

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 B2

PATENT OWNER'S RESPONSE

TABLE OF CONTENTS

I.	Introduction.....	1
II.	The '252 Patent	1
A.	Claims	2
B.	Specification.....	2
III.	Petitioner's Grounds and Primary References.....	3
A.	Samartgis.....	3
B.	Leoncavallo	5
C.	Miller.....	6
IV.	Level of Ordinary Skill in the Art.....	7
V.	Claim Construction	7
A.	"closure retention mechanism"	8
B.	"when the closure is . . . received by the closure retention mechanism"	9
C.	"retain the closure in a stowed position"	13
VI.	Petitioner Has Failed to Prove Unpatentability of any Challenged Claim by a Preponderance of the Evidence.....	14
A.	Grounds 1 and 2 Fail Because Samartgis Fails to Anticipate or Render Obvious Claims 5 and 19.....	14
1.	Samartgis Fails to Disclose that the "Closure" is "Retain[ed]" "in a Stowed Position" by the Closure Retention Mechanism.....	16
2.	Samartgis Fails to Disclose a "Closure" that is "Received By" a Closure Retention Mechanism Under Petitioner's Theory	27
3.	The Lugs in Samartgis are not a "Closure Retention Mechanism," Because they are not Equivalent to the Spaced-Apart Tabs 56 in the '252 Patent.....	32
4.	Petitioner Fails to Argue Obviousness over Samartgis with Any Particularity	37
B.	Grounds 3 and 4 Fail Because Leoncavallo Does Not Disclose or Render Obvious All the Limitations of the Challenged Claims.....	40
1.	Leoncavallo does not disclose or render obvious the required <i>closure</i> <i>retention mechanism</i> because it lacks the same or equivalent structure .	40

2.	Leoncavallo does not disclose or render obvious the limitations of dependent claim 6	48
3.	Leoncavallo does not disclose or render obvious the limitations of dependent claim 7	54
4.	Petitioner fails to show a reason to combine Johnson and/or Gorskey with Leoncavallo to achieve the invention of claims 17 and 18.	56
C.	Petitioner’s Grounds Based On Miller (Grounds 5 and 6) Fail To Establish Unpatentability.....	60
1.	Miller does not Disclose Numerous Elements of Claims 5 and 19	60
2.	Petitioner Has Failed to Show that The Elements of Claims 5 and 19 Missing from Miller would have been Obvious over Leoncavallo or the Knowledge of a POSITA.....	67
D.	Petitioner’s Ground Based on Miller in view of Leoncavallo (Ground 5) Fails To Explain How such a Combination Would Have Been Made or How it Would Work.....	71
E.	Petitioner’s Ground Based on Miller in view of Leoncavallo in Further View of Gorskey or Johnson (Ground 6) Fails to Establish a Specific Motivation to Combine for Particular Missing Limitations or How such a Combination Would Have Been Made	73
VII.	Conclusion	74

TABLE OF AUTHORITIES

	Page(s)
Cases	
<i>Abbott Labs. v. Sandoz, Inc.</i> , 566 F.3d 1282 (Fed. Cir. 2009)	46
<i>Adaptics Ltd. v. Perfect Co.</i> , IPR2018-01596, Paper 20 (PTAB March 6, 2019)	38
<i>Apple v. Uniloc Luxembourg S.A.</i> , IPR2018-00420 (PTAB August 6, 2018)	72
<i>DSS Tech. Mgmt., Inc. v. Apple Inc.</i> , 885 F.3d 1367 (Fed. Cir. 2018)	39
<i>Fresenius USA, Inc. v. Baxter Int’l, Inc.</i> , 582 F.3d 1288 (Fed. Cir. 2009)	40
<i>InTouch Techs., Inc. v. VGO Commc’ns, Inc.</i> , 751 F.3d 1327 (Fed. Cir. 2014)	51
<i>In re Kahn</i> , 441 F.3d 977 (Fed. Cir. 2006)	73
<i>Kemco Sales, Inc. v. Control Papers Co.</i> , 208 F.3d 1352 (Fed. Cir. 2000)	33
<i>KSR Intern. Co. v. Teleflex Inc.</i> , 550 U.S. 398 (2007).....	56, 71, 73
<i>In re Magnum Oil Tools Int’l, Ltd.</i> , 829 F.3d 1364 (Fed. Cir. 2016)	57
<i>Personal Web Techs., LLC v. Apple, Inc.</i> , 848 F.3d 987 (Fed. Cir. 2017)	72
<i>PHG Technologies, LLC v. St. John Companies, Inc.</i> , 469 F.3d 1361 (Fed. Cir. 2006)	65

<i>Polaris Industries, Inc. v. Arctic Cat, Inc.</i> , 882 F.3d 1056 (Fed. Cir. 2018)	51
<i>Realtime Data, LLC v. Iancu</i> , 912 F.3d 1368 (Fed. Cir. 2019)	9
<i>TQ Delta, LLC v. CISCO Sys., Inc.</i> , 942 F.3d 1352 (Fed. Cir. 2019)	38, 53, 60
<i>Transclean Corp. v. Bridgewood Servs., Inc.</i> , 290 F.3d 1364 (Fed. Cir. 2002)	33
<i>TriVascular, Inc. v. Samuels</i> , 812 F.3d 1056 (Fed. Cir. 2016)	56
<i>Virtek Vision Intl. ULC v. Assembly Guidance Sys., Inc.</i> , 97 F.4th 882 (Fed. Cir. 2024)	70, 71
<i>Wasica Fin. GmbH v. Cont'l Auto. Sys., Inc.</i> , 853 F.3d 1272 (Fed. Cir. 2017)	65
<i>Wireless Seismic, Inc. v. Fairfield Indus., Inc.</i> , IPR2014-01205, Paper 8 (PTAB Jan. 14, 2015)	39
<i>Xerox Corp. v. Bytemark, Inc.</i> , IPR2022-00624, Paper 9 (PTAB August 24, 2022)	39, 63
Statutes	
35 U.S.C. § 112(f)	8, 33
35 U.S.C. §§ 312	27, 38
35 U.S.C. § 312(a)(3)	38
35 U.S.C. § 316(e)	14
Other Authorities	
37 C.F.R. § 42.65(a)	38, 63

PATENT OWNER’S UPDATED EXHIBIT LIST

Exhibit No.	Description
2001	U.S. Design Patent No. D679,541 to Samartgis
2002	June 17, 2024 Order on Case Schedule in <i>Trove Brands LLC v. CamelBak Prods., LLC and Vista Outdoor Inc.</i> , No. 5:23-cv-4267 (N.D. Cal. Aug. 21, 2023) at Dkt. 92
2003	Docket in <i>Trove Brands LLC v. CamelBak Prods., LLC and Vista Outdoor Inc.</i> , No. 5:23-cv-4267 (N.D. Cal. Aug. 21, 2023)
2004	Initial Infringement Contentions in <i>Trove Brands LLC v. CamelBak Prods., LLC and Vista Outdoor Inc.</i> , No. 5:23-cv-4267 (N.D. Cal. Aug. 21, 2023), served December 21, 2023
2005	Initial Invalidity Contentions in <i>Trove Brands LLC v. CamelBak Prods., LLC and Vista Outdoor Inc.</i> , No. 5:23-cv-4267 (N.D. Cal. Aug. 21, 2023), served January 22, 2024
2006	First Amended Invalidity Contentions in <i>Trove Brands LLC v. CamelBak Prods., LLC and Vista Outdoor Inc.</i> , No. 5:23-cv-4267 (N.D. Cal. Aug. 21, 2023), served July 18, 2024
2007	Notice of Deposition of Erin Jones in <i>Trove Brands LLC v. CamelBak Prods., LLC and Vista Outdoor Inc.</i> , No. 5:23-cv-4267 (N.D. Cal. Aug. 21, 2023), served April 23, 2024
2008	Notice of Deposition of Jeff Sagud in <i>Trove Brands LLC v. CamelBak Prods., LLC and Vista Outdoor Inc.</i> , No. 5:23-cv-4267 (N.D. Cal. Aug. 21, 2023), served April 23, 2024
2009	Declaration of Michael Jobin in Support of Patent Owner’s Response
2010	Claim Construction Order in <i>Trove Brands, LLC v. CamelBak Products, LLC, et al.</i> , No. 23-cv-04267-PCP (N.D. Cal.), Dkt. No. 108 (November 8, 2024) (“CC Order”).
2011	Deposition Transcript of Glenn Vallee, Ph.D. (January 20, 2025) (“Vallee Tr.”).
2012	Merriam-Webster Dictionary – “receive”

2013	Oxford Dictionary – “receive”
2014	Cambridge Dictionary – “receive”
2015	Merriam-Webster Dictionary – “retain”
2016	Oxford Dictionary – “retain”
2017	Cambridge Dictionary – “retain”
2018	Samartgis File History Excerpt – Original Drawings (submitted January 31, 2014)
2019	C.V. of Michael Jobin
2020	Merriam-Webster Dictionary – “stow”
2021	Oxford Dictionary – “stow”
2022	Cambridge Dictionary – “stow”
2023	U.S. Design Patent No. D945,819
2024	U.S. Design Patent No. D751,339
2025	Yeti MagSlider website
2026	RTIC Lid website

I. INTRODUCTION

Under Petitioner’s own construction, the “closure retention mechanism” of the Challenged Claims is a means-plus-function element directed to a specific structure in the ’252 patent—the spaced-apart tabs 56 on the interior of the handle of the drink bottle—a structure which the district court has endorsed. None of Petitioner’s prior art discloses this novel structure or an equivalent. The spaced-apart tabs of the ’252 patent utilize a minimalist yet innovative design to conveniently stow a cap that has been removed by a user from a drink spout within the handle of a drink bottle. Petitioner’s prior art utilizes complex and cumbersome designs that do not perform the same function and do not function in a substantially similar way or achieve substantially similar results as the design of the ’252 patent. Petitioner also fails to demonstrate that this design would have been obvious or that a POSITA would have been motivated to arrive at this design. Patent Owner, therefore, respectfully requests that the Board confirm the patentability of the Challenged Claims.

II. THE ’252 PATENT

The ’252 patent generally describes a drink container with a liquid container portion and a cap assembly portion that includes a handle, a base, a drink spout, and a closure for the spout. Ex.1001, 2:63-64, 7:54-62.

A. Claims

The '252 patent has 20 claims. Petitioner challenges claims 5-7 and 16-19 (“Challenged Claims”) in the Petition, with claims 5 and 19 being the only independent claims. Pet., 15-16.

B. Specification

The '252 patent discloses various embodiments to illustrate the claimed drink containers. Figure 7 below represents a top view of an exemplary cap assembly (102) according to the invention, including a closure retention mechanism in the form of spaced-apart tabs 56. *Id.*, 10:4-8, Fig. 7.

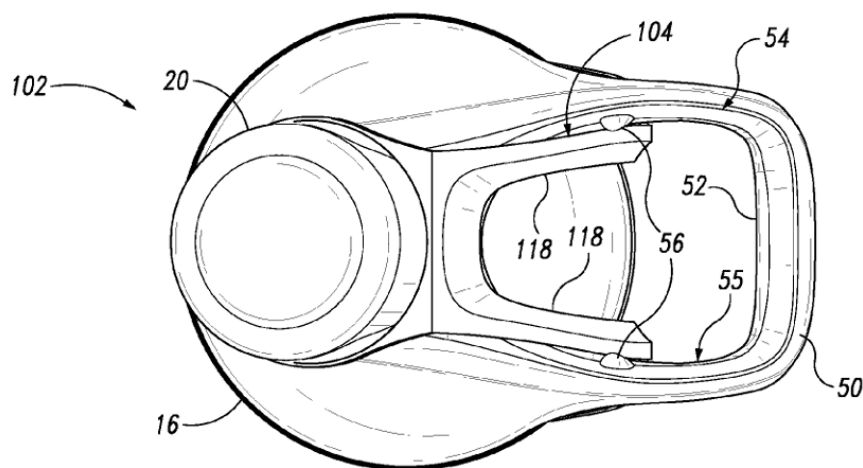


Fig. 7

The closure can be moved from a closed position by removing the closure from the spout to a stowed position, as shown, for example, in Figures 10-13 of the '252 patent.

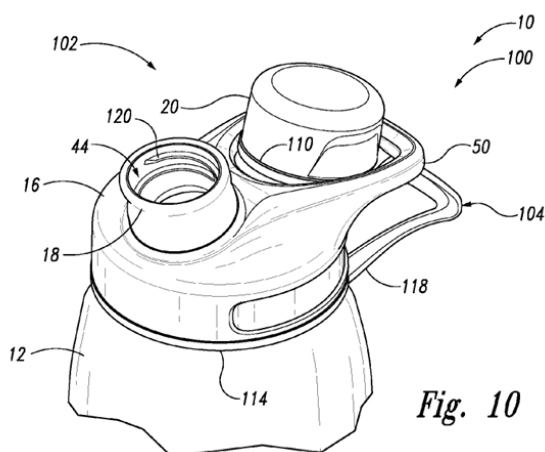


Fig. 10

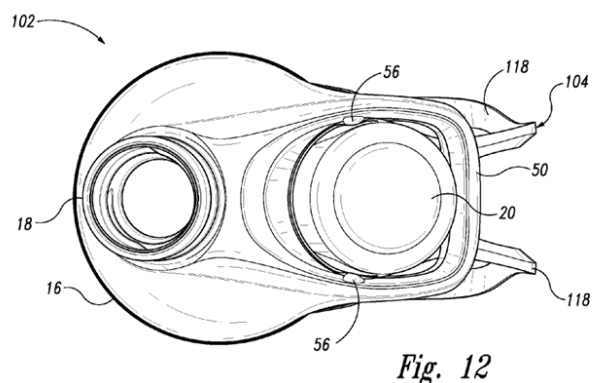


Fig. 12

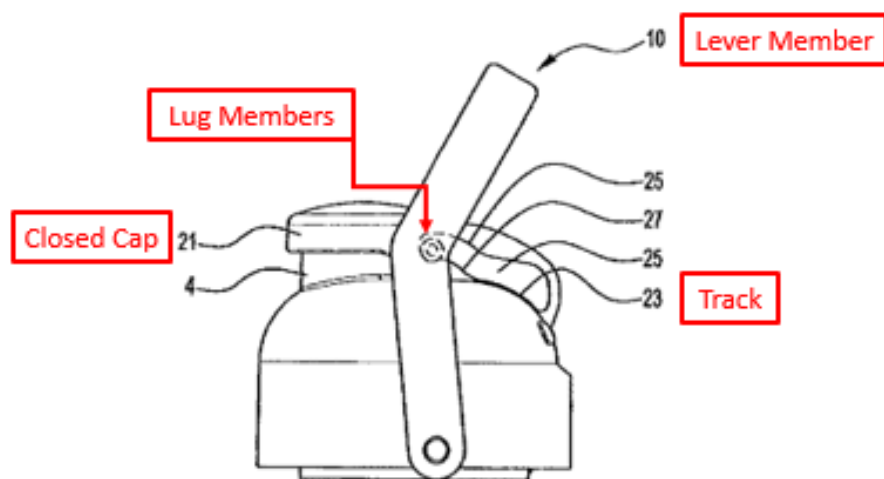
Id., Figs. 10, 12; *see also id.* Figs. 11, 13. In particular, the closure retention mechanism receives the closure and retains it in a stowed position relative to the handle, providing the benefit of an ergonomic drinking of the drink liquid without the closure engaging the user's face or blocking the user's line of sight. *Id.*, 13:14-46, 14:1-5.

