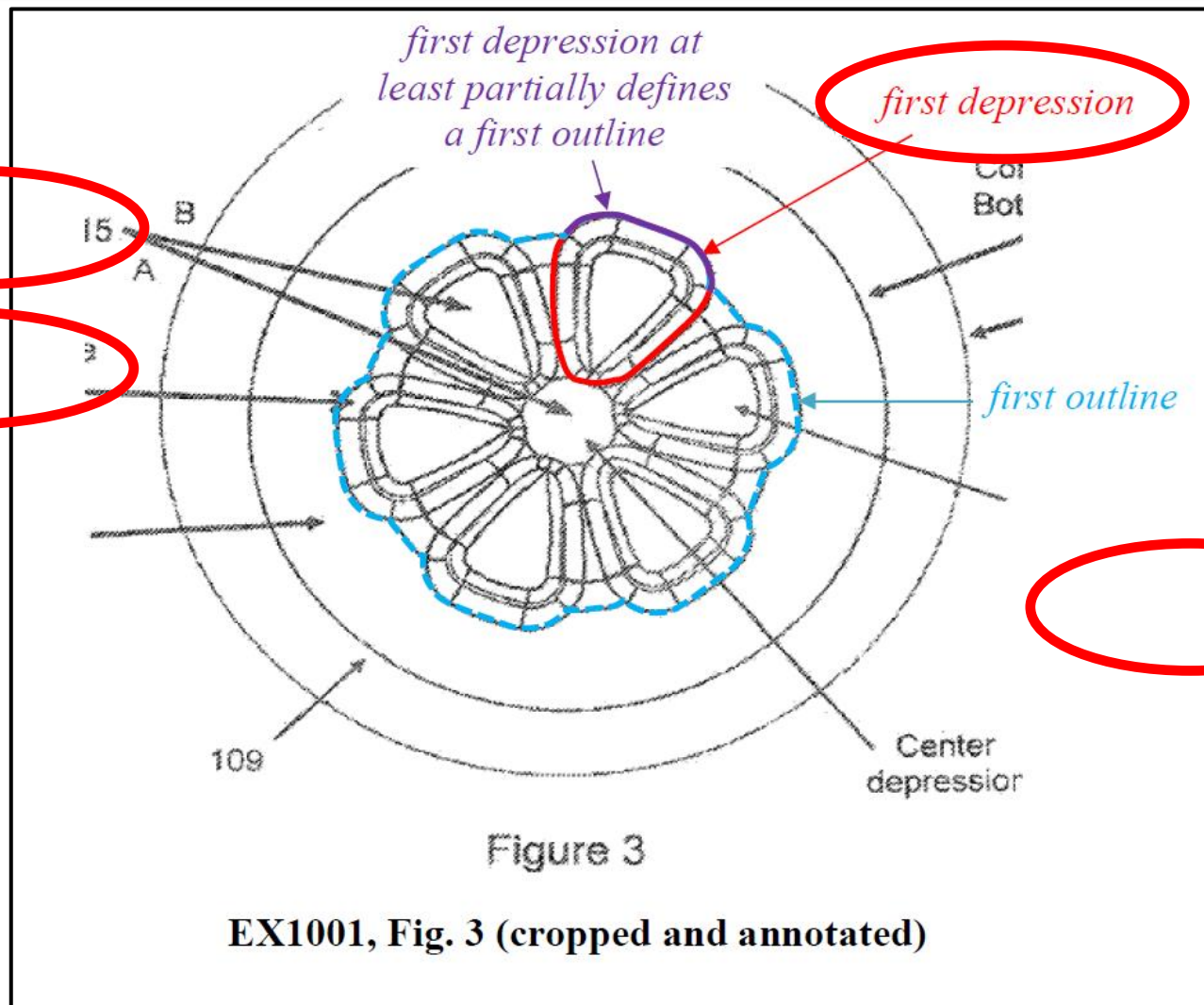


Ground 2: Protais Discloses the First Outline



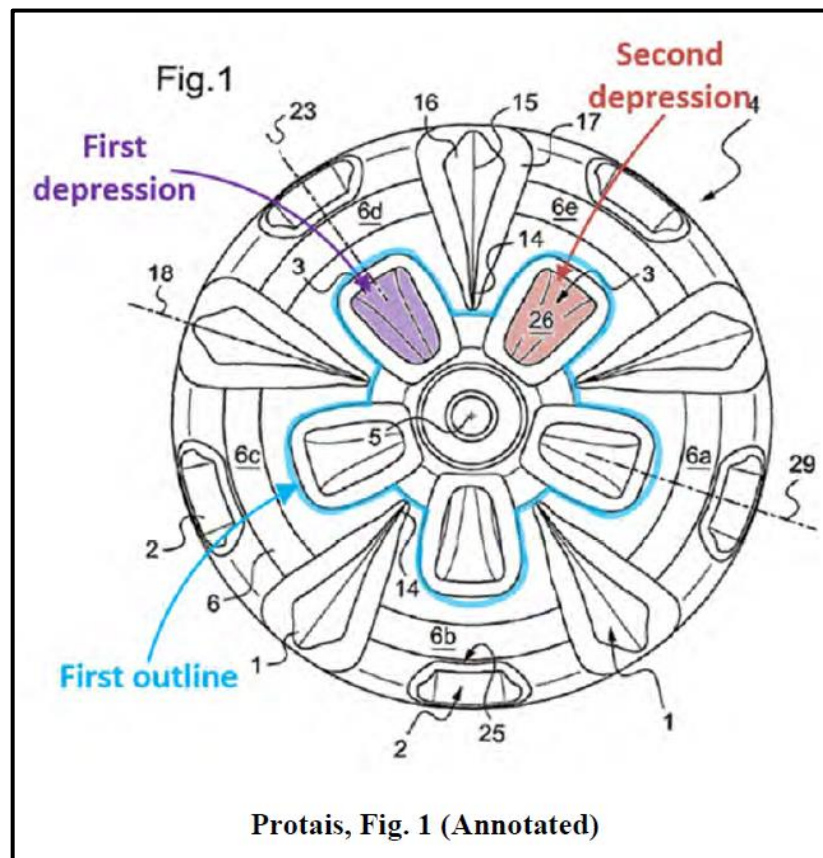
Protais, Fig. 3 (annotated); Pet. Reply, p. 30.

