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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

TROVE BRANDS, LLC
Petitioner
v.

CAMELBAK PRODUCTS, LLC
Patent Owner

IPR2024-00858
Patent 8,905,252

**PETITION FOR *INTER PARTES* REVIEW OF
U.S. PATENT NO. 8,905,252**

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TABLE OF EXHIBITS

Exhibit No.	Description
1001	U.S. Patent No. 8,905,252 (“the ’252 patent”)
1002	Excerpt of the File History of the ’252 Patent
1003	Declaration of Glenn E. Vallee, Ph.D.
1004	U.S. Patent No. 9,272,822 (“Samartgis”)
1005	U.S. Patent No. 7,753,240 (“Leoncavallo”)
1006	U.S. Design Patent No. D586,184 (“Miller”)
1007	U.S. Patent No. 8,550,269 (“Lane”)
1008	Excerpts of U.S. Provisional Patent Application No. 61-779,084
1009	Excerpts of U.S. Provisional Patent Application No. 61-859,662
1010	CamelBak Infringement Contentions for the ’252 Patent dated December 21, 2023
1011	EP Publication 2177447A1 (“Gorskey”)
1012	U.S. Patent Publication No. 2006/0006578 A1 (“Johnson”)
1013	Order Setting Case Schedule in <i>Trove Brands, LLC v. CamelBak Products, LLC, et al.</i> , No. 5:23-cv-04267-PCP (N.D. Cal. Feb. 14, 2024)

Petitioner Trove Brands, LLC (“Petitioner”) requests *inter partes* review of claims 5-7, and 16-19 (“challenged claims”) of U.S. Patent No. 8,905,252 (“the ’252 patent”), which lists CamelBak Products, LLC (“PO” or “Patent Owner”) as assignee.

I. MANDATORY NOTICES

A. Real Party-In-Interest (37 C.F.R. §42.8(b)(1))

Trove Brands, LLC is the real party-in-interest.

B. Related Matters (37 C.F.R. §42.8(b)(2))

Petitioner has filed a suit against PO seeking a declaratory judgment of noninfringement of the ’252 patent by Petitioner’s FreeSip® product. *Trove Brands, LLC v. CamelBak Products, LLC et al.*, No. 5:23-cv-04267 (N.D. Cal.).

Petitioner is not aware of any other judicial or administrative matter that would affect, or be affected by, a decision in this proceeding.

C. Lead and Backup Counsel (37 C.F.R. §42.8(b)(3))

Petitioner provides the following designation of counsel, all of whom are included in Customer No. 20,995 identified in Petitioner’s Power of Attorney.

Lead Counsel	Back-up Counsel
Ali S. Razai (Reg. No. 60,771) <u>Postal and Hand-Delivery Address:</u> Knobbe, Martens, Olson & Bear, LLP 2040 Main Street, 14th Floor Irvine, CA 92614 Telephone: (949) 760-0404 Facsimile: (949) 760-9502	Cheryl Burgess (Reg. No. 60,771) Joseph F. Jennings (Reg. No. 40,664) Nathan Reeves (Reg. No. 77,806) <u>Postal and Hand-Delivery Address:</u> Knobbe, Martens, Olson & Bear, LLP 2040 Main Street, 14th Floor Irvine, CA 92614 Telephone: (949) 760-0404 Facsimile: (949) 760-9502

D. Service Information (37 C.F.R. §42.8(b)(4))

Please address all correspondence to lead counsel and back-up counsel at the addresses shown above. Petitioner also consents to electronic service by email to BoxTrove1@knobbe.com.

E. Payment of Fees (37 C.F.R. §42.103)

The fee for this petition has been paid. Any additional fees may be charged to Deposit Account 11-1410.

F. Grounds for Standing (37 C.F.R. §42.104)

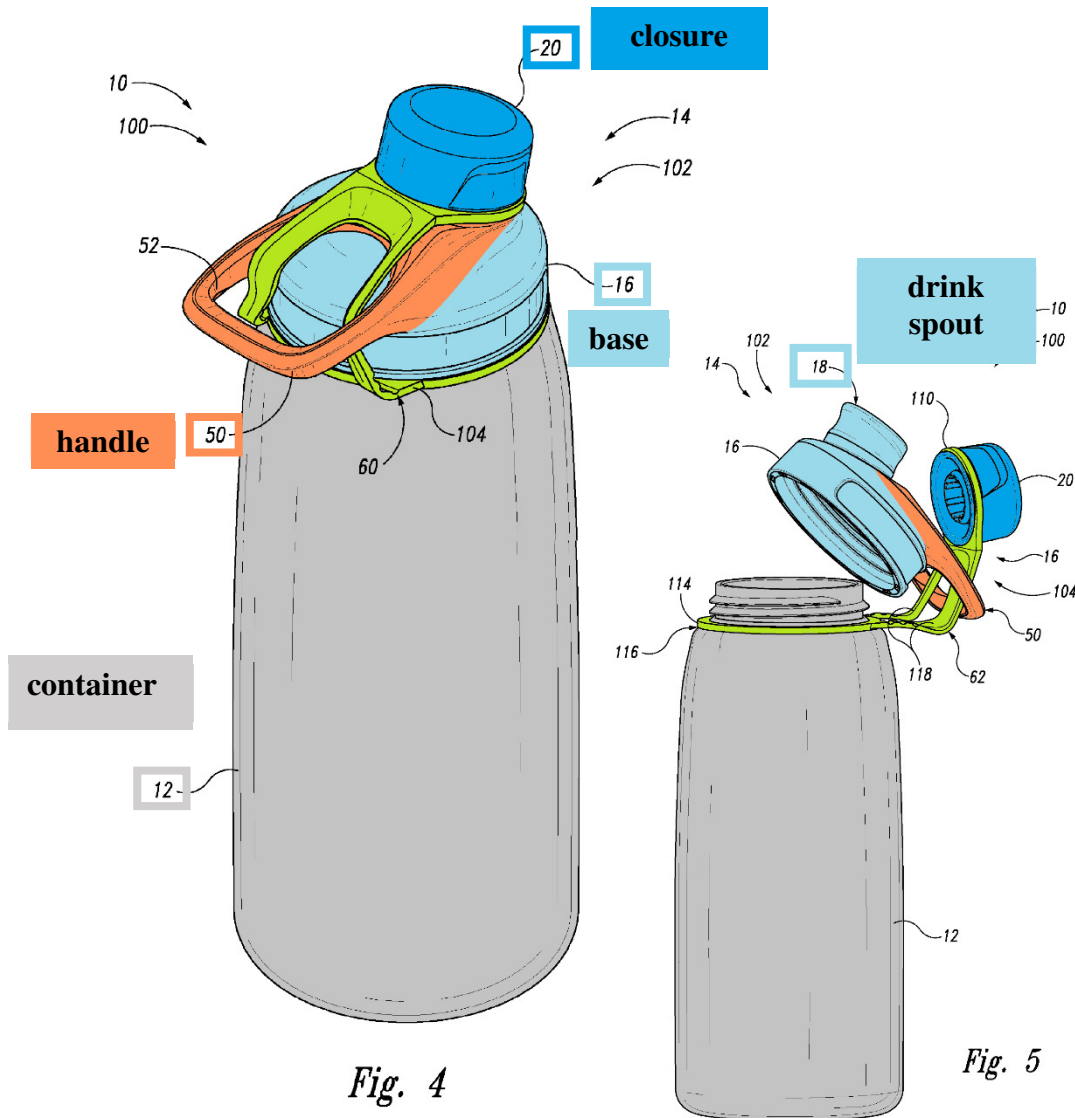
Petitioner certifies that the '252 patent is available for IPR and that Petitioner is not barred or estopped from requesting IPR. This petition is being filed within one year of service of Patent Owner's counterclaim (filed November 8, 2023) alleging infringement of the '252 patent.

II. INTRODUCTION

The '252 patent discloses and claims a drink container having a removable cap assembly that generally includes four elements:

- (1) a base for coupling the cap assembly to the container;
- (2) a drink spout for dispensing liquid;
- (3) a removable closure to cover the spout when not in use; and
- (4) a handle with a closure retention mechanism that stows the closure when it is removed from the spout.

An embodiment of the '252 patent is depicted below.



(Ex. 1001, Figs. 4-5).¹ The handle includes a pair of spaced-apart tabs projecting from the inner perimeter of the handle (not shown above) that retain the closure when it is removed from the spout.

¹ Figures herein have been colored and annotated for clarity.

As demonstrated herein, drink containers with cap assemblies as claimed in the '252 patent were known in the art. Because the claimed devices were not patentable at the time of the patent's earliest possible priority date (March 2013), the Board should institute *inter partes* review and cancel the claims.

III. BACKGROUND

Drink containers with removable caps have, of course, long been known. And drink cap assemblies with the features claimed in the '252 patent (e.g., base, drink spout, closure, and handle with a closure retention mechanism) have also been known since before the '252 patent's priority date.

For example, in 2010, Leoncavallo (Ex. 1005) disclosed a drink container with a removable cap assembly including a base, a drink spout, a closure to cover the spout, and a handle:

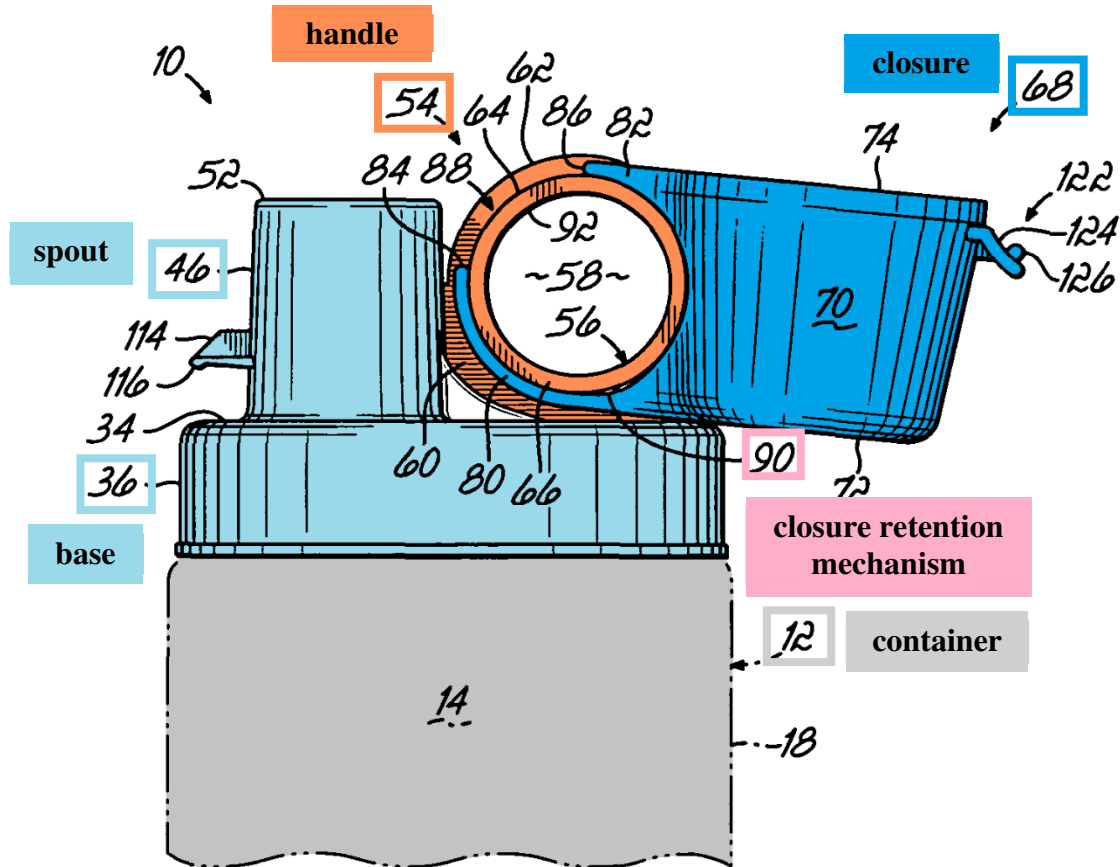


FIG. 3

(Ex. 1005, Fig. 3).

The handle in Leoncavallo (loop member 54) included a closure retention mechanism, namely detents 90. As the user opens the drink spout by rotating the flip cap 68 around loop 54 connector members 80 engage the detents 90 and maintain the flip cap in the open position.

Samartgis (Ex. 1004), filed in 2012, disclosed another example of a drink container removable cap assembly having a base, a drink spout, a closure, and a handle:

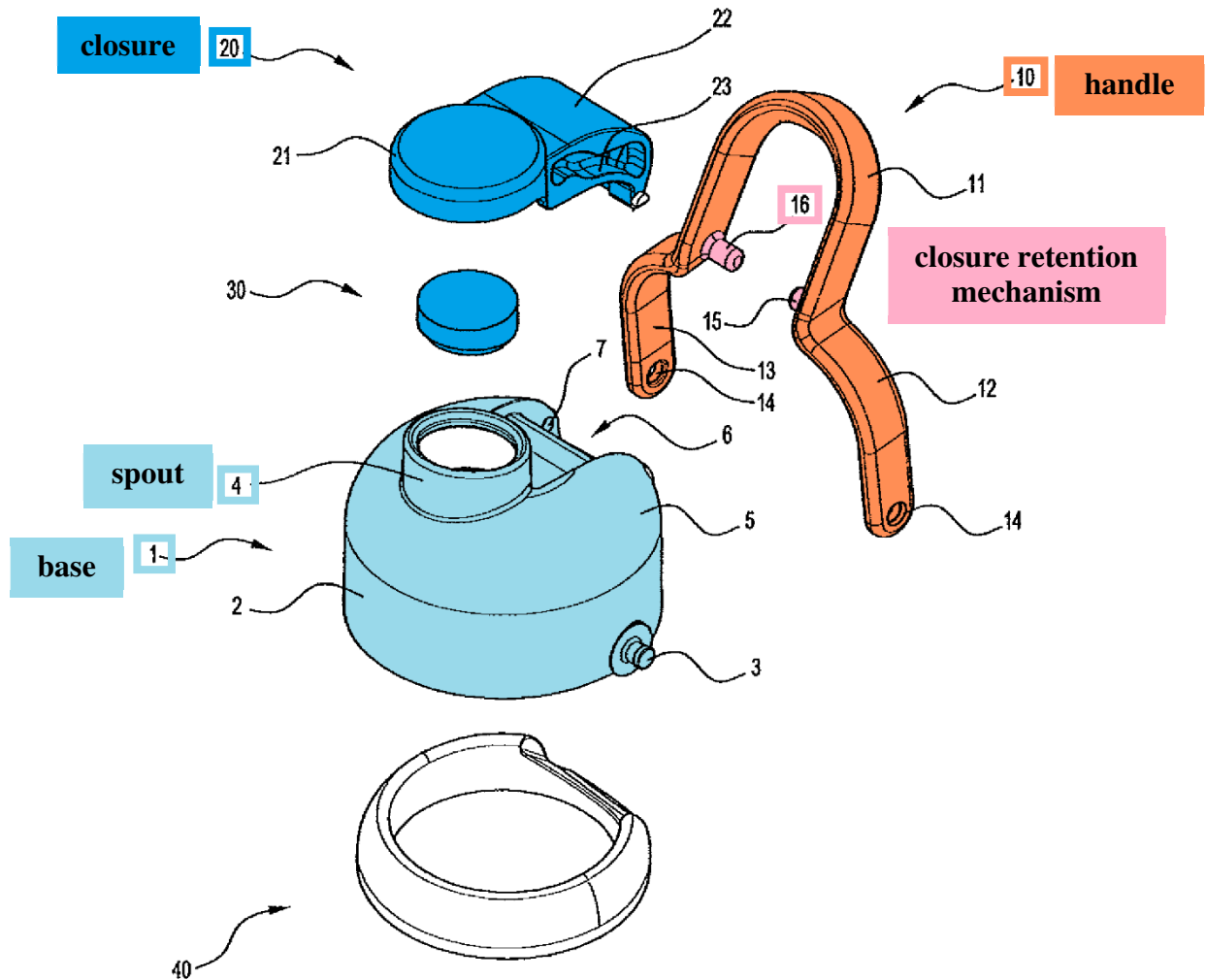
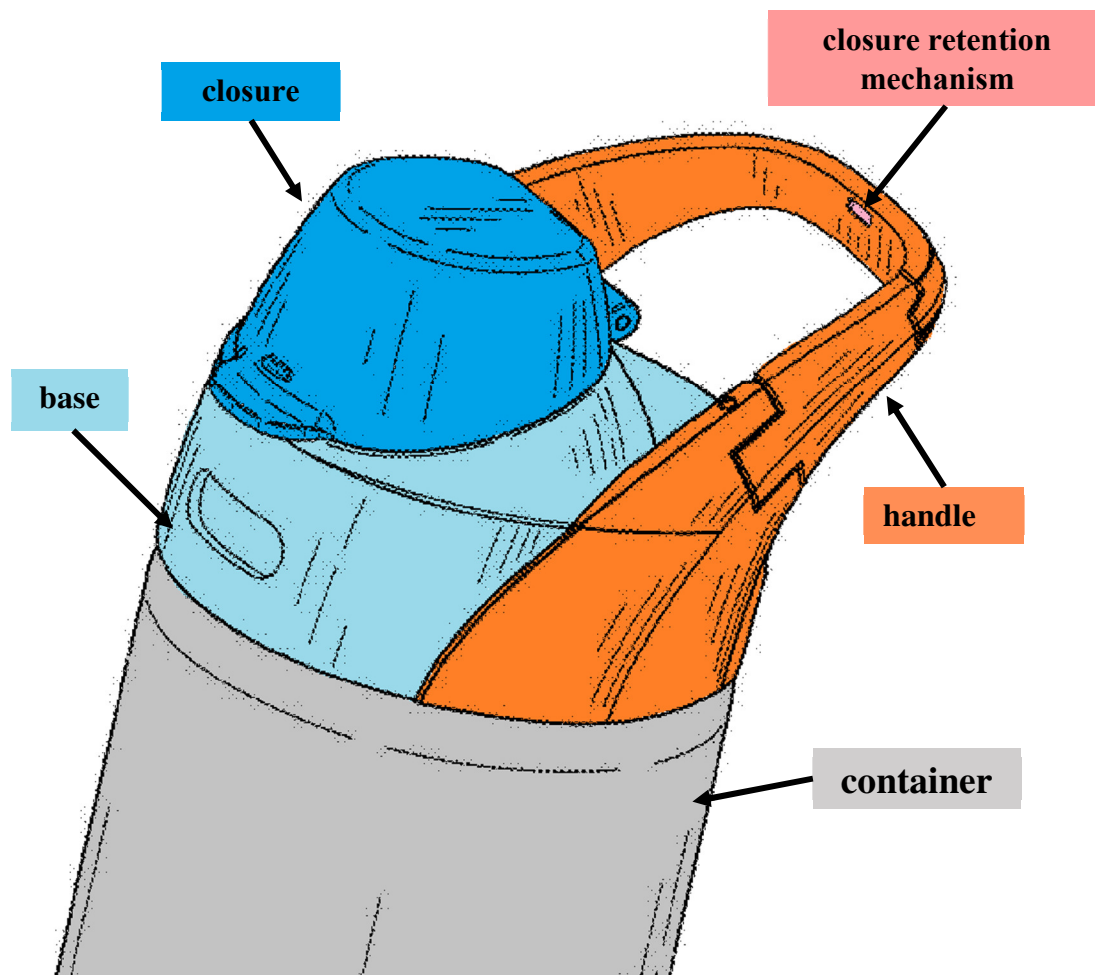


FIG. 3

(Ex. 1004, Fig. 3). The Samartgis handle also included a retention mechanism to stow the closure when it was detached from the drink spout. Specifically, the

handle included lug members 15 and 16, which engaged the closure and stowed it when the closure was removed from the spout.

And finally, Miller (Ex. 1006), filed in 2008, disclosed a beverage container with a cap assembly having a base, a closure covering a drink spout, and a handle.



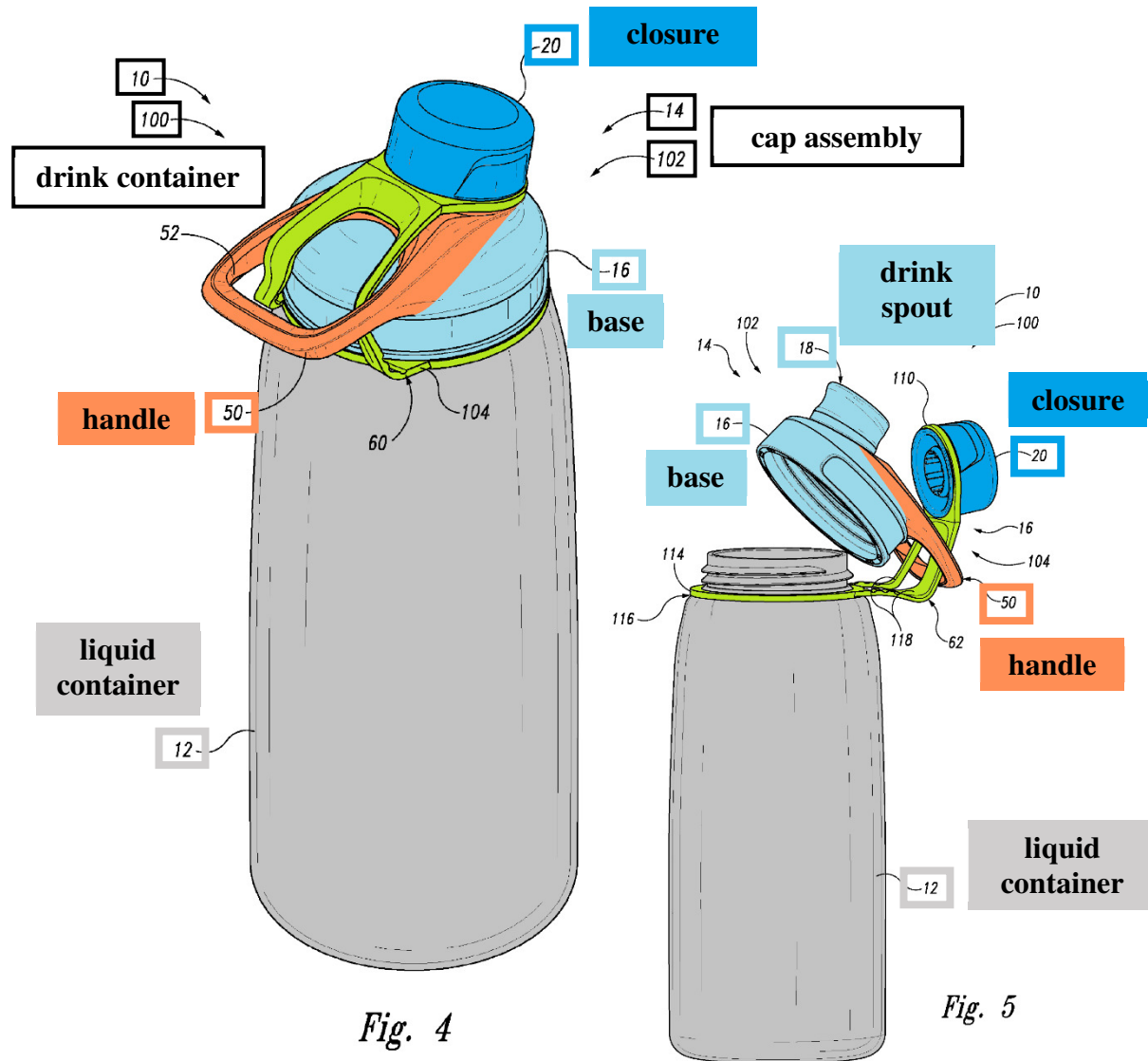
(Ex. 1006, Fig. 1; Ex. 1003 ¶212-30). The Samartgis handle also included a retention mechanism to stow the closure when it was detached from the drink spout. Specifically, the handle included an indent or catch to receive a protruding

tab on the closure to retain the closure in a stowed position when the beverage container was opened.

IV. THE '252 PATENT

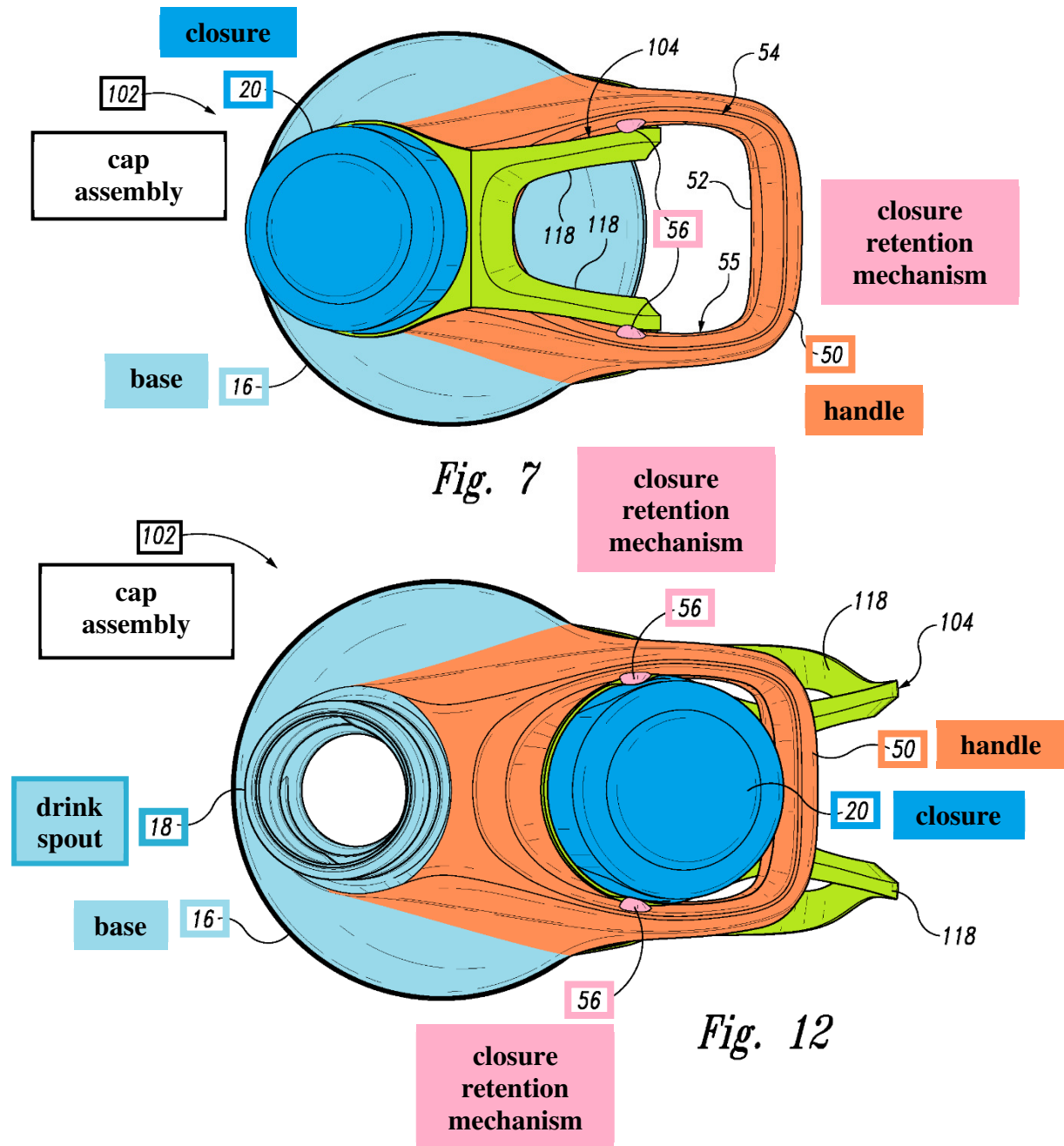
A. Overview

The '252 patent discloses and claims drink containers that include a liquid container and a cap assembly removably coupled to the liquid container. (Ex. 1001, Abstract, 4:30-35). Figures 4 and 5 illustrate the '252 patent's liquid container and cap assembly. The cap assembly includes a base, drink spout extending from the base, closure for closing the drink spout, and handle.