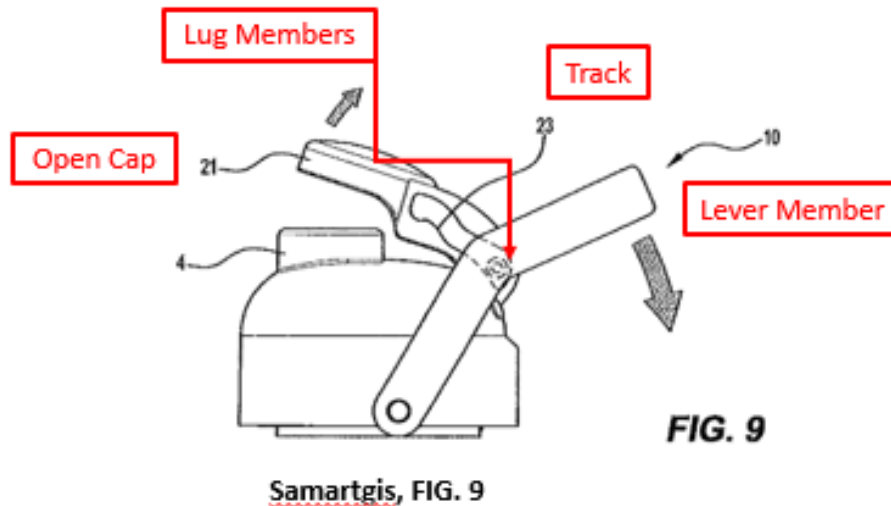
III. PETITIONER'S GROUNDS AND PRIMARY REFERENCES

Petitioner asserts that the challenged claims would have been anticipated and/or obvious based on six (6) grounds. Petitioner relies on Samartgis (Ex.1004), Leoncavallo (Ex.1005), Miller (Ex.1006), Gorskey (Ex.1011), and Johnson (Ex.1012) across its grounds. Petitioner's primary references are summarized below.

A. Samartgis

Samartgis discloses a drink dispensing assembly with a main body, flap member 20 having a cap 21, arm member 22, and opposed tracks 23. Ex. 1004 at 3:13-47. Lever member 10 has two lug members 15 and 16 attached to the inside of





Id. at Fig. 5 (annotated), Fig. 9 (annotated).

B. Leoncavallo

Leoncavallo describes a liquid container with a closure 10, which is removably secured to the neck of the container 12. Ex. 1005, Abstract, 3:10-19, 3:41-47. The closure also has a loop 54 with an opening therethrough so that a user's finger or attachment hardware, such as a hook or clip, can fit through the opening, as shown below in Figures 2 and 3 of Leoncavallo. *Id.*, 4:18-29, Figs. 2-3. Leoncavallo also includes a flip cap 68 that covers the spout 46. *Id.*, 4:58-60. In addition, there are two arcuate connector members 80, 82 that connect to the loop 54. *Id.*, 5:4-8. The connector members 80, 82 are configured to engage with an outer surface of loop 54 and rotate around it so that the flip cap 68 can be moved between closed and open positions. *Id.*, 5:4-8, 7:9-18, Fig. 3. The loop 54 may also include one or more detents 90 projecting from the outer arcuate surface of the loop 54. *Id.*, 5:33-42. The detents

90 are designed to engage the connector member 80 “as it travels about the loop 54 when the flip cap 68 is moved to the open position of Figure 3,” as shown below.

Id., 5:33-42, Fig. 3.

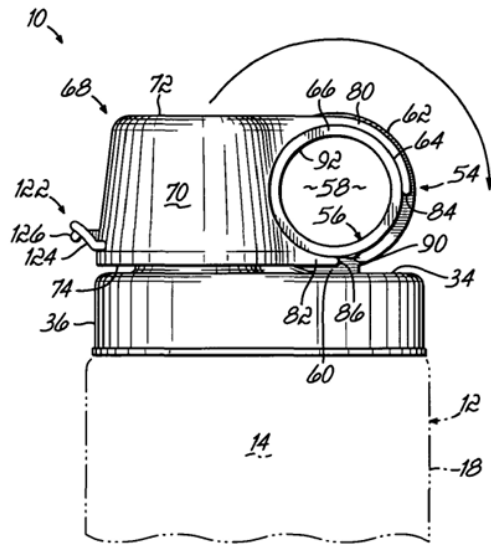


FIG. 2

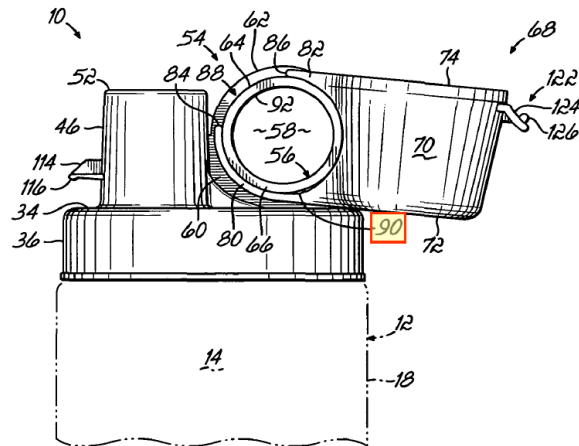
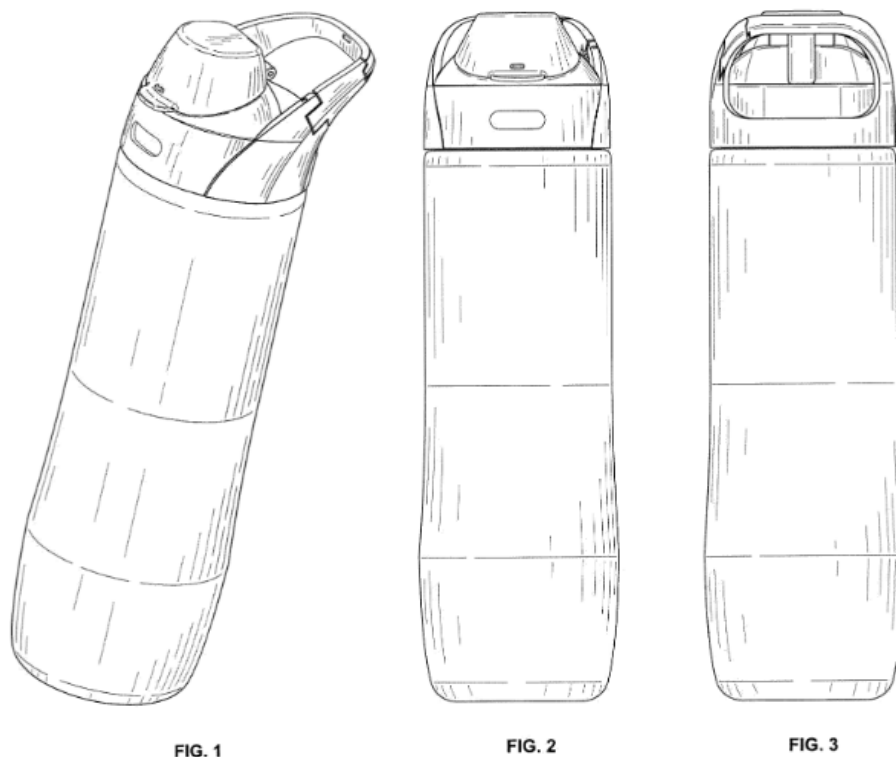


FIG. 3

Ex. 1005, Fig. 2, Fig. 3 (annotated).

C. Miller

Miller is a design patent titled “beverage container” that consists of seven figures depicting an “ornamental design for a beverage container.” Ex. 1006, at Claim. Figures 1-3 are shown below:



Ex. 1006 at Figs. 1-3. Because Miller is a design patent, it does not contain a written description and the figures are unlabeled.

IV. LEVEL OF ORDINARY SKILL IN THE ART

A person having ordinary skill in the art would have had a bachelor's degree in mechanical engineering or the equivalent coursework and approximately one year of experience with liquid-containing devices, with more work experience substituting for less education and vice versa. Ex.2009, ¶¶61–68.

V. CLAIM CONSTRUCTION

Patent Owner requests that the Board construe the following claim terms.

A. “closure retention mechanism”

Subsequent to the Board’s institution decision, a claim construction order was issued in the co-pending district court case between Petitioner and Patent Owner. *See* Ex.2010. The district court held that the term “closure retention mechanism” is a means-plus-function term governed by 35 U.S.C. § 112(f), *id.*, at 5-11, and construed the corresponding structure to be Closed Perimeter 52, Closure Retention Structure 55, Tabs 56, or Cooperating/Engaging Structure 58. *Id.* at 5, 10-11.

Petitioner has proposed to construe “closure retention mechanism” as being governed by § 112(f) and as requiring the corresponding structure of the spaced-apart tabs 56 extending from the inner surface of the handle. Pet., 18-23; Ex.1003, ¶¶45-50; Ex.2011, at 47:4-7 (confirming he identified only tabs 56 on inside of handle as corresponding structure), 49:16-50:11 (same); 53:11-18 (same).

For purposes of this proceeding only, Patent Owner does not dispute the district court’s conclusion that § 112(f) applies to this claim term or that the spaced-apart tabs 56 on the interior of the handle are encompassed by the corresponding structure required for this term, as proposed by Petitioner.

It is unnecessary for the Board to determine whether any additional structures are encompassed by the claimed “closure retention mechanism,” because Petitioner did not propose to include such structures in its construction and did not provide any arguments or analysis comparing such other structures to the prior art asserted in the

Petition. Further, it would be impermissible for Petitioner to offer new theories based on alleged equivalences to such additional structures not included in the Petition. Therefore, the Board need not determine whether any additional structures are included, because it is unnecessary to resolve the parties' dispute. *See Realtime Data, LLC v. Iancu*, 912 F.3d 1368 (Fed. Cir. 2019) ("The Board is required to construe 'only those terms . . . that are in controversy, and only to the extent necessary to resolve the controversy.'" (quoting *Vivid Techs., Inc. v. Am. Sci. & Eng'g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999))).

B. "when the closure is . . . received by the closure retention mechanism"

First, the Board should construe the base term, "receive" to mean "to accept, to acquire, or to engage." Second, applying this base interpretation, the phrase "when the closure is . . . received by the closure retention mechanism" should be construed to mean "when the closure is accepted, acquired, or engaged by the closure retention mechanism." This construction is supported by both the intrinsic and extrinsic evidence.

Claims 5 and 19 recite that the claimed closure is configured to be "removably coupled relative to the drink spout in a closed position" and can be "selectively,"

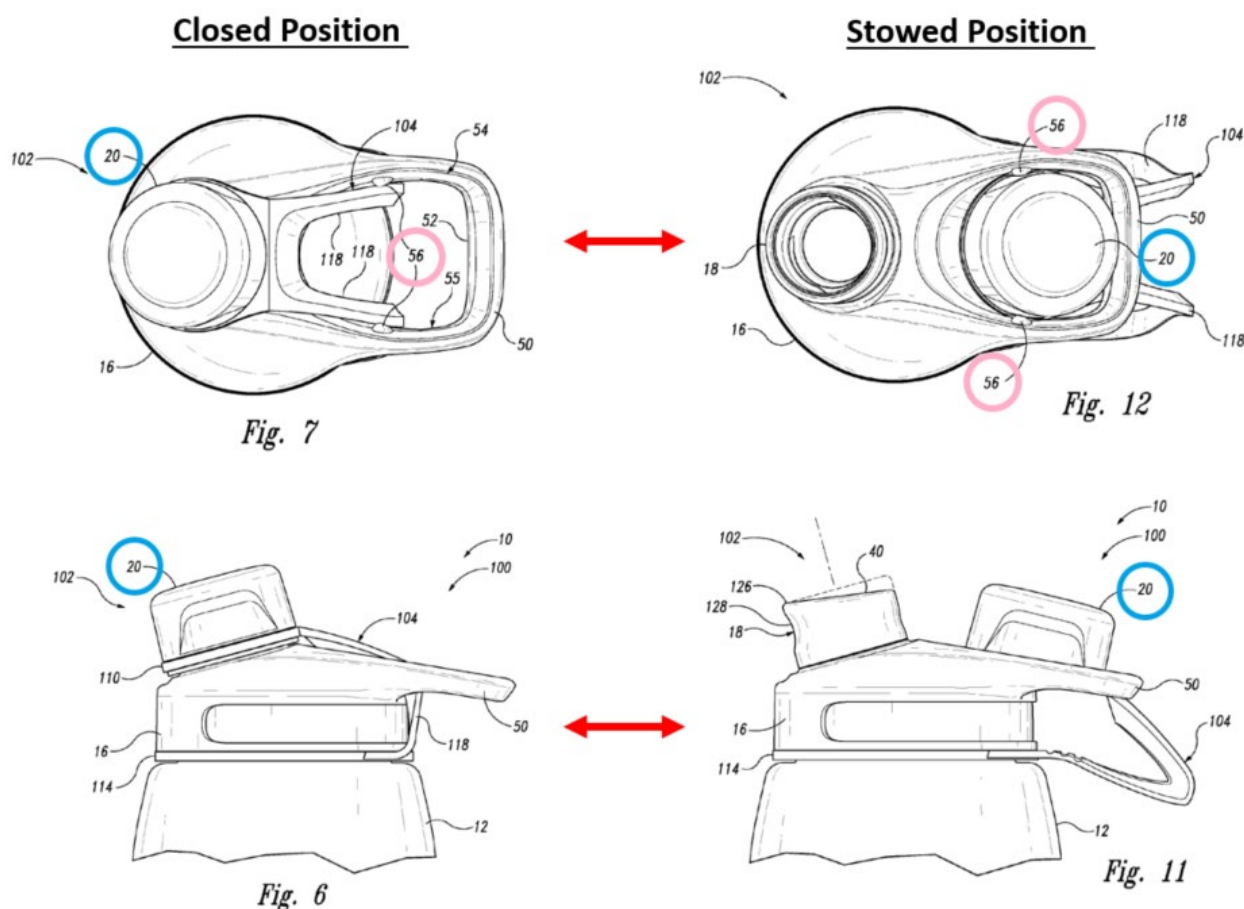
i.e., as a direct or indirect result of user manipulation¹, “removed from the drink spout and received by the closure retention mechanism” so as to “selectively retain the closure in a stowed position.” Thus, the closure must be “received by” the closure retention mechanism “when the closure is selectively removed from the drink spout” to reach the stowed position, and as such, the closure is not always or permanently engaged by or retained by the closure retention mechanism, such as from manufacture. Otherwise, the closure retention mechanism would already always “have” the closure and would not be capable of receiving it.