Ground 2: Protais Discloses the First Outline

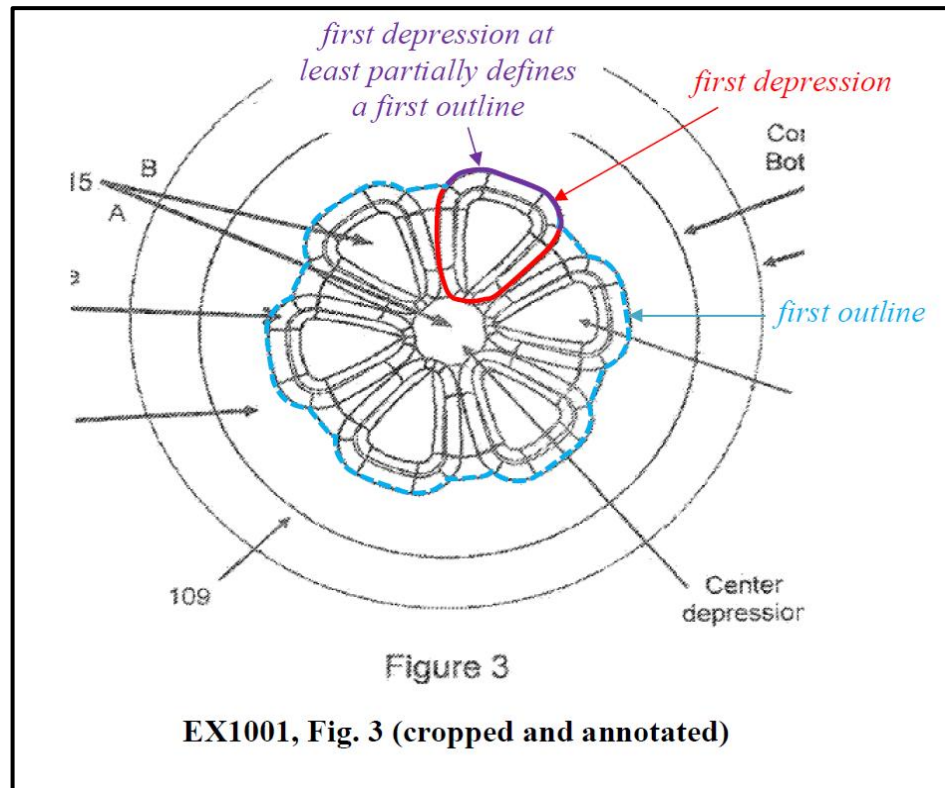


PO Resp., p. 56 (annotated); Pet. Reply, p. 31.

Ground 2: Protais Discloses the First Outline



Pet., p. 81 (annotated Fig 1 of Protais).



PO Resp., p. 56.

Ground 3: Obviousness in view Metzger, Protais, and Kaminski

Ground 3: Overview of Metzger



US008141741B2

(12) United States Patent Metzger et al.

(10) Patent No.: **US 8,141,741 B2**
(45) Date of Patent: **Mar. 27, 2012**

(54) VACUUM CONTAINER WITH PROTECTIVE FEATURES

(75) Inventors: **Elizabeth A. Metzger**, Milwaukee, WI (US); **Thomas J. Clyde**, Milwaukee, WI (US); **Thomas S. Diss**, Waukesha, WI (US); **Kamchat Soisuvann**, Saugus, CA (US)

D25,941 S 8/1896 Lindgren
566,067 A 8/1896 Duck
D28,732 S 5/1898 Cook
D28,842 S 6/1898 Griffith
D38,167 S 8/1906 Wintermann
829,477 A 8/1906 Kruse
(Continued)

FOREIGN PATENT DOCUMENTS

BE DM 046294 10/1998
(Continued)

OTHER PUBLICATIONS

U.S. Appl. No. 29/333,068, filed Mar. 2, 2009, Diss et al.
U.S. Appl. No. 29/332,338, filed Feb. 12, 2009, Metzger et al.
"The Revolutionary Stretching Technology" brochure, believed to be available by 2001 at www.canstretch.com, 1 page.
"Stretch Machine" brochure, believed to be available by 2001 at www.canstretch.com, 1 page.
Photograph of Six Cans, believed to be available by 2001 at www.canstretch.com, 1 page.
(Continued)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 982 days.

(21) Appl. No.: **12/098,300**

(22) Filed: **Apr. 4, 2008**

(65) Prior Publication Data

US 2009/0212004 A1 Aug. 27, 2009

Related U.S. Application Data

(63) Continuation-in-part of application No. 12/040,609, filed on Feb. 29, 2008, which is a continuation-in-part of application No. 29/304,271, filed on Feb. 27, 2008, now Pat. No. Des. 588,018.