(*Id.*, Figs. 4, 5).

As shown below in Figures 7 (spout closed) and 12 (spout open), the handle includes a closure retention mechanism for retaining the closure when it is removed from the drink spout.



(*Id.*, Figs. 7, 12). The '252 patent closure retention mechanism consists of spaced apart tabs 56 that engage and retain the closure in the stowed position. (*Id.*, 8:57-60, 13:14-56).

B. The Challenged Claims

Independent claim 5 is set forth below (with bracketed labels added for reference and the main elements of the drink container bolded).

Claim 5	
Preamble	A drink container, comprising:
5[a]	a liquid container having a neck with an opening and having an internal compartment sized to hold a volume of potable drink liquid; and
5[b]	a cap assembly removably coupled to the liquid container, the cap assembly comprising:
5[b][i]	a base removably coupled to the neck of the liquid container;
5[b][ii]	a drink spout extending from the base and defining a passage through which drink liquid from the internal compartment of the liquid container may be selectively dispensed;
5[b][iii]	a closure configured to be removably coupled relative to the drink spout in a closed position to selectively restrict dispensing of drink liquid through the passage and to selectively permit dispensing of drink liquid through the passage when removed from the drink spout;
5[b][iv]	a handle extending from the base,
5[b][iv][a]	wherein the handle includes a closure retention mechanism configured to selectively retain the closure in a stowed position relative to the handle when the closure is selectively removed from the

Claim 5	
	drink spout and received by the closure retention mechanism.

Whereas claim 5 is directed to a drink container, *i.e.*, a liquid container and a cap assembly, independent claim 19 is directed to a cap assembly for use with a liquid container. The cap assembly includes the same elements as the cap assembly in claim 5. Independent claim 19 is set forth below (with bracketed labels added for reference and the primary elements of the cap assembly bolded).

Claim 19	
Preamble	A cap assembly for use with a liquid container having a neck with an opening and having an internal compartment sized to hold a volume of potable drink liquid, the cap assembly comprising:
19[a]	a base configured to be removably coupled to the neck of the liquid container;
19[b]	a drink spout extending from the base and defining a passage through which drink liquid from the internal compartment of the liquid container may be selectively dispensed when the cap assembly is operatively coupled to the liquid container;
19[c]	a closure configured to be removably coupled relative to the drink spout in a closed position to selectively restrict dispensing of liquid through the passage and to selectively permit dispensing of liquid through the passage when removed from the drink spout;
19[d]	a handle extending from the base,
19[d][i]	wherein the handle includes a closure retention mechanism configured to selectively retain the closure in a stowed position relative to the handle when the closure is selectively removed from the drink spout and received by the closure retention mechanism.

The challenged dependent claims add limitations directed to: the handle and closure retention mechanism defining a closed perimeter (claim 6); the closure positioned within the handle's closed perimeter when stowed (claim 7); and how the closure engages the drink spout (claims 16-18).

C. Prosecution History

Despite the wealth of prior art drink containers available in the field and the simplicity of the claims, the Examiner allowed the '252 patent claims without a single rejection. The Examiner stated that the prior art reviewed did not disclose “a handle extending from the base, wherein the handle includes a closure retention mechanism configured to selectively retain the closure in a stowed position relative to the handle” Ex. 1002 (Notice of Allowability, p.2). As demonstrated herein, the Examiner’s premise for allowing the claims was mistaken.

V. STATEMENT OF RELIEF REQUESTED

A. IPR Grounds

IPR is requested for the following grounds of unpatentability:

Ground	Claims Challenged	35 U.S.C. §	References
1	5-7, and 16-19	102, 103	Samartgis
2	16-18	103	Samartgis in view of Gorskey and/or Johnson
3	5-7, 16, and 19	102, 103	Leoncavallo
4	17 and 18	103	Leoncavallo in view of Gorskey and/or Johnson
5	5-7, 16, and 19	103	Miller in view of Leoncavallo

6	17-18	103	Miller in view of Leoncavallo and in further view of Gorskey and/or Johnson
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B. The '252 Patent Is Subject to the Prior Art Provisions of the AIA.

The '252 patent claims priority to two provisional applications:

- Application No. 61/779,084 filed March 13, 2013 (Ex. 1008), and
- Application No. 61/859,662 filed July 29, 2013 (Ex. 1009).

Therefore, the earliest possible effective filing date for the challenged claims is March 13, 2013.

A patent that contains a claim with an effective filing date on or after March 16, 2013 is treated under the provisions of the AIA. *See* Pub. L. No. 112-29, 125 Stat. 284 (2011), §3(n)(1); *Ex Parte Raichelgauz*, No. 2022-003827, 2023 WL 3318861, at *1 n.2 (P.T.A.B. Apr. 25, 2023). Several claims of the '252 patent are not supported by the first provisional. (Ex. 1010).

Support for claim 16's external coupling structure on the closure plug configured to operatively mate with an internal coupling structure on the drink spout was added in the second provisional. *Compare* (Ex. 1008) *with* (Ex. 1009, Specification at 14, 26). Support for claim 17's drink spout upper lip that does not engage the closure and claim 18's cap assembly having a void between the drink spout upper lip and the closure was also added in the second provisional.

Compare (Ex. 1008) *with* (Ex. 1009, Specification at 14, 26). Further, Patent Owner has admitted in the district court action that claims 16-18 are not entitled to a pre-AIA priority date. (Ex. 1010, 2).

In sum, because one or more claims of the '252 patent are not entitled to a pre-AIA priority date, a fact admitted by Patent Owner, the patent is subject to the prior art provisions of the AIA.

C. The Asserted References Are Prior Art

This Petition relies on the following prior art references:

Exhibit	Reference	Date	AIA Art Type
1004	Samartgis	Filed: August 20, 2012	§102(a)(2)
1005	Leoncavallo	Issued: July 13, 2010	§102(a)(1)
1006	Miller	Issued: February 10, 2009	§102(a)(1)
1007	Lane	Filed: June 8, 2011	§102(a)(2)
1011	Gorskey	Published: April 21, 2010	§102(a)(1)
1012	Johnson	Published January 12, 2006	§102(a)(1)

This Petition is supported by the expert declaration of Glenn E. Vallee, Ph.D.. (Ex. 1003).

VI. LEVEL OF ORDINARY SKILL

Based on the relevant factors, *In re GPAC Inc.*, 57 F.3d 1573, 1579 (Fed. Cir. 1995), a hypothetical person of ordinary skill in the art (“POSITA”) would

have had an undergraduate degree in mechanical engineering or equivalent coursework, and a year or more of experience in designing, prototyping, and/or manufacturing fluid containers or similar products. (Ex. 1003 ¶¶25-30). More work experience may substitute for a lower level of education, and vice versa. (*Id.*).

This Petition does not turn on this specific definition of the level of ordinary skill. The claims are anticipated and/or would be obvious from the perspective of a POSITA under any reasonable definition. (*Id.* ¶¶29).

VII. CLAIM CONSTRUCTION

A. “Closure Retention Mechanism”

Claims 5 and 19 recite “a closure retention mechanism configured to selectively retain the closure in a stowed position relative to the handle when the closure is selectively removed from the drink spout and received by the closure retention mechanism.” This term is governed by 35 U.S.C. §112(f) because it recites a nonce “mechanism” for performing a claimed function without reciting structure for performing that function. *See Williamson v. Citrix Online, LLC*, 792 F.3d 1339, 1348-49 (Fed. Cir. 2015) (quotation omitted). A POSITA would not have understood the term “closure retention mechanism” to have a sufficiently

definite meaning as the name for a structure that performs the claimed function. (Ex. 1003 ¶45).

The term “mechanism” is often found to be a non-structural generic term that invokes §112(f). *See, e.g., Welker Bearing Co. v. PHD, Inc.*, 550 F.3d 1090, 1096 (Fed. Cir. 2008) (“colorant selection mechanism”); *Toro Co. v. Deere & Co.*, 355 F.3d 1313, 1325 (Fed. Cir. 2004) (“control mechanism”); *Media Rights Techs., Inc. v. Capital One Fin. Corp.*, 800 F.3d 1366, 1373 (Fed. Cir. 2015) (“compliance mechanism”). The claimed “closure retention mechanism” does not recite structure for performing the claimed function. (Ex. 1003 ¶45). The modifier “closure retention” is not structural; it merely describes, at a high level, the function performed by the mechanism. The Board should therefore construe “closure retention mechanism” as a means-plus-function limitation.

1. Construction of a means-plus-function limitation

When §112(f) applies, construction of the term is a two-step process. First, the “function” is identified. *Altiris, Inc. v. Symantec Corp.*, 318 F.3d 1363, 1375 (Fed. Cir. 2003). Next, the structure in the patent specification that corresponds to the recited function is identified. *Id.* That structure must be clearly linked to the function recited in the claim. *Id.*; *see also Synchronoss Techs., Inc. v. Dropbox, Inc.*, 987 F.3d 1358, 1367-68 (Fed. Cir. 2021) (specification must

disclose “‘adequate’ structure ... that a [POSITA] would be able to recognize,” not merely a catch-all “correspond[ing] to every known way of achieving the claimed function”).

2. Function of “closure retention mechanism”

The claims recite that the closure retention mechanism is “configured to selectively retain the closure in a stowed position relative to the handle when the closure is selectively removed from the drink spout and received by the closure retention mechanism.” (Ex. 1001, claims 5, 19).

The recited function of this means-plus-function clause is to “selectively retain the closure in a stowed position relative to the handle when the closure is selectively removed from the drink spout and received by the closure retention mechanism.” (Ex. 1001, claims 5, 19).

With respect to the term “configured to,” the specification defines “configured” to mean that “the element, component, and/or other subject matter is specifically selected, created, implemented, utilized, programmed, and/or designed for the purpose of performing the function.” (Ex. 1001 at 17:20-27). Construing “configured” is not material to the Petition, however, because, as described below, each of Samartgis, Leoncavallo, and Miller include a “closure

retention mechanism” that is designed for the purpose of performing the recited function.

3. Structure of “closure retention mechanism”

The specification discloses two embodiments of the closure retention mechanism. In one, the closure retention mechanism is on the handle. (Ex. 1001, 8:49-60, 9:12-44, 12:16-23, 13:14-46). In the other, it is on the exterior upper surface of the cap assembly. (*Id.*, 9:65-10:8). Challenged claims 5 and 19 are directed to the first embodiment, “wherein **the handle** includes a closure retention mechanism.” (*Id.*, claims 5, 19 (emphasis added)). In this embodiment, the closure retention mechanism is a pair of spaced-apart, and optionally opposed, tabs 56 that engage and retain the closure in the stowed position. (*Id.*, 8:53-60, 9:8-11, 13:14-17).

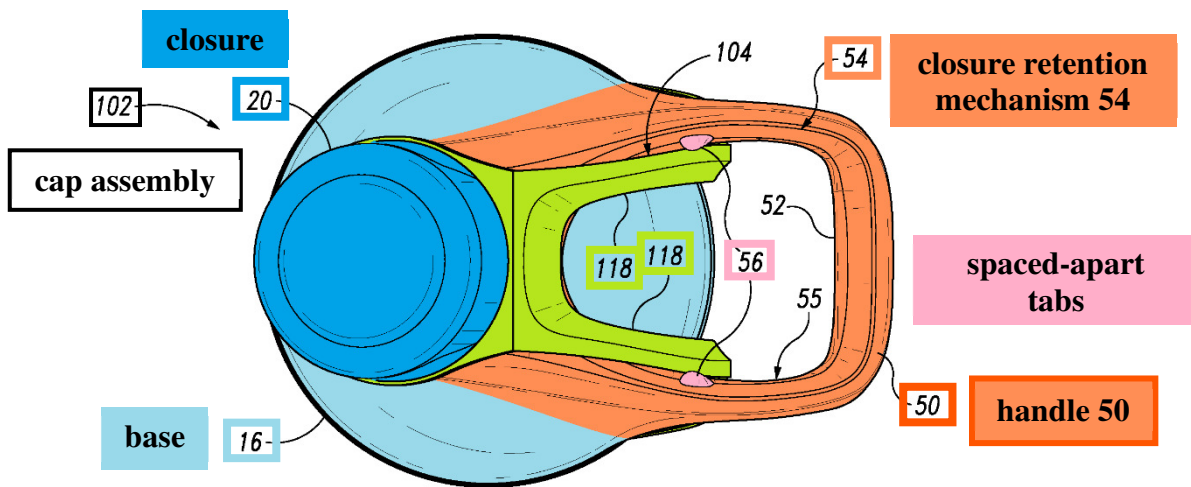


Fig. 7

(*Id.*, Fig. 7).

The spaced-apart tabs 56 extend inward from the closed perimeter of the handle. (*Id.*, Fig. 2, 8:55-60). The specification explains that the tabs may use a friction-fit arrangement and/or a snap-fit arrangement to retain the closure in the stowed position. (*Id.*, 8:49-52). The tabs or closure may be compressible such that when the closure is positioned into the stowed position (*i.e.*, between the tabs) the internal bias, or spring, force created by the compression will maintain the closure in position. (*Id.*, 9:12-44). The closure may include a corresponding structure, such as a depression or channel, that cooperates with the tabs to retain the closure in the stowed position. (*Id.*, 9:45-56). In sum, a POSITA would have understood the corresponding structure for the claimed “closure retention

mechanism” is two or more spaced-apart tabs extending from the inner surface of the handle. (Ex. 1003 ¶¶47-50).

B. Remaining Terms

Petitioner submits that no other claim terms require construction to resolve the invalidity challenges here. *Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co. Ltd. Matal*, 868 F.3d 1013, 1017 (Fed. Cir. 2017).

In certain instances, described in more detail below, this Petition is based on PO’s allegations that the ’252 patent covers Petitioner’s FreeSip® product and the scope of the claims as asserted by PO in the co-pending district court litigation. (Ex. 1010); *see also 10X Genomics, Inc. v. Bio-Rad Labs., Inc.*, IPR2020-00087, Paper 9 at 9-10, 15-19 (P.T.A.B. Apr. 27, 2020) (“[W]e see no problem with Petitioner relying on statements by [PO] in the related district court action in which [PO] took a position on the scope of a challenged claim.”).

VIII. GROUND 1: CLAIMS 5-7 AND 16-19 ARE ANTICIPATED BY AND/OR WOULD HAVE BEEN OBVIOUS OVER SAMARTGIS

A. Overview of Samartgis

Samartgis discloses a cap assembly for a container. (Ex. 1004, Abstract, Title, 2:6-9; Ex. 1003 ¶54). The cap assembly includes a base (main body 1); spout 4; closure for the spout (flap 20), and handle (lever or carry member 10). (Ex. 1004, 2:45-59; Ex. 1003 ¶54-61).

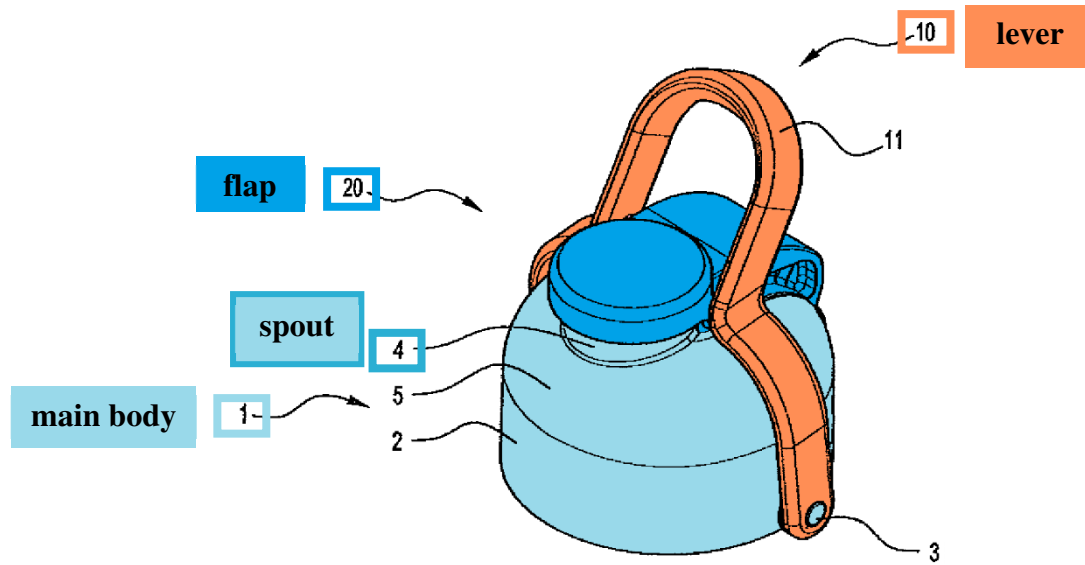


FIG. 1

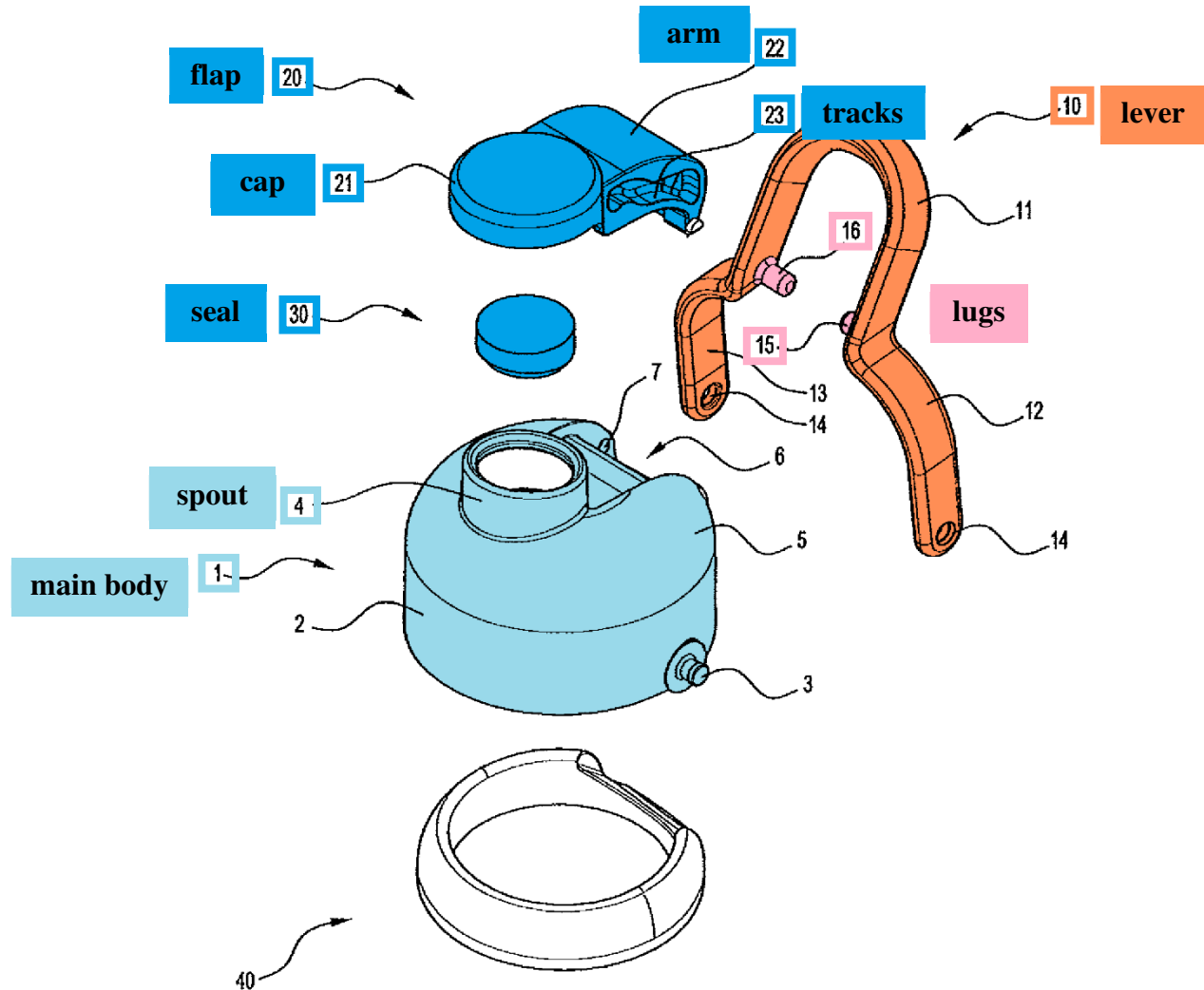


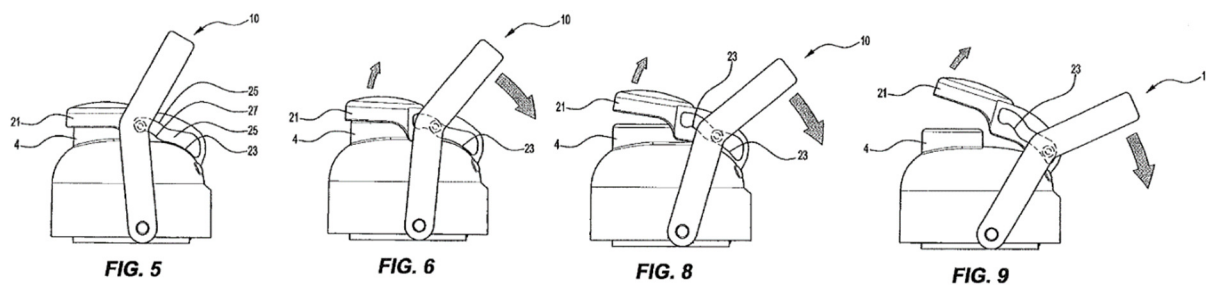
FIG. 3

(Ex. 1004, 2:14-16, 2:19-20, Figs. 1, 3; Ex. 1003 ¶¶55-56).

The main body 1 includes a spout 4 for dispensing the contents of the container to which the closure assembly is attached. (Ex. 1004, 3:1-6). The flap 20 includes a cylindrical cap 21 and a shaped arm 22. (*Id.*, 3:42-47). The shaped arm includes tracks 23 on each side. (*Id.*). The cap includes a seal 30 disposed

over the spout to seal the opening of the container. (*Id.*, 3:52-56; Ex. 1003 ¶60).

The lever/carry member 10 includes lug members 15 and 16 that fit within the tracks 23. (*See, e.g.*, Ex. 1004, Fig. 1). When a user pivots the lever/carry member 10 the lug members 15 and 16 move along the tracks 23. (*Id.*, 4:12-19). This causes flap 20 to move either into or out of engagement with the spout. (*Id.*). The figures below illustrate the progression of the lever as it first lifts the flap to disengage from the spout and then progressively moves away from the spout.



(Ex. 1003 ¶61; Ex. 1004, Figs. 5-6, 8-9).

B. Claim 5

Samartgis anticipates and/or renders obvious claim 5. (Ex. 1003 ¶¶76-103).

1. Preamble

The preamble recites “[a] drink container.” If the preamble is limiting, Samartgis discloses it. (*Id.*; Ex. 1003 ¶¶78-79). For example, Samartgis relates to an “improved closure/dispensing means for a container.” (Ex. 1004, 1:7-9). Samartgis further explains that the container may be used to store “liquid” and

that the closure includes a “drinking or dispensing spout.” (*Id.*, 1:16, 6:13).

2. 5[a]: Liquid Container

Samartgis discloses limitation 5[a]: “a liquid container having a neck with an opening and having an internal compartment sized to hold a volume of potable drink liquid.” (Ex. 1003 ¶¶80-82).

Samartgis relates to a closure for a container. (Ex. 1004, 1:7-9). Samartgis explains that the container may be used to store “liquid.” (*Id.*, 1:16, 6:13). Samartgis discloses that the container has a “neck portion.” (*Id.*, 3:19, 3:28-29, 4:7-12, 5:7). A POSITA would have understood that the neck portion of Samartgis’s liquid container would have an opening, and that the container would also have an internal compartment sized to hold a volume of potable drink liquid. These features would be necessary to store and dispense the contents of the container, which Samartgis discloses doing. (Ex. 1004, 3:1-6, 3:52-57, 4:58-61; Ex. 1003 ¶¶81-82).

3. 5[b]: Cap Assembly

Samartgis discloses limitation 5[b]: “a cap assembly removably coupled to the liquid container.” (Ex. 1003 ¶¶83-85).

Samartgis discloses a “cap or closure assembly,” shown below:

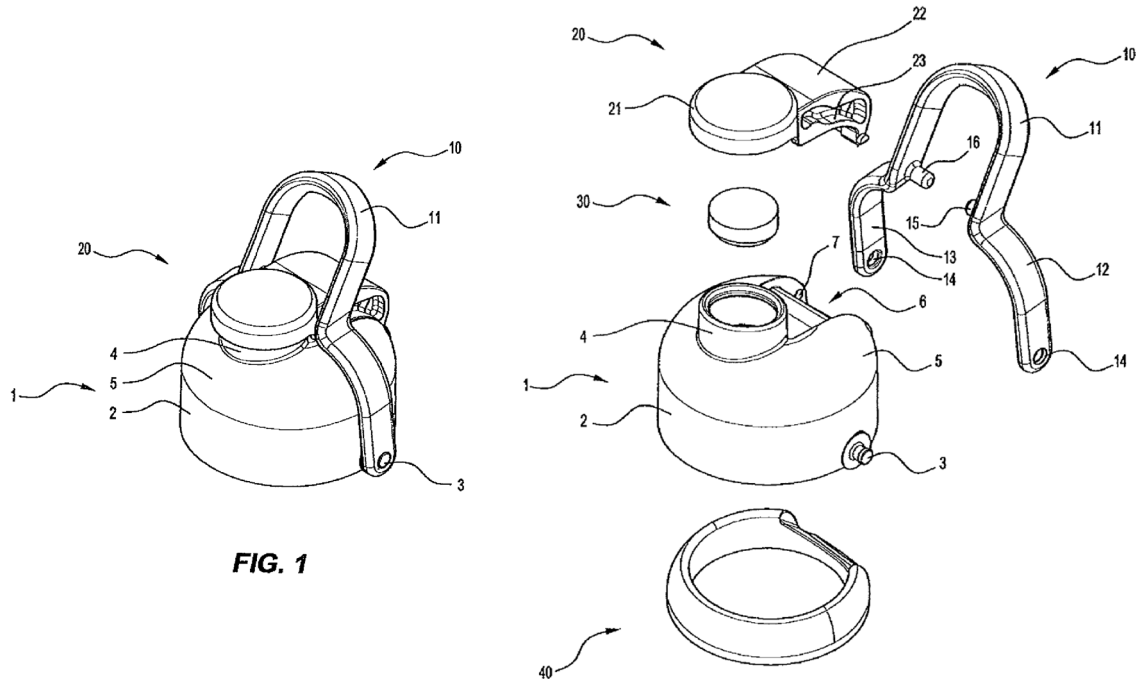


FIG. 1

(Ex. 1004, Figs. 1, 3, 2:45-48; Ex. 1003 ¶84). The cap assembly is removably coupled to the liquid container. (Ex. 1004, 3:25-30 (“...intended in use to cooperate with a complementary threaded section of the neck portion of the container to which the cap assembly is to be releasably attachable”), 2:57-59 (“a container (not shown) to which the cap or closure assembly of the invention is to be releasably attachable”), 5:1-18).