This is consistent with the specification. As discussed above, spaced-apart tabs 56 on the interior of the handle are disclosed as corresponding structure for the “closure retention mechanism.” *See supra* Sec. V.A. The specification repeatedly describes that the tabs 56 “engage” the closure when it is removed from the spout and moved to the stowed position. Ex.1001 at 8:58-60 (“[T]abs 56 . . . are configured to ***selectively engage*** and retain, or otherwise grip, the closure in the stowed position”); 9:42-44 (“the closure . . . is ***engaged*** by the tabs”); 9:45-48; 11:36-39 (“the closure retention mechanism 54 may be configured to ***engage*** both of the tether and the closure to operatively retain the closure in its stowed configuration.”); 13:29-

¹ The ’252 patent defines this term in this manner. Ex.1001 at 3:23-29.

30; 13:42-43. The specification describes this engagement as occurring through a “friction-fit” or “snap-fit” arrangement, *id.* at 8:52; 9:20; 11:14-16, in which the closure or tabs bend, deflect, or compress when the user moves the closure into engagement with the tabs. *Id.* at 9:30-39. Importantly, this confirms that the closure is not permanently engaged with the tabs, but rather moved into engagement with the tabs (*i.e.*, received).

This description is consistent with the figures, which show that the user can move the closure (20) from its closed position (below left) to its stowed position (below right) where the closure is removed from the spout and received and retained by the tabs 56:



Ex.1001 at Figs. 6-7, 11-12 (annotated).

The extrinsic evidence also confirms this understanding. Dictionaries define the term “receive” as meaning to “acquire,” “accept,” or “get.” Ex.2012 (Merriam-Webster), at 1-2; Ex.2013 (Oxford), at 3, 5, 13-14, 21; Ex.2014 (Cambridge), at 1. Finally, Patent Owner’s declarant, Mr. Jobin, explains that a POSITA would have understood the term “receive/ed” in the context of the ’252 patent to mean the ability of the closure retention mechanism (i.e., tabs 56) to acquire, accept, or engage the closure when it is removed from the spout and moved to the stowed position. Ex.2009, ¶¶80–85.

This term, therefore, should be construed to mean “when the closure is accepted, acquired, or engaged by the closure retention mechanism.”

C. “retain the closure in a stowed position”

This phrase should be construed to mean “to hold or keep the closure in a position removed from the drink spout.”

The plain claim language of claims 5 and 19 makes clear that the closure retention mechanism is configured to selectively retain the closure in a stowed position “when the closure is selectively *removed from the drink spout*.” The claim language also distinguishes the “stowed position” from the “closed position” where the closure is “coupled relative to the drink spout” and “restrict[s] dispensing of drink liquid.” Thus, the claim language requires that the claimed “stowed position” must be “a position removed from the drink spout.”

This is further supported by the specification and figures, discussed above, which describe and depict the closure being removed from the drink spout when moved to the stowed position. The specification also refers to it as “an open position” “[w]hen the closure is uncoupled from the drink spout.” Ex.1001, 6:56-62; Similarly, all of the figures distinguish between the closed position where the closure is coupled relative to the drink spout and the stowed position where the closure is held or kept away from the drink spout. Figs. 6-7 (depicting closed position), 10-13 (depicting stowed position); *see also supra* Sec. V.C (showing annotated figures).

This construction is also supported by the plain and ordinary meaning of “retain” as “to hold” or “to keep” “in a position.” Ex.2015, at 1 (“to keep in possession . . . to hold secure”); Ex.2016, at 2 (“To restrain; to hold back”), 4 (“to hold (something) fixed in a place or position; to prevent from becoming separated or detached”); Ex.2017, at 1. This is also consistent with the plain and ordinary meaning of “stow” as meaning to place or put in a certain place or position, such as to place in a receptacle to be stored. *See* Ex.2021 (“To place; to put in a certain place, position, or situation. . . . To place in a receptacle to be stored or kept in reserve.”); Ex.2020; Ex.2022. Mr. Jobin also confirms this construction is consistent with the understanding of a POSITA. Ex.2009, ¶¶86–91.

VI. PETITIONER HAS FAILED TO PROVE UNPATENTABILITY OF ANY CHALLENGED CLAIM BY A PREPONDERANCE OF THE EVIDENCE

Petitioner has failed to meet its burden to prove its asserted grounds of unpatentability by a preponderance of the evidence, and they should, therefore, be rejected. *See* 35 U.S.C. § 316(e).

A. Grounds 1 and 2 Fail Because Samartgis Fails to Anticipate or Render Obvious Claims 5 and 19

Independent claims 5 and 19 recite “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 when the closure is selectively removed from the drink spout and received by the closure*

retention mechanism.” Petitioner alleges that lug members 15 and 16 of Samartgis shown in the annotated version of Figure 3 below constitute the claimed “closure retention mechanism” (pink). And Petitioner alleges that flap member 20 (including its tracks 23) constitute the claimed “closure” (royal blue).

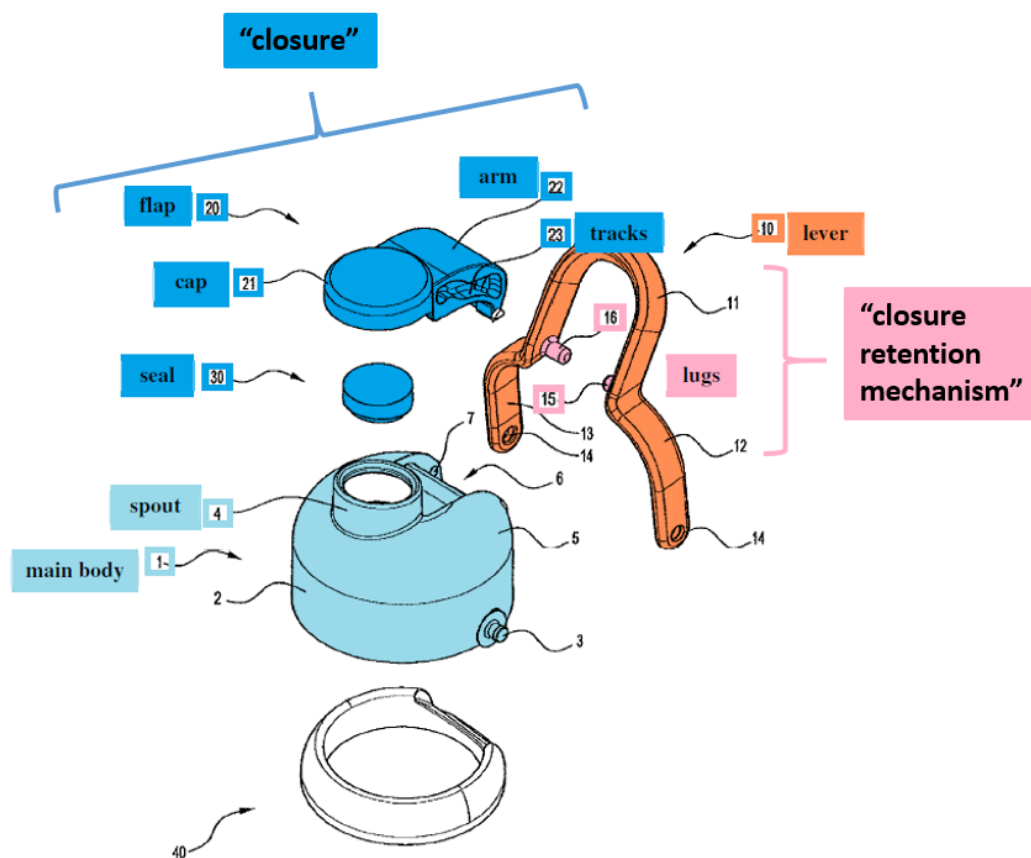


FIG. 3

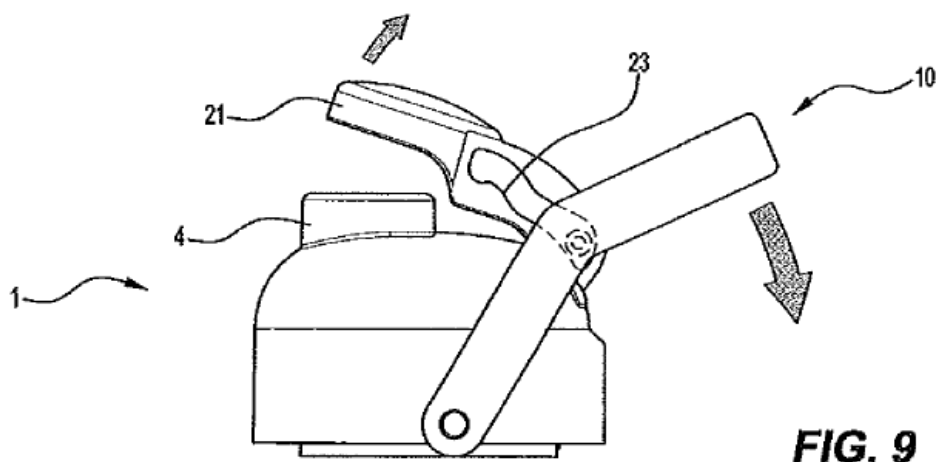
See Ex. 1003, ¶56; Pet., at 7 (both annotated by Patent Owner and citing Ex.1004, Fig. 3).

However, the lug members 15 and 16 and flap 20 identified by Petitioner do not meet the requirements for the claimed closure and closure retention mechanism,

and the lugs 15 and 16 are not equivalent to the tabs 56 of the '252 patent. Finally, Petitioner has failed to identify any differences between claims 5 and 19 and Samartgis that it alleges would have been obvious to a POSITA, nor a motivation to make any modifications to overcome any such differences.

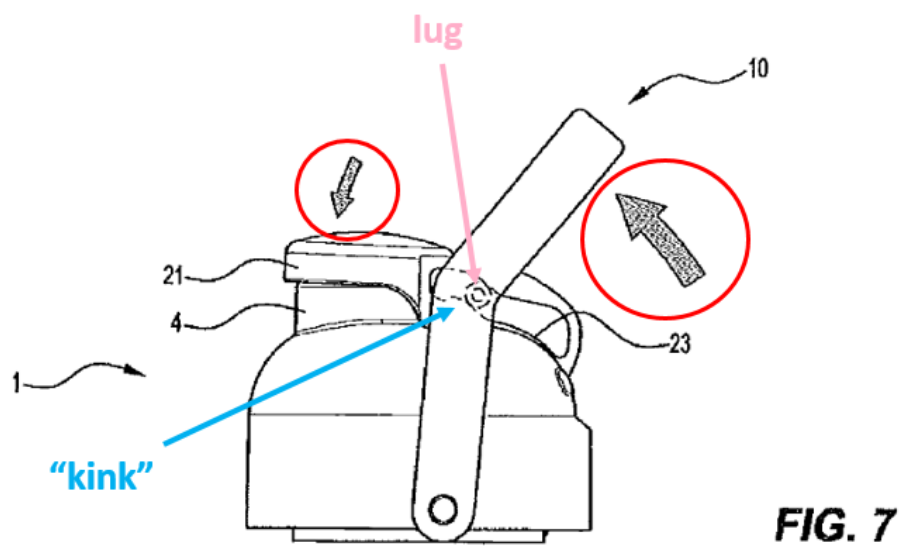
**1. Samartgis Fails to Disclose that the “Closure” is “Retain[ed]”
“in a Stowed Position” by the Closure Retention Mechanism**

Claims 5 and 19 recite that the closure retention mechanism must be configured to “retain the closure in a stowed position.” As discussed above, this should be construed to mean “to hold or keep the closure in a position removed from the drink spout.” *See supra* Sec. V.E. For the claimed “stowed position,” Petitioner and Dr. Vallee rely on an alleged “locking position” of the lugs within the track disclosed by Samartgis that they contend is depicted in Figure 9 of Samartgis. Pet., 34; Ex.1003, ¶¶100-101; Ex.2011, at 98:12-100:14 (“the stowed position is Figure 9 that locking position according to Samartgis that is analogous to the stowed position”), 119:8-17. Petitioner’s alleged “locking position” that they contend is the “stowed position” is shown in Figure 9 below, with the lugs in the rightmost position of the tracks:



Ex.1004, Fig. 9. Dr. Vallee testified he was not relying on any of the other lug positions in the tracks as being the “stowed position.” Ex.2011, 104:16-18.

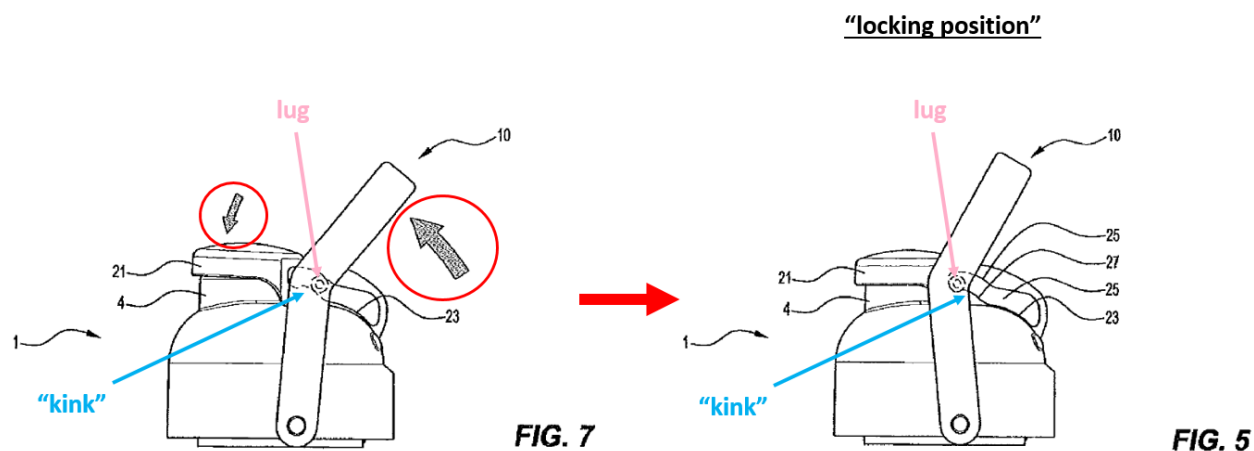
However, Petitioner and Dr. Vallee have misapprehended the location of Samartgis’s “locking position,” and there is no evidence that the cap is held or kept, let alone locked, in the position shown in Figure 9 or that it is held or kept (or locked) in a position removed from the drink spout. Ex.2009, ¶¶92–93. The first reference to any “locking” in Samartgis is in its description of Figure 7: “FIG. 7 is a view, similar to FIGS. 5 and 6, showing the principle behind *the locking action for the assembly.*” Ex.1004, 2:27-28 (emphasis added).