(51) Int. Cl. **B65D 8/12** (2006.01)
B65D 8/08 (2006.01)

(52) U.S. Cl. **220/672**; D9/776; D9/777; 220/906

(58) Field of Classification Search **220/670**, **220/672**, 675, 906, 907; 215/382; D9/776, D9/777

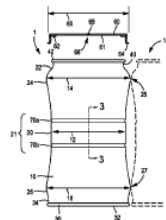
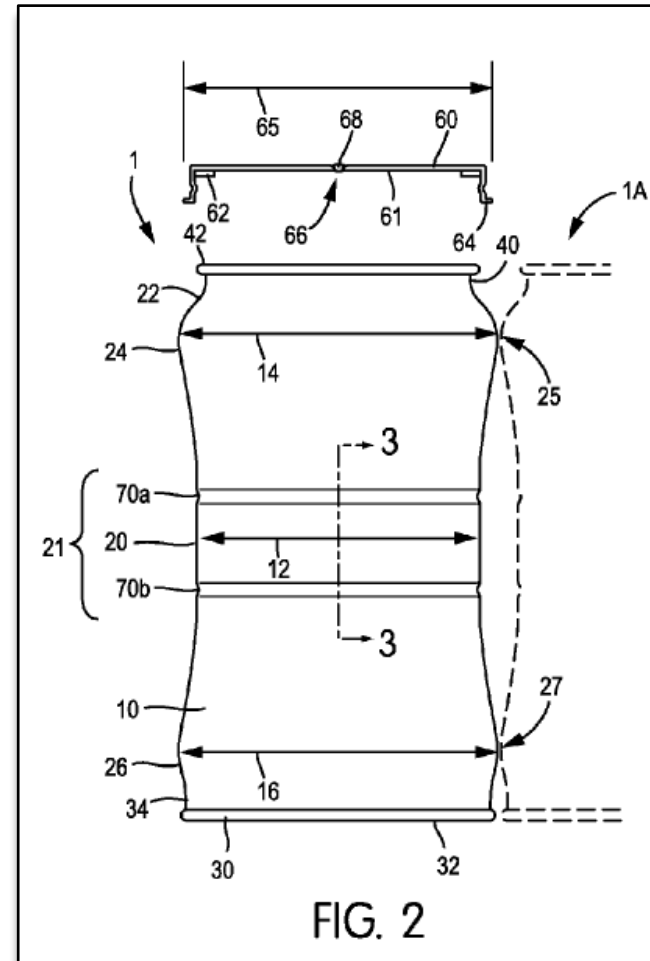
See application file for complete search history.

(56) References Cited

U.S. PATENT DOCUMENTS

D2,820 S 11/1867 Barry
D22,754 S 8/1893 Lanning
D24,991 S 12/1895 Estes

13 Claims, 4 Drawing Sheets



EX-1010 PGR2024-00035

Ground 3: Overview of Kaminski

United States Patent Kaminski et al.

[11] Patent Number: 4,465,204
[45] Date of Patent: Aug. 14, 1984

[54] PULL TAB FOR EASY OPEN END

[75] Inventors: Elton G. Kaminski, Sidney; Carl F. McEldowney, Russia, both of Ohio

[73] Assignee: The Stolle Corporation, Sidney, Ohio

[21] Appl. No.: 513,447

[22] Filed: Jul. 13, 1983

[51] Int. Cl. B65D 17/34

[52] U.S. Cl. 220/269

[58] Field of Search 220/269-273, 413/12

[56] References Cited U.S. PATENT DOCUMENTS

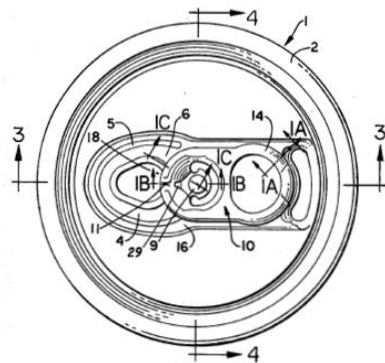
3,402,042	8/1969	Stolle	220/54
3,762,597	10/1973	Kaminski et al.	220/54
3,795,342	3/1974	Ashton	220/54
4,096,967	6/1978	Kaminski	220/269
4,372,462	2/1983	Dawsher et al.	220/269
4,387,827	6/1983	Ruemer, Jr.	220/269
4,402,421	9/1983	Ruemer, Jr.	220/269

Primary Examiner—George T. Hall
Attorney, Agent, or Firm—Frost & Jacobs

[57] ABSTRACT

An easy open can end having a retained tear strip extending diametrically partly across the can end defined by a score line, and a graspable pull tab adjacent and outside the open end of the score line. The pull tab is provided with a nose portion to initiate a tear along the score line upon lifting of the pull tab. The edges of the nose portion are curled into a cylindrical cross-sectional shape to provide a high beam strength and to rigidize the nose portion and to prevent failure by bending before the tear strip is opened. A method for manufacture of the pull tab includes forming at least one relief knotch in the peripheral edge of the pull tab blank at the nose end thereof, whereby to relieve compressive forces when the edge is curled, and curling the peripheral edge of the nose portion in successive steps to form an edge portion of continuous cylindrical cross-sectional shape.