4. 5[b][i]: Base

Samartgis discloses limitation 5[b][i]: a cap assembly that comprises “a base removably coupled to the neck of the liquid container.” (Ex. 1003 ¶¶86-88).

Samartgis discloses that the cap assembly includes a base (main body member 1).

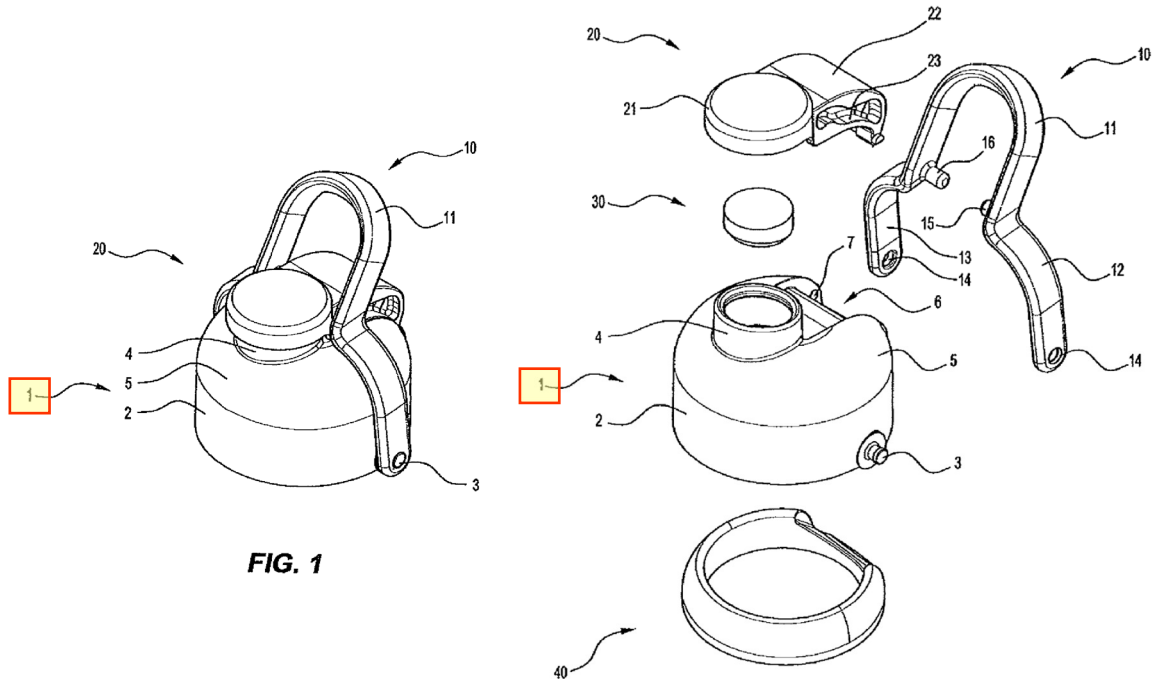


FIG. 1

(Ex. 1004, Figs. 1, 3; Ex. 1003 ¶87).

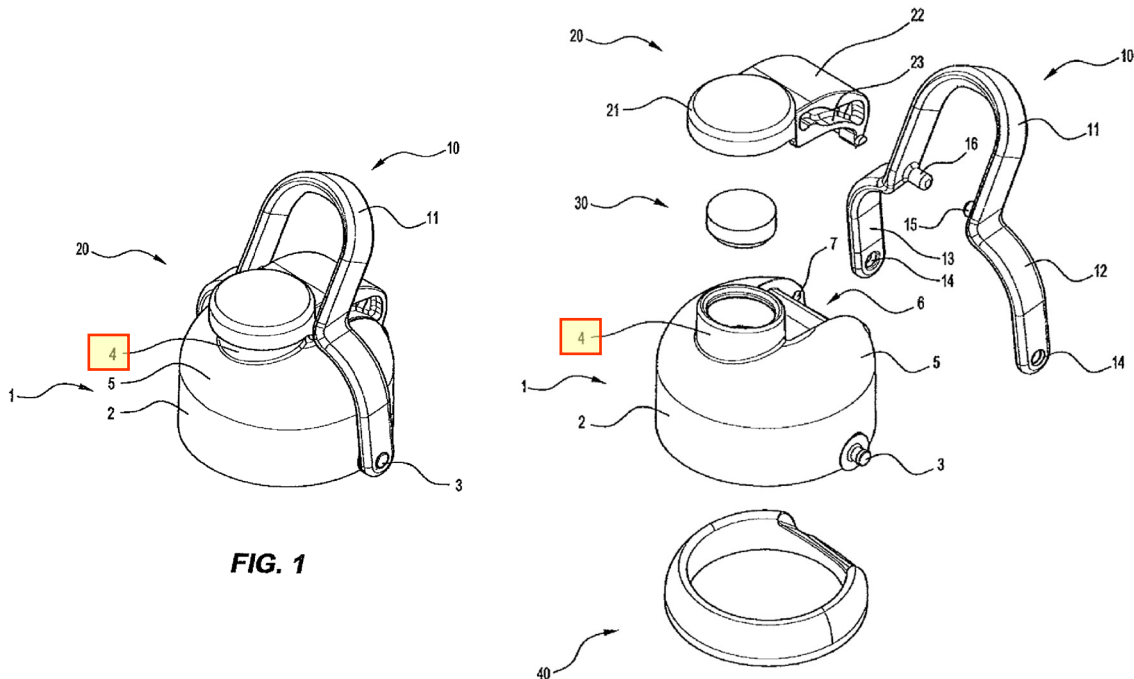
The cap assembly base (main body member 1) is removably coupled to the neck of the liquid container via a threaded section on both the base and the container neck. (Ex. 1004, Figs. 2, 13, 3:13-30 (“the main body member 1 further includes . . . a threaded section, intended in use to co-operate with a complementary threaded section of the neck portion of the container to which the cap assembly is to be releasably attachable.”), 5:1-18).

5. 5[b][ii]: Drink Spout

Samartgis discloses limitation 5[b][ii]: “a drink spout extending from the base and defining a passage through which drink liquid from the internal compartment of the liquid container may be selectively dispensed.” (Ex. 1003

¶¶89-91).

Samartgis discloses that the cap assembly includes a drink spout (spout 4).



(Ex. 1004, Figs. 1, 3; Ex. 1003 ¶90).

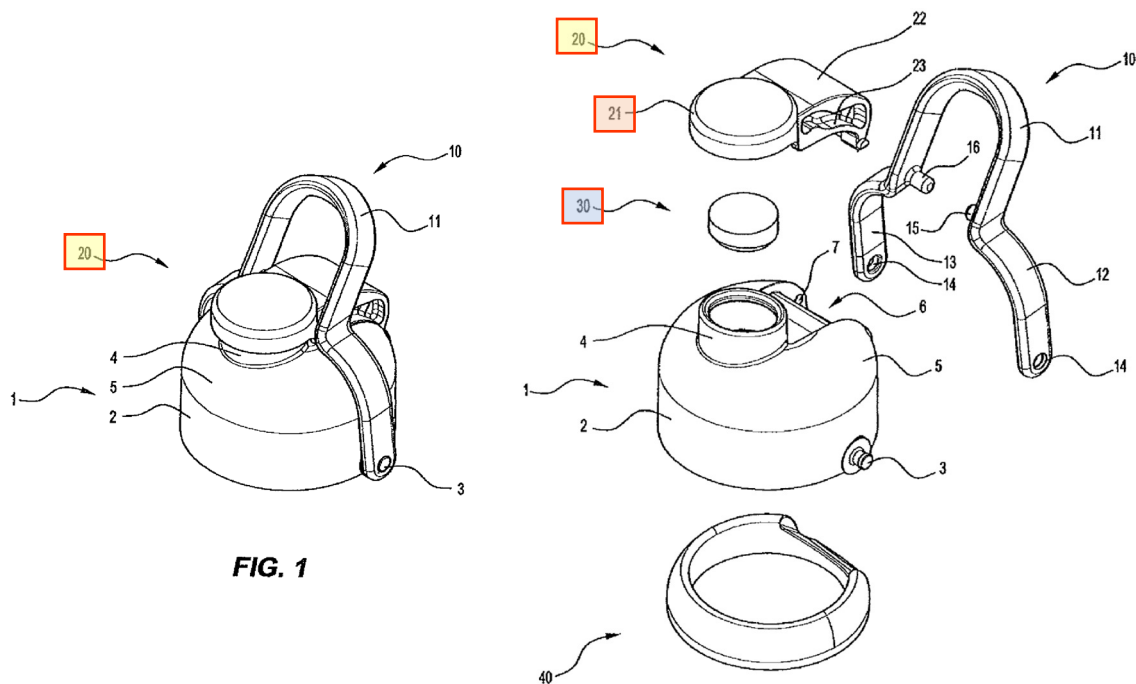
The spout extends from the base (main body member 1). (Ex. 1004, Fig. 3, 3:1-6 (“The main body member 1 further includes, at the other end thereof, a neck or spout 4 extending substantially normally from the upper closed surface 5 thereof. . .”). 4:54-61). Samartgis discloses that its spout defines a passage through which drink liquid from the internal compartment of the liquid container may be selectively dispensed. (Ex. 1004, 3:2-6; Ex. 1003 ¶91).

6. 5[b][iii]: Closure

Samartgis discloses limitation 5[b][iii]: a cap assembly that comprises “a

closure configured to be removably coupled relative to the drink spout in a closed position to selectively restrict dispensing of drink liquid through the passage and to selectively permit dispensing of drink liquid through the passage when removed from the drink spout.” (Ex. 1003 ¶¶92-94).

Samartgis discloses that the cap assembly includes a closure (flap member 20). Flap member 20 includes a cap member 21 and a seal 30.



(Ex. 1004, Figs. 1, 3; Ex. 1003 ¶93). Flap member 20 is removably coupled relative to the drink spout in a closed position. (Ex. 1004, Figs. 1, 3, 2:51-54 (cap assembly includes “a flap member 20 which is adapted, in use, to be ... selectively and progressively movable into and out of relationship with the main body member 1.”), 3:52-56, 3:65-66 (The flap member is designed to “swing away from

and return into engagement with the spout.”)); *see also* (*id.*, 3:42-4:6, 4:10-19).

The user operates the handle to bring the closure into and out of engagement with the spout. *Id.*, Figs. 6-9. The closure is therefore configured to selectively restrict dispensing of drink liquid through the passage in a closed position and to selectively permit dispensing of drink liquid through the passage when removed from the drink spout. (Ex. 1003 ¶¶94).

7. 5[b][iv]: Handle

Samartgis discloses limitation 5[b][iv]: a cap assembly that comprises “a handle extending from the base.” (Ex. 1003 ¶¶95-97).

Samartgis discloses that the cap assembly includes a handle (lever/carry member 10).

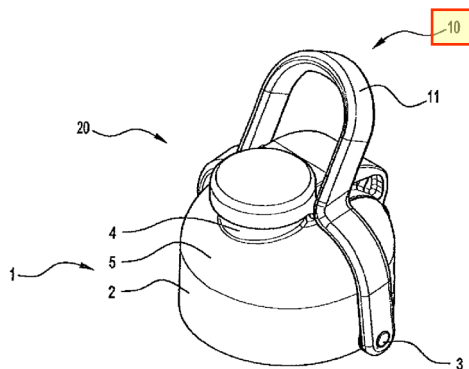


FIG. 1

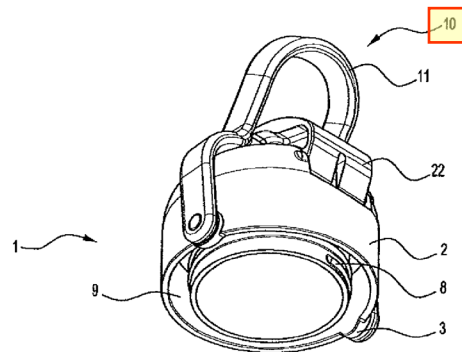


FIG. 2

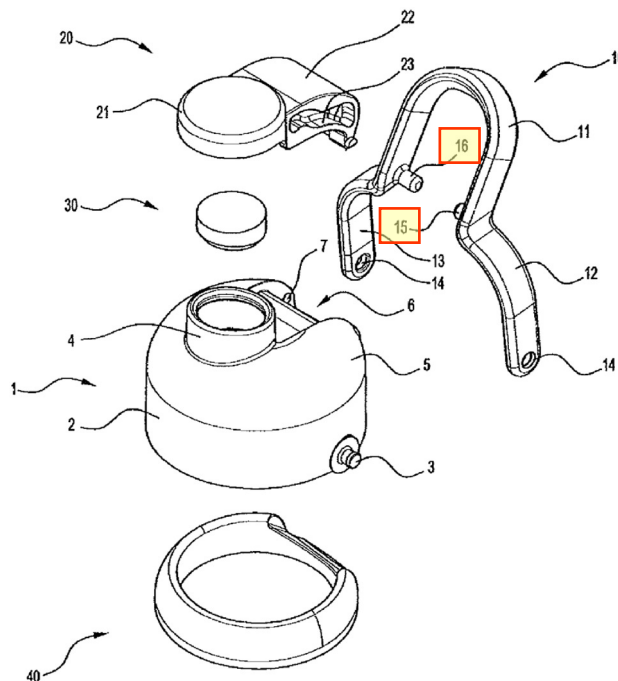
(Ex. 1004, Figs. 1, 2, 3:31-41 (lever can “function as a carry member for the

container’’)). The handle extends from the base (main body member 1). (Ex. 1004, 1:60-63, 2:49-50; *see also* 4:38-40).

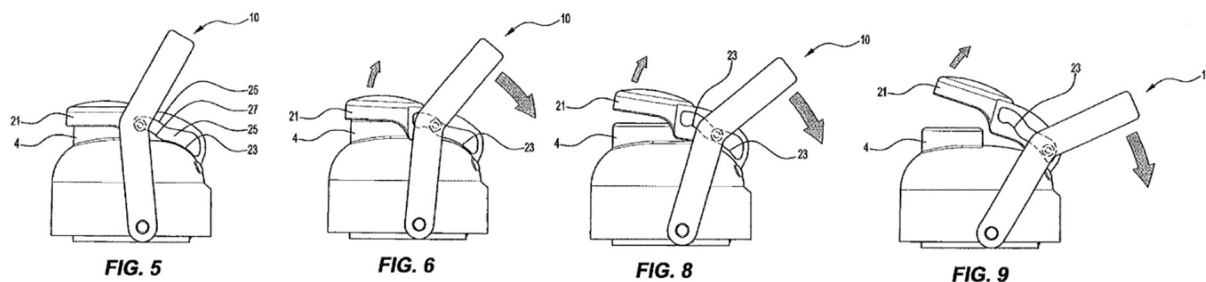
8. 5[b][iv][a]: Closure Retention Mechanism

Samartgis discloses limitation 5[b][iv][a]: “wherein the handle includes a closure retention mechanism configured to selectively retain the closure in a stowed position relative to the handle when the closure is selectively removed from the drink spout and received by the closure retention mechanism.” (Ex. 1003 ¶¶98-102).

Samartgis discloses that the handle (lever member 10) includes a closure retention mechanism (lug members 15 and 16).



(Ex. 1004, Fig. 3; Ex. 1003 ¶¶99). The lug members 15 and 16 are a closure retention mechanism because they are designed to, and do, perform the claimed function of retaining the closure (flap member 20) in a stowed position relative to the handle (lever/carry member 10) when the closure is removed from the drink spout. (Ex. 1003 ¶¶100). Samartgis describes how a user removes the closure (flap member 20) from the drink spout and stows it relative to the handle by moving the handle into a locking position. (*Id.*; Ex. 1003 ¶¶100; Ex. 1004., 4:12-30). Figures 5-9, below, depict the progression of the handle as it pivots to open the closure. Figure 9 shows the lever 10 in the “locking position,” meaning the closure (flap 20) is retained relative to the handle by the lug members 15 and 16 in the open position. This is a result of the user removing the flap member 20 from the drink spout and stowing it relative to the handle by moving the handle into the locking position. (*Id.*).



(Ex. 1004, Figs. 5-6, 8-9).

Furthermore, interpreting the “closure retention mechanism” under Section

112(f), the lug members 15 and 16 also are at least equivalent to the structure identified in the specification (*i.e.*, the two or more spaced-apart tabs on the handle). (Ex.1003 ¶101). The lug members 15 and 16 perform the claimed function in substantially the same way to achieve substantially the same result as the opposed tabs of the '252 patent. (*Id.*) Like the opposed tabs of the '252 patent, the lug members 15 and 16 are projections that extend from the inner surface of the handle to engage the closure. (*Id.*). Also, like the opposed tabs of the '252 patent, the lug members 15 and 16 retain the closure in a stowed position relative to the handle when the user removes the closure from the drink spout and moves lever 10 into the locking position to maintain the closure in the open position. (*Id.*).

Because Samartgis discloses each element of claim 5, Samartgis anticipates the claim. Additionally, claim 5 would have been obvious to a POSITA in view of Samartgis. (*Id.* ¶103). *See In re Baxter Travenol Labs*, 952 F.2d 388, 391 (Fed. Cir. 1991) (“[S]ince anticipation is the ultimate of obviousness, the subject matter of these claims is necessarily obvious ...”); *Realtime Data v. Iancu*, 912 F.3d 1368, 1373 (Fed. Cir. 2019) (“anticipation is the epitome of obviousness.”). To the extent there were any difference between claim 5 and the disclosure of Samartgis, the claim nonetheless would have been obvious to a POSITA. (Ex.

1003 ¶103). If the Board were to find that Samartgis does not disclose one or more limitations of the claimed invention, such limitation(s) are at least suggested by Samartgis for the reasons discussed above. Further a POSITA would have found a motivation to modify Samartgis and would have had a reasonable expectation of success in doing so, based on the suggestion in Samartgis itself and/or based on a POSITA's own knowledge. (Ex. 1003 ¶103.) For example, the other prior art references relied on in this Petition establish that the features recited in the claimed invention were well-known in the art and represent known techniques that could be used to modify the Samartgis device in the same way. (*Id.* ¶103); *see KSR Int'l Co. v. Teleflex, Inc.*, 550 U.S. 398, 417 (2007). Accordingly, claim 5 would have been obvious to a POSITA in view of Samartgis. *See CRFD Rsch., Inc. v. Matal*, 876 F.3d 1330, 1347-50 (Fed. Cir. 2017).

C. Claim 6

Claim 6 depends from claim 5. Samartgis discloses claim 6's additional limitation: "wherein the handle defines a closed perimeter, and wherein the closure retention mechanism defines at least a portion of the closed perimeter." (Ex. 1003 ¶¶104-07).

PO has asserted that Petitioner's FreeSip® product satisfies the "handle defines a closed perimeter" limitation as reflected in the labeled photographs

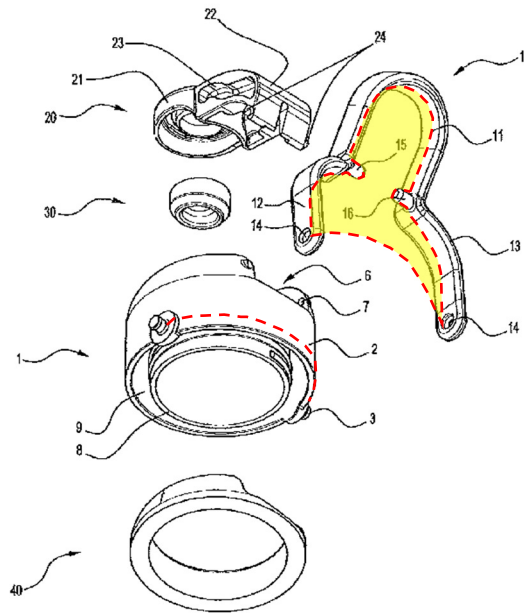
below:



(Ex. 1010, Claim Chart at Appendix A-1 at 7-8. The FreeSip® product includes a pivoting u-shaped member (teal blue above), which PO identifies as the “handle.” (*Id.*). PO alleges that this handle “defines a closed perimeter” because it defines a portion of a closed perimeter, and some other portion of the lid completes the closed perimeter. (*Id.* (identifying the closed perimeter as the area defined by the “handle” and other portions of the cap assembly outlined above))). Thus, PO admits that the claim encompasses a pivoting u-shaped handle that defines only a portion of a closed perimeter, where the perimeter is completed by another portion of the cap assembly about which the u-shaped handle pivots.

Like Petitioner’s product, Samartgis’s handle (lever 10) defines a closed perimeter defined by the contours of the u-shaped lever 10, where the closed perimeter is completed by the base (main body member 1) about which the lever

pivots. The closure retention mechanism in Samartgis (lug members 15 and 16) project inwardly from the handle (lever 10) to define a portion of the perimeter defined by the handle.



(Ex. 1004, Fig. 4; Ex. 1003 ¶106).

Because Samartgis discloses the additional limitation of claim 6, it also anticipates this claim. (Ex. 1003 ¶104-107). Claim 6 also would have been obvious to a POSITA in view of Samartgis. (Ex. 1003 ¶107).

D. Claim 7

Claim 7 depends from claim 5. Samartgis discloses the additional limitation of claim 7: “wherein the handle defines a closed perimeter, and wherein in the stowed position, the closure is positioned at least partially within the closed

perimeter.” (Ex. 1003 ¶¶108-10).

As noted above, the handle (lever 10), together with the base (main body member 1), defines a closed perimeter. As depicted below, the closure (flap 20) is positioned partially within the closed perimeter defined by the handle (lever 10). Specifically, the shaped arm 23 portion of the flap 20 is positioned at least partially within the closed perimeter defined by the lever 10 in the stowed position depicted in Figure 9.

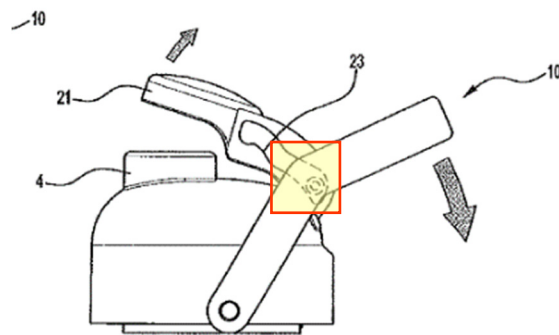


FIG. 9

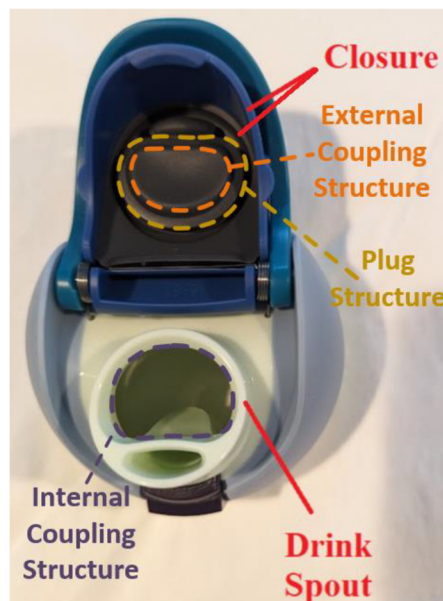
(Ex. 1004, Fig. 9; Ex. 1003 ¶¶109).

Because Samartgis discloses the additional limitation of claim 7, it also anticipates this claim. Claim 7 also would have been obvious to a POSITA in view of Samartgis. (Ex. 1003 ¶¶110).

E. Claim 16

Claim 16 depends from claim 5. Samartgis discloses the additional limitation of claim 16: “wherein the drink spout includes an internal coupling structure, wherein the closure includes a plug structure that is configured to extend within the passage when the closure is in the closed position, and wherein the plug structure includes an external coupling structure that is configured to operatively mate with the internal coupling structure of the drink spout when the closure is in the closed position.” (Ex. 1003 ¶¶111-14).

PO has taken the position that “coupling structure” is simply a mating surface. PO has asserted that Petitioner’s FreeSip® product infringes claim 16 as depicted in the following annotated photograph:



(Ex. 1010, Appendix A-1 at 9). What PO identifies as an “internal coupling

structure” of the spout is simply the inner surface of the spout, which tapers slightly inwardly from the rim or lip of the spout. (*Id.*; Ex. 1003 ¶112)

Like Petitioner’s accused product, Samartgis discloses a seal that is sized and shaped to engage the inner surface of the spout opening, thereby plugging the spout. (Ex. 1004, 3:52-57; Ex. 1003 ¶113). As seen below in Figure 4, seal 30, which is part of the closure (flap member 20), includes a tapered bottom portion. The seal has been enlarged in the left figure to better visualize the taper.