Id., Fig. 7 (annotated). As shown above, Figure 7 depicts the lever/handle and lugs being pushed to the left (red) towards the leftmost position in the track, *not* being pushed to the right towards the rightmost position shown in Figure 9. *Id.*; Ex.2009, ¶93. Samartgis describes the lug being pushed up and over a “kink” (blue above) in the side profile of the track to lock the lug, lever, and cap into place to ensure a load is placed on the cap in the direction of locking to keep it closed during any impact. Ex.1004, 6:15-21; Ex.2009, ¶94; Ex.2011, 110:1-8.

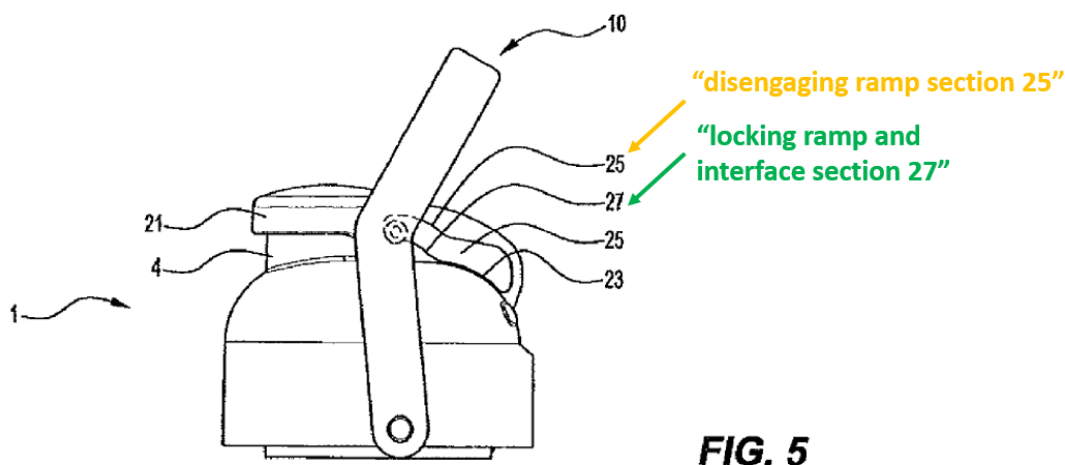
[T]he lever member, which also functions as a carry handle, by having a “**kink**” in its side profile (as shown in the drawings), provides a biased load on **the locking mechanism** (the flap) member when the container or flask is being carried. This ensures a load in the direction of **locking** during any impact, as for example as might be incurred by the container or flask when carried by a jogger or the like.

Ex.1004, 6:15-21. As Dr. Vallee explained, the purpose of this kink at the left end of the track is to provide a locking mechanism to hold the cap shut to prevent spilling of liquid from the bottle. Ex.2011, 106:11-107:5. Specifically, when the user pushes the lever to the left from the position shown in Figure 7 to force the lug up and over the kink to the position shown in Figure 5, the lever, lug, and cap lock into a locking position to hold the cap closed. Ex. 1004, 2:27-28, 3:58-4:4, 6:15-21, Figs 5 & 7; Ex.2009, ¶94; Ex.2011, 110:1-8.

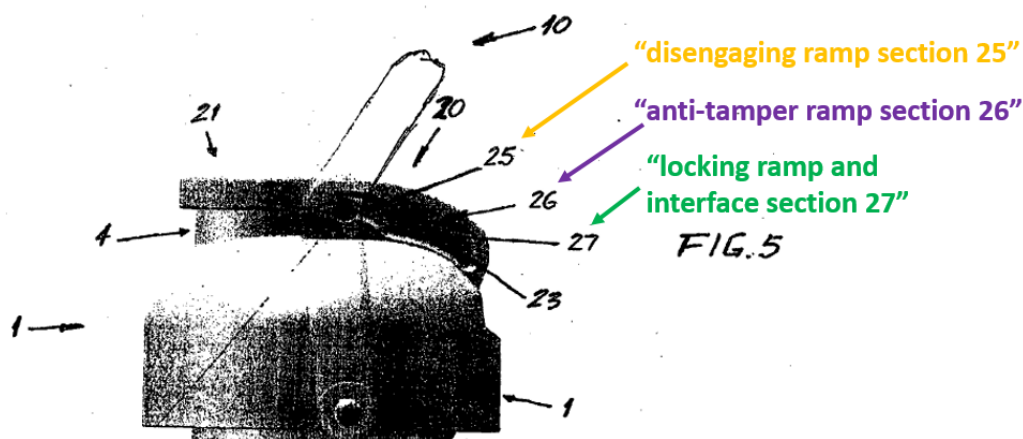


Ex.1004, Figs 5 & 7 (annotated); Ex.2009, ¶94. Samartgis describes that its tracks 23 has “a number of specific elements or sections” and describes “a disengaging ramp section 25, sited closed to the cap” that lifts the cap “in an upward direction,” followed by “a track or flat” (unlabeled), “an anti-tamper ramp 26 which allows the lever member 10 to continue and lock the flap member 20 in place should that flap member 20 be snapped closed by action directly thereon,” and a “fourth section” that is “a locking ramp and interface section 27.” Ex.1004, 3:58-4:4; Ex.2009, ¶95. The

disengaging ramp section 25 and locking ramp and interface section 27 are labeled in Figure 5 below.



Ex.1004, Fig. 5 (annotated); *see also id.* at 2:25-26 (Fig. 6 shows “movement of the lever to the disengaging position”), Fig. 6; Ex.2011, 112:5-114:3 (describing disengagement from the kink); Ex.2009, ¶95. The anti-tamper ramp 26 is not labeled in Samartgis, but the original drawings submitted for Samartgis do label it, as shown below:



Ex.2018 (Samartgis File History Excerpt), at 4 (annotated); Ex.2009, ¶96. Notably, there is no specific element, structure, or section (such as one like the “kink” for the locking position shown in Figure 5) that is depicted or described in Samartgis that locks the lug of the lever into the rightmost position of the track, and Figure 9 would not have been understood to depict a “locking position.” Ex.2009, ¶97. Thus, there is nothing (other than the user holding the lever in place) to hold or keep the cap/closure in a position removed from the drink spout in the alleged stowed position of Figure 9 argued by Petitioner and Dr. Vallee. *Id.* Petitioner, therefore, has failed to prove by a preponderance of the evidence that Samartgis’s Figure 9 is “a stowed position” in which the “closure” is “retain[ed]” by the alleged closure retention mechanism. *Id.*

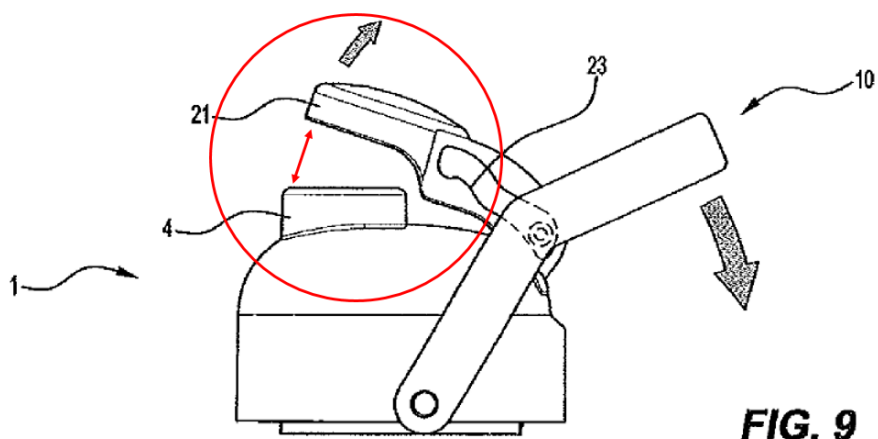
Petitioner and the Board, in its institution decision, respectfully, misapprehend the meaning of a disclosure in column 4 of Samartgis regarding its “locking position” and suggest that it describes Figure 9 as the locking position. Pet. 34; Paper 7, at 12-13. However, this disclosure states:

When the lever member 10 is, for example, in the position shown in FIG. 8, then *the flap member 20 can be pushed into its “closed” position*, thereby to seal the spout or neck 4 of the main body member 1. *As the lever member 10 is moved further, to for example the position as shown in FIG. 9, it can be returned to the locking position, with the actuating pins or lug members 15 and 16 engaging the anti-*

tamper ramp section 25, lifting the flap member 20 and allowing the lever member 10 to pass through that section without any possibility of jamming.

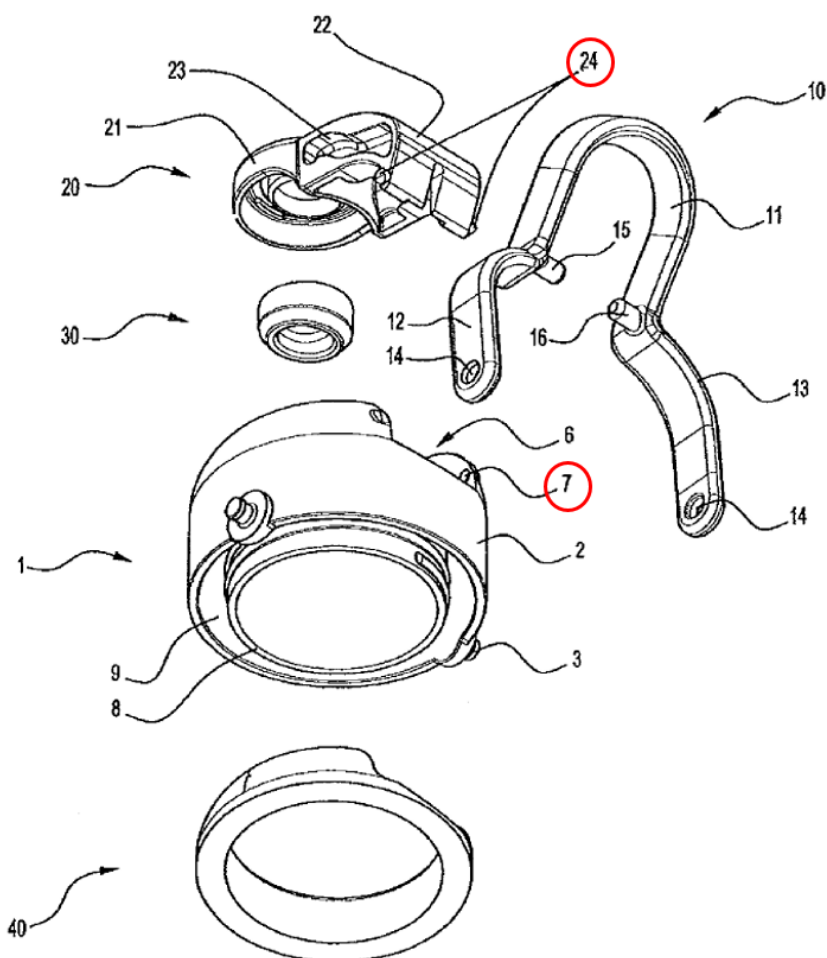
Ex.1004, 4:25-34. This disclosure does not state that Figure 9 *is* “the locking position” of Samartgis, but instead describes pushing the flap member into its “closed position” (i.e., Fig. 5) by the lever being “*returned to the locking position*” by the lug members engaging the ramp section and allowing the lever to pass through that ramp section 25. Ex.2009, ¶98. That is, when Samartgis refers to “the locking position” in the above passage, it is referring to the only “locking position” previously described before that passage in Samartgis, which is the locking position described above in Figure 5 with the lug locked in place by the kink. *Id.* Therefore, Samartgis would not be understood to describe Figure 9 as a “locking position.” *Id.*

Indeed, there is no apparent logical reason why the bottle would have been designed to lock the cap in the partially open position shown in Figure 9 where it fails to provide sufficient clearance to allow the user to drink from the bottle comfortably without the cap hitting the user in the face. Ex.2009, ¶98.



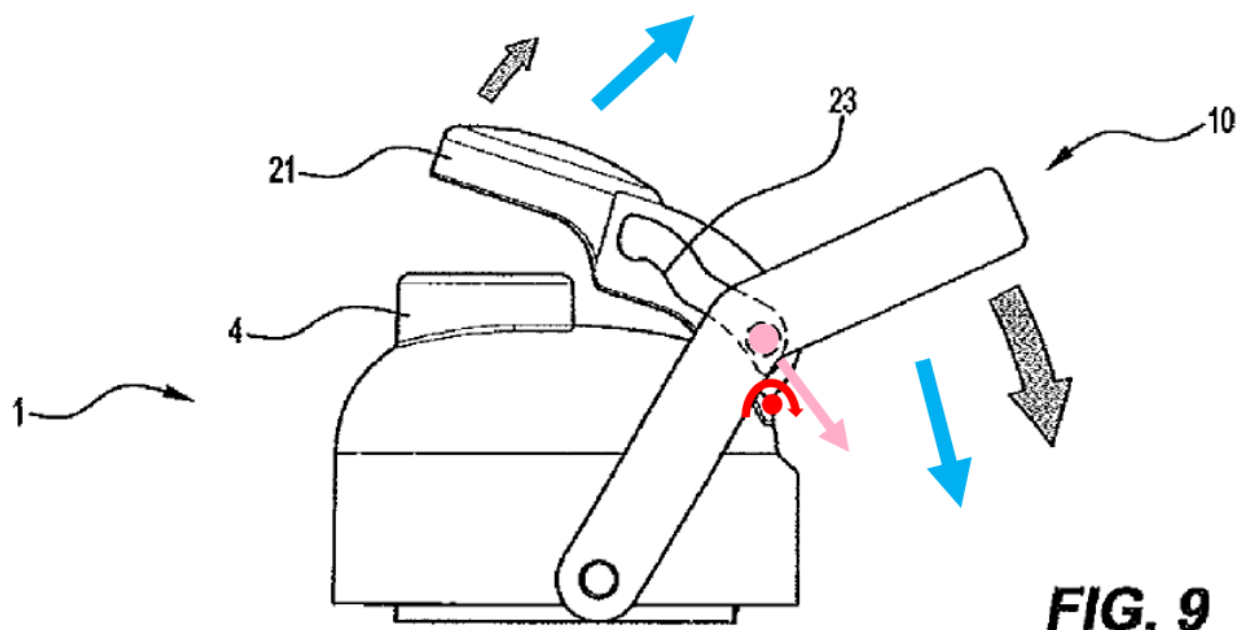
Ex.1004, Fig. 9 (annotated).