7 Claims, 16 Drawing Figures



EX-1011 PGR2024-00035

FIG. 1

FIG. 1A

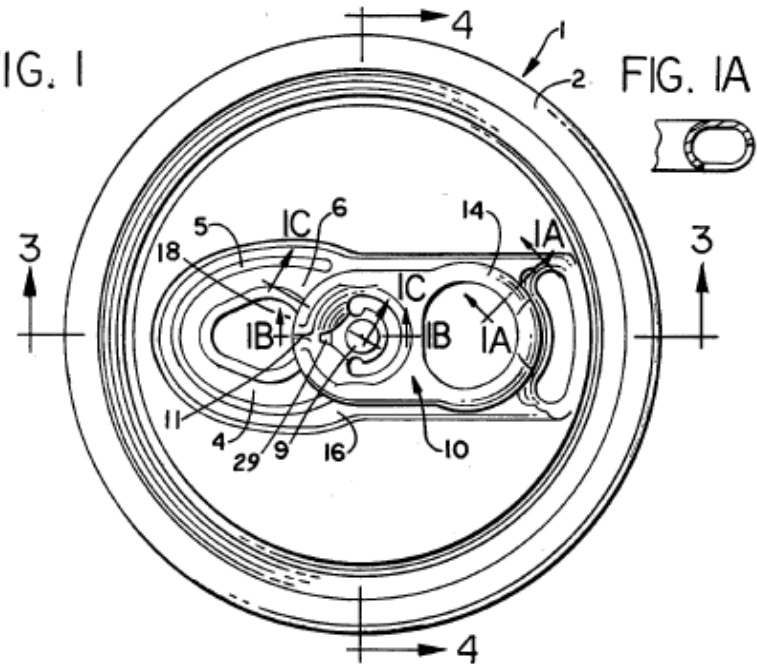
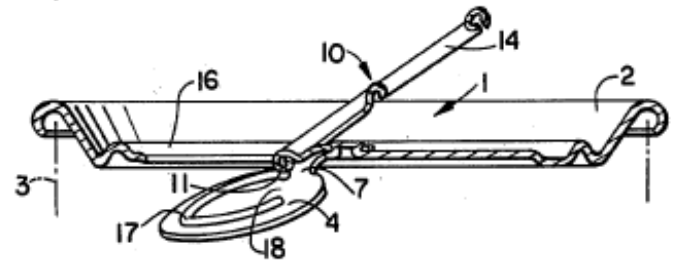


FIG. 5



Ground 3: Motivation to Combine

“A POSITA would have been motivated to use the features of Protais’s base, including some or all of its ribs, notches, and grooves, to increase the strength and resistance to deformation of the container taught by Metzger.” Pet., p. 100.

“[A] POSITA would have been motivated to use Kaminski’s pull tab lid with Metzger’s container because Kaminski explains how to configure a lid that retains the pull tab after the lid is opened for ecological and safety reasons, while using less metal and being easier to open than other can end styles.” Ex. 1002 (Delson Decl.), ¶ 179.

“[T]he combination would have been a simple combination of known elements by known methods that yields predictable results.” Pet., p. 100.

Ground 3: Using Resin-Based Plastic Was Obvious

or edible material, regardless of nutritional value. It should be further understood that the container may be formed from any material, including metals, various plastics, and glass.

Metzger (Ex. 1010), 3:56-58.

Ground 3: Using Resin-Based Plastic Was Obvious

23. Plastic containers for beverages or other food items have been in use for decades. Many of these containers are made from polyethylene terephthalate (PET), and many are produced by blow-molding. The following patents are illustrative snapshots within the history of plastic container innovation:

- U.S. Patent No. 4,522,779 to Jabarin, filed in November 1983, described a process for producing PET containers via blow molding. (Appendix E).
- U.S. Patent No. 8,468,785 to Thomasset, claiming priority to a European patent application filed in November 2007, described considerations for manufacturing heat-resistant PET containers, for example for hot-filled containers. (Appendix F).

Ex. 1002 (Delson Decl.), ¶ 23.

Ground 3: Using Resin-Based Plastic Was Obvious

“Protais provided this disclosure, explaining that PET was a common material for manufacturing containers of plastic materials. (Protais, 1:13-16).” Ex. 1002 (Delson Decl.), ¶ 232.

For several years the manufacture of containers of plastic material from previously injected preforms has experienced considerable expansion, particularly due to the use of polyethylene terephthalate (PET).

Protais, (Ex. 1008), 1:13-16.

“A POSITA would have been motivated to use PET to manufacture the container of the combination of Metzger, Protais, and Kaminski because, as Protais explained, PET had ‘good mechanical strength and thermal resistance.’” Ex. 1002 (Delson Decl.), ¶ 232.

Ground 3: PO's Lack of Motivation Argument Fails



US008141741B2

(12) **United States Patent**
Metzger et al.

(10) **Patent No.:** **US 8,141,741 B2**
(45) **Date of Patent:** **Mar. 27, 2012**

(54) **VACUUM CONTAINER WITH PROTECTIVE FEATURES**

(75) Inventors: **Elizabeth A. Metzger**, Milwaukee, WI (US); **Thomas J. Clyde**, Milwaukee, WI (US); **Thomas S. Diss**, Waukesha, WI (US); **Kamchat Soisuvann**, Saugus, CA (US)

D25,941 S 8/1896 Lindgren
566,067 A 8/1896 Duck
D28,732 S 5/1898 Cook
D28,842 S 6/1898 Griffith
D38,167 S 8/1906 Wintermann
829,477 A 8/1906 Kruse
(Continued)

FOREIGN PATENT DOCUMENTS

(73) Assignee: **Silgan Containers LLC**, Woodland Hills, CA (US)

BE DM 046294 10/1998
(Continued)

OTHER PUBLICATIONS

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 982 days.