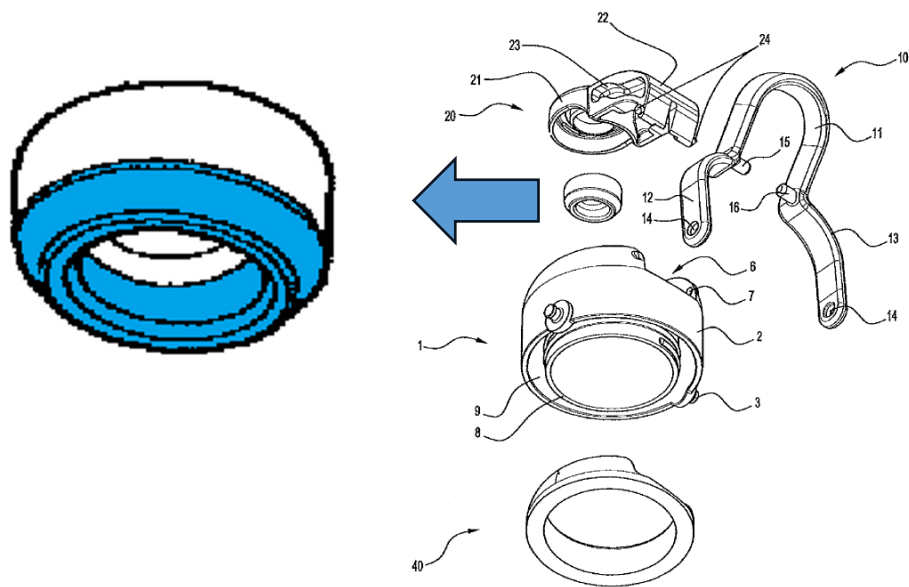
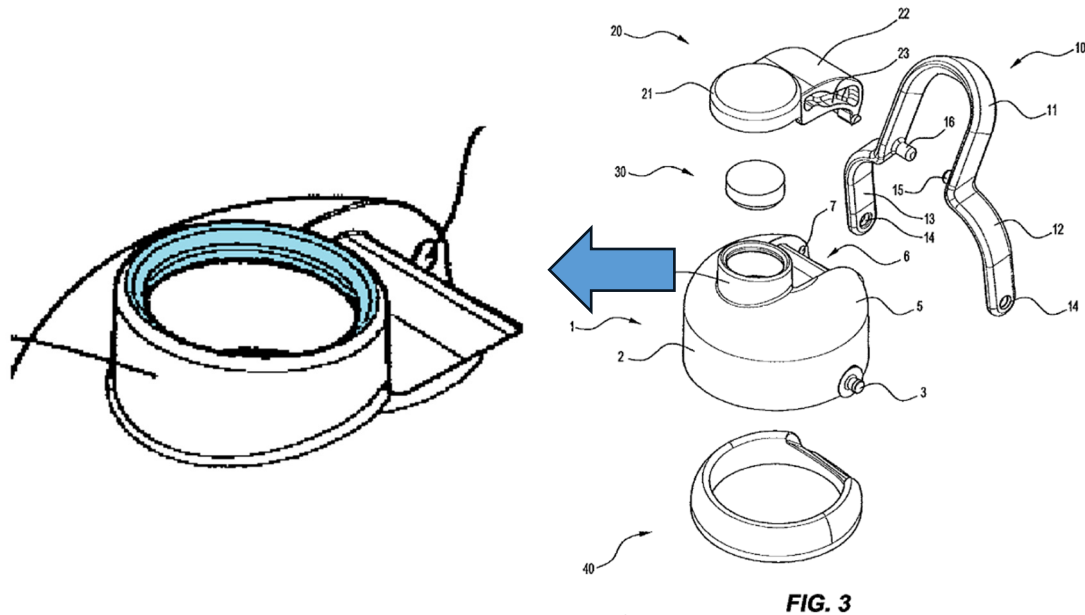


FIG. 4

(Ex. 1004, Fig. 4; Ex. 1003 ¶113).

As seen below, the spout 4 includes an opening that tapers inwardly from the lip of the opening. The spout has been enlarged in the figure to the left to better visualize the taper.



(Ex. 1004, Fig. 3; Ex. 1003 ¶113). A POSITA would have understood from Samartgis's disclosure, and in particular from the shape of seal 30 and spout 4, that the seal is configured to extend within the spout 4 when in a closed position. (*Id.*). Specifically, the tapered portion of seal 30 engages the tapered portion of spout 4. (*Id.*). Thus, seal 30 is a plug structure that includes an external coupling structure (tapered portion) that mates with the internal coupling structure (tapered portion) of the spout 4 when the closure is in the closed position. (*Id.*).

Claim 16 also would have been obvious to a POSITA in view of Samartgis. (Ex. 1003 ¶¶111-14).

F. Claim 17

Claim 17 depends from claim 5. Samartgis discloses the additional

limitation of claim 17: “wherein the drink spout defines an upper lip, and wherein the upper lip does not engage the closure when the closure is in the closed position.” (Ex. 1003 ¶¶115-18).

As described above, the Samartgis seal portion 30 of the closure includes a tapered portion that engages the inner surface of the spout 4 to form a seal. A POSITA would recognize that a tapered seal as disclosed in Samartgis would fit into the tapered opening of the spout without engaging the upper lip of the spout. (Ex. 1003 ¶116). Indeed, a POSITA would recognize that contacting the upper lip would potentially interfere with a seal by limiting the degree to which the tapered seal could be inserted into the spout. (*Id.*).

To the extent it was determined the feature of claim 17 was not taught by Samartgis, however, it would have been obvious based on the knowledge of a POSITA. (*Id.* ¶117). For example, tapered closures that engage the inside of an opening, but not the lip, are common, e.g., a test-tube stopper. (*Id.*)

Because Samartgis discloses the additional limitation of claim 17, it also anticipates this claim. Claim 17 also would have been obvious to a POSITA in view of Samartgis. (Ex. 1003 ¶¶118).

G. Claim 18

Claim 18 depends from claim 17. Samartgis discloses the additional

limitation of claim 18: “wherein the closure and the drink spout define a void between the closure and the drink spout above the upper lip when the closure is in the closed position.” (Ex. 1003 ¶¶119-121).

As described above, the Samartgis seal portion 30 of the closure includes a tapered portion that engages the inner surface of the spout 4 to form a seal. A POSITA would recognize that a tapered seal as disclosed in Samartgis would fit into the tapered opening of the spout without engaging the upper lip of the spout. (Ex. 1003 ¶120). The seal portion 30 and cap portion 21 of the closure would define a void above the upper lip of the spout. Accordingly, a POSITA would recognize the closure and spout would define a void above the upper lip of the closure when the closure was in its closed position. (*Id.* ¶120).

Because Samartgis discloses the additional limitation of claim 18, it also anticipates this claim. Claim 18 also would have been obvious to a POSITA in view of Samartgis. (Ex. 1003 ¶121).

H. Claim 19

Independent claim 19 recites many of the same limitations as claim 5. Accordingly, Samartgis renders claim 19 anticipated and/or obvious for the same reasons addressed above. (Ex. 1003 ¶¶122-129); *supra* §VIII(B). Below is a table correlating the limitations of claim 19 with claim 5.

Claim 19:	Claim 5:
Claim 19 [preamble]	<i>See claim 5[a] Supra §§VIII(B)(2)-(3).</i>
Claim 19 [a]	<i>See claim 5[b][i] Supra §VIII(B)(4).</i>
Claim 19 [b]	<i>See claim 5[b][ii] Supra §VIII(B)(5).</i>
Claim 19 [c]	<i>See claim 5[b][iii] Supra §VIII(B)(6).</i>
Claim 19 [d]	<i>See claim 5[b][iv] Supra §VIII(B)(7).</i>
Claim 19 [d][i]	<i>See claim 5[b][iv][a] Supra §VIII(B)(8).</i>

**IX. GROUND 2: CLAIMS 16-18 WOULD HAVE BEEN OBVIOUS
OVER SAMARTGIS IN COMBINATION WITH GORSKEY AND/OR
JOHNSON**

Claims 16-18 each depend from claim 5, directly or indirectly, and recite features of the drink spout/closure engagement. These features were conventional. (Ex. 1003 ¶130). To the extent it was determined that Samartgis and the knowledge of a POSITA did not teach or at least suggest the features recited in these claims, these features were known in the art and the claims would have been obvious in view of known spout/closure engagements. (Ex. 1003 ¶¶130-154).

As described above, Samartgis discloses a closure to seal a drink spout. There are three ways to seal the opening of such a spout: 1) to seal the spout's outer surface, 2) to seal its upper lip, or 3) to seal its inner surface. All three were well known to a POSITA. (Ex. 1003 ¶131). Doing any of the three would have been obvious given the limited number of options. *See, e.g., Uber Tech., Inc. v.*

X One, Inc., 957 F. 3d 1334, 1341 (Fed. Cir. 2020) (finding Board erred in finding claims nonobvious in view of known, finite, predictable solutions in the prior art). The '252 patent claims recite sealing the inside surface of the spout. This was particularly well known. For example, using a cork to seal a wine bottle or a stopper or plug to seal a test tube have been known for centuries. (Ex. 1003 ¶131). Two examples of plug seal/spout arrangements are addressed below.

A. Overview of Gorskey and Johnson

Gorskey (Ex. 1011) discloses an assembly for sealing a container of food stuffs. (Abstract) The assembly includes a lid or cap that is inserted into the opening of the container to seal the container. As shown in Figure 6 below, a collar 110 is first applied to the food container 204. (*Id.*, [0032]). A lid collar 104 is then fitted around the collar 110. (*Id.*, [0035]). The lid 102 can be flipped (arrow B) to close collar 110. (*Id.*). The lid 102 includes a locking groove 118 on its outer surface to engage a complementary locking ridge 116 on the inner surface of the collar 110. (*Id.*, [0034]). Figure 8 shows the lid 102 in a closed configuration.

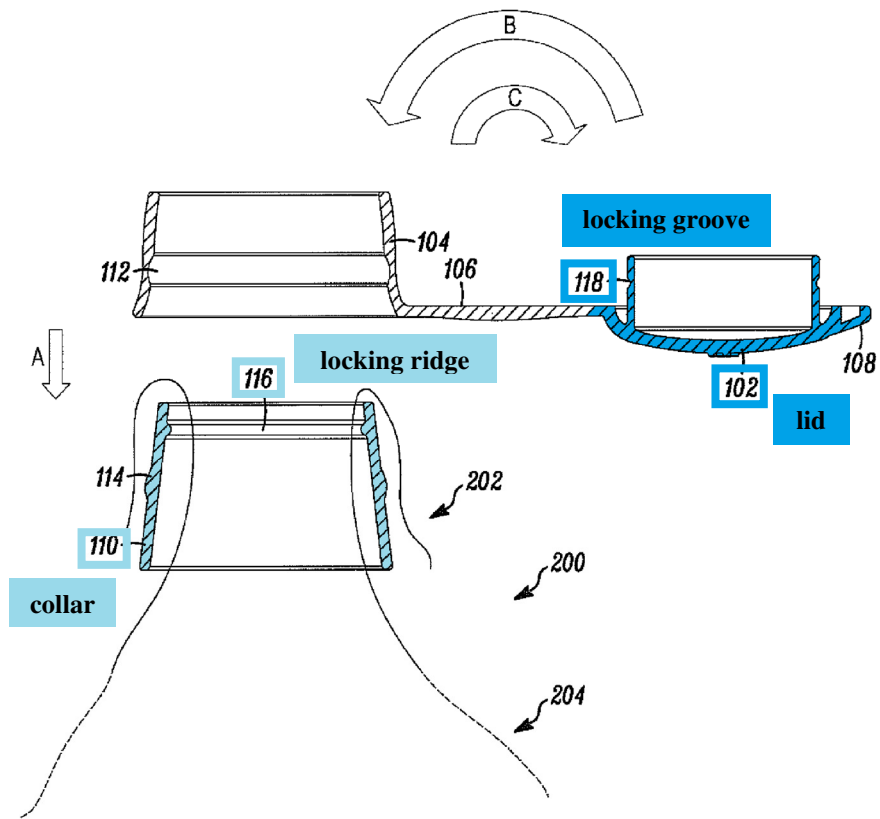


FIG. 6

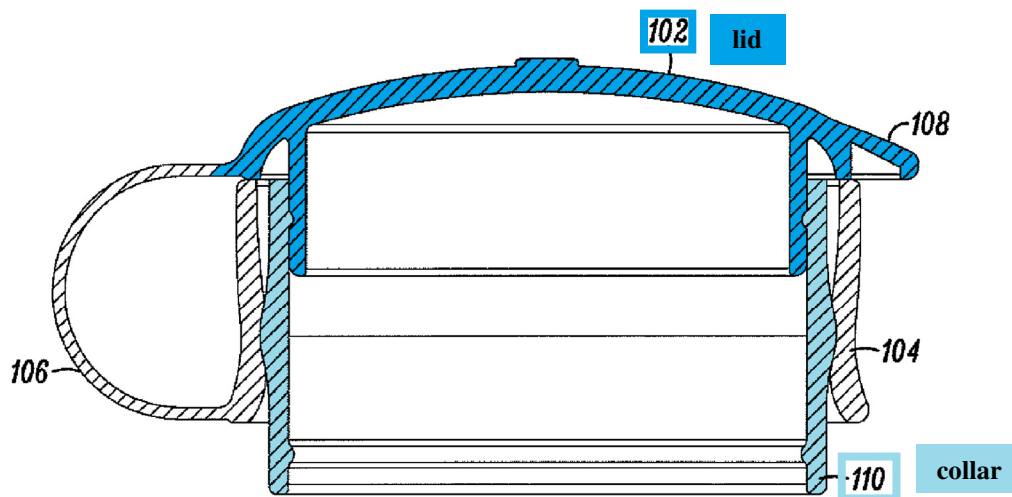
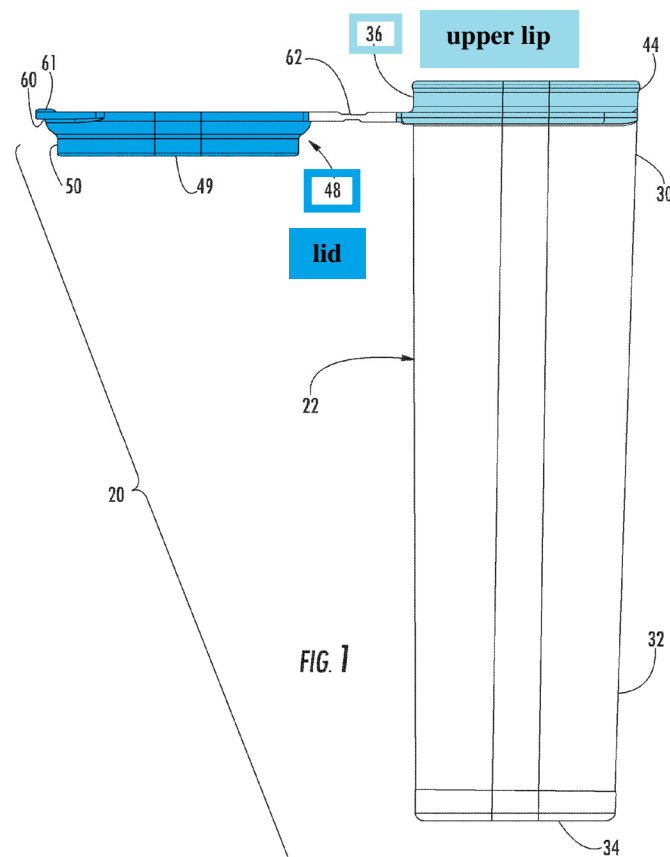


FIG. 8

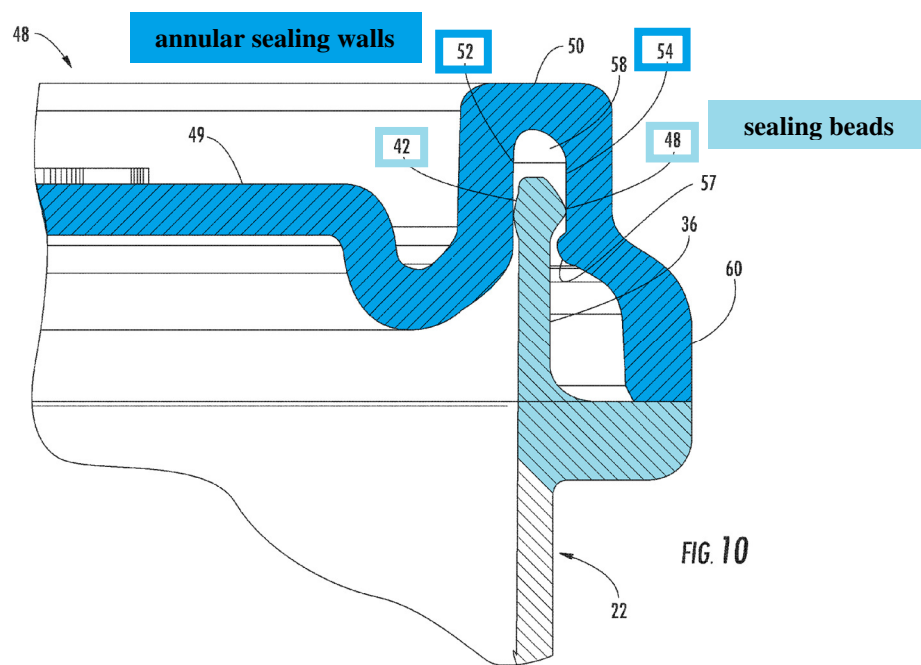
(Ex. 1010, Figs. 6, 8)

Johnson (Ex. 1012) discloses a similar spout/closure engagement to provide a leak-proof seal for a dispensing orifice of a container. Johnson explains that the disclosed invention “relates to containers and vials having hinged closures that maintain a seal.” (*Id.*, [0003]; *see also* [0005] (provides leak-proof seal for the orifice of a container for food products such as ketchup and syrups). As depicted in Figure 1 below, the container, referred to as vial body 22, includes an opening at its upper end defined by upper lip 36. (*Id.*, [0044]). A lid 48 is connected to the container by living hinge 62. (*Id.*).



(Ex. 1012, Fig. 1)

Figure 10 below shows an enlarged cross-section of the lid 48 engaging the opening of the vial body 22. The lid 48 includes annular sealing walls 52 and 54, which seal against both the inner and outer surface of the upper lip 36 that defines the opening of the container. (*Id.*, [0047]). The upper lip 36 includes sealing beads 42 and 44.² (*Id.*).



(Ex. 1012, Fig. 10)

² The outer sealing bead is mislabeled 48 in Figure 10.

B. Combining Samartgis with Gorskey and/or Johnson

A POSITA would have understood that other spout sealing mechanisms could be used with the Samartgis cap assembly, including the plug/spout sealing mechanisms disclosed in Gorskey and/or Johnson. A POSITA would have been motivated to make this substitution for several reasons. *KSR*, 550 U.S. at 417; (Ex. 1003 ¶139). Adopting the plug/spout configuration of Gorskey and/or Johnson would result in a more secure, robust defense against inadvertent spills or leaking. (Ex. 1003 ¶139). Additionally, the following factors are reasons that one skilled in the art would be motivated to make this modification.

First, the combination represents nothing more than the simple substitution of one known element (the plug/spout mechanisms of Gorskey and/or Johnson) for another known element (Samartgis's plug/spout mechanism) to obtain predictable results. (Ex. 1003 ¶140-41).

Second, the combination also represents the use of a known technique (the plug/spout mechanism of Gorskey and/or Johnson) to modify or improve a similar device, namely Samartgis's cap assembly, which also used a plug to seal the spout of a container. (*Id.* ¶142).

Third, using external coupling structures on a plug to cooperatively mate with internal coupling structures on a spout to seal the spout was well known,

leading a POSITA to reasonably expect success in the combination. (*Id.* ¶143).

Finally, the combination applies a known technique (using the Gorskey and/or Johnson plug/spout mechanism) to a known device (Samartgis's cap assembly, which also used a plug and spout) that is ready for improvement and yields predictable results, namely a sealed closure for the Samartgis spout. (*Id.* ¶144).

C. Claim 16 Would Have Been Obvious

Gorskey and Johnson each discloses the additional limitation of claim 16: “the drink spout includes an internal coupling structure, wherein the closure includes a plug structure that is configured to extend within the passage when the closure is in the closed position, and wherein the plug structure includes an external coupling structure that is configured to operatively mate with the internal coupling structure of the drink spout when the closure is in the closed position.” (Ex. 1003 ¶145). Gorskey (shown in Figure 8 below) discloses a spout (collar 110) having an internal coupling structure (locking ridge 116). (Ex. 1011, [0034]). It discloses a plug structure (lid 102) that is configured to extend within the passage of the spout when the closure (lid 102) is in the closed position. And plug structure (lid 102) includes an external coupling structure (locking groove 118) configured to operatively mate with the internal coupling structure of the spout

(locking ridge 116) when the lid is in the closed position. (*Id.*).

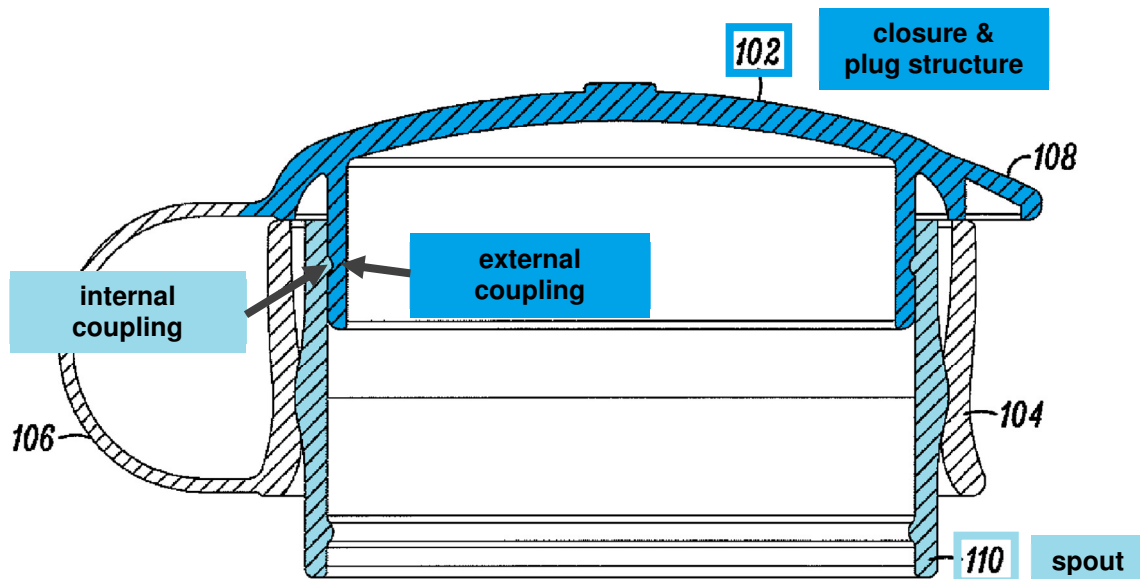
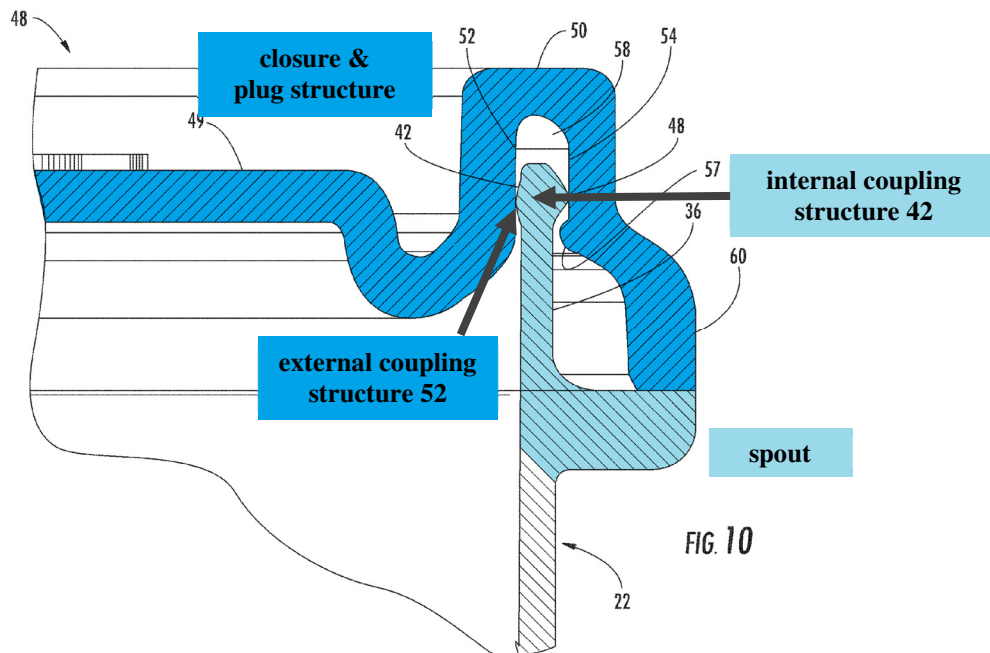


FIG. 8

(Ex. 1011, Fig. 8)

Similarly, Johnson (shown in Figure 10 below) discloses a spout (vial body 22 with upper lip 36) having an internal coupling structure (sealing wall with sealing bead 42). (Ex. 1012, [0047]). It discloses a plug structure (vial lid 48) that is configured to extend within the passage of the spout when the closure (vial lid 48) is in the closed position. And plug structure (vial lid 48) includes an external coupling structure (annular sealing wall 52) configured to operatively mate with the internal coupling structure of the spout (sealing bead 42) when the lid is in the closed position.



(Ex. 1012, Fig. 10)

In sum, because Gorskey and Johnson each disclose the additional limitation of claim 16, the claim would have been obvious to a POSITA in view of Samartgis in combination with Gorskey and/or Johnson. (Ex. 1003 ¶¶145-48).

D. Claim 17 Would Have Been Obvious

Gorskey (Ex. 1011, Fig. 8) and Johnson (Ex. 1012, Fig. 10) each discloses the additional limitation of claim 17: “the drink spout defines an upper lip, and wherein the upper lip does not engage the closure when the closure is in the closed position. (Ex. 1003 ¶149). As highlighted below, the closures of Gorskey and Johnson do not engage the upper lip, i.e. top surface, of the spout when in the

closed configuration.

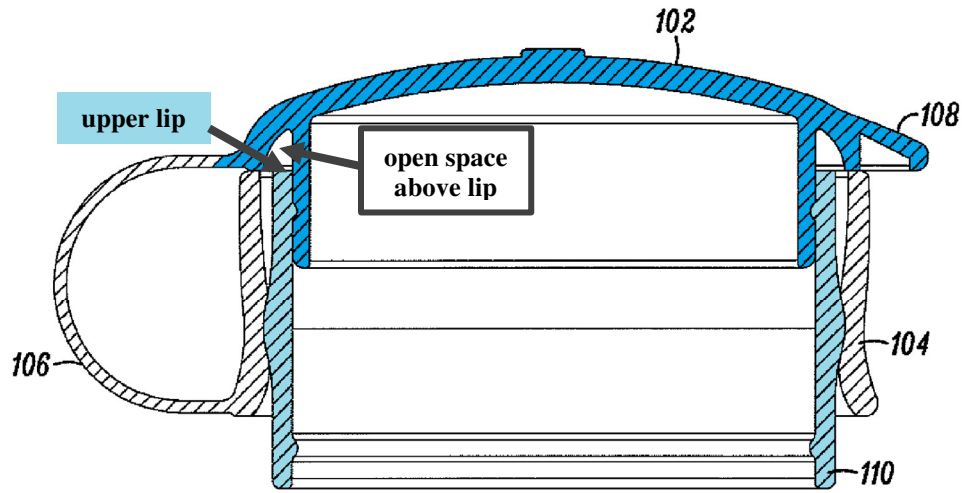


FIG. 8

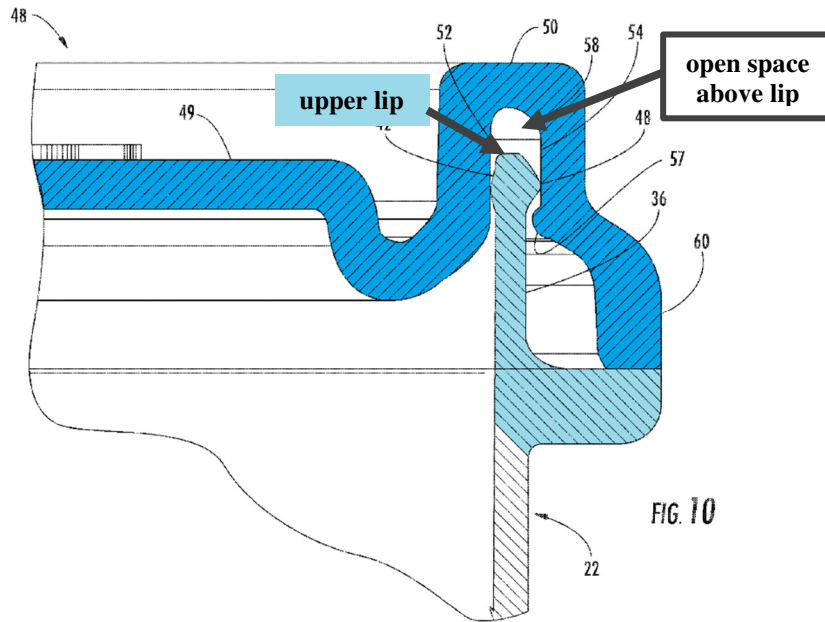


FIG. 10

(Ex. 1011, Fig. 8; Ex. 1012, Fig. 10)

Because Gorskey and Johnson each disclose the additional limitation of

claim 17, the claim would have been obvious to a POSITA in view of Samartgis in combination with Gorskey and/or Johnson. (Ex. 1003 ¶¶149-51).