Further, as shown below, the protrusions 24 (red) on the flap member 20 rotate within the apertures 7 (red) to create a hinge about which the flap member rotates, and there is no structure, such as a stop, that prevents the flap member from continuing to rotate to open more fully to the right, beyond the position shown in Figure 9, as shown below, if force is applied to cause it to continue to rotate about the hinge. Ex.2009, ¶99; Ex.1004, Figs.1-4, 9.



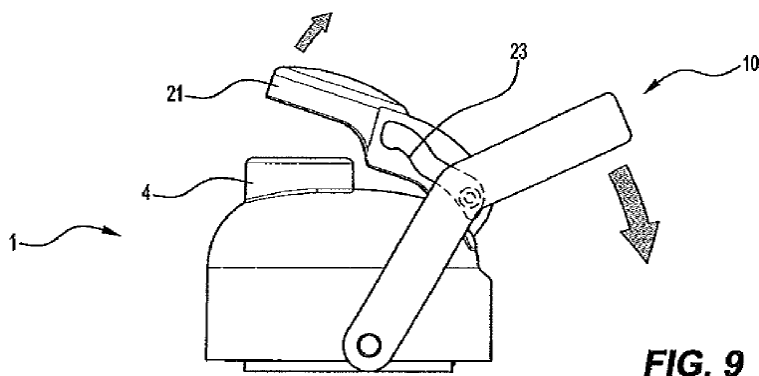
Ex.1004, Fig. 4 (annotated).

As shown below, if the user continues to apply downward force to the lever from the position shown in Figure 9, the force applied to the lug (pink) would be offset from the axis of rotation (red) created by the protrusions 24 rotating within the apertures 7, which a POSITA would have understood would cause the cap to continue rotating about this axis (red) to rotate to a more fully open position given that there is no structure present that prevents such further rotation. Ex.2009, ¶100.



Ex.1004, Fig. 9 (annotated). Dr. Vallee agreed that the lugs are offset from the axis of rotation of the cap but when confronted with this fact, he testified he simply “couldn’t say” whether the cap is able to move farther to the right to open more fully and that Figure 9 “could be” as far as the cap can open. Ex.2011, 136:17-21; 139:7-21. And in testifying to such, Dr. Vallee admitted that “I don’t think Samartgis calls it a locking position.” Ex.2011, 139:7-11. A POSITA would have understood that it is highly likely that this design would have allowed the user to continue to apply downward force on the lever from the position shown in Figure 9 to more fully rotate and open the cap so as to allow the user to drink from the bottle comfortably without having the cap hit them in the face. Ex.2009, ¶101.

In addition, given that there is nothing described in Samartgis to lock or hold the cap and lever in place in the position shown in Figure 9, a POSITA would have understood that if the user lets go of the lever when it is in the position shown in Figure 9, the flap member 20 could either potentially close shut or open further depending on the relative weights of the flap member 20 and lever 10. Ex.2009, ¶102.



Ex.1004, Fig.9. For example, if the flap member 20 is made of a heavier material than the “preferably . . . plastic material” of the lever, then the flap’s weight could tend to cause it to close when the user releases the lever. Ex.2009, ¶103. Because Samartgis does not describe the relative weights of these components, a POSITA would have understood Samartgis does not disclose whether the cap would close if the user lets go of the lever, given that, as discussed above, there is nothing holding or keeping the cap and lever in the position shown in Figure 9. Ex.2009, ¶103.

The above demonstrates that Figure 9 would not be understood by a POSITA to be what Samartgis calls its “locking position,” which is, instead, the position

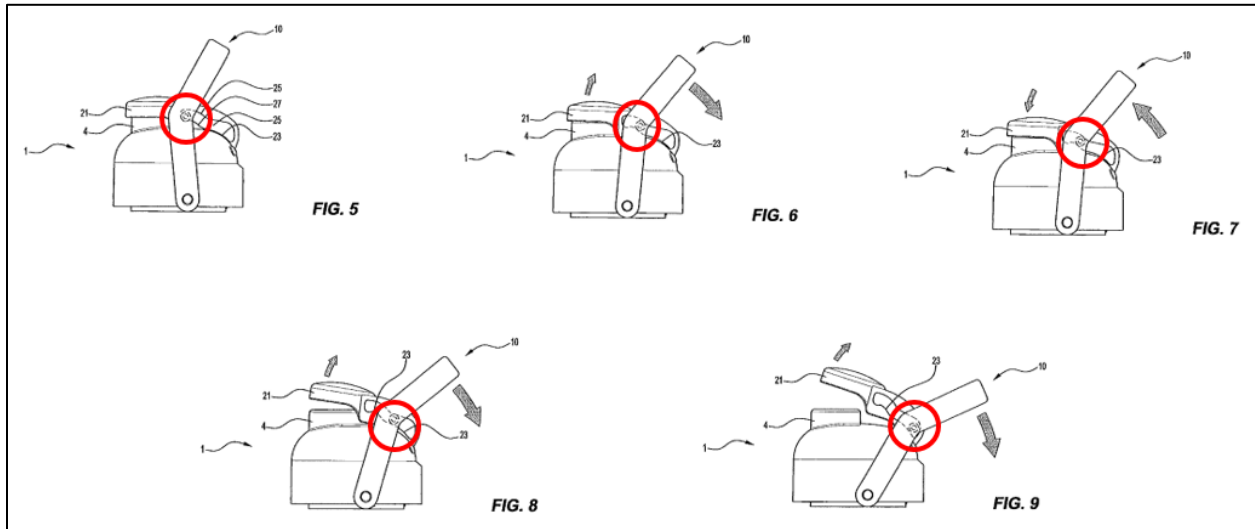
shown in Figure 5, and Petitioner has failed to prove by a preponderance, i.e., that it is more likely than not, that Figure 9 depicts a “closure” “retain[ed]” by a “closure retention mechanism” in a “stowed position,” i.e., in which the closure is held or kept in a position removed from the drink spout. Ex.2009, ¶104.

2. Samartgis Fails to Disclose a “Closure” that is “Received By” a Closure Retention Mechanism Under Petitioner’s Theory

Next, Petitioner fails to show that Samartgis discloses a closure that “*is . . . received by the closure retention mechanism.*” Although Petitioner contends that Samartgis’s alleged closure retention mechanism, i.e., lug members 15 and 16, allegedly “retain” Samartgis’s alleged closure, i.e., flap member 20 (which they do not, as discussed above), Petitioner and its declarant *never* contend nor explain how the flap member 20 “is . . . received by” the lug members 20 “*when* the closure is selectively removed from the drink spout.” See Pet., 33–35; Ex.1003, at ¶¶98–102. Because of this failure of proof alone, Petitioner has failed to establish unpatentability by a preponderance of the evidence of any Challenged Claim based on Samartgis. 35 U.S.C. §§ 312 (petition must identify grounds “with particularity”) & 316(e) (petitioner bears burden by a preponderance).

Further, even if the Board gives Petitioner the benefit of the doubt, Samartgis’s alleged closure, i.e., flap member 20, is not “received by” Samartgis’s alleged closure retention mechanism, i.e., lug members 15 and 16, “*when* the closure

is selectively removed from the drink spout” under a proper construction. As discussed above, the proper construction is “when the closure is accepted, acquired, or engaged by the closure retention mechanism.” *See supra* Sec. V.B. Samartgis does not satisfy this construction because the lugs 15 and 16 are ***always*** within the tracks 23 and, thus, can never accept, acquire, or come into engagement with (i.e., receive) the tracks 23 of the flap member 20 (alleged “closure”). Ex.1004, 4:12–19 (“lug members 15 and 16 . . . move along the tracks 23 of flap member 20”), 5:64-6:5 (same), 4:23–25 (describing “controlled movement” of the lever “along the tracks 23”); Ex.2011, 155:10-13 (“Q . . . In Samartgis the lugs 15 and 16 always move within the track of the flap member 20, correct? A That is correct.”); Ex.2009, ¶105. That is, the lugs can never accept, acquire, or engage the tracks of the cap “when the closure is selectively removed from the drink spout” because they are always in tracks 23. In addition to the written description of Samartgis discussed above, the figures also depict permanent engagement of the lugs with the track such that the lugs cannot accept or acquire the tracks:



Ex. 1004, Figs. 5–9 (annotated); Ex.2009, ¶107. This permanent engagement between the alleged closure and alleged closure retention mechanism in Samartgis is contrary to the '252 patent, which describes moving the closure into *engagement* with the tabs 56 when the user removes the cap from the spout, as discussed above. Ex.2009, ¶108.

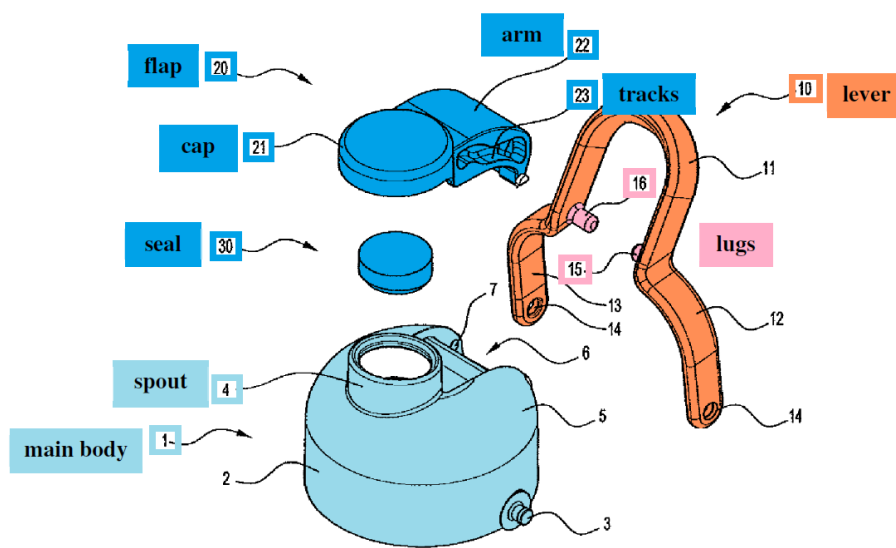
At institution, the Board preliminarily disagreed with Patent Owner's argument that Samartgis's alleged closure cannot be received by its alleged closure retention mechanism, because the Board: i) believed that Petitioner had relied on Samartgis's tracks, in addition to Petitioner's reliance on Samartgis's lug members, as satisfying the claimed "closure retention mechanism," and ii) believed that the tracks "receive" the lug members:

[W]e note that Trove relies not only on Samartgis's lug members to satisfy the claimed "closure retention mechanism," but also on Samartgis's tracks, which receive and cooperate with the lug members

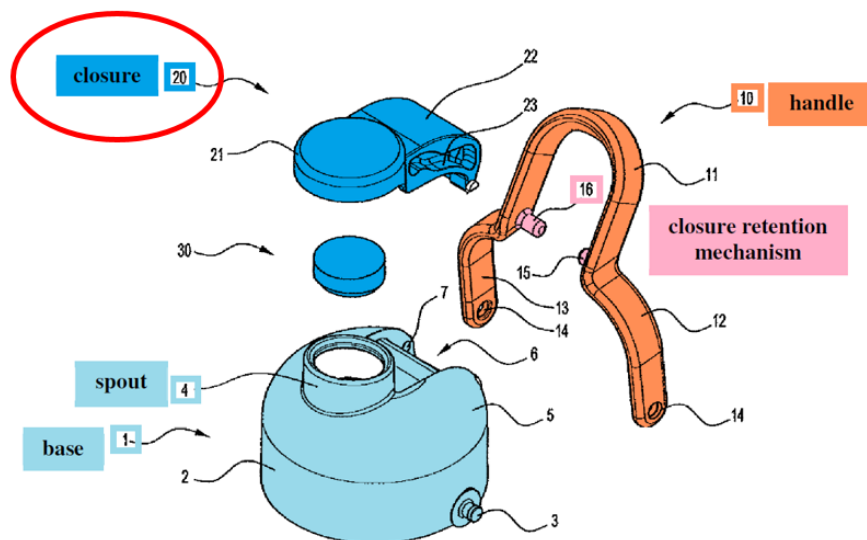
to open and retain closure 20 away from drink spout 4. *See* Ex. 1003 ¶¶ 100–101 (describing how lug members 15, 16 interact with tracks 23).

Paper 7 at 12.

Respectfully, the Board misapprehended Petitioner’s theory. Petitioner contends that the tracks 23 are part of the flap member 20 and are, thus, part of the alleged “closure,” *not* part of the alleged “closure retention mechanism.” The Petition and Dr. Vallee contend that flap member 20 constitutes the “closure” and that lug members 15 and 16 constitute the “closure retention mechanism.” Pet., 31, 33; Ex.1003, ¶¶93, 99. Petitioner and Dr. Vallee admit that the tracks 23 are part of the flap 20, which is the alleged “closure.” Pet., 25; Ex.1003, ¶61. This is consistent with the disclosure of Samartgis, which confirms the tracks 23 are included in the arm 22 that is included in the flap 20. Ex.1004 at 3:42–47. Further, as Dr. Vallee testified, the cap member 21, arm 22, and tracks 23 are all colored the same royal blue color in Petitioner’s annotated Figure 3 (below) to depict that they are all parts of the same flap member 20 (i.e., the alleged “closure”). Ex.2011, at 84:12–21, 84:22–85:5.



Pet., 25; Ex.1003, ¶56 (both citing Ex.1004, Fig. 3 (annotated)). And elsewhere Petitioner clearly labels these royal blue components as being the “closure”:



Pet., 7 (annotated). Because the tracks 23 are part of the alleged “closure,” they are *not* part of the alleged “closure retention mechanism.” Ex.2011, at 85:11–87:11 (“Q

. . . [T]he tracks 23 are not part of the closure retention mechanism because they are part of the closure, right? A Yes.”).

Therefore, the Board relied on a mistaken understanding of Petitioner’s theory when it preliminarily found that the tracks 23 were part of the alleged closure retention mechanism and that the tracks “receive” the lugs. Further, the Board’s suggestion that the tracks (part of the “closure”) allegedly “receive” the lugs (alleged “closure retention mechanism”), Paper 7, at 12, is irrelevant because the claims do not require the “closure” to “receive” the “closure retention mechanism” but instead require the opposite.

3. The Lugs in Samartgis are not a “Closure Retention Mechanism,” Because they are not Equivalent to the Spaced-Apart Tabs 56 in the ‘252 Patent

Petitioner incorrectly contends that lug members 15 and 16 “are at least equivalent to the structure identified in the specification (*i.e.*, the two spaced-apart tabs [56] on the handle).” Pet., 35 (citing Ex.1003 ¶101).

As discussed above, Patent Owner does dispute for purposes of this proceeding: i) that the “closure retention mechanism” is a means-plus-function term governed by § 112(f), and ii) that this term requires the corresponding structure of spaced-apart tabs 56 on the interior of the handle in the ’252 patent, which is the construction applied by the Petition. *See supra* Sec. V.A. Because spaced-apart tabs

56 are not present in Samartgis, Petitioner resorts to arguing that lugs 15 and 16 are a structural “equivalent” under § 112(f).