U.S. Appl. No. 29/333,068, filed Mar. 2, 2009, Diss et al.
U.S. Appl. No. 29/332,338, filed Feb. 12, 2009, Metzger et al.
"The Revolutionary Stretching Technology" brochure, believed to be available by 2001 at www.canstretch.com, 1 page.
"Stretch Machine" brochure, believed to be available by 2001 at www.canstretch.com, 1 page.
Photograph of Six Cans, believed to be available by 2001 at www.canstretch.com, 1 page.

(21) Appl. No.: **12/098,300**

(22) Filed: **Apr. 4, 2008**

(65) **Prior Publication Data**
US 2009/0212004 A1 Aug. 27, 2009

Related U.S. Application Data

(63) Continuation-in-part of application No. 12/040,609, filed on Feb. 29, 2008, which is a continuation-in-part of application No. 29/304,271, filed on Feb. 27, 2008, now Pat. No. Des. 588,018.

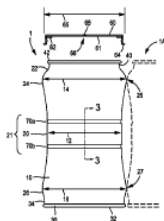
(51) Int. Cl. **B65D 8/12** (2006.01)
B65D 8/08 (2006.01)
(52) U.S. Cl. **220/672**; D9/776; D9/777; 220/906
(58) **Field of Classification Search** **220/670**, **220/672**, **675**, **906**, **907**; **215/382**; D9/776, D9/777
See application file for complete search history.

References Cited

U.S. PATENT DOCUMENTS

D2,820 S 11/1867 Barry
D22,754 S 8/1893 Lanning
D24,991 S 12/1895 Estes

13 Claims, 4 Drawing Sheets



EX-1010 PGR2024-00035

(12) **United States Patent**
Metzger et al.

(54) **VACUUM CONTAINER WITH PROTECTIVE FEATURES**

(57) ABSTRACT

A container including a metal sidewall is provided. The metal sidewall includes a first end; a second end; a center portion having a principal width; a first feature positioned between the center portion and the first end, the first feature extending from the sidewall such that the maximum width of the sidewall at the first feature is greater than the principal width; and a second feature positioned between the center portion and the second end, the second feature extending from the sidewall such that the maximum width of the sidewall at the second feature is greater than the principal width. The container further includes a first bead located in the center portion of the sidewall; and a second bead located in the center portion of the sidewall.

Ground 3: PO's Lack of Motivation Argument Fails

In another embodiment, a container as described herein may be used with a non-thermal process. In a non-thermal process, food is added to a container at an ambient temperature, such as 65 degrees Fahrenheit. The container and con-

Metzger (Ex. 1010), 11:64-67.

Ground 4: Obviousness in view Gardiner, Pedmo, and Brown

Ground 4: Overview of Gardiner



US006729495B2

(12) **United States Patent**
Gardiner

(10) Patent No.: **US 6,729,495 B2**
(45) Date of Patent: ***May 4, 2004**

(54) **BEVERAGE CONTAINER**

(75) Inventor: **James Lee Gardiner**, North Mission Beach (AU)

(73) Assignee: **Crown Cork & Seal Technologies Corporation**, Alsip, IL (US)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(d) by 65 days.

This patent is subject to a terminal disclaimer.

(21) Appl. No.: **10/095,203**

(22) Filed: **Mar. 11, 2002**

(65) **Prior Publication Data**
US 2002/0134787 A1 Sep. 26, 2002

Related U.S. Application Data

(63) Continuation of application No. 09/530,927, filed as application No. PCT/AU98/00946 on Nov. 12, 1998, now Pat. No. 6,425,493.

(30) **Foreign Application Priority Data**

Nov. 12, 1997 (AU)	PP0330
Dec. 9, 1997 (AU)	PP0604
Mar. 10, 1998 (AU)	PP2249
Oct. 19, 1998 (AU)	PP6558

(51) Int. Cl.⁷ **B65D 1/16; B65D 8/00; B65D 17/00**

(52) U.S. Cl. **220/733; 220/906; 220/646**

(58) Field of Search **220/733, 269, 220/906, 646, 655, 797, 698, 640, 641, 642, 648**

(56) **References Cited**

U.S. PATENT DOCUMENTS

3,704,805 A	12/1972	Sheafe, III	220/906
5,244,111 A	9/1993	Merom	220/906
5,497,896 A	3/1996	Shand	220/269
5,501,362 A	3/1996	Cudrill	220/612
5,645,190 A	7/1997	Goldberg	220/674
5,655,678 A	8/1997	Kobayashi	220/269
5,715,964 A	2/1998	Turner et al.	220/269
5,813,561 A	9/1998	Chang et al.	220/269
5,967,363 A	10/1999	Allen	220/906
6,425,493 B1	7/2002	Gardiner	220/733

FOREIGN PATENT DOCUMENTS

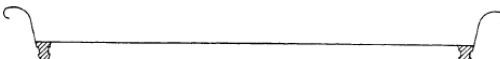
DE	2,318,669	11/1974
DE	32,22,894	1/1984
DE	195,24,427	1/1996
EP	0,165,639	12/1985
JP	4,311,450	11/1992
JP	09-058081	3/1997

Primary Examiner—Nathan J. Newhouse
(74) Attorney, Agent, or Firm—Woodcock Washburn LLP