E. Claim 18 Would Have Been Obvious

Claim 18 recites that “the closure and the drink spout define a void between the closure and the drink spout above the upper lip when the closure is in the closed position.”

As shown above for claim 17, each of Gorskey and Johnson define a void between the closure and the spout above the upper lip of the spout when the closure is in the closed position. Thus, because Gorskey and Johnson each disclose the additional limitation of claim 18, the claim would have been obvious to a POSITA in view of Samartgis in combination with Gorskey and/or Johnson. (Ex. 1003 ¶¶152-54).

X. GROUND 3: CLAIMS 5-7, 16, AND 19 ARE ANTICIPATED BY AND/OR WOULD HAVE BEEN OBVIOUS OVER LEONCAVALLO.

A. Overview of Leoncavallo

Leoncavallo discloses a cap assembly (closure 10) for a liquid container. (Ex. 1005, 1:66-2:3, 3:7-60). The closure includes: a base (34 and 36); a spout 46; a closure for the drink spout (flip cap 68); and a handle (loop 54). (*Id.*, Abstract; Ex. 1003 ¶¶62-67). Figures 2 and 3, below, depict the cap in its closed and open configuration, respectively:

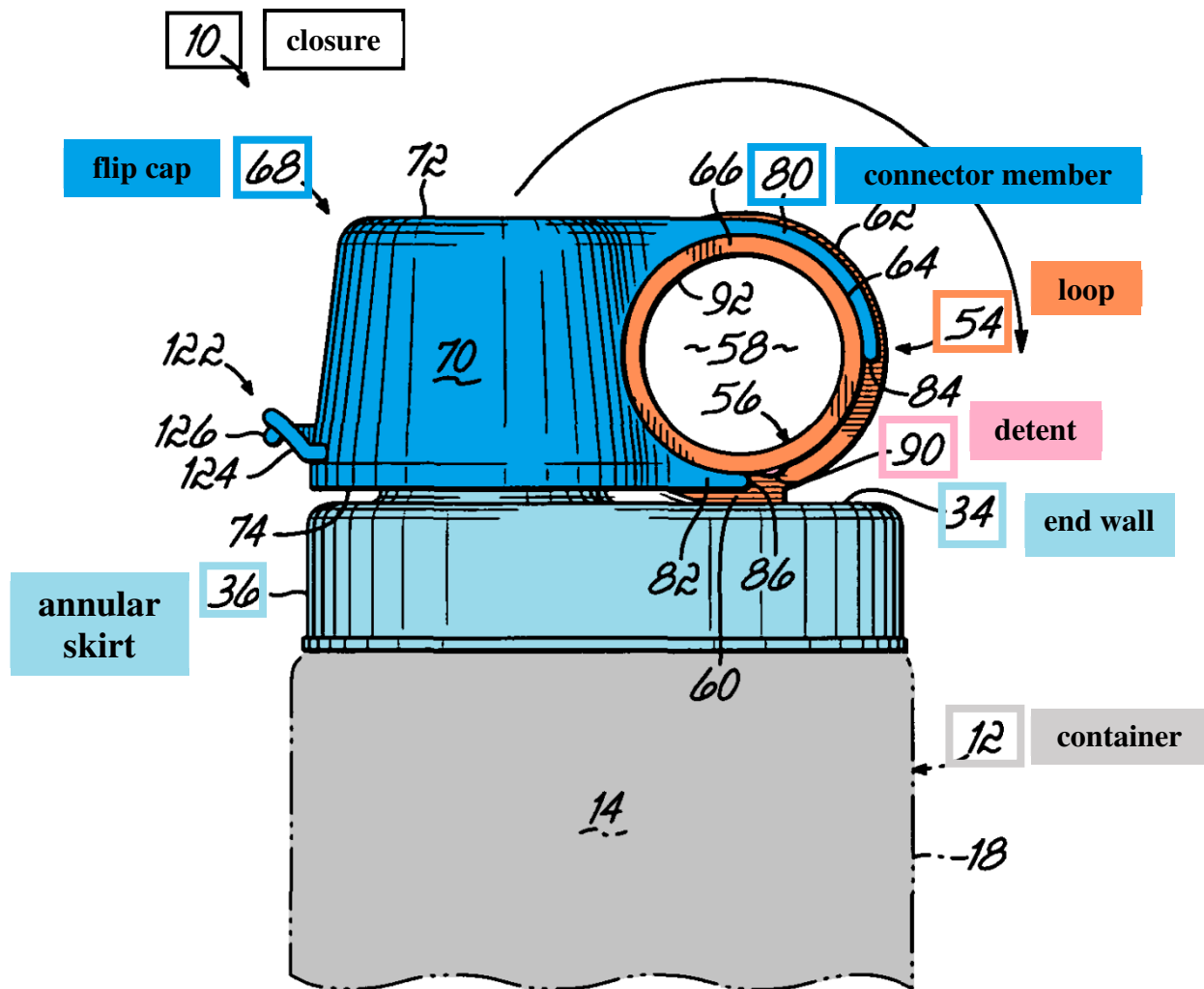


FIG. 2

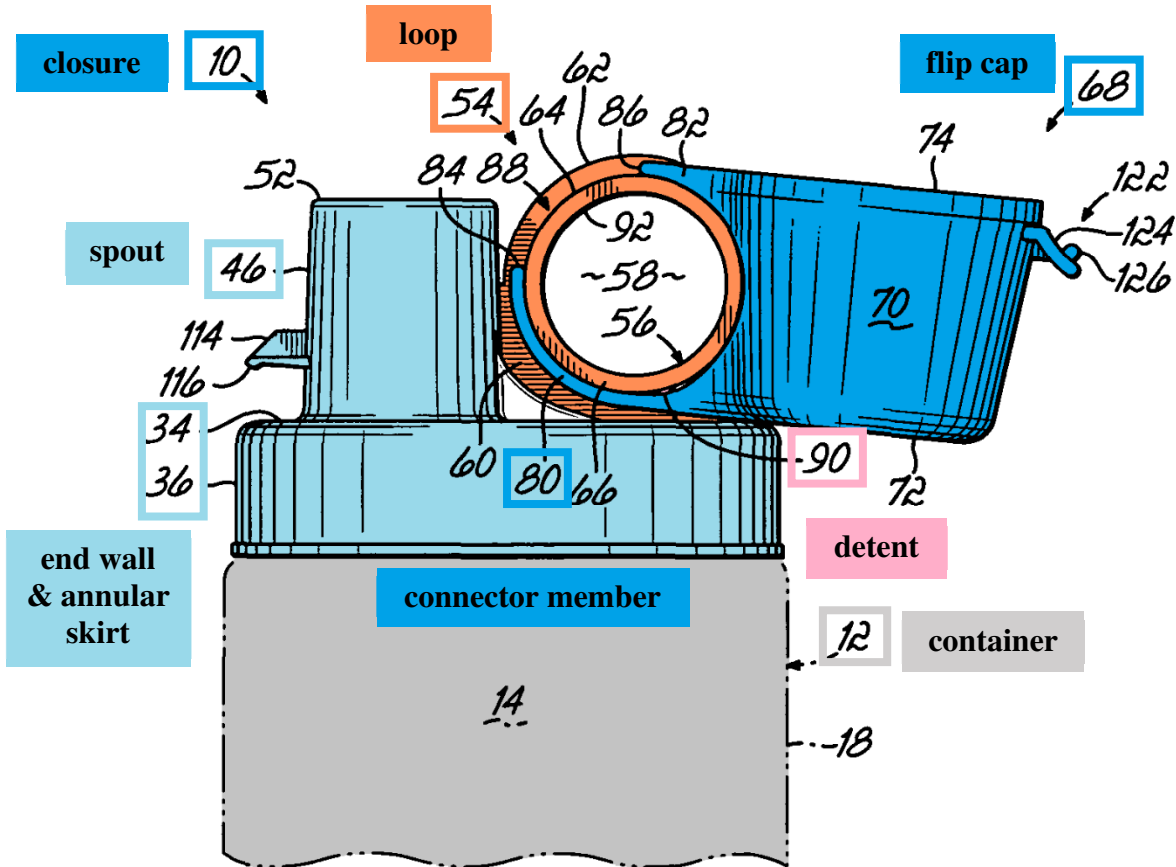


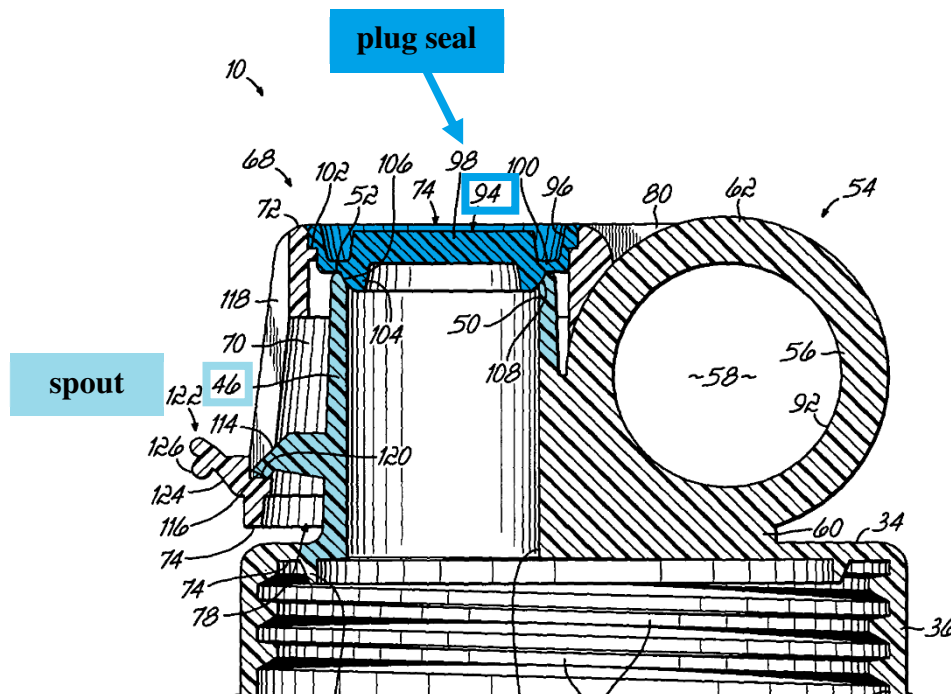
FIG. 3

(Ex. 1005, Figs. 2, 3; Ex. 1003 ¶¶63-64).

The loop 54 includes detents 90 on its outer surface. (Ex. 1005, 5:33-36). As the user moves the flip cap 68 around the loop 54 from a closed position to an open position, connector members 80 engage the detents 90 and maintain the flip cap in the open position until moved again by the user. (*Id.*, 2:21-24, 4:58-5:42, Figs. 2-3; Ex. 1003 ¶¶68).

The flip cap 68 also includes a plug seal 94 (highlighted below in Figure 4)

that engages and seals the spout when the cap is closed. (Ex. 1005, 2:31-36, 5:60-6:12; Ex. 1003 ¶¶69).



(Ex. 1005, Fig. 4; Ex. 1003 ¶¶69).

B. Claim 5

Leoncavallo anticipates and/or renders obvious claim 5. (Ex. 1003 ¶¶156-177).

1. Preamble

If the preamble is limiting, Leoncavallo discloses it. (Ex. 1003 ¶¶157-58). For example, Leoncavallo relates to a “closure for a liquid container.” (Ex. 1005, Title). Leoncavallo refers to a user “drink[ing]” from the container. *See (id., 1:27, 7:9)*. Thus, Leoncavallo discloses a drink container. (Ex. 1003 ¶¶157-58).

2. 5[a]: Liquid Container

Leoncavallo discloses this limitation. (Ex. 1003 ¶¶159-60). Leoncavallo discloses a liquid container (container 12):

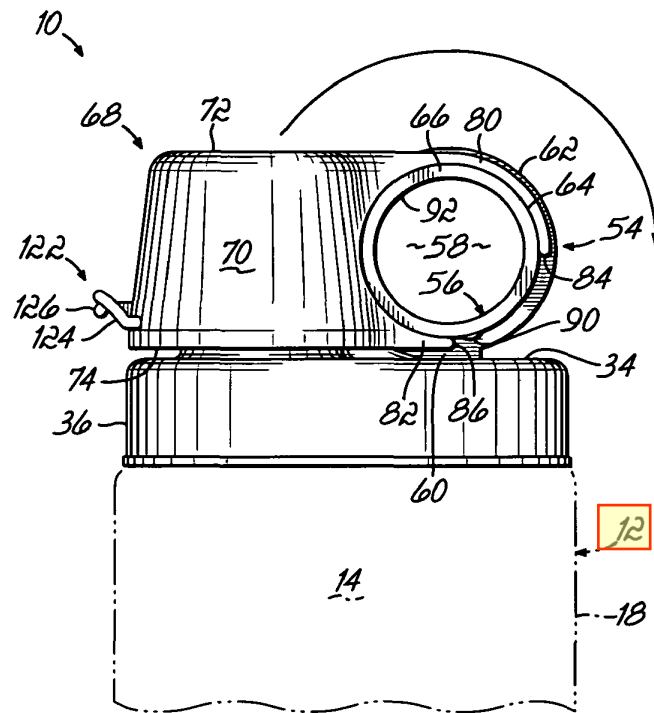


FIG. 2

(Ex. 1005, Fig. 2; Ex. 1003 ¶160). Leoncavallo explains that the container 12 includes a neck, an opening, and a container body 14 that defines an interior reservoir for receiving and storing liquids. (Ex. 1005, 3:10-16).

3. 5[b]: Cap Assembly

Leoncavallo discloses this limitation. (Ex. 1003 ¶¶161-62). Leoncavallo discloses a cap assembly (closure 10):

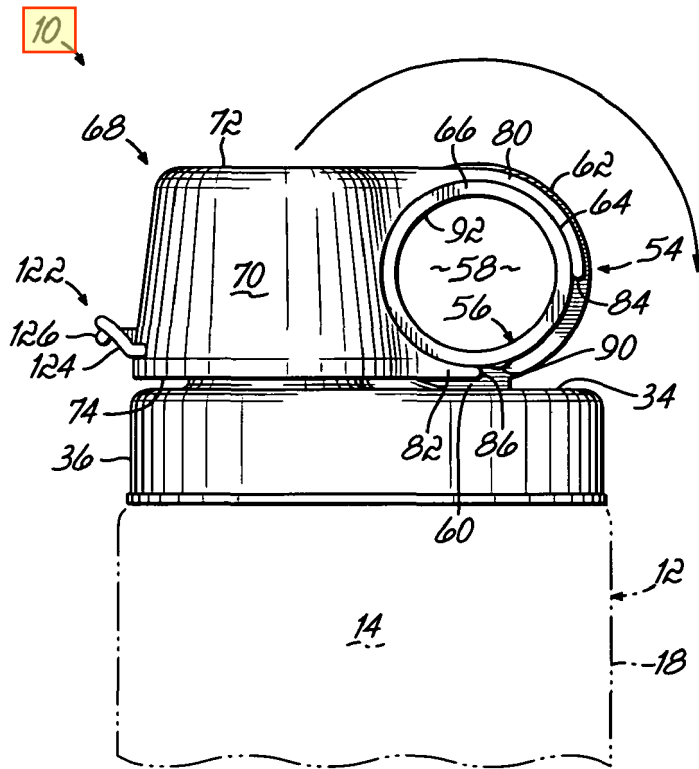


FIG. 2

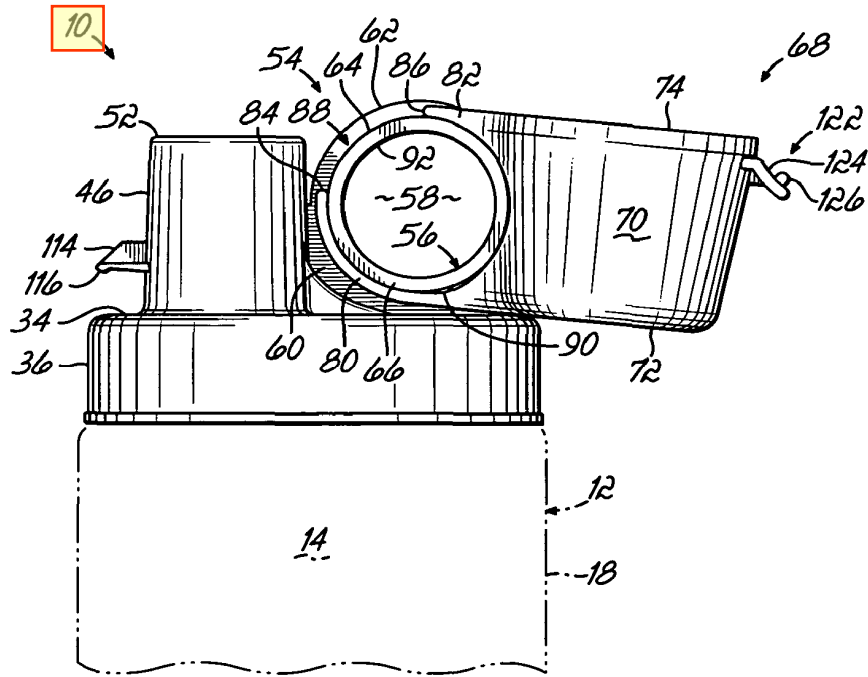


FIG. 3

(Ex. 1005, Figs. 2, 3; Ex. 1003 ¶162). The cap assembly is removably coupled to the liquid container. (Ex. 1005, 3:42-43 (“The closure 10 is configured to be removably secured to the neck 20 of the container 12.”)).

4. 5[b][i]: Base

Leoncavallo discloses this limitation. (Ex. 1003 ¶¶163-64). Leoncavallo discloses that the cap assembly (closure 10) includes a base (end wall 34 and annular skirt 36):

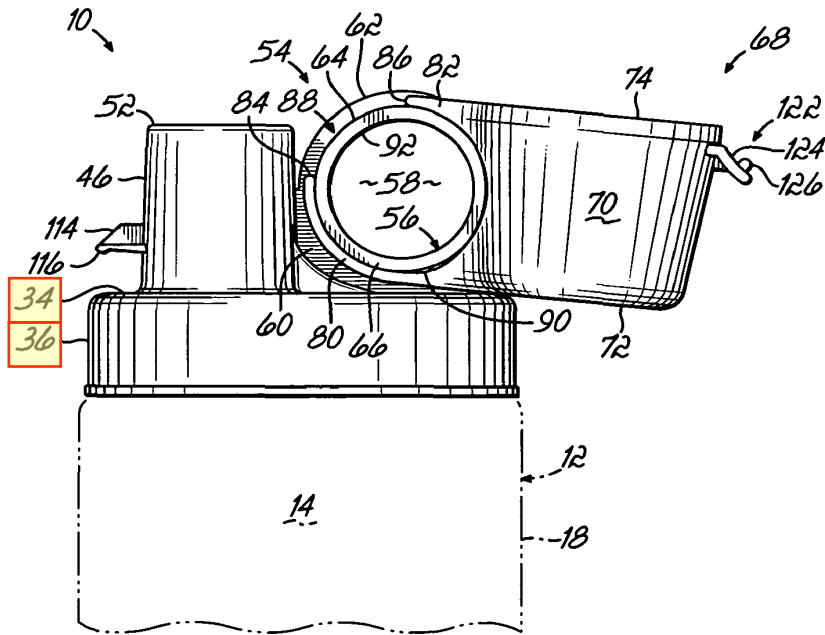


FIG. 3

(Ex. 1005, Fig. 3; Ex. 1003 ¶164). The base is removably coupled to the neck of the liquid container via a threaded section on the base (specifically the skirt 36) that interacts with the container neck. (Ex. 1005, 3:16-19 (“the container neck 20 has external threads 25 (FIG. 1) for engaging cooperating internal threads 26 (FIG. 4) provided on the closure 10”)); *see also* (*id.*, 3:42-53 (describing threaded interior surface of annular skirt wall 36 screwing onto threaded container neck 20)).

5. 5[b][ii]: Drink Spout

Leoncavallo discloses this limitation. (Ex. 1003 ¶¶165-66). Leoncavallo discloses that the cap assembly (closure 10) includes a drink spout (spout 46):

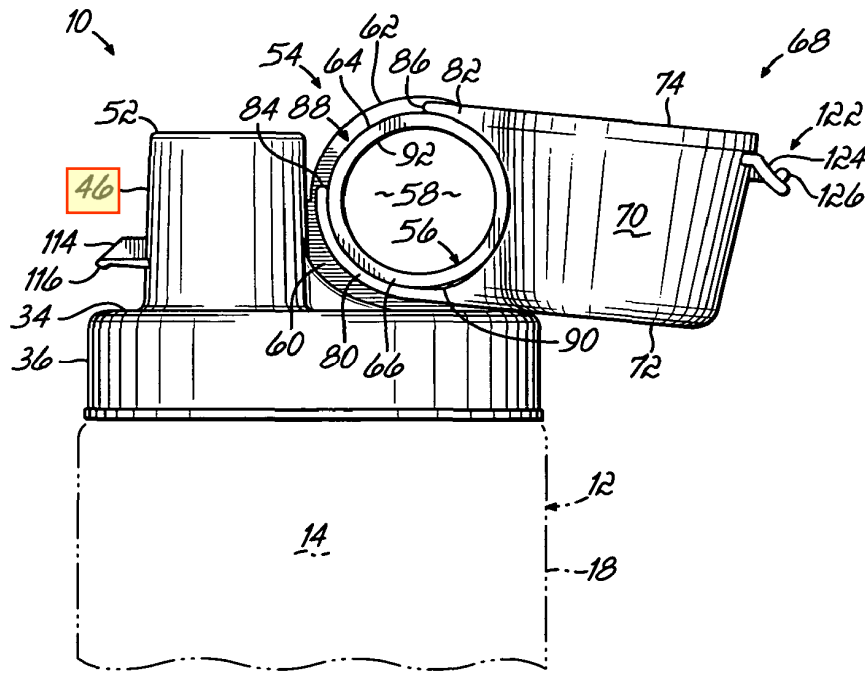


FIG. 3

(Ex. 1005, Fig. 3; Ex. 1003 ¶166). The spout extends from the base, specifically from end wall 34. (Ex. 1005, 3:61-63 (“[T]he closure 10 includes a generally tubular spout 46 extending upwardly from the end wall 34 of the closure 10.”)). The spout defines a passage through which liquid from the internal compartment of the container may be dispensed. (*Id.*, 2:4-8, 3:63-4:3 (“The spout 46 includes an inlet opening 48 provided in the end wall 34 of the closure 10 and an outlet opening 50 (FIG. 4) defined by a top edge 52 of the spout 46. The outlet opening 50 is in fluid communication with the reservoir when the closure 10 is secured to the container neck 20 so that liquid within the container 12 pours out of the spout

46 when a user tilts the container 12.”)).

6. 5[b][iii]: Closure

Leoncavallo discloses this limitation. (Ex. 1003 ¶¶167-69). Leoncavallo discloses that the cap assembly (closure 10) includes a closure (flip cap 68):

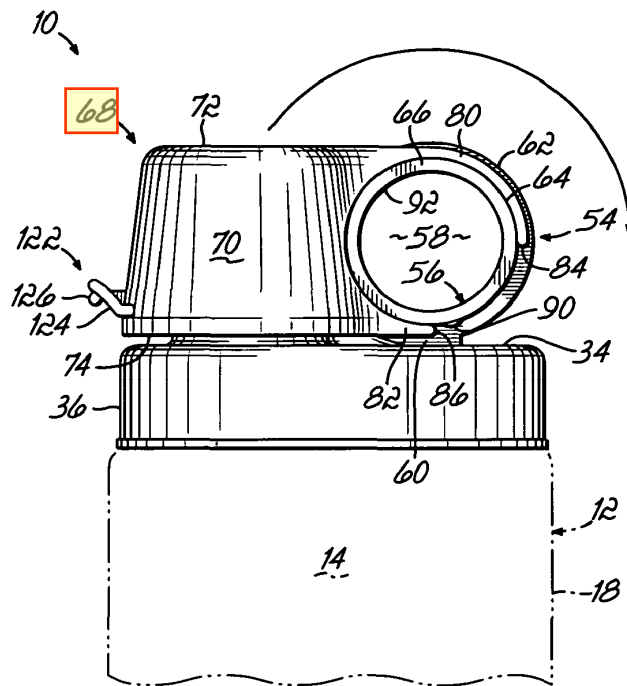


FIG. 2

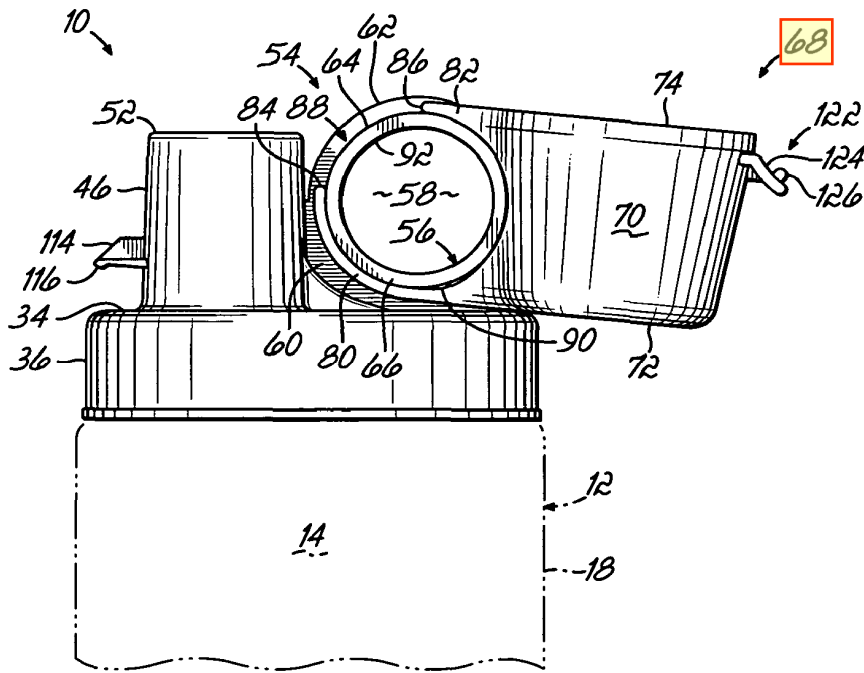


FIG. 3

(Ex. 1005, Figs. 2-3; Ex. 1003 ¶168). The closure, flip cap 68, is configured to be removably coupled relative to the drink spout in a closed position. (Ex. 1005, 4:59-65 (“a flip cap 68 is provided on the closure 10 to selectively cover the spout 46 when the spout is not in use. . . .and is movable between a closed position in which the spout 46 is covered (FIGS. 1, 1B, 2 and 4) and an open position in which the spout 46 is exposed (FIGS. 1A and 3).”)). The user lifts the closure, which is secured in place with a latch, to open the spout and moves the closure back into engagement with the latch to close the spout. (*Id.*, 6:40-56). The closure is therefore configured to selectively restrict or permit dispensing of drink liquid.