Lug members 15 and 16 are not an “equivalent” to the spaced-apart tabs 56 in the ‘252 patent because lug members 15 and 16 do not perform “the identical function, in substantially the same way, with substantially the same result” as the spaced-apart tabs 56. *Kemco Sales, Inc. v. Control Papers Co.*, 208 F.3d 1352, 1364 (Fed. Cir. 2000).

First, Samartgis “must disclose the recited function *identically*.” *Transclean Corp. v. Bridgewood Servs., Inc.*, 290 F.3d 1364, 1372 (Fed. Cir. 2002) (emphasis added). As explained *supra* in Sections VI.A.1 through VI.A.2, lug members 15 and 16 do not perform the identical function 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.2009, ¶111. For at least this reason, lug members 15 and 16 are not equivalent to spaced-apart tabs 56 and are, thus, not a “closure retention mechanism.”

Second, Samartgis’s lug members 15 and 16 do not perform the required function in substantially the same way as spaced-apart tabs 56. In the ‘252 patent, the spaced-apart tabs form a portion of the closed perimeter inside the handle and narrow the width of the perimeter to retain the closure by way of a snap-fit or

friction-fit arrangement. Lug members 15 and 16 do not function in substantially this same way. *Id.*, ¶112.

In particular, tabs 56 “*extend[] from the closed perimeter . . . [and] may be integral to the handle*” and “*are configured to selectively engage and retain, or otherwise grip, the closure in the stowed position*” within the closed perimeter, as shown in Figure 7 below. *Id.*; Ex. 1001, 8:61-9:1, 8:58-60, Figure 7. The closure “*may have a maximum width that is greater than the distance between the spaced-apart tabs,*” so the tabs minimize the width of the closed perimeter to hold the closure in place. Ex.2009, ¶113; Ex. 1001, 9:30-37. “*Stated differently, the tabs nominally may be spaced-apart by less than the lateral dimension of the closure,*” “*so that when the closure is positioned between and/or otherwise in engagement with the tabs, the tabs engage the closure across the maximum width, such as with the tabs resiliently deflecting, bending, or compressing to accommodate the greater width of the closure.*” Ex.2009, ¶113; Ex. 1001, 9:28-37. As a result, the configuration in the ‘252 patent “*provid[es] a friction-fit arrangement between the closure and the handle*” for stowing the closure. Ex.2009, ¶113; Ex. 1001, 9:19-23, 13:31-34; FIG. 7.

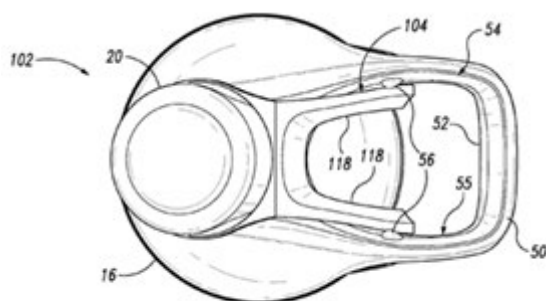


Fig. 7

Ex.1001 at Fig. 7.

Samartgis's lug members 15 and 16 do not interact with the closure (flap member 20) in substantially the same way as spaced-apart tabs 56 because, as shown in Petitioner's annotated Figure 3 of Samartgis and Figures 5 through 9, the lug members 15 and 16 do not engage with the closure through a friction-fit or snap-fit arrangement to hold the closure in place by narrowing the width of the closed perimeter of the handle. Ex.2009, ¶114. Lug members 15 and 16 are merely "actuating pins" that rest inside tracks 23 (whether the cap is open or closed) and move within the tracks by movement of the lever member 10 (handle). Specifically, "[a]pplication of hand pressure to the lever member 10 (handle) will result in rotation of that lever member 10 relative to the main body member 1, which in turn will result in movement of the lug members 15 and 16 of lever member 20, with those lug members 15 and 16 being able to move along the tracks 23 of flap member 20." Ex.2009, ¶114; Ex. 1004, 4:12-17; *see* Ex.2011 (Vallee Tr.), 155:21-156:21. Unlike the friction-fit or snap-fit way described for the tabs 56 in the '252 patent, lug

members 15 and 16 operate on the flap 20 through a rotational force of lever member 10 causing lug members 15 and 16 to rotate and slide through the lateral tracks 23. Ex.2009, ¶114; Ex.2011 (Vallee Tr.), 156:22-157:10.

Further, the tabs 56 allow the closure to be engaged and disengaged with the handle, but the lugs 15 and 16 are always engaged with the track 23 of the closure, preventing the user from being able to engage or disengage the closure from the handle. Ex.2009, ¶115; Ex.2011 (Vallee Tr.), at 155:10-13.

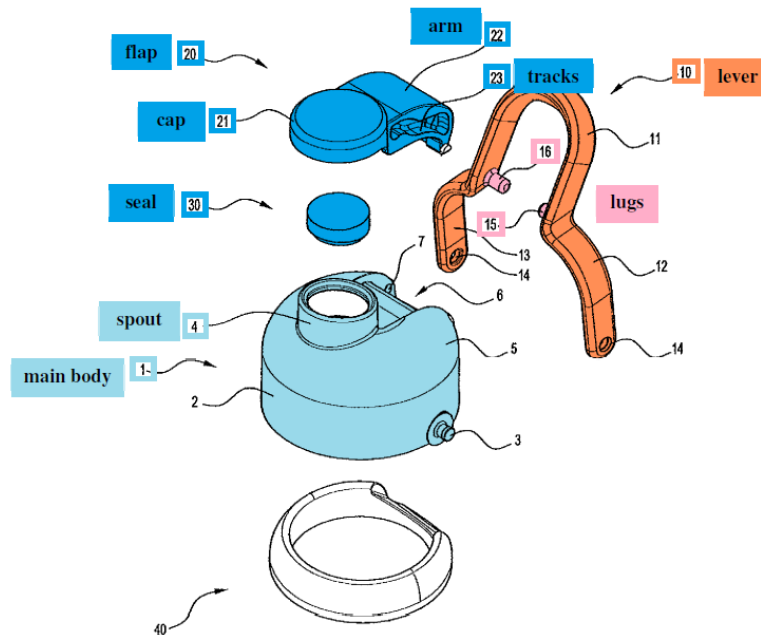


FIG. 3

Ex.1003, ¶ 56.

Therefore, lug members 15 and 16 operate in a substantially different way from the spaced-apart tabs 56. Ex.2009, ¶¶110–115.

Third, Samartgis' lug members 15 and 16 do not achieve substantially the same result as the spaced-apart tabs 56. In the '252 patent, the result of performing the required function with the spaced-apart tabs 56 is receiving and holding the closure in a stowed position within the closed perimeter of the handle when the closure is selectively removed from the drink spout. Lug members 15 and 16 in Samartgis do not achieve substantially the same result of keeping the flap 20 within the closed perimeter of the handle as lever member (10) rotates. Ex.2009, ¶116. Further, as discussed above, the lug members 15 and 16 achieve the result of locking the cap in the *closed position* when the lever/handle is pushed all the way to the left, over the "kink," into the closed position of Figure 5, but do not achieve the result of locking the cap into the alleged "stowed position" argued by Petitioner and Dr. Vallee. *See supra* Sec. VI.A.3; Ex.2009, ¶117.

For these reasons, Samartgis's lug members 15 and 16 do not achieve substantially the same result as the spaced-apart tabs 56 of the '252 patent. Ex.2009, ¶¶110, 115–117.

4. Petitioner Fails to Argue Obviousness over Samartgis with Any Particularity

As a conclusory fallback position, Petitioner makes a blanket assertion for Ground 1 that "[i]f 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.” Pet., 36. Petitioner’s conclusory and non-specific obviousness argument is a “catch-all” position that fails the “particularity” requirement of § 312 and fails to meet Petitioner’s burden to prove unpatentability by a preponderance of the evidence. 35 U.S.C. § 312(a)(3); *see also* *Adaptics Ltd. v. Perfect Co.*, IPR2018-01596, Paper 20 (PTAB March 6, 2019), at 19-20 (designated informative) (rejecting “catch-all” obviousness grounds that “fail[ed] to specify what Petitioner regards as the difference(s) between [the alleged anticipatory references] and the challenged claims”).

Petitioner’s reliance on a single conclusory paragraph in Dr. Vallee’s declaration (Ex. 1003) does not cure these defects. Pet., 35 (citing Ex.1003, ¶103). Pet., 35. Like the Petition, Dr. Vallee makes only conclusory and conditional statements that “it would have been within the knowledge of one skilled in the art to modify the Samartgis device to achieve such features because the claimed features were well known in the art and represented simple, known techniques for beverage containers having removable cap assemblies.” Ex. 1003, ¶103. Absent is any explanation on a limitation-by-limitation basis which claim elements would have been obvious or why. This is insufficient. *See* 37 C.F.R. § 42.65(a) (“Expert testimony that does not disclose the underlying facts or data on which the opinion is based is entitled to little or no weight.”); *see also* *TQ Delta, LLC v. CISCO Sys., Inc.*, 942 F.3d 1352, 1362 (Fed. Cir. 2019) (reversing obviousness determination in IPR

because expert’s “conclusory statements and unspecific expert testimony” were “inadequate to support the Board’s factfinding regarding motivation to combine”); *DSS Tech. Mgmt., Inc. v. Apple Inc.*, 885 F.3d 1367, 1376 (Fed. Cir. 2018) (reversing obviousness on same basis).

Further, nowhere does Petitioner (or Dr. Vallee) identify the motivation or why one of ordinary skill would have had a reasonable expectation of success, let alone for which claim limitations. This is yet another reason to reject Petitioner’s obviousness grounds. *Xerox Corp. v. Bytemark, Inc.*, IPR2022-00624, Paper 9 (PTAB August 24, 2022) (precedential); *see also Wireless Seismic, Inc. v. Fairfield Indus., Inc.*, IPR2014-01205, Paper 8 (PTAB Jan. 14, 2015), at 29 (the reasons a POSITA would have made modifications “cannot be discussed sufficiently or rationally without specifically identifying all the differences between the claimed subject matter and the prior art.”).

Petitioner, therefore, has failed to prove unpatentability by a preponderance of the evidence with regard to independent claims 5 and 19 for Grounds 1 and 2.²

² Because claims 16-18 depend from claim 5, Petitioner’s failures with respect to claim 5 also apply to and demonstrate the patentability of claims 16-18 over Ground 2.

B. Grounds 3 and 4 Fail Because Leoncavallo Does Not Disclose or Render Obvious All the Limitations of the Challenged Claims

Leoncavallo does not anticipate or render obvious any of claims 5–7, 16, and 19 (Ground 3). In addition, Leoncavallo in view of Miller does not render obvious either of claims 17 and 18 (Ground 4). As explained below, Petitioner fails to meet its burden of proof, and the Board should uphold the patentability of the Challenged Claims over Grounds 3 and 4.

1. Leoncavallo does not disclose or render obvious the required *closure retention mechanism* because it lacks the same or equivalent structure

Leoncavallo does not anticipate or render obvious claims 5 and 19 because it does not disclose or render obvious a “closure retention mechanism.” *See* Ex.2009 ¶¶118–132. Contrary to Petitioner’s arguments (*see* Pet., 67–69), Leoncavallo’s alleged “closure retention mechanism,” detents 90, are not the same as, or equivalent to, the spaced-apart tabs 56 on the interior of the handle in the ’252 patent. *See Fresenius USA, Inc. v. Baxter Int’l, Inc.*, 582 F.3d 1288, 1299 (Fed. Cir. 2009) (“[A] challenger who seeks to demonstrate that a means-plus-function limitation was present in the prior art must prove that the corresponding structure—or an equivalent—was present in the prior art.”). Detents 90 do not perform the identical recited function in substantially the same way as the “tabs 56,” nor do they achieve substantially the same results.

Leoncavallo describes its flip cap 68 as being “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).” Ex.1005, 4:60–65. Dr. Vallee testified that he is relying on the “open position” depicted in Figure 3 (below, right) of Leoncavallo as constituting the claimed “stowed position.” See Ex.2011, 161:12–15 (“Q. [] Is it your opinion that the stowed position of Leoncavallo is the open position shown in figure 3? A. Yes.”); see also *id.*, 165:22–166:8.

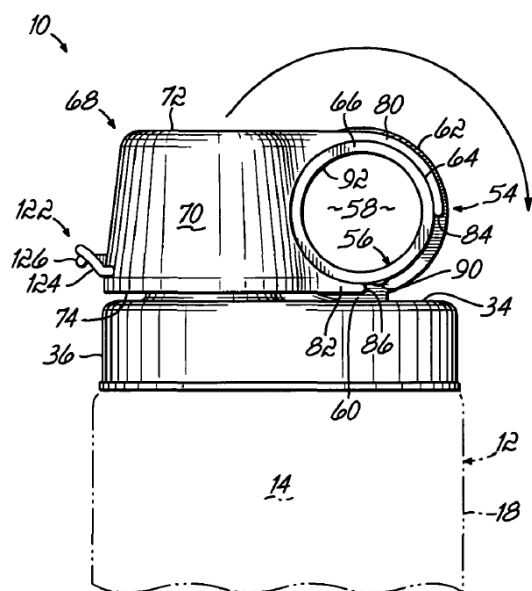


FIG. 2

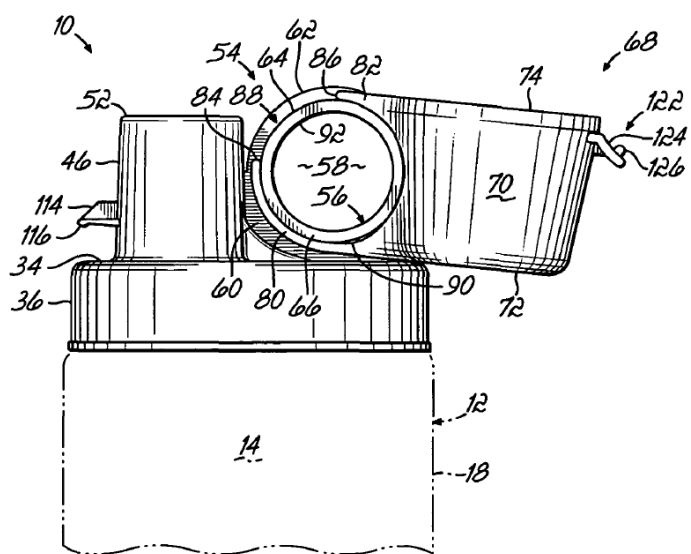


FIG. 3

Ex.1005, Figs. 2–3.