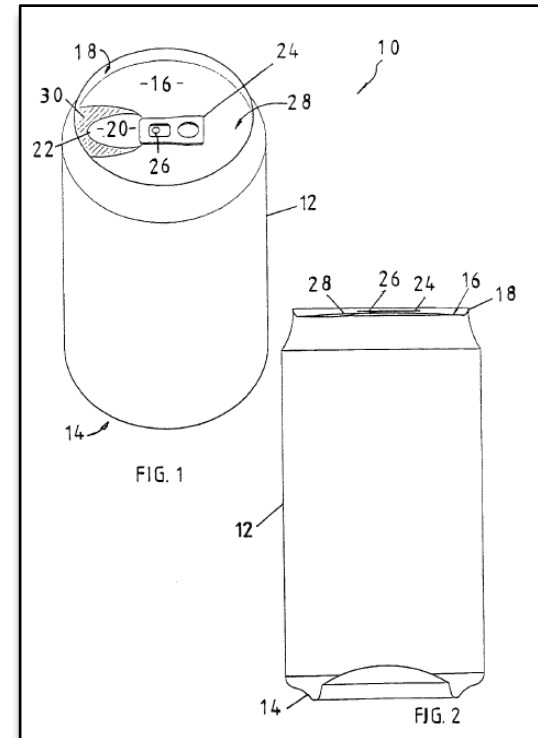
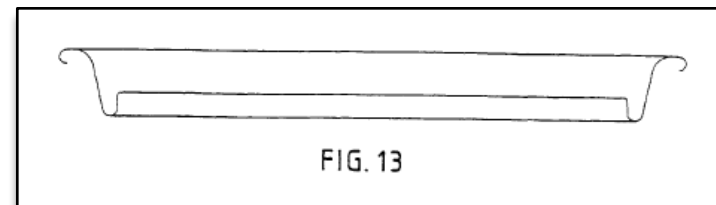
(57) **ABSTRACT**

A beverage can cap member (16, 100) is configured so that its exterior surface (28) extending radially inwardly from the rim (18) or rim forming portion (140) is substantially flat or continuous, or has a slight curve from apposition adjacent from the rim (18) or rim forming portion (140). The cap member (16, 100) may have a countersink (160) which is filled with a filler material including a curable adhesive, an insert (180) of a natural or synthetic material or the like. The filler material increases the structural strength of the cap member (16, 100) to an extent that it can be made of a relatively thinner material and still complies with the minimum peaking pressure of the industrial standard.

18 Claims, 12 Drawing Sheets



EX-1012 PGR2024-00035



Ground 4: Overview of Pedmo



US006585123B1

(12) United States Patent Pedmo et al.

(10) Patent No.: US 6,585,123 B1
(45) Date of Patent: Jul. 1, 2003

(54) BOTTLE BASE

(75) Inventors: Marc A. Pedmo, Litchfield, OH (US);
Richard C. Darr, Medina, OH (US)

(73) Assignee: Plastipak Packaging, Inc., Plymouth,
MI (US)

(*) Notice: Subject to any disclaimer, the term of this
patent is extended or adjusted under 35
U.S.C. 154(b) by 0 days.

4,024,975 A * 5/1977 Uhlig 215/373
4,108,324 A * 8/1978 Krishnakumar et al. 215/373 X
4,134,510 A * 1/1979 Chang 215/373
4,525,401 A * 6/1985 Paocek et al. 215/373 X
4,620,639 A * 11/1986 Yoshino 215/373
4,644,151 A * 2/1987 Juvinall 250/223 R
6,085,624 A * 5/2000 Setaake 215/373 X

FOREIGN PATENT DOCUMENTS

JP 6156466 * 6/1994 40/310

* cited by examiner

Primary Examiner—Sue A. Weaver

(74) Attorney, Agent, or Firm—Robert H. Bachman

(57) ABSTRACT

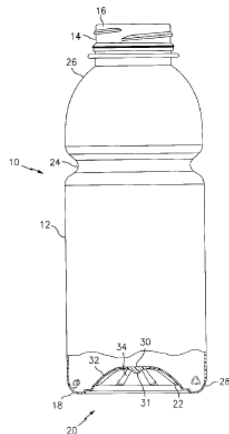
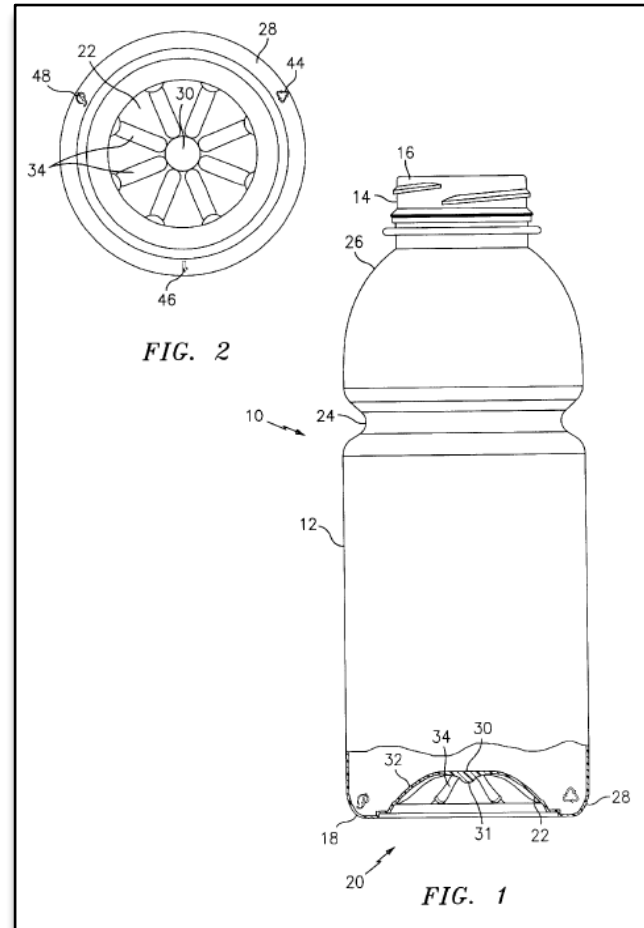
Biaxially oriented, hollow plastic bottle of thermoplastic material having an improved base. The base includes an outer supporting annular rim for supporting the bottle on a surface and an inwardly extending portion of the base, wherein the space between the central portion of the base and the outer supporting rim includes a plurality of struts extending radially from the central portion of the base towards the annular rim.