(*Id.*; Ex. 1003 ¶169).

7. 5[b][iv]: Handle

Leoncavallo discloses this limitation. (Ex. 1003 ¶¶170-71). Leoncavallo discloses that the cap assembly (closure 10) includes a handle (loop member 54):

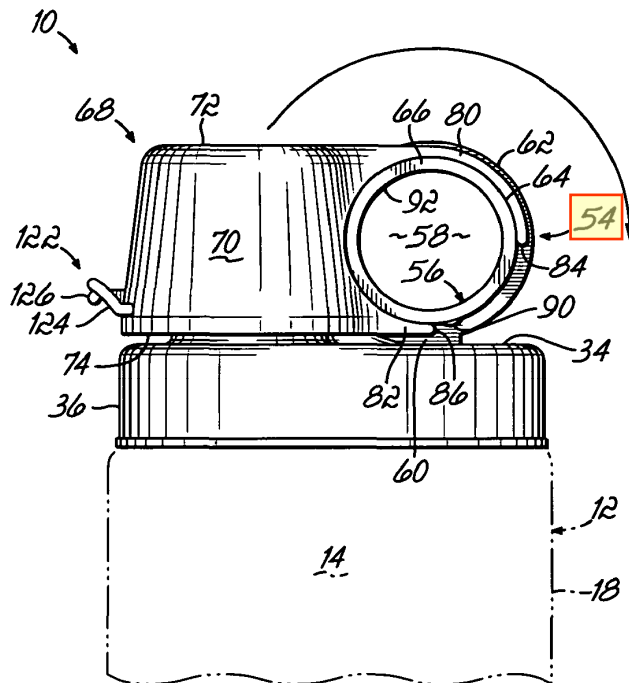


FIG. 2

(Ex. 1005, Fig. 2; Ex. 1003 ¶171). Leoncavallo's loop member is a handle because it "may be sized to receive a user's finger or, alternatively, attachment hardware such as a clip, hook or strap (not shown) extending through the loop 54 for grasping the container 12 and/or securing the container 12 to an article of clothing or a backpack, for example." (Ex. 1005, 4:18-41, 2:9-18; Ex. 1003 ¶171). The handle extends from the base, specifically from end wall 34. (Ex. 1005, 4:19-

20 (“[T]he closure includes a loop member 54 extending upwardly from the end wall 34 of the closure 10.”)).

8. 5[b][iv][a]: Closure Retention Mechanism

Leoncavallo discloses this limitation. (Ex. 1003 ¶¶172-77). Leoncavallo discloses that the handle (loop member 54) includes a closure retention mechanism, namely detents 90 (highlighted below):

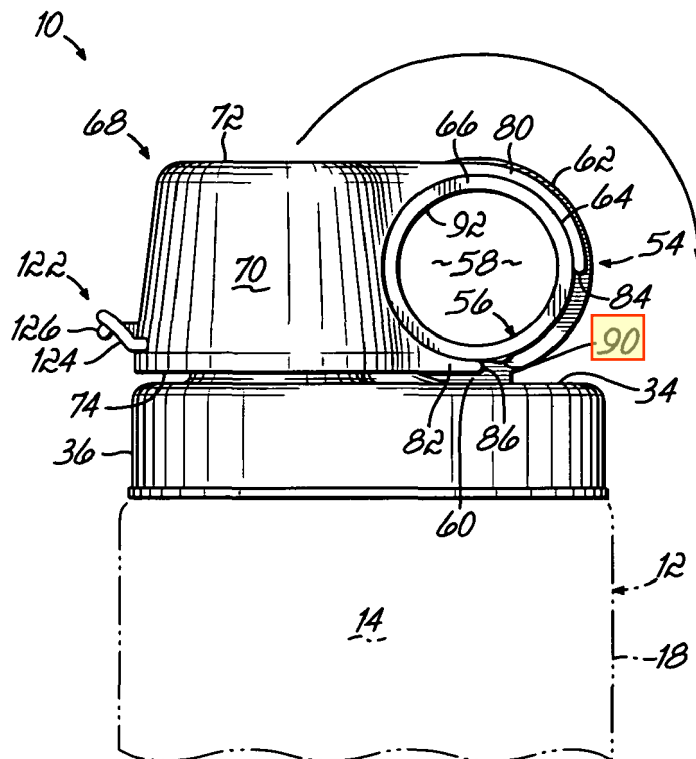


FIG. 2

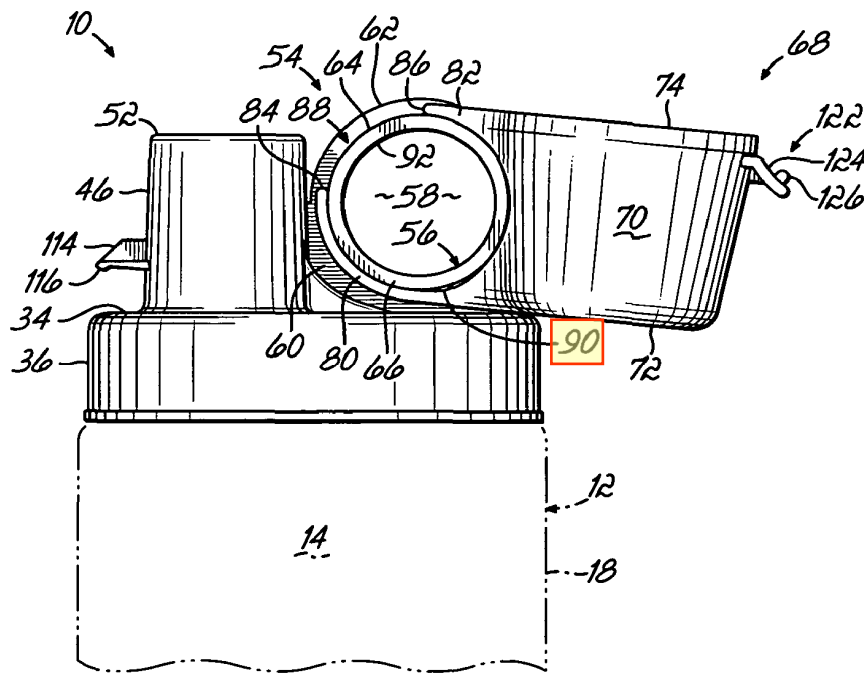


FIG. 3

(Ex. 1005, Figs. 2-3; Ex. 1003 ¶173). The detents 90 are a closure retention mechanism because they are designed to, and do, perform the claimed function of retaining the closure (flip cap 68) in a stowed position relative to the handle (loop member 54) when the closure is removed from the drink spout. (Ex. 1003 ¶174).

Leoncavallo explains that the detents 90 “keep[] the flip cap 68 in the open position when the user desires access to the spout 46.” (Ex. 1005, 5:40-42; *see also id.*, 2:21-24, 4:58-5:42, Figs. 2-3; Ex. 1003 ¶174). Specifically, “[t]he detents 90 are configured to frictionally engage the connector member 80 as it travels about the loop 54 when the flip cap 68 is moved to the open position as shown in

FIG. 3.” (Ex. 1005, 5:36-40).

Furthermore, interpreting the “closure retention mechanism” under Section 112(f), the detents 90 also are at least equivalent to the structure identified in the specification (*i.e.*, the two or more spaced-apart tabs on the handle). (Ex. 1003 ¶175). Like the opposed tabs of the ’252 patent, the detents are projections that extend from the handle to engage the closure. (*Id.*). Detents provide the same type of frictional engagement as the tabs of the ’252 patent, which maintains the two mating parts (closure and handle) in a fixed relationship until a user desires to disengage the parts, e.g. to close the drink spout. A POSITA would recognize the detents of Leoncavallo perform the claimed function in the same way to achieve the same result as the ’252 patent tabs. (*Id.*). The detents retain the closure in a stowed position relative to the handle when the user removes the closure from the drink spout and rotates the closure to frictionally engage the detents, which thereafter maintain the closure in the open position. (*Id.*). Accordingly, Leoncavallo discloses this limitation. (*Id.* ¶¶172-76).

Thus, Leoncavallo discloses, or at least suggests, each element of claim 5. Accordingly, Leoncavallo anticipates claim 5. (*Id.* ¶¶172-76). Additionally, the claim would have been obvious to a POSITA in view of Leoncavallo. (*Id.* ¶177). *See In re Baxter Travenol Labs*, 952 F.2d 388, 391 (Fed. Cir. 1992) (“[S]ince

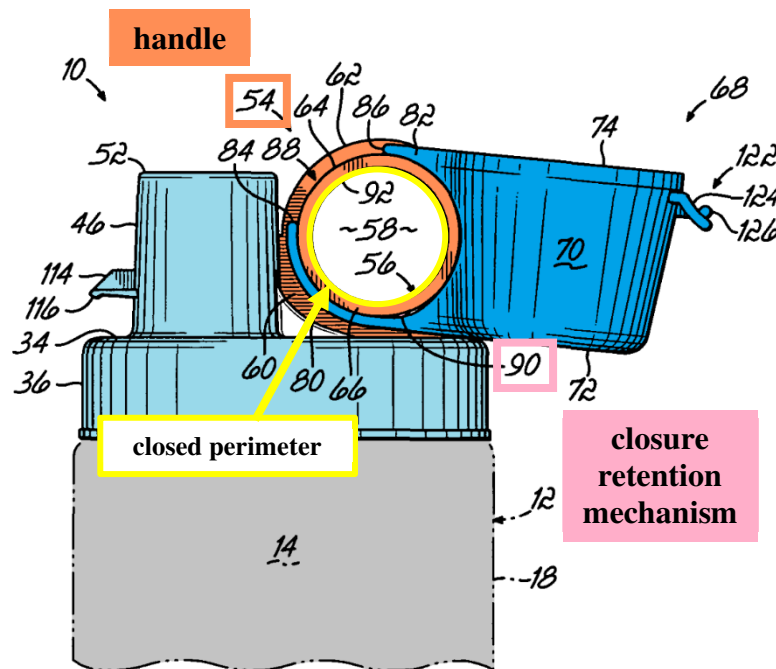
anticipation is the ultimate of obviousness, the subject matter of these claims is necessarily obvious ...”); *Realtime Data*, 912 F.3d at 1373 (“anticipation is the epitome of obviousness.”). To the extent there were any difference between claim 5 and the disclosure of Leoncavallo, the claim nonetheless would have been obvious to a POSITA. (Ex. 1003 ¶177). If the Board were to find that Leoncavallo does not disclose one or more limitations of the claimed invention, such limitation(s) are at least suggested by Leoncavallo for the reasons discussed above. Further a POSITA would have found a motivation to modify Leoncavallo and would have had a reasonable expectation of success in doing so, based on the teaching of Leoncavallo itself and/or based on a POSITA’s own knowledge. (Ex. 1003 ¶177.) For example, the other prior art references relied on in this Petition establish that the features recited in the claimed invention were well known in the art and represent known techniques that could be used to improve the Leoncavallo device in the same way. (*Id.*); *see KSR*, 550 U.S. at 417 (2007). Accordingly, claim 5 would have been obvious to a POSITA in view of Leoncavallo. *See CRFD Rsch.*, 876 F.3d at 1347-50.

C. Claim 6

Leoncavallo discloses the additional limitation of claim 6. (Ex. 1003 ¶¶178-86).

Leoncavallo discloses that “the loop 54 is a closed loop in the form of a cylinder and has a generally circular cross-sectional shape.” (Ex. 1005, 4:30-32).

Loop 54 defines a closed perimeter, as highlighted below:



discloses that the detents 90 frictionally engage the connector members to retain the cap in the open position, (*id.*, 5:36-42), a POSITA would have understood that Leoncavallo discloses (or at least suggests) that the detents 90 would be located on the inner surface of loop 54, where the connector members are located, in the alternative embodiment. (*Id.*; Ex. 1003 ¶180). These detents on the inner surface would define at least a portion of the closed perimeter formed by loop 54. (Ex. 1003 ¶180).

To the extent PO argues Leoncavallo does not disclose this limitation, a POSITA would have been motivated to modify Leoncavallo's primary embodiment to move the connector members and detents to the inner surface of the loop, and would have had a reasonable expectation of success in doing so, for several reasons. (Ex. 1003 ¶181). First, Leoncavallo suggests the combination and leads a POSITA to reasonably expect success because it discloses that "other pivotal connection structures are possible for rotatably supporting the flip cap 68 on the loop 54 without departing from the spirit and scope of the present invention." (Ex. 1005, 5:55-59; Ex. 1003 ¶182).

Second, the combination represents a choice from a finite number of identified, predictable solutions. *KSR*, 550 U.S. at 421. Given the structure disclosed by Leoncavallo, a POSITA would have had two choices: either the

connector members and detents are located on the outside of the loop, or on the inside. (Ex. 1003 ¶183). Both options are disclosed in Leoncavallo. (*Id.*).

Third, the combination represents nothing more than the simple addition of one known element (connector members and detents on the inside of the loop) to another known element (Leoncavallo's primary embodiment) to obtain predictable results (a closure as in Leoncavallo's primary embodiment with connector members and detents on the inside of the loop). (Ex. 1003 ¶184); *see KSR*, 550 U.S. at 417.

Fourth, the combination represents the use of a known technique (placing connector members and detents on the inside of Leoncavallo's loop) to improve a similar device and method (Leoncavallo's primary embodiment) in the same way. (Ex. 1003 ¶185); *KSR*, 550 U.S. at 417.

Thus, Leoncavallo discloses, or at least suggests, each element of claim 6. Accordingly, Leoncavallo anticipates claim 6 and claim 6 would have been obvious in view of Leoncavallo. (*Id.* ¶178-86).

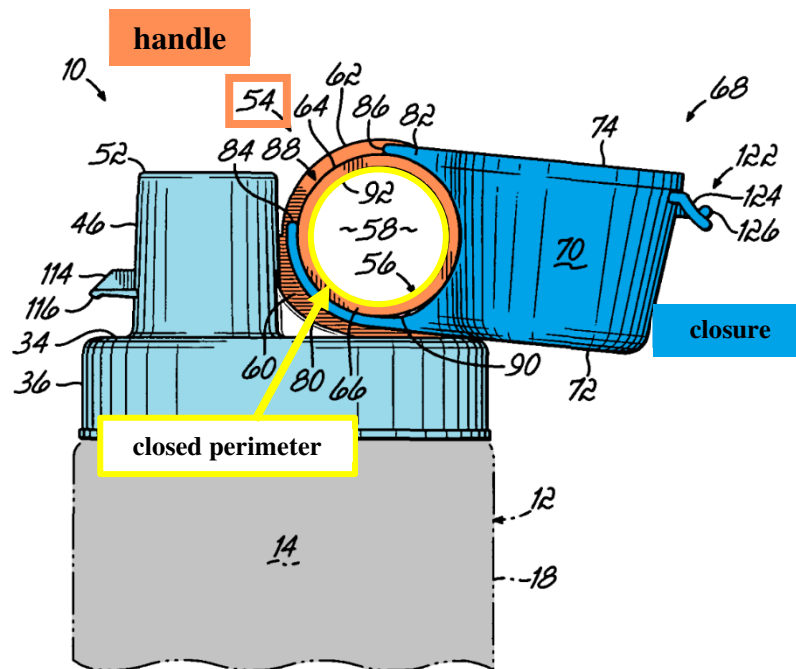
D. Claim 7

Leoncavallo discloses the additional limitation of claim 7. (Ex. 1003 ¶¶187-90).

Leoncavallo discloses that “the loop 54 is a closed loop in the form of a

cylinder and has a generally circular cross-sectional shape.” (Ex. 1005, 4:30-32).

Loop 54 defines a closed perimeter when the flip cap 68 is in the stowed position, as depicted below:



(*Id.*, Fig. 3; Ex. 1003 ¶188).

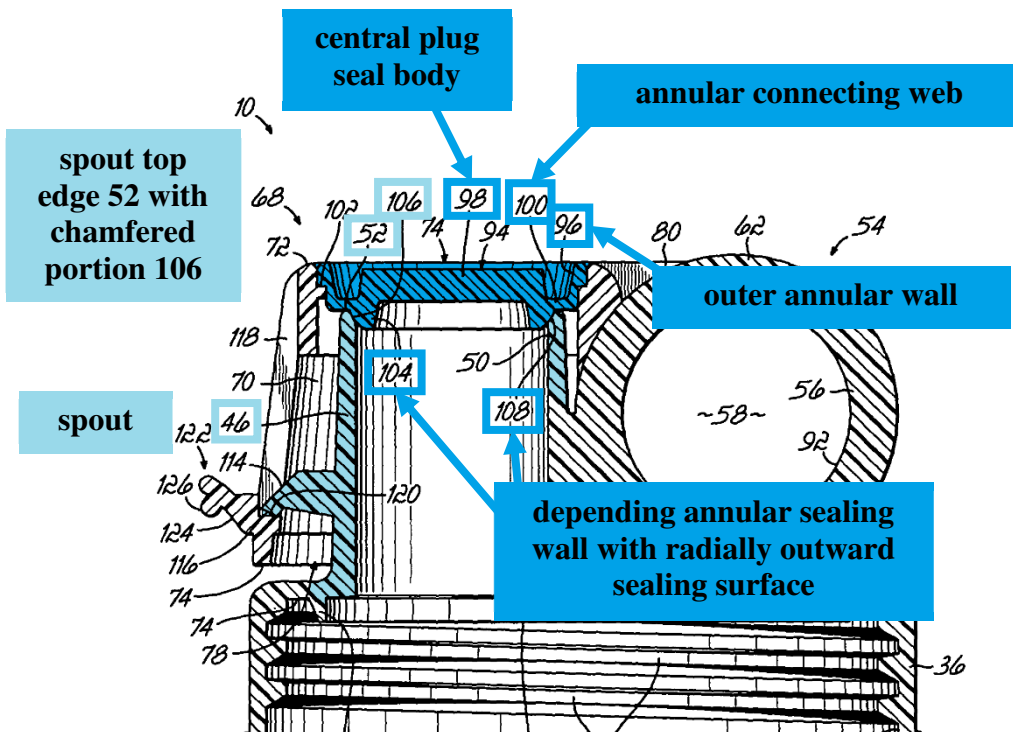
As discussed above, Leoncavallo discloses, or at least suggests, the use of an alternative embodiment in which the connector members are located on the inner surface of the loop rather than the outer surface. *Supra* §X(C). In such an arrangement, the closure (flip cap 68, and specifically the connector members 80 and 82, which form part of the flip cap 68) is positioned at least partially within the closed perimeter. (*Id.*; Ex. 1003 ¶189).

Thus, Leoncavallo discloses, or at least suggests, each element of claim 7. Accordingly, Leoncavallo anticipates claim 7 and claim 7 would have been obvious in view of Leoncavallo. (*Id.* ¶¶187-90).

E. Claim 16

Leoncavallo discloses the additional limitation of claim 16. (Ex. 1003 ¶¶191-93).

Leoncavallo discloses that the closure (flip cap 68) includes “a plug seal 94,” which extends into, and seals against the inside of, the spout when the container is closed. (Ex. 1005, 5:60-6:12; Ex. 1003 ¶¶192). Features of the plug seal and spout are highlighted below:



(Ex. 1005, Fig. 4; Ex. 1003 ¶192).

More specifically, Leoncavallo discloses that the “top edge 52 of the spout 46 may have a chamfered portion 106 that sealingly engages with a radially outward sealing surface 108 of the annular sealing wall 104.” (Ex. 1005, 6:4-7; *see also id.*, 5:60-6:12 (“[A]s the flip cap 68 is moved to the closed position . . . the central plug seal body 98 automatically sealingly engages with the spout 46 to prevent undesired leakage of liquid from the outlet opening 50.”); Ex. 1003 ¶192). Thus, Leoncavallo has a spout that includes an internal coupling structure (chamfered portion 106), that mates with an external coupling structure of a closure plug structure (a radially outward sealing surface 108 of the annular sealing wall 104) when the closure is in the closed position. (Ex. 1003 ¶192).

Thus, Leoncavallo discloses, or at least suggests, each element of claim 16. Accordingly, Leoncavallo anticipates claim 16 and claim 16 would have been obvious in view of Leoncavallo. (*Id.* ¶¶191-93).

F. Claim 19

Leoncavallo renders claim 19 anticipated and/or obvious for the same reasons addressed with respect to claim 5. (Ex. 1003 ¶¶194-201). Below is a table correlating the limitations of claim 19 with claim 5.

Claim 19:	Claim 5:
Claim 19 [preamble]	<i>See claim 5[a] Supra §§X(B)(2)-(3).</i>
Claim 19 [a]	<i>See claim 5[b][i] Supra §X(B)(4).</i>
Claim 19 [b]	<i>See claim 5[b][ii] Supra §X(B)(5).</i>
Claim 19 [c]	<i>See claim 5[b][iii] Supra §X(B)(6).</i>
Claim 19 [d]	<i>See claim 5[b][iv] Supra §X(B)(7).</i>
Claim 19 [d][i]	<i>See claim 5[b][iv][a] Supra §X(B)(8).</i>

XI. GROUND 4: CLAIMS 17 AND 18 WOULD HAVE BEEN OBVIOUS OVER LEONCAVALLO IN VIEW OF GORSKEY AND/OR JOHNSON.

As described above in Ground 2, claims 17 and 18 each depend from claim 5 (claim 18 depends from claim 17 which in turn depends from claim 5) and recite features of the drink spout/closure engagement. These features were conventional. (Ex. 1003 ¶202). Gorskey (Ex. 1011) and Johnson (Ex. 1012) each disclose closures for spouts that include the features recited in claims 17 and 18. (*Id.* ¶203).

A POSITA would have understood that other spout sealing mechanisms could be used with the container of Leoncavallo, including the spout sealing mechanisms disclosed in Gorskey and/or Johnson. A POSITA would have been motivated to make this substitution for several reasons. *KSR*, 550 U.S. at 417; (Ex. 1003 ¶203-04).

Adopting the plug/spout configuration of Gorskey and/or Johnson would result in a more secure, robust defense against inadvertent spills or leaking. (Ex.

1003 ¶139). Additionally, the following factors are reasons that one skilled in the art would be motivated to make this modification.

First, the combination represents nothing more than the simple substitution of one known element (the plug/spout mechanisms of Gorskey and/or Johnson) for another known element (Leoncavallo's plug/spout mechanism) to obtain predictable results. (Ex. 1003 ¶205).

Second, the combination also represents the use of a known technique (the plug/spout mechanism of Gorskey and/or Johnson) to improve a similar device, namely Leoncavallo's container, which also used a plug to seal the spout of a container. (*Id.* ¶206).

Third, using external coupling structures on a plug to cooperatively mate with internal coupling structures on a spout to seal the spout was well-known, leading a POSITA to reasonably expect success in the combination. (*Id.* ¶207).

Finally, the combination applies a known technique (using the Gorskey and/or Johnson plug/spout mechanism) to a known device (Leoncavallo's container, which also used a plug and spout) that is ready for improvement and yields predictable results, namely a sealed closure for the Leoncavallo spout. (*Id.* ¶208).

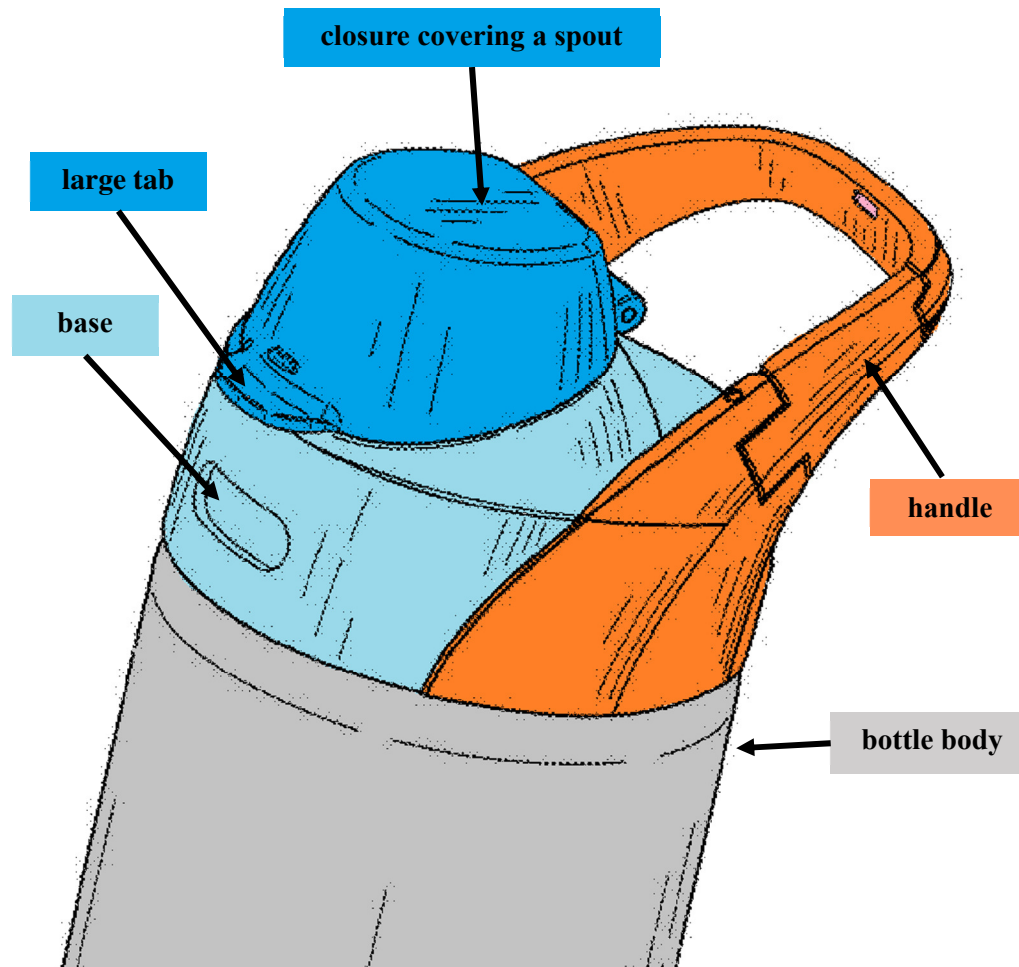
Bbecause Gorskey and Johnson each discloses the additional limitations of

claims 17 and 18 and because it would have been obvious to combine either with the beverage container of Leoncavallo, these claims would have been obvious to a POSITA over Leoncavallo in combination with Gorskey and/or Johnson. (*Id.* ¶209).