The '252 patent teaches that tabs 56 define a portion of a closed perimeter of the handle. For example, the specification discloses that tabs 56 “*extend[] from the closed perimeter . . . [and] may be integral to the handle.*” Ex. 1001, 8:61–65 (emphasis added). These tabs “are configured to selectively engage and retain, or

otherwise grip, the closure in the stowed position” within the closed perimeter, as shown in Figure 7 below. Ex.1001, 8:58–60 (emphasis added); *see id.*, Figs. 2, 7. The closure “may have a maximum width that is greater than the distance between the spaced-apart tabs,” so the tabs minimize the width of the closed perimeter to hold the closure in place. *Id.*, 9:30–37. The ’252 patent describes these embodiments as examples of retaining the stowed closure using a snap-fit or friction-fit arrangement. *Id.*, 8:49–52.

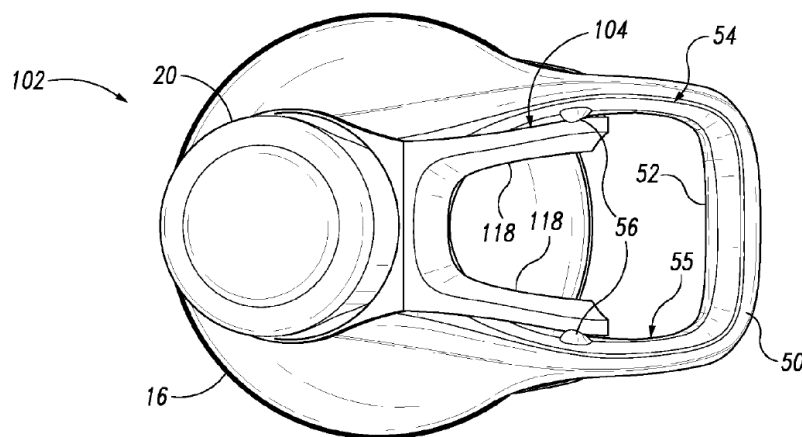


Fig. 7

Ex.1001, Fig. 7.

a. Detents 90 do not perform the function in substantially the same way as tabs 56

Contrary to Petitioner’s assertion, the tabs 56 of the ’252 patent do not “provide the same type of frictional engagement” as the detents 90 of Leoncavallo. Pet., 69; Ex.2009, ¶¶118–125. Nor do the detents 90 perform the recited function in substantially the same way as tabs 56. Each of the detents 90 is a “rib or other suitable

structure [that] project[s] *outwardly* from the outer arcuate surface 64 of the loop 54 on opposite sides of the annular rib 62,” which pushes outwardly against connector 80 for “frictional engagement.” Ex. 1005, 5:33-41; *see* Pet., 69. That is, as shown in Petitioner’s annotated version of Figure 3 below, the detents 90 are on the *exterior* of the handle in Leoncavallo, unlike the tabs 56 which are on the *interior* of the handle in the ’252 patent, causing the detents 90 to exert outward frictional force, rather than the inward frictional force of tabs 56. Ex.2009, ¶121. Further, unlike the tabs 56, which grip the portion of the closure itself that covers the spout in the ’252 patent, the detents 90 engage in frictional contact (when the flip cap is sufficiently rotated) with an elongated connector member 80 of the flip cap 68, rather than gripping the portion of flip cap 68 that actually covers the spout in Leoncavallo. Ex.2009, ¶122.

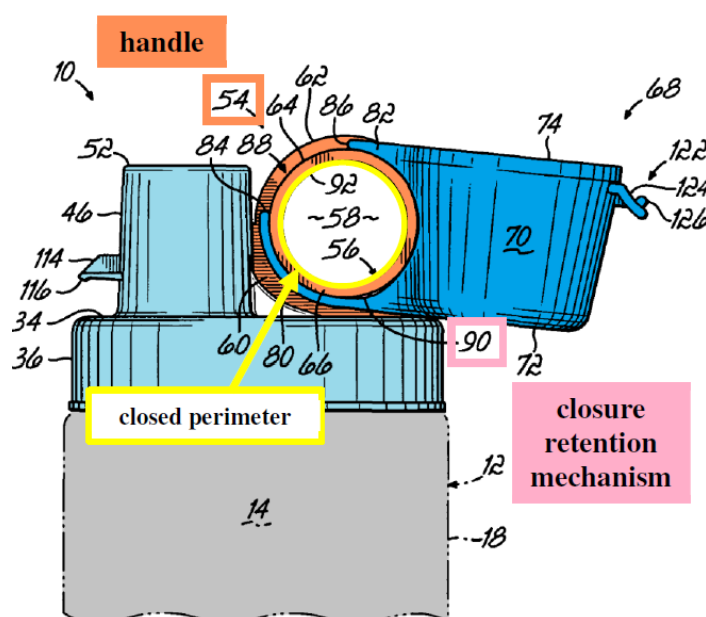


FIG. 3

Pet., 71. In addition, the detents 90 contact the connector member 80 of the flip cap 68 when the cap is in many different positions—from the time the detents 90 first contact the flip cap 68 when it is in a partially open position all the way until the cap is rotated to the fully open position shown in Figure 3 that Petitioner contends is the claimed “stowed position.” This continuous frictional engagement with the connector member of the cap in Leoncavallo as the cap continues to open works in a substantially different way than the tabs 56, which create a very simple and quick snap-fit or friction-fit arrangement in which the closure is either gripped within the handle in a stowed position or popped out or released by the user, rather than providing for varying degrees of openness of the closure. Ex.2009, ¶¶123–124.

As such, the detents 90 of Leoncavallo do not function in substantially the same way as the tabs 56 because of numerous reasons, including at least the following:

- the frictional engagement by the detents 90 is on the outside of the handle, rather than on the inside of the handle as with tabs 56, causing the detents to exert an outward frictional force, rather than the inward frictional force of tabs 56,
- the flip cap is always external to the handle and never retained within the handle in Leoncavallo like it is by the tabs 56 in the '252 patent,
- the engagement of the detents 90 is with a connector member portion rather than the actual spout-covering portion of the closure as with tabs 56,
- the detents 90 and connector member 80 provide for a continuous frictional contact through many varying degrees of openness, while the tabs 56 provide a quick snap-fit or friction-fit arrangement allowing the closure to be gripped or popped out from the handle in a binary, rather than a lengthy continuous fashion, and
- the detents 90 are positioned at approximately the same location relative to the handle and engage in friction at that single location, whereas the tabs 56 are spaced-apart on opposing sides of the handle and provide multiple points of frictional engagement to facilitate the snap-fit arrangement.

Ex.2009, ¶¶121–125. Therefore, the way in which the detents 90 allegedly perform the function of selectively retaining a closure in a stowed position is not substantially the same as the tabs 56, and they are therefore not equivalent. Ex.2009, ¶125.

b. Detents 90 do not perform the function with substantially the same results as tabs 56

Petitioner also fails to show that Leoncavallo's detents 90 achieve substantially the same result as tabs 56. Indeed, Petitioner merely asserts that "[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" without expressly identifying what the result is. Pet., 69. Petitioner appears to suggest that "maintain[ing] the closure in the open position" is the result disclosed in Leoncavallo. *Id.* But that result merely restates the recited function—to "selectively retain the closure in a stowed position." See Ex.2011, 161:12–15. When applying the function-way-result test, the function and result prongs are distinct from one another. See *Abbott Labs. v. Sandoz, Inc.*, 566 F.3d 1282, 1298 (Fed. Cir. 2009) (holding similar pharmaceutical purposes were relevant to "function" prong, but not "way" or "result" prongs). Thus, Petitioner has not even stated a prima facie case that detents 90 are an "equivalent" by failing to properly analyze whether the result is substantially the same.

A POSITA would not have viewed the results as substantially the same. Ex.2009, ¶¶126–132. First, the arrangement of the detents in Leoncavallo of engaging the cap external to the handle and not placing the cap within the handle "is not mere happenstance" but is an intentional design choice in Leoncavallo intended to achieve a result that provides certain advantages in Leoncavallo's design. Ex.2009, ¶127. Specifically, by placing the detents on the outside of the handle to engage a rotating connector member on the outside of the handle, instead of stowing the cap within the closed perimeter of the handle, the user's finger or attachment

hardware can grip the inside of the handle and “not interfere with the movement of the flip cap or cause unintentional opening of the flip cap.” Ex.1005, 2:26-30. That is, by providing the frictional engagement of the detents and connector on the outside of the handle, it “isolates the connector members 80, 82 from a user’s finger or attachment hardware passing through the loop 54.” *Id.* at 5:20-29. Thus, Leoncavallo’s external design for its detents provides a substantially different result of avoiding any moving components on the inside of the handle, while the tabs 56 provide frictional engagement and allow moving the closure into a stowed position within the handle—a position Leoncavallo specifically seeks to avoid. Ex.2009, ¶128.

Second, a POSITA would have understood that the rotational opening to an alleged stowed position provided by detents 90 does not achieve substantially the same result as the stowed position provided by the gripping snap-fit or frictional fit arrangement of the tabs 56 in the ’252 patent. Ex.2009, ¶129. A POSITA would have understood that the closure in the ’252 patent is stowed when gripped by the tabs 56. In contrast, “[t]he detents 90 are configured to frictionally engage the connector member 80 *as it travels about the loop.*” Ex.1005, 5:36–38 (emphasis added). Dr. Vallee agreed during his deposition that the detents first come in contact with the connector members when the cap has only been opened about 80 degrees, well before it reaches the alleged “stowed position.” *See* Ex.2011, 164:11–165:2,

165:8–13. The alleged “stowed position” is just the point at which the flip cap cannot rotate any farther because it has hit the top of the cap assembly. Even in the fully open position, the user still “can easily close [the cap].” *Id.*, 169:1–6. A POSITA would have therefore understood that flip cap 68 of Leoncavallo can still be moved in and out of the alleged stowed position, even while detents 90 remain engaged. Ex.2009, ¶130. This is a substantially different result. *Id.* For example, bumping the cap of Leoncavallo’s container with even a small force (such as with the user’s finger) will cause it to swing at least partially closed. *Id.* In contrast, the closure retained by the tabs 56 in the ’252 patent would be retained in the stowed position when bumped by a similar force. *Id.* Accordingly, the retention that results from these two structures is not substantially the same, and the structures are not equivalent for this reason too. *Id.* ¶131.

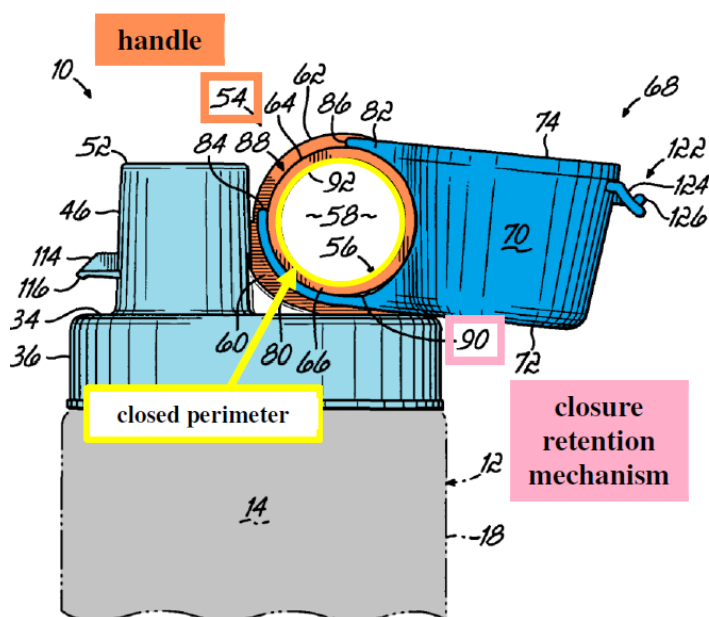
Petitioner therefore fails to show that the detents 90 in Leoncavallo are “equivalent” to the tabs 56. Petitioner, therefore, fails to show Leoncavallo discloses the “closure retention mechanism,” which is required by all Challenged Claims. The Board, therefore, should find all claims patentable over Grounds 3 and 4.

2. Leoncavallo does not disclose or render obvious the limitations of dependent claim 6

Leoncavallo does not anticipate or render obvious dependent claim 6. First, the patentability of claim 6 should be confirmed for at least the same reasons shown

above for claim 5, from which claim 6 depends. Second, Leoncavallo does not disclose or render obvious the limitations added by claim 6, which recites: “wherein the handle defines a closed perimeter, and *wherein the closure retention mechanism defines at least a portion of the closed perimeter.*” Ex. 1001, claim 6 (emphasis added).

Detents 90—alleged to be the “closure retention mechanism”—do not “define[] at least a portion of the closed perimeter” (as claim 6 requires). Ex.2009, ¶¶134–136. Leoncavallo expressly discloses that detents 90 “project outwardly from the *outer* arcuate surface 64 of the loop 54.” Ex. 1005, 5:33–36 (emphasis added). Petitioner even acknowledges that “detents 90 are on the outside of loop 54.” Pet., 71. Petitioner argues that this location means the detents “thus form part of the perimeter defined by the loop,” completely ignoring that the “closed perimeter” identified by the Petition is the one defined by the *inner* surface of loop 54, as illustrated by Petitioner’s annotations to Leoncavallo’s Figure 3, reproduced below. *See id.*



Pet., 71.

Seemingly aware of this defect, Petitioner also relies on an alternative embodiment from Leoncavallo. *See id.*, 71–72. Specifically, Leoncavallo states that, “while the flip cap 68 is shown with the arcuate connector members 80, 82 positioned on the outer surface 64 of the loop 54, one or more connector members may be provided on the flip cap 68 that engage the inner arcuate surface 92 of the loop 54 instead.” Ex.1005, 5:50–55. But this disclosure does not teach or suggest “wherein the closure retention mechanism defines at least a portion of the closed perimeter,” and Petitioner is incorrect to argue otherwise. *See Pet.*, 71–73.

First, claim 6 requires that the “closure retention mechanism”—mapped here to the detents 90—must define at least a portion of the closed perimeter. The cited sentence of Leoncavallo only refers to placing the “connector members” on the inner

surface of the loop and makes no mention whatsoever of whether any detents are also on the inside of the loop. Ex.1005, 5:50-55; *see* Ex.2009, ¶137. Petitioner identifies the connector members 80 as part of the “closure,” not the alleged “closure retention mechanism,” and it is irrelevant to claim 6 whether the “closure” defines a portion of the closed perimeter because it is the “closure retention mechanism” that must do so. Thus, Leoncavallo does not expressly disclose the limitation of claim 6. *Id.* Moreover, Dr. Vallee refused to testify that the detents 90 would necessarily be present on the inner surface in this alternative embodiment, instead testifying that it would be “most likely.” Ex.2011, 186:7–11 (“Q And is it your opinion that those detents 90 are necessarily present on the inside of the loop in that alternative embodiment? A It is my opinion that they are the **most likely** in that embodiment. . . .”). But “most likely” does not mean “necessarily present,” as required for inherency.