(56) References Cited

U.S. PATENT DOCUMENTS

3,745,314 A * 7/1973 Mathias et al. 235/61.11 E

17 Claims, 3 Drawing Sheets



EX-1013 PGR2024-00035

Ground 4: Overview of Brown

United States Patent [11] 4,024,981

Brown

[45] May 24, 1977

[54] EASY-OPEN ECOLOGY END

[75] Inventor: Omar L. Brown, Dayton, Ohio

[73] Assignee: Ernal C. Frazee, Dayton, Ohio

[22] Filed: July 1, 1976

[21] Appl. No.: 701,976

[52] U.S. Cl. 220/269

[51] Int. Cl.² B65D 41/32

[58] Field of Search 220/268-273, 220/277

[56] References Cited

UNITED STATES PATENTS

3,843,011 10/1974 Perry 220/269 X

3,967,752 7/1976 Cudnik 220/269

3,977,561 8/1976 Stove et al. 220/269

Primary Examiner—George T. Hall

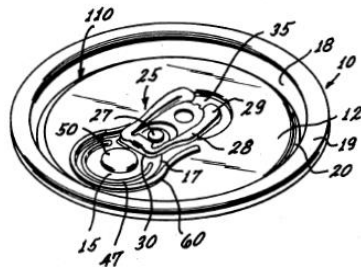
Attorney, Agent, or Firm—George F. Smyth

[57] ABSTRACT

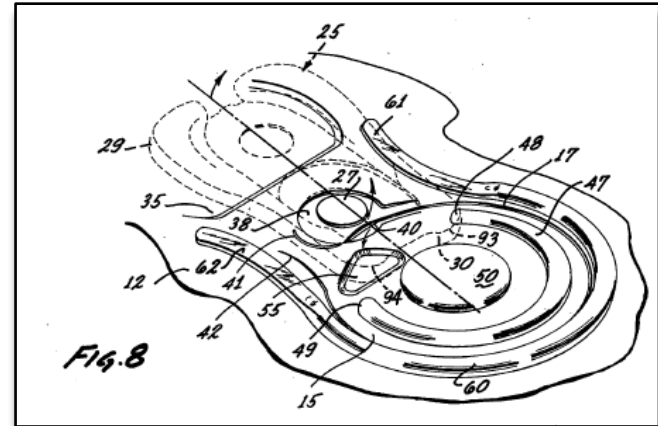
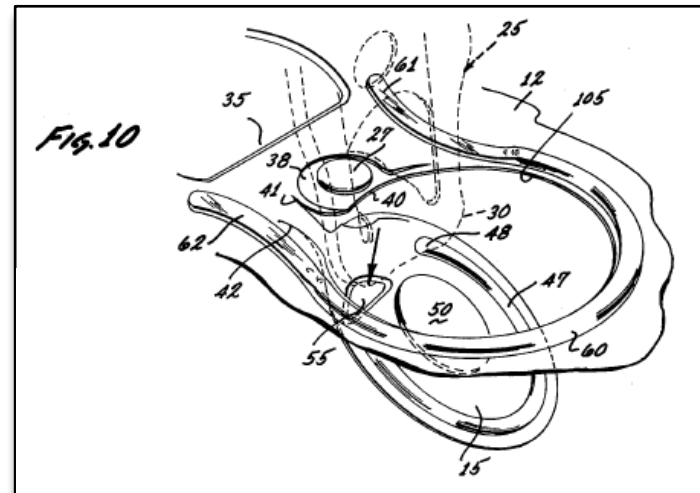
An improved easy-opening end structure includes a retained tab and a captured, retained panel, the latter defined by a scoreline and forming a pour opening upon fracture of the scoreline. The tab is fixed to the end wall, other than to the panel, and includes an opening end positioned over the panel and a lifting end

spaced from the panel. The panel is connected by a retaining strip to the end wall, the retaining strip being formed between scoreline segments which are laterally located relative to the rivet. The rivet is surrounded by a rivet well of reduced thickness of material, a portion of the scoreline passing through the rivet well, while a coined formation defining a transition zone extends laterally of the rivet and overlies the portion of the scoreline located laterally of the rivet. The panel includes a depression formed therein forward of the retaining strip and located between the ends of a bead which is formed in the panel. The end wall also includes a bead which terminates in coined end sections, the end wall bead surrounding a portion of the scoreline and the coined sections being spaced on each side of the rivet. The tab operates to effect opening of the end structure by fracturing the portion of the scoreline forward of the rivet and thereafter bearing against the panel to effect progressive rupture of the scoreline by essentially a class 1 lever action, and to push the panel downwardly and laterally through the formed opening. The panel is joined to the end wall by the retaining strip and subsequent to rupture of the panel, the tab may be pushed back against the end wall and retained thereon.