XII. GROUND 5: CLAIMS 5-7 AND 16, 19 WOULD HAVE BEEN OBVIOUS OVER MILLER IN VIEW LEONCAVALLO.

A. Overview of Miller

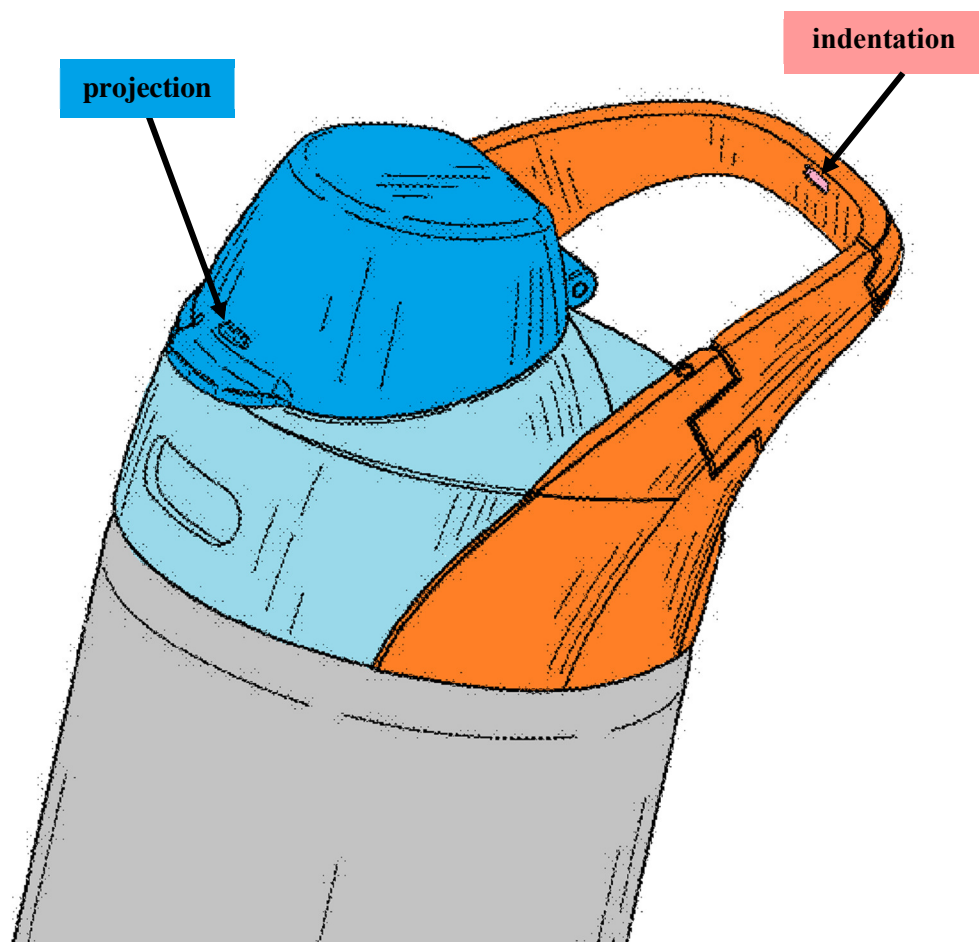
A POSITA would recognize that Miller discloses a beverage container with a removable lid. (*Id.* 1003, ¶70-72). The lid includes a (1) base, (2) closure pivotably mounted on the base, and (3) handle extending from the base. (Ex. 1006, Title (“Beverage Container”; Figures 1-7)). The beverage container is depicted below:



(*Id.*, Fig. 1; Ex. 1003 ¶70). A POSITA would recognize the closure is mounted on a hinge and is movable to the open position when the user presses upwards on the large tab on the front of the closure. (Ex. 1003 ¶73-74). A POSITA would recognize that, as a beverage container, the closure covers a spout for dispensing the beverage and the user may rotate the closure open to expose the spout for drinking. (*Id.*).

The lid includes a handle that extends from the base. (*Id.* ¶75). As shown

below, there is indentation on the inner surface of the handle that aligns with a small tab projecting from the closure when the closure in the open position. (*Id.*). A POSITA would recognize the small tab snaps into the indentation and is held in place by the handle to maintain the closure in the stowed position. (*Id.*)



(Ex. 1006, Fig. 5, Ex. 1003 ¶75).

B. Claim 5

Claim 5 would have been obvious over Miller in view of Leoncavallo. (Ex.

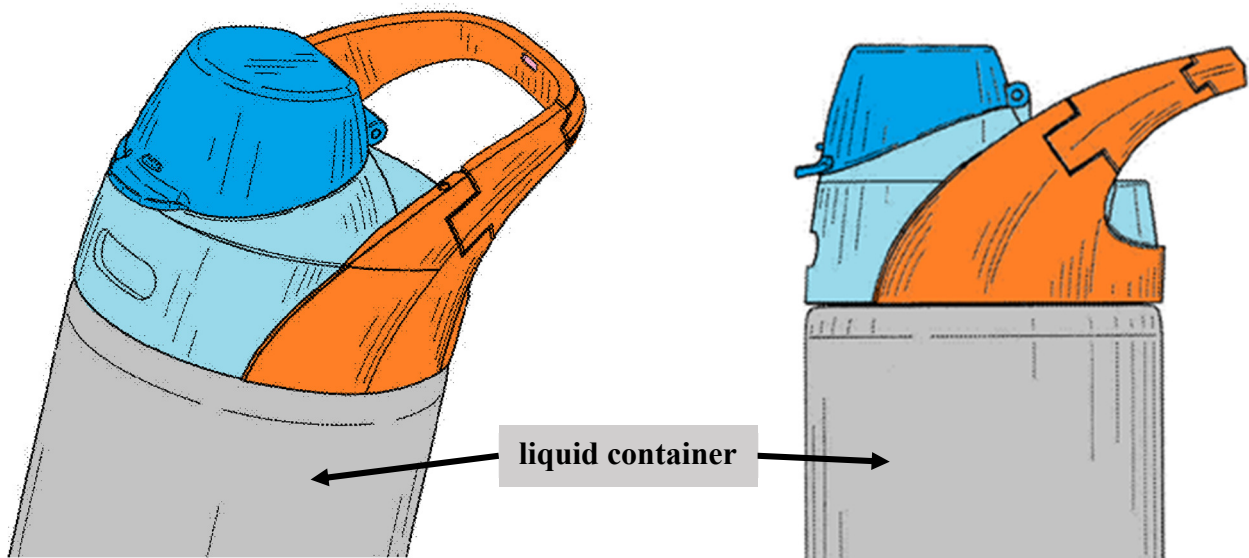
1003 ¶¶211-38).

1. Preamble

If the preamble is limiting, Miller discloses it. (Ex. 1003 ¶212). Miller is titled “Beverage Container.” (Ex. 1006, Title; Ex. 1003 ¶212).

2. 5[a]: Liquid Container

Miller alone or in view of Leoncavallo discloses this limitation. (Ex. 1003 ¶¶213-15). A POSITA would have understood that all beverage containers necessarily include a liquid container with an internal compartment sized to hold a volume of a beverage.

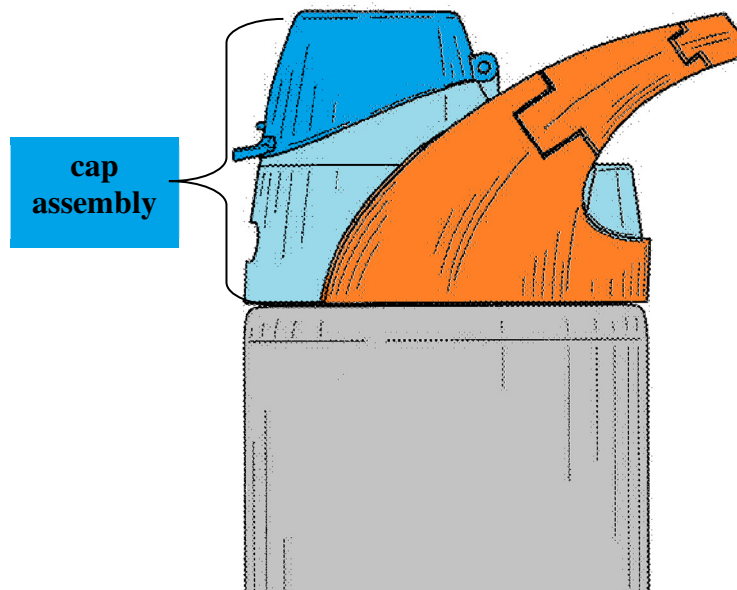


(Ex. 1006, Figs. 1, 5; Ex. 1003 ¶214). Moreover, a POSITA would have understood from the shape of the depicted beverage container that Miller includes a removable cap assembly, and therefore the liquid container would have a neck

with an opening to allow fluid to flow from the internal compartment into the cap assembly for dispensing to the user. (Ex. 1003 ¶214). Beverage containers with the claimed liquid container were conventional at the time of the invention. *See, e.g.,* Samartgis (*supra* §VIII(B)(2)) and Leoncavallo (*supra* §X(B)(2)). To the extent not disclosed or suggested by Miller alone, it would have been obvious to modify Miller to include the claimed liquid container in view of Leoncavallo for the reasons discussed below. (Ex. 1003 ¶215; *infra* §XII(G)).

3. 5[b]: Cap Assembly

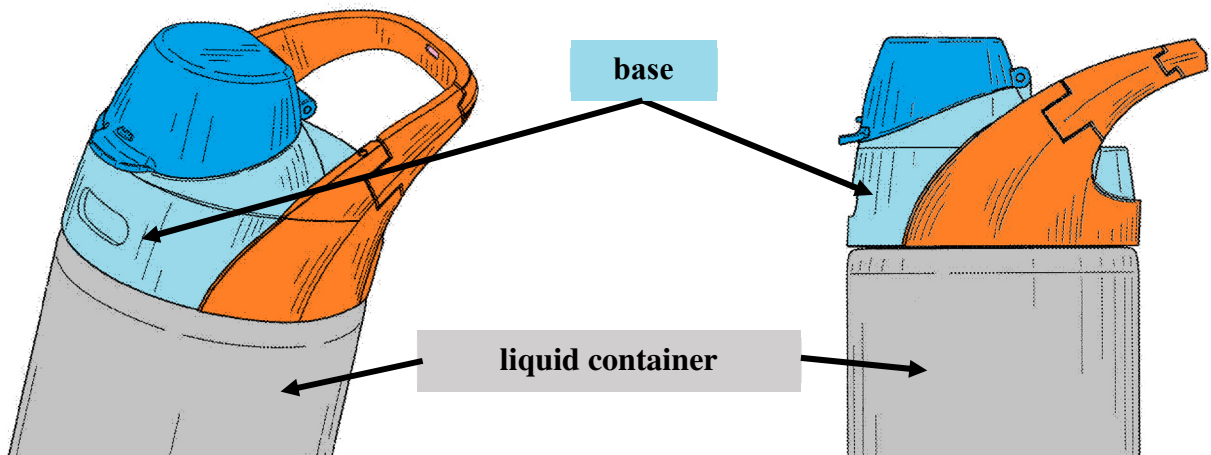
Miller alone or in view of Leoncavallo discloses this limitation. (Ex. 1003 ¶¶216-18). As noted above, a POSITA would have discerned from the figures that the disclosed beverage container includes a removable cap assembly:



(Ex. 1006, Figs. 1, 5; Ex. 1003 ¶217). Moreover, beverage containers with a removable cap assembly were conventional at the time of the invention. *See, e.g.*, Samartgis (*supra* §VIII(B)(3)) and Leoncavallo (*supra* §X(B)(3)). To the extent not disclosed or suggested by Miller alone, it would have been obvious to modify Miller to include the claimed cap assembly in view of Leoncavallo for the reasons discussed below. (Ex. 1003 ¶218; *infra* §§XII(G)).

4. 5[b][i]: Base

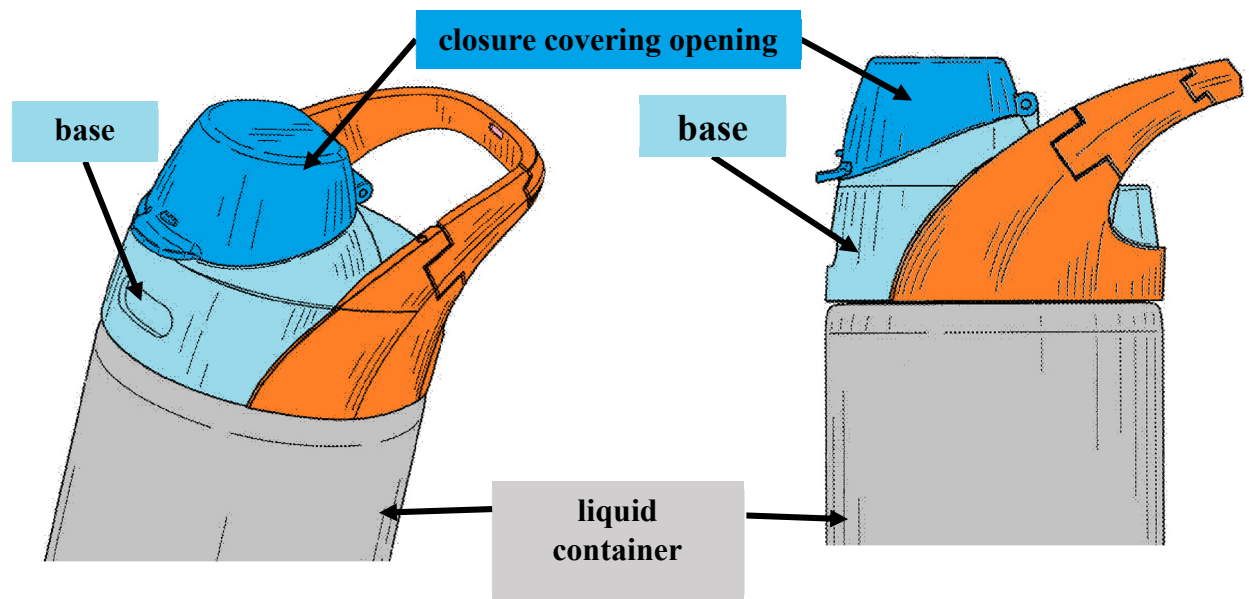
Miller alone or in view of Leoncavallo discloses this limitation. (Ex. 1003 ¶¶219-21). A POSITA would have understood that any removable cap assembly would require a base for removably attaching the cap to the liquid container. (*Id.*) A POSITA would have discerned from the figures that Miller's cap assembly includes the claimed base removably coupled to the neck of the liquid container given the clear demarcation between the cap assembly and container.



(Ex. 1006, Figs. 1, 5; Ex. 1003 ¶220). Moreover, cap assemblies with the claimed removable base were conventional at the time of the invention. *See, e.g.,* Samartgis (*supra* §VIII(B)(4)) and Leoncavallo (*supra* §X(B)(4)). To the extent not disclosed or suggested by Miller alone, it would have been obvious to modify Miller to include the claimed removable cap assembly base in view of Leoncavallo for the reasons discussed below. (Ex. 1003 ¶221; *infra* §§XII(G)).

5. 5[b][ii]: Drink Spout

Miller alone or in view of Leoncavallo discloses this limitation. (Ex. 1003 ¶¶222-24). A POSITA would have understood that any cap assembly would necessarily include an opening forming a passageway for dispensing the beverage. (*Id.*) A POSITA would have discerned from the figures that Miller's beverage container includes a passageway covered by the depicted closure:

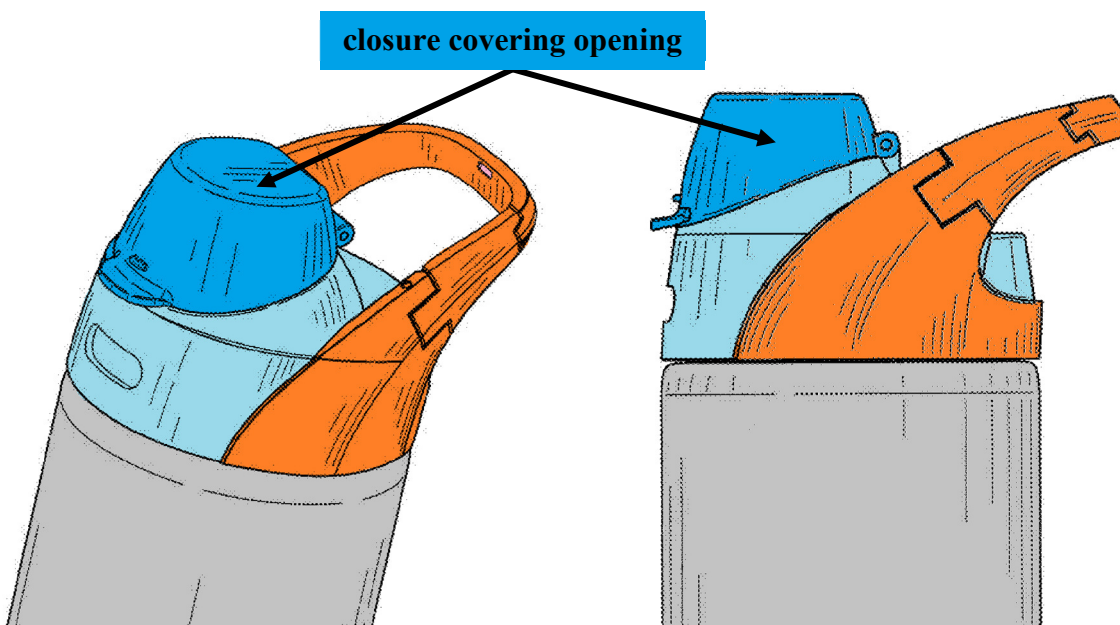


(Ex. 1006, Figs. 1, 5; Ex. 1003 ¶223). The shape of the closure suggests that Miller includes a spout. (*Id.*) Cap assemblies with a flip open closure (like the one depicted in Miller) to cover a spout were conventional at the time of the invention. *See, e.g.,* Samartgis (*supra* §VIII(B)(5)) and Leoncavallo (*supra* §X(B)(5)). To the extent not disclosed or suggested by Miller alone, it would have been obvious to modify Miller to include the claimed cap assembly spout in view of Leoncavallo for the reasons discussed below. (Ex. 1003 ¶224; *infra* §§XII(G)).

6. 5[b][iii]: Closure

Miller alone or in view of Leoncavallo discloses this limitation. (Ex. 1003 ¶¶225-27). A POSITA would have understood that any cap assembly including a

spout would necessarily need a closure that is removably coupled relative to the spout in a closed position to selectively restrict dispensing of drink liquid through the passage and to selectively permit dispensing of drink liquid through the passage when removed from the drink spout. (*Id.*) This would be necessary to allow the user to close the spout and prevent spills or leakage when not in use. (*Id.*) A POSITA would have discerned from the figures that Miller's beverage container includes the claimed closure:

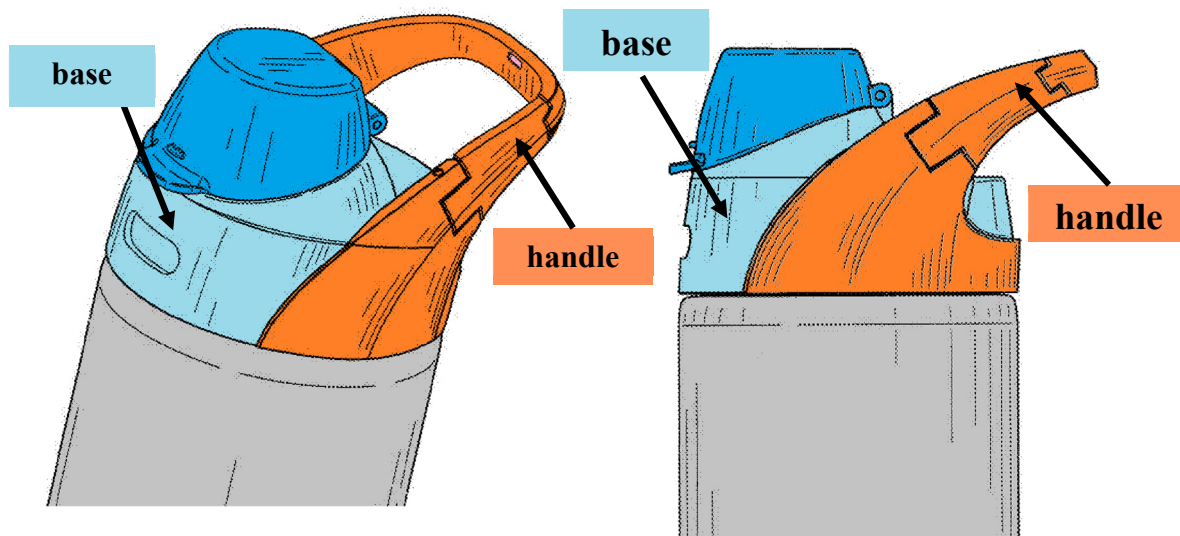


(Ex. 1006, Figs. 1, 5; Ex. 1003 ¶226). A POSITA would have understood the depicted closure to be pivotally connected to the base, to flip open to expose a passageway for drinking. (Ex. 1003 ¶226). Cap assemblies with a pivotally connected closure were conventional at the time of the invention. *See, e.g.,* Samartgis (*supra* §VIII(B)(6)) and Leoncavallo (*supra* §X(B)(6)). To the extent

not disclosed or suggested by Miller alone, it would have been obvious to modify Miller to include the claimed cap assembly closure in view of Leoncavallo for the reasons discussed below. (Ex. 1003 ¶227; *infra* §§ XII(G)).

7. 5[b][iv]: Handle

Miller discloses, or at least suggests, this limitation. (Ex. 1003 ¶228). A POSITA would have discerned from the figures that Miller's beverage container includes a handle extending from the base:

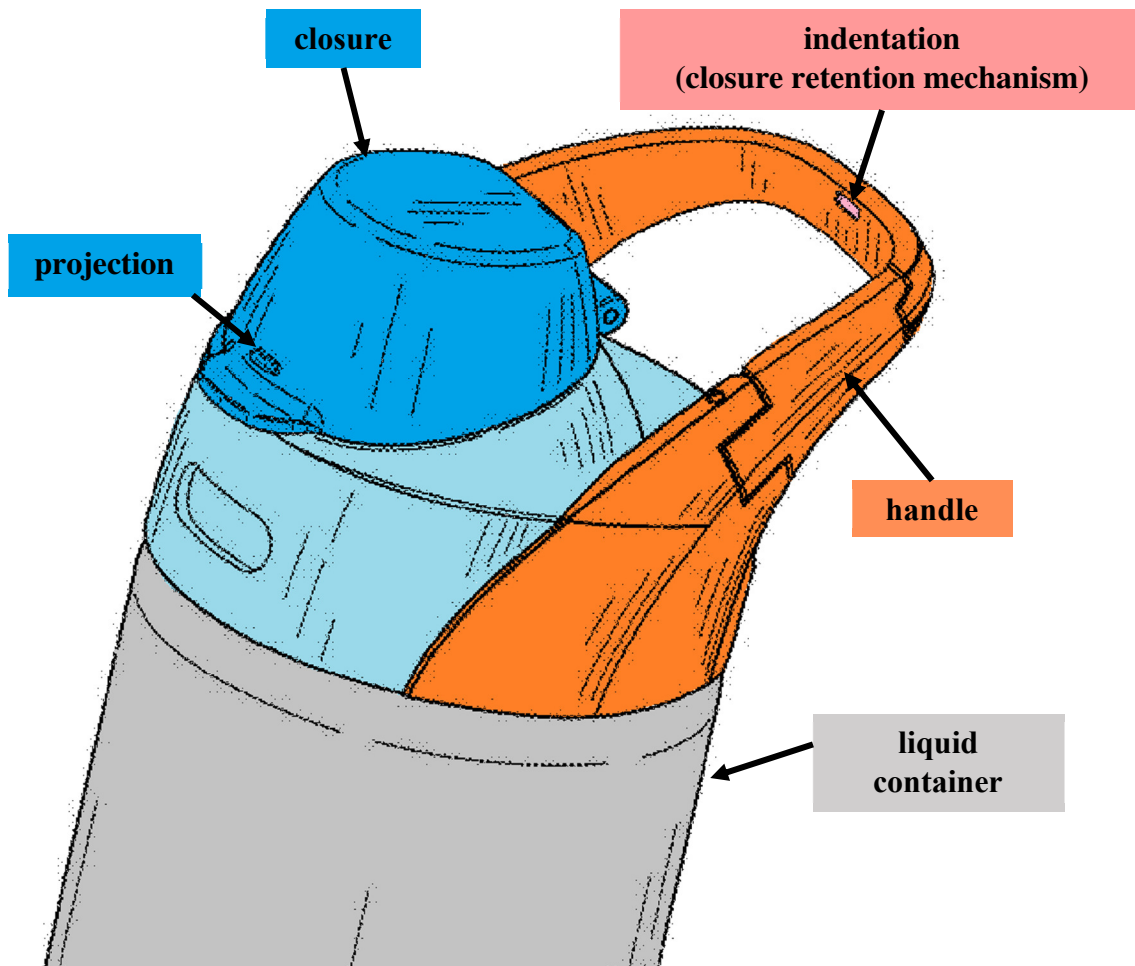


(Ex. 1006, Figs. 1, 5; Ex. 1003 ¶228).