26 Claims, 11 Drawing Figures



EX-1014 PGR2024-00035



Ground 4: Motivation to Combine

- “[T]he combination would have been a simple combination of known elements by known methods that yields predictable results.”
- “... Pedmo’s base would have imparted increased strength and improved impact properties to the combined container.”
- “A POSITA would have found it obvious to look to the teachings of Brown to understand how to operate Gardiner’s tab”

Pet., pp. 171-73.

Ground 4: PO's Response

PO presents three arguments for various patent claims:

- Claims 1-14: “Gardiner does not disclose a container body . . . made of resin” PO Resp., pp. 62-63.
- Claims 2, 5-6, 8: “Petitioner has not provided any reason to modify Gardiner’s container to be made of PET.” PO Resp., pp. 63-65.
- Claims 1-20: “Gardiner does not disclose a circular neck, as required by limitation [1.N], or a lip as required by limitation [1.P]” PO Resp., pp. 65-69.

Ground 4: Using Resin-Based Plastic Was Obvious

Claims 1-14

Gardiner discloses that container can be made of plastic.

For the same reasons as Ground 3, it would have been obvious to make a plastic container using a resin-based plastic.

Additionally, Pedmo discloses:

- “The plastic bottle is desirably blow molded, desirably biaxially oriented, and polyethylene terephthalate [i.e., PET] is a preferred material.” Ex. 1013, 1:48-50.
- “Preferably, the plastic is polyethylene terephthalate”
Id., 3:9.

Ground 4: Using PET Was Obvious

Claims 2, 5-6, 8

Gardiner discloses that container can be made of plastic.

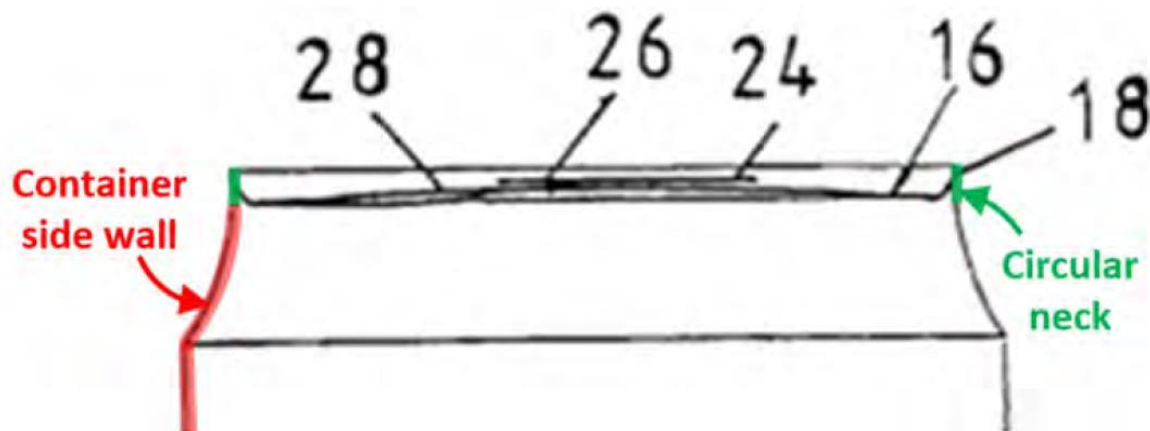
Pedmo discloses:

- “The plastic bottle is desirably blow molded, desirably biaxially oriented, and polyethylene terephthalate [i.e., PET] is a preferred material.” Ex. 1013, 1:48-50.
- “Preferably, the plastic is polyethylene terephthalate”
Id., 3:9.

Ground 4: A Circular Neck and a Lip Was Obvious

Claims 1-20

Gardiner depicted a **circular neck** by a substantially vertical section of the container body that approximately corresponded to a location of a lid sealed to the container body. This **circular neck** extended from the **container side wall**.



Gardiner, Fig. 2 (Cropped and Annotated)

Pet., p. 200.

Ground 4: A Circular Neck and a Lip Was Obvious

Claims 1-20

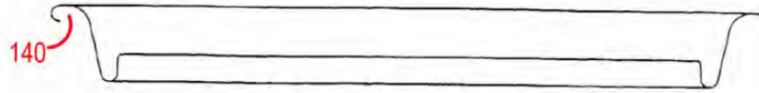


FIG. 13

Gardiner, Fig. 13 (Annotated)

Peripheral 140 had a hook-like shape. Since the peripheral was “shaped to be positioned” over the open end of the can body, a POSITA would have found it obvious that the can body would have a reciprocal shape (a lip) at the top of the can body, over which peripheral 140 was seamed to form a rim for the can, because this reciprocal shape would have enabled a lid to seal to the container body for beverage storage. (Gardiner, 1:44-50 (explaining cap/can seaming that was “sufficiently strong to prevent separation by internal pressures exerted by the carbonated drinks”); Delson, ¶344). Using the lid with a lip that engaged with a container’s rim was routinely done to secure the lid to the container. (Delson, ¶¶343-44).

Pet., pp. 203-04.

CERTIFICATE OF SERVICE

The undersigned certifies that a true copy of PETITIONER'S DEMONSTRATIVE EXHIBIT was served electronically on September 14, 2025, in its entirety on the following counsel of record for Patent Owner:

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