8. 5[b][iv][a]: Closure Retention Mechanism

Miller discloses this limitation. (Ex. 1003 ¶¶229-33). A POSITA would have discerned from the figures that Miller's beverage container handle includes a closure retention mechanism configured to selectively retain the closure in a

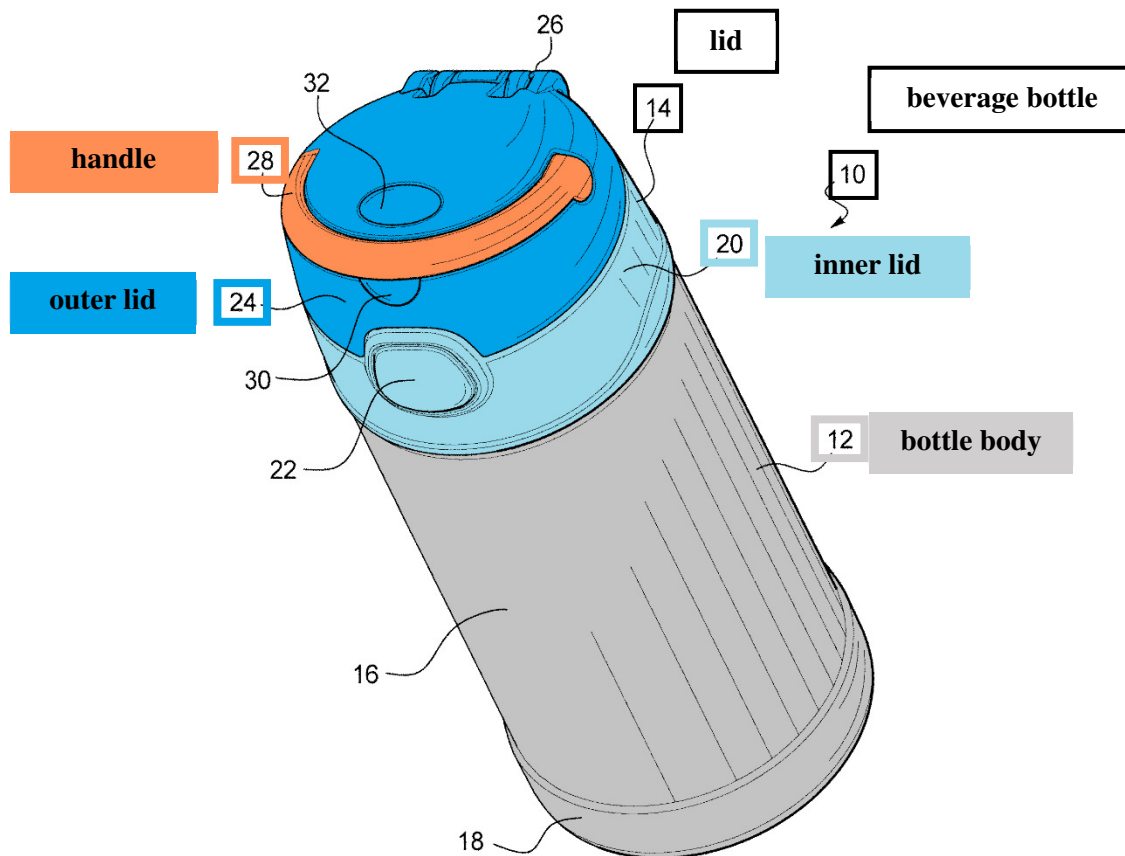
stowed position relative to the handle when the closure is selectively removed from the drink spout and received by the closure retention mechanism:



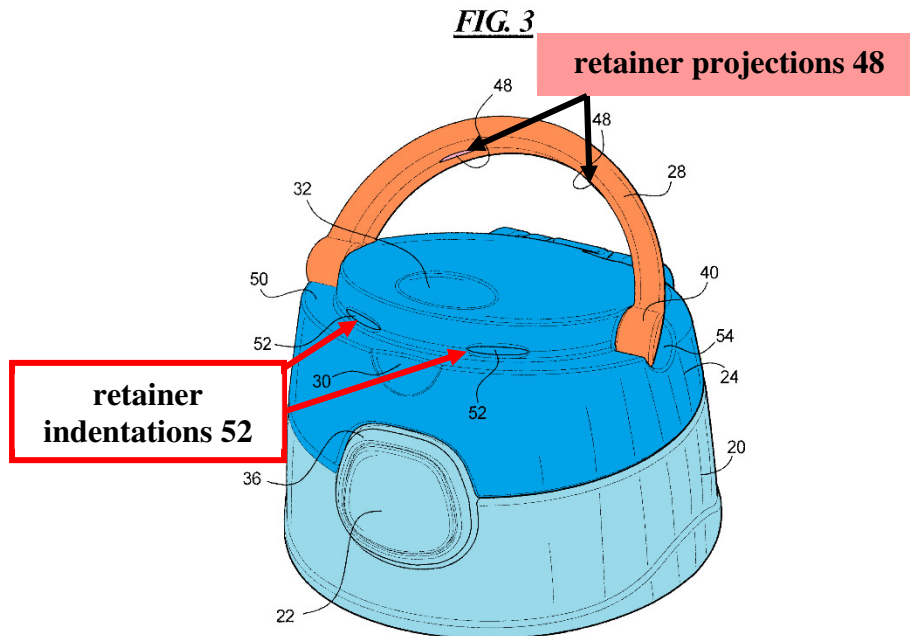
(Ex. 1006, Figs. 1, 5; Ex. 1003 ¶230). Miller depicts a projection on the pivotal closure and an indentation on the inside of the handle. A POSITA would recognize that the projection is positioned to align with the indentation on the inside of the handle, and that when mated the projection and indentation would snap together. (*Id.*)

A POSITA would have recognized that using one or more cooperating projections and indentations on a closure and handle to removably connect the two together was conventional at the time of the invention. This background knowledge and common sense is reflected, for example, in Lane (Ex. 1007), which discloses a drink bottle with a removable lid. The lid includes (1) an inner lid, (2) an outer lid or cover pivotally mounted on the inner lid, and (3) a handle on the outer lid. (Ex. 1007, Abstract).

FIG. 1



(Ex. 1007, Fig. 1; Ex. 1003 ¶231). The handle 28 extends from the outer lid 24, and is movable from a stowed position (*e.g.*, Fig. 1, above) to a deployed position (*e.g.*, Fig. 3, below). (Ex. 1007, 3:26-43).



(Ex. 1007, Fig. 3; Ex. 1003 ¶231). The inner surface of handle 28 includes two retainer projections 48 that extend inwardly. (Ex. 1007, 3:30-43). The outer lid 24 includes a recess channel 50 with two retainer indentations 52 for receiving handle 28 when in the stowed position, as shown in Figure 1. (*Id.*). The handle 28 snaps into the stowed position in the recess channel 50 and is held in place by the retainer projections 48 and retainer indentations 52. (*Id.*; Ex. 1003 ¶231).

Moreover, a pivotal closure cooperating with a handle to maintain the closure open while drinking was conventional at the time of the invention. *See*,

e.g., Samartgis (*supra* §VIII(B)(8)) and Leoncavallo (*supra* §X(B)(8)).

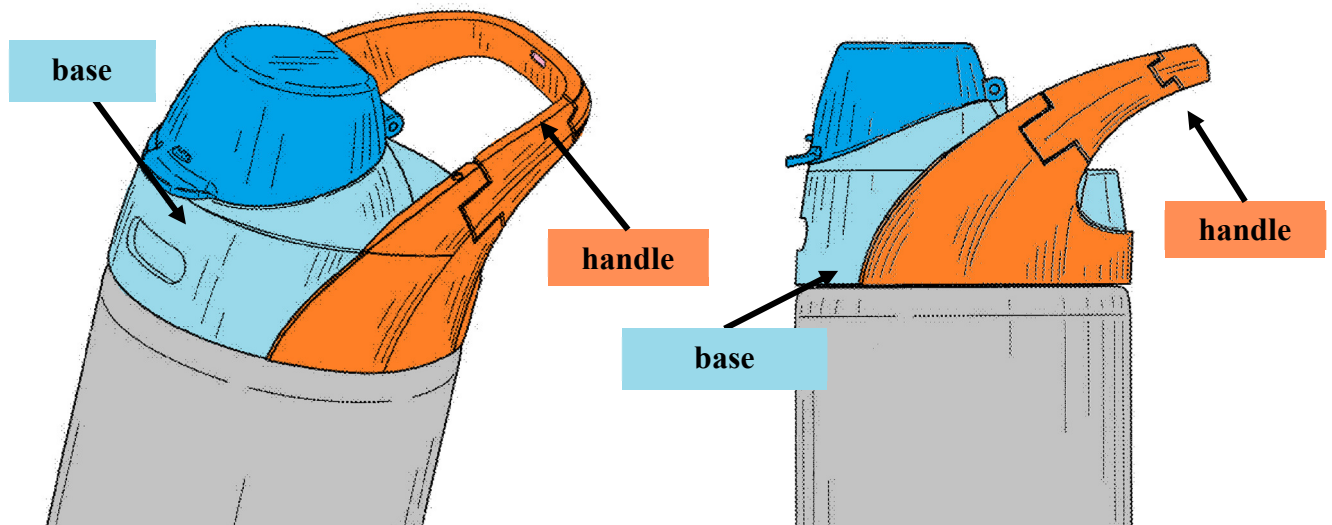
In view of these conventional features, a POSITA would have discerned that Miller's closure projection would engage the handle indentation to hold the closure open while a user drinks from the container. (*Id.*) Accordingly, Miller discloses, or at least suggests, this limitation. (Ex. 1003 ¶¶229-34).

The indentation on the handle is the "closure retention mechanism" of claim 5. The indentation is designed to, and does, perform the claimed function of retaining the closure in the stowed position relative to the handle when the closure is removed from the spout. (*See id.* ¶¶232). The indentation on the handle is also at least equivalent to the corresponding structure of the '252 patent for performing the claimed function at least because it performs the claimed function in substantially the same way to achieve substantially the same result. (*See id.* ¶¶232). Like the opposed tabs of the '252 patent, the indentation provides an engagement feature on the inside surface of the handle to engage the closure when it is in the open configuration. (*Id.*). Additionally, the '252 patent contemplates that the opposed tabs on the handle may be retained in a corresponding depression on the outer surface of the closure. (Ex. 1001, 9:45-55). This is the structure disclosed in Miller, except that Miller's protrusion is on the closure and Miller's indentation is on the handle. (Ex. 1003 ¶¶233). One skilled in the art would understand that

Miller discloses a structure equivalent to that of the '252 patent. (*Id.*). Furthermore, it would have been obvious to a POSITA to modify Miller to have a protrusion on the handle to be received into an indentation on the closure because it is one of a set of limited options with an expectation of success in view of the knowledge of one skilled in the art and the commonality of closure retention mechanisms appearing as protrusions on handles (such as in Leoncavallo). (*Id.* ¶234).

C. Claim 6

Miller discloses the additional limitation of claim 6. (Ex. 1003 ¶¶239-40). As depicted below, Miller's handle, alone or in conjunction with the base, defines a closed perimeter:

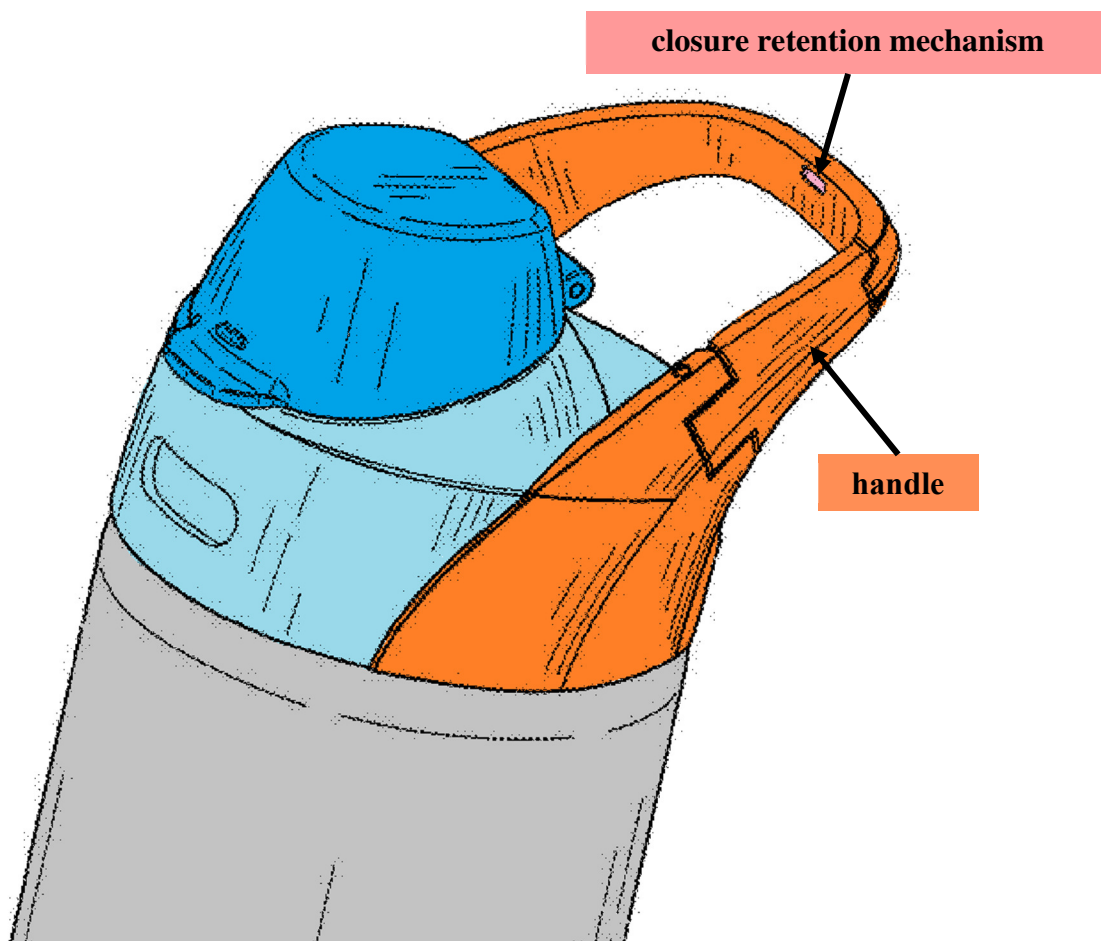


(Ex. 1006, Figs. 1, 5; Ex. 1003 ¶240). Thus, Miller discloses, or at least suggest,

each element of claim 6 and claim 6 would have been obvious over Miller in view of Leoncavallo. (Ex. 1003 ¶¶239-40).

D. Claim 7

Miller discloses the additional limitation of claim 7. (Ex. 1003 ¶¶241-43). As noted above, Miller discloses that its handle defines a closed perimeter. (*See supra* §XII(C).) Furthermore, the closure retention mechanism in Miller (*i.e.*, indentation on the inside of Miller's handle) is positioned at least partially within the closed perimeter. (Ex. 1003 ¶242).



(Ex. 1006, Figs. 1, 5; Ex. 1003 ¶¶242). Thus, Miller discloses, or at least suggest, each element of claim 7 and claim 7 would have been obvious over Miller in view of Leoncavallo. (*Id.* ¶¶241-43).

E. Claim 16

Miller in view of Leoncavallo renders claim 16 obvious. Leoncavallo discloses the additional limitation of claim 16. (*See supra* §X(E).) It would have been obvious to modify Miller to include the plug seal and spout disclosed in Leoncavallo for the reasons discussed below. (Ex. 1003 ¶¶244-45; *infra* §§XII(G)).

F. Claim 19

Miller in view of Leoncavallo renders claim 19 obvious for the same reasons addressed with respect to claim 5. *Supra* §XII(B); (Ex. 1003 ¶¶246-53).

G. Obviousness of Combining Miler and Leoncavallo

As discussed above, Miller discloses a beverage container, and a POSITA would have discerned that Miller's beverage container has a removable cap assembly. (*See supra* §XII (B)(3)-(4).) Similarly, Leoncavallo discloses a drink container with a removable cap assembly. (*See supra* §X(B)(3)-(4).) To the extent Miller does not disclose the claimed liquid container and cap assembly comprising a base, drink spout, and closure of claims 5-7, 16, and 19, a POSITA

would have been motivated to modify Miller in view of Leoncavallo to include these elements with Miller's beverage container (and in particular Miller's handle and closure retention mechanism). (Ex. 1003 ¶¶233-37, 253).

A POSITA would have been motivated to make this combination for several reasons. First, the combination would add necessary features to transform the beverage container design depicted in Miller into a fully functional beverage container. For example,

- including a liquid container disclosed in Leoncavallo would provide a functional reservoir for holding the user's beverage;
- including a cap assembly base disclosed in Leoncavallo would provide a convenient way for the user to temporarily remove the cap assembly to access the inside of the liquid container to refill or clean it;
- including a drink spout disclosed in Leoncavallo would provide a convenient way for the user to drink the beverage contained in the liquid container; and
- including a closure and plug disclosed in Leoncavallo would provide the user with a way to securely close the spout to prevent leakage or spills when not in use, and to open the spout to take a drink.

(Ex. 1003 ¶235).

Second, a liquid container and cap assembly comprising a base, drink spout, and closure such as those disclosed in Leoncavallo were well-known, leading a POSITA to reasonably expect success in the combination. (Ex. 1003 ¶236); *see, e.g.*, (Ex. 1004, Ex. 1005).

Third, the combination represents nothing more than the simple addition of known elements (a liquid container and cap assembly comprising a base, drink spout, and closure as in Leoncavallo) to another known element (Miller's beverage container with handle and closure retention mechanism) to obtain predictable results (a beverage container with a handle and closure retention mechanism as in Miller with a liquid container and removable cap assembly comprising a base, drink spout, and closure). (*Id.* ¶237); *see KSR*, 550 U.S. at 417.

Thus, claims 5-7, 16 and 19 would have been obvious to a POSITA over Miller in view of Leoncavallo. (*Id.* ¶¶233-37, 253).

**XIII. GROUND 6: CLAIMS 17-18 WOULD HAVE BEEN OBVIOUS
OVER MILLER IN VIEW OF LEONCAVALLO AND IN FURTHER
VIEW OF GORSKEY AND/OR JOHNSON.**

Leoncavallo in view of Gorskey and/or Johnson discloses the additional limitations of Claims 17-18, as discussed elsewhere herein. (*See supra* §XI; Ex.

1003 ¶¶254-55). A POSITA would have been motivated to use the spout and plug seal disclosed in Leoncavallo, as modified by Gorskey and/or Johnson, with Miller for the same reasons discussed above. (*Id.*)

Thus, claims 17-18 would have been obvious to a POSITA over Miller in view of Leoncavallo and in further view of Gorskey and/or Johnson. (*Id.*).

XIV. SECONDARY CONSIDERATIONS

Secondary considerations should be considered but do not control the obviousness conclusion. *Newell Cos. v. Kenney Mfg. Co.*, 864 F.2d 757, 768 (Fed. Cir. 1988). Where, as here, a strong *prima facie* case of obviousness has been made, even relevant secondary considerations supported by substantial evidence may not dislodge an obviousness conclusion. *Leapfrog Enters. v. Fisher-Price, Inc.*, 485 F.3d 1157, 1162 (Fed. Cir. 2007). Petitioner is aware of no evidence supporting a claim for secondary considerations.

XV. DISCRETIONARY DENIAL UNDER §314(A) IS NOT APPROPRIATE

The Board should decline to exercise its discretion under §314(a). Efficiency, fairness, and the merits support institution despite the existence of co-pending litigation. *Apple v. Fintiv*, IPR2020-00019, Paper 11 (P.T.A.B. Mar. 20, 2020) (“*Fintiv*”). Each *Fintiv* factor is discussed below.

A. Factor 1: Potential Stay

When this IPR is instituted, Petitioner will move to stay the district court action as it pertains to the '252 patent pending resolution of this IPR. Thus, this factor weighs against discretionary denial.

B. Factor 2: Proximity of Trial to FWD

Trial in the district court action is scheduled for September 2025. Ex. 1013. This date has already been delayed once (*id.*), and would, of course, be delayed further if the case is stayed. Thus, this factor weighs against discretionary denial.

C. Factor 3: Investment in Parallel Proceeding

Petitioner filed its complaint on August 21, 2023, and PO filed its initial counterclaim alleging infringement of the '252 patent on November 8, 2023. Fact discovery in the district court action remains in its infancy, as no depositions have been taken. The parties served infringement and invalidity contentions, but have not proposed claim constructions or submitted claim construction briefs. No expert reports have been served.

Fact discovery does not close until December 2024, and even after that, much work would still remain, including expert reports, expert discovery, dispositive motions, pretrial motions, and trial. Ex. 1013. The “remaining investment” outweighs any investments made. *Samsung Elecs. Am. Inc. v. Snik*

LLC, IPR2020-01428, Paper 10 at 11 (P.T.A.B. Mar. 9, 2021); *Huawei Techs. Co. v. WSOU Invs., LLC*, IPR2021-00226, Paper 10 at 13-14 (P.T.A.B. June 10, 2021).

Thus, this factor weighs against discretionary denial.

D. Factor 4: Overlapping Issues

Petitioner's district court invalidity contentions contain various prior-art references not at issue in the IPR, including several prior-art systems in use or on sale during the relevant time period. Moreover, if this IPR is instituted and the district court action is stayed as to the '252 patent, Petitioner could not pursue in the action any invalidity ground raised or that could have been reasonably raised in this IPR. *Cal. Inst. of Tech. v. Broadcom Ltd.*, 25 F.4th 976 (Fed. Cir. 2022). Thus, little concern of duplicative efforts or conflicting decisions exists.

If the action is not stayed, Petitioner hereby stipulates not to argue in the action on invalidity of the '252 patent based on the grounds advanced in this petition or on any ground that relies on the references cited herein. This factor weighs against discretionary denial. *Sand Revolution II, LLC v. Cont'l Intermodal Grp.-Trucking LLC*, IPR-2019-01393, Paper 24 at 11-12 (P.T.A.B. June 16, 2020) (informative); *Google LLC v. Jawbone Innovations, LLC*, IPR2022-00630, Paper 10 at 16-17 (P.T.A.B. Sept. 13, 2022).

E. Factor 5: The Parties

While the same parties are involved here as in the district court, this factor is not determinative. The Board repeatedly declines to exercise its discretion to deny institution under such circumstances. *See, e.g., NanoCollect Biomedical, Inc. v. Cytonome/ST, LLC*, IPR2020-00551, Paper 19 at 2-25 (P.T.A.B. Aug. 27, 2020); *VMware, Inc. v. Intellectual Ventures I LLC*, No. IPR2020-00470, Paper 13 at 20, 22 (P.T.A.B. Aug. 18, 2020); *Samsung Electronics Co., Ltd. v. Dynamics, Inc.*, IPR2020-00502, Paper 34 at 13-14 (P.T.A.B. Aug. 12, 2020).

F. Factor 6: Other Circumstances

This Petition's merits are particularly strong, which favors institution. *Fintiv*, IPR2020-00019, Paper 11 at 18. Moreover, denying institution would negate Congress's intent in providing a 1-year period to file petitions.

Accordingly, the *Fintiv* analysis favors institution.

XVI. DISCRETIONARY DENIAL UNDER §325(D) IS NOT APPROPRIATE

This Petition presents a strong case of unpatentability and rests on prior art and arguments not previously presented to the PTO, and discretionary denial under §325(d) is thus not warranted.

In a §325(d) analysis, the Board considers several factors delineated in *Becton, Dickinson & Co. v. B. Braun Melsungen AG*, IPR2017-01586, Paper 8

(P.T.A.B. Dec. 15, 2017). Factors (a), (b), and (d) relate to whether the art or arguments are substantially the same as those previously presented, while factors (c), (e), and (f) relate to whether the petition has demonstrated a material error by the PTO during prior consideration. *Advanced Bionics, LLC v. Med-EL Elektromedizinische Geräte GmbH*, IPR2019-01469, Paper 6 at 10 (P.T.A.B. Feb. 13, 2020). The Board considers the second set of factors only if the first set of factors weighs in favor of exercising discretion. *Id.* at 8.

A. Factors (a), (b), and (d)

Four of the five references relied on in this Petition (Samartgis, Miller, Gorskey, and Johnson), which are applied in the asserted grounds covering all challenged claims, were not submitted to the PTO and have not previously been considered. *See* (Ex. 1001 at 1-2). The remaining reference (Leoncavallo) was submitted by PO in an IDS but was not applied by the Examiner. Thus, any arguments relating to this reference likewise has not been considered by the PTO and its prior submission to the PTO does not weigh in favor of exercising discretion. *See (id.)*; *Cisco Sys., Inc. v. NetSocket, Inc.*, IPR2023-00607, Paper 11 at 22 (P.T.A.B. Sept. 26, 2023).

Because a majority of the grounds, covering all challenged claims, apply art that was not previously presented to the PTO, and because each ground

includes arguments not previously considered by the PTO, the Board should not exercise its discretion to deny the Petition under §325(d). *See, e.g., Samsung Elecs. Co., Ltd. v. Cellect, LLC*, IPR2020-00471, Paper 15 at 9-17 (P.T.A.B. Aug. 18, 2020) (declining to exercise discretion where petition relies on art not before the PTO in a majority of asserted grounds); *Brunswick Corp. v. Volvo Penta of the Ams., LLC*, IPR2020-01512, Paper 15 at 16-21 (P.T.A.B. Mar. 11, 2021) (declining to exercise discretion where petition includes grounds covering all challenged claims that do not contain cumulative arguments).

B. Factors (c), (e), and (f)

As discussed above, none of the art relied upon in this Petition was substantively evaluated during examination. Accordingly, there is no overlap between discussion of the references in this Petition and the arguments presented in prior examination. Because the references as applied in this Petition present a strong case for unpatentability, the Examiner clearly and materially erred in not applying them. Accordingly, these factors weigh strongly against exercising discretion. *See, e.g., Fusion Orthopedics, LLC v. Extremity Med., LLC*, IPR2023-00894, Paper 15 at 34-35 (P.T.A.B. Nov. 17, 2023).

For the above reasons, the Board should not exercise discretion under §325(d).

XVII. CONCLUSION

Petitioner respectfully requests cancellation of the challenged claims for the reasons described above.

Dated: April 29, 2024

By: /Ali S. Razai/

Ali S. Razai (Reg. No. 60,771)

Joseph F. Jennings (Reg. No. 40,664)

Cheryl T. Burgess (Reg. No. 55,030)

Nathan D. Reeves (Reg. No. 77,806)

KNOBBE MARTENS OLSON & BEAR, LLP

CERTIFICATE OF COMPLIANCE

Pursuant to 37 C.F.R. §42.24(d), the undersigned certifies that the foregoing **PETITION FOR *INTER PARTES* REVIEW OF U.S. PATENT NO. 8,905,252**, exclusive of the parts exempted as provided in 37 C.F.R. §42.24(a), contains 13,752 words and therefore complies with the type-volume limitations of 37 C.F.R. §42.24(a).

Dated: April 29, 2024

By: /Ali S. Razai/

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KNOBBE MARTENS OLSON & BEAR, LLP

CERTIFICATE OF SERVICE

The undersigned hereby certifies that on the date below a copy of this **PETITION FOR *INTER PARTES* REVIEW OF U.S. PATENT NO. 8,905,252** **PETITIONER’S POWER OF ATTORNEY, AND EXHIBITS 1001 – 1013** were served by Federal Express overnight mail on the Patent Owner at the correspondence address of record for the subject patent as follows:

137531 - VISTA OUTDOOR OPERATIONS LLC
One Vista Way
Anoka, MN
UNITED STATES

A courtesy copy has been sent by FedEx on this day to Patent Owner’s counsel of record in the matter identified in Section I.B of the Petition as follows:

REED SMITH LLP
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Dated: April 29, 2024

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