Second, Petitioner fails to show a motivation to modify Leoncavallo to move the detents 90 to the inner surface of loop 54. *See InTouch Techs., Inc. v. VGO Commc’ns, Inc.*, 751 F.3d 1327, 1352 (Fed. Cir. 2014) (“The obviousness inquiry does not merely ask whether a skilled artisan could combine the references, but instead asks whether they would have been motivated to do so.”); *Polaris Industries, Inc. v. Arctic Cat, Inc.*, 882 F.3d 1056, 1067–70 (Fed. Cir. 2018) (same). Indeed, Leoncavallo teaches away from the modification Petitioner suggests. Ex.2009, ¶139.

In the single-sentence alternative embodiment where the connector members are on the inside of loop 54, Leoncavallo teaches away from using the connector members for the pivotal connection between the flip cap 68 and the loop 54. *Id.* Specifically, in its preferred embodiment, Leoncavallo teaches that placing the connector members and this pivotal connection on the outer surface of the loop “isolates the connector members 80, 82 from a user’s finger or attachment hardware . . . so that the user’s finger or attachment hardware does not interfere with movement of the flip cap 68 or cause unintentional opening of the flip cap 68.” Ex. 1005, 5:24–28; Ex.2009, ¶140. Thus, Leoncavallo teaches that moving the pivotal connection to the inside surface of the loop would interfere with the opening and closing the cap and could cause unintentional opening, thereby teaching away from such a design. Ex.2009, ¶140.

Leoncavallo, therefore, teaches away from the placement of the connector members on the inner surface of the loop *when the connector members move as part of the pivotal connection* between the flip cap and the loop. Ex.2009, ¶141.

Leoncavallo then suggests using “other pivotal connection structures” immediately after describing the alternative embodiment that would place the connector members on the inside of the loop. Ex.1005, 5:50–59. From this, a POSITA would have understood Leoncavallo to suggest using some other kind of pivotal connection for the alternative embodiment (e.g., other than one using detents

90). Ex.2009, ¶142. A POSITA would not have understood the phrase “other pivotal connection structures” to suggest using the very same arrangement that Leoncavallo disparaged two paragraphs earlier. Ex.2009, ¶143.

Petitioner fails to support its contrary interpretation of Leoncavallo with any kind of explanation. Pet., 72. As Vallee conceded, Leoncavallo “doesn’t discuss those [other pivotal connections] at all.” Ex.2011, 186:7–14. Without support, Petitioner cannot show that a generic suggestion to use “other pivotal connection structures” is, instead, a suggestion to use the same kind of pivotal connection in an arrangement Leoncavallo teaches away from.

Petitioner’s other obviousness arguments are nothing more than generic, conclusory assertions that Dr. Vallee parrots in his declaration. *See* Pet., 72–72; Ex.1003 ¶¶183–185. None of them should be given any weight. *TQ Delta, LLC v. Cisco Sys., Inc.*, 942 F.3d 1352, 1358–63 (Fed. Cir. 2019) (“Conclusory expert testimony does not qualify as substantial evidence.”).

Accordingly, even if the connector members 80 were moved to the inner surface of loop 54, as described in the alternative embodiment, Petitioner fails to explain why a POSITA would move the detents 90. If, as Leoncavallo suggests, a different pivotal connection structure is used, it is unclear whether or why detents 90 would still be present. Ex.2009, ¶144. Indeed, there is no evidence they would

need to be. *Id.*; *see* Ex.2011, 186:7–11. Even if they were present, Trove offers no reason why the detents 90 would not remain on the outer surface of the loop.

Finally, even if detents 90 were moved to the closed perimeter, they still would not perform the recited function in substantially the same way to obtain substantially the same result as the tabs 56. For example, pushing in a single direction (like Leoncavallo’s detents) versus gripping within a closed perimeter from multiple points with tabs 56 are not “the same type of frictional engagement.” Ex.2009, ¶145. Even assuming *arguendo* that all of Petitioner’s contentions were correct, the portion of flip cap 68 within the perimeter defined by the loop 54 would not be gripped from multiple directions within the closed perimeter. *Id.* Likewise, there is no evidence that the flip cap 68 would be retained in a stowed position to the same degree as the closure retained by tabs 56 in the ’252 patent. *Id.* The proposed modification presented for claim 6 therefore does not cure the deficiencies of Leoncavallo with respect to claim 5.

3. Leoncavallo does not disclose or render obvious the limitations of dependent claim 7

Leoncavallo also fails to disclose claim 7, which recites “[t]he drink container of claim 5, 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. 1001, claim 7; *see* Ex.2009 ¶¶146–149.

First, as shown below, Leoncavallo's cap (royal blue) is never positioned even partially within the alleged closed perimeter (yellow) of the handle (orange).
Ex.2009, ¶147.

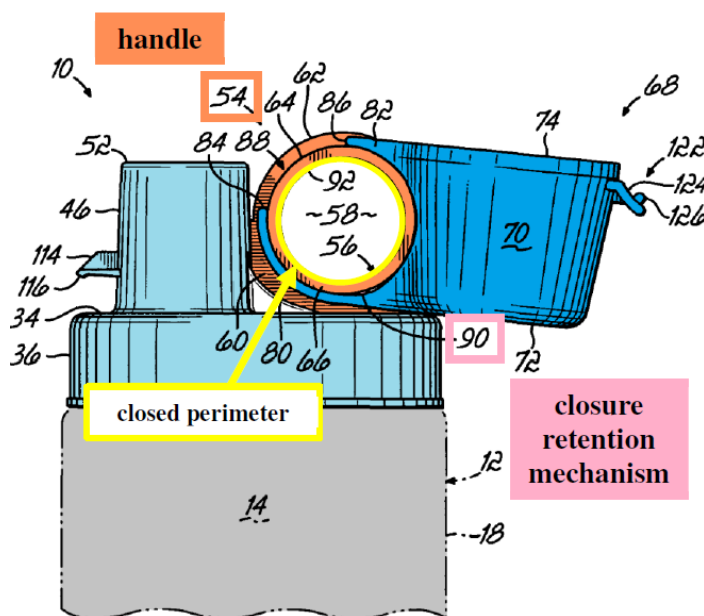


FIG. 3

Pet. 71.

Second, Petitioner attempts to rely on the ambiguous, single-sentence alternative embodiment discussed above where the connector members 80 are positioned on the inside of the loop 54. Pet., 74. As discussed above in Section VI.B.2, Leoncavallo does not expressly or inherently disclose or suggest in this single-sentence embodiment that detents 90 are also moved to the inside of the loop. Ex.2009, ¶148. Because the detents are not moved (and may not even be present), they would no longer perform the alleged selective retention function required for

the claimed closure retention mechanism recited in the base independent claim 5. Ex.2009, ¶149. There is also no evidence that any structure in this alternative embodiment would be equivalent to the tabs 56 of the '252 patent required by the base claim. *Id.* Therefore, this alleged alternative embodiment does not anticipate or render obvious claim 7 (or its base claim 5).

4. Petitioner fails to show a reason to combine Johnson and/or Gorskey with Leoncavallo to achieve the invention of claims 17 and 18.

Petitioner fails to meet its burden to show that a POSITA would have been motivated to combine either Johnson or Gorskey with Leoncavallo in order to achieve the invention of claims 17 and 18. *See* Ex.2009, ¶¶150–163. In particular, Petitioner fails to show *how* or *why* a POSITA would have combined the teachings of Johnson and/or Gorskey with the drink container of Leoncavallo to achieve the claimed invention. *See TriVascular, Inc. v. Samuels*, 812 F.3d 1056, 1066 (Fed. Cir. 2016) (“Although the *KSR* test is flexible, the Board ‘must still be careful not to allow hindsight reconstruction of references . . . without any explanation as to *how* or *why* the references would be combined to produce the claimed invention.’”) (quoting *Kinetic Concepts, Inc. v. Smith & Nephew, Inc.*, 688 F.3d 1342, 1368 (Fed. Cir. 2012)) (*italics in original*).

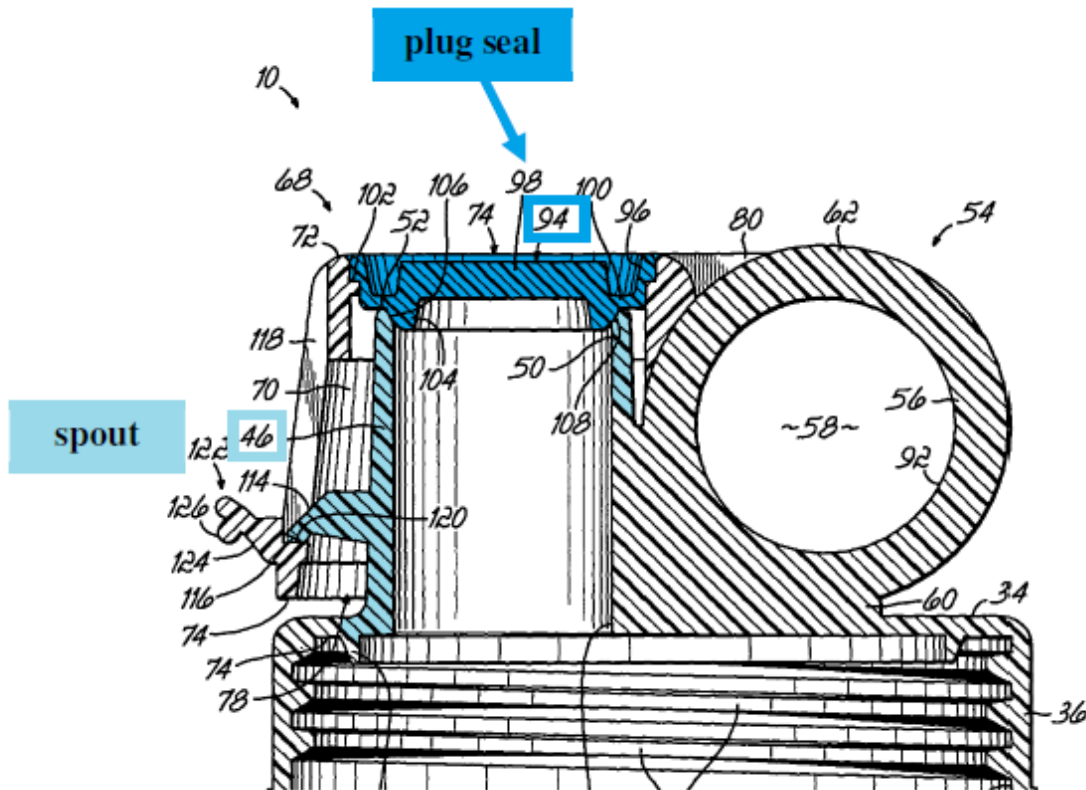
First, Petitioner fails to support its assertion that the “plug/spout configuration of Gorskey and/or Johnson” would provide a “more secure, robust defense against

inadvertent spills or leaking” than the sealing spout disclosed by Leoncavallo. Pet., 77–78 (citing Ex.1003 ¶139). The cited paragraph of Dr. Vallee’s declaration pertains only to the combination of Gorskey and/or Johnson with *Samartgis*. See Ex.1003 ¶139. Petitioner offers no evidence specifically comparing the seals of Gorskey or Johnson to the seal taught by Leoncavallo. See Pet., 77–78. Such a failure of proof should be dispositive. See, e.g., *In re Magnum Oil Tools Int’l, Ltd.*, 829 F.3d 1364, 1379–80 (Fed. Cir. 2016) (reversing judgment of obviousness where Petition incorporated arguments relating to a different combination without accounting for differences in the primary reference).

Leoncavallo already teaches a “secure, robust defense against inadvertent spills or leaking”:

During storage and transportation with liquid contained in the container 12, the flip cap 68 is moved to the closed position so that the *plug seal 94 forms an essentially watertight and leak-proof seal* with the top edge 52 of the spout 46, . . .

Ex.1005, 7:3–7 (emphasis added); see Pet., 77. This is shown in Petitioner’s own annotations to Figure 4 of Leoncavallo, below.



Pet., 58 (excerpting and annotating Ex.1005, Fig. 4).

A POSITA would have understood that the plug seal 94 is compressed to some degree when the flip cap 68 is in the closed position, which forms the airtight, leak-proof seal with the spout in the depicted embodiment, as was typical for an elastomeric plug seal. Ex.2009, ¶155; Ex.1005, 6:22–24 (describing plug seal 94 as “molded from a suitable material such as a thermoplastic elastomer”). The plug seal of Leoncavallo is secured to the inside surface at the top of the flip cap 68. Ex.1005, 5:60–6:2. The flip cap is made from a different, more rigid and durable material than the plug seal, such as polycarbonate. *Id.*, 6:15–17. The elastomer provides a good compression seal while the rigid material of the cap ensures the seal will not be

broken by accident, such as when the closed container is dropped or knocked over. Ex.2009, ¶156. There is no evidence that either Johnson or Gorskey provides a stronger seal than Leoncavallo. *Id.*

Johnson discloses an injection-molded plastic vial with an integral lid connected by a structure called a “living hinge.” *See* Ex.1012 ¶57. A POSITA would have understood this kind of unitary construction would have been appropriate for mass-produced, single-use food packaging and not for a refillable drink container, like Leoncavallo’s. Ex.2009, ¶¶157–158; *see* Ex.1012 ¶¶13–14 (discussing use of vials in candy packaging). When designing a reusable container based on Leoncavallo’s teachings, a POSITA would have not have looked to single-use containers (like Johnson’s) because durability is important for reusable containers and is not a significant consideration for single-use containers. Ex.2009, ¶161; *see id.* ¶¶159–160.

Gorskey discloses a collar-and-lid combination for sealing opened bags used in food-product packaging (*e.g.*, cereal). *See* Ex.1011 ¶3. Gorskey never even suggests that the disclosed lid can create a watertight seal with the collar or that its device could be used for sealing drink containers. Ex.2009 ¶¶162–163. A POSITA therefore would not have considered Gorskey to be analogous art to the field of the ’252 patent. *Id.*, ¶163. Likewise, a POSITA would not have been motivated to

combine the sealing mechanism from Gorskey with the drink bottle from Leoncavallo. *Id.*

Petitioner's other obviousness arguments are nothing more than generic, conclusory assertions that Dr. Vallee parrots in his declaration. *See* Pet., 78–79; Ex.1003 ¶¶205–209. None of them should be given any weight. *TQ Delta, LLC v. Cisco Sys., Inc.*, 942 F.3d 1352, 1358–63 (Fed. Cir. 2019) (“Conclusory expert testimony does not qualify as substantial evidence.”).

C. Petitioner's Grounds Based On Miller (Grounds 5 and 6) Fail To Establish Unpatentability

1. Miller does not Disclose Numerous Elements of Claims 5 and 19

Petitioner assumes numerous structural features exist in Miller that Miller simply does not disclose because it is a design patent that only depicts the ornamental appearance of the exterior of a drink bottle.

First, Miller fails to disclose “a drink spout extending from the base.” As Dr. Vallee admits, “a passage through the base . . . for dispensing the contents of the beverage container” is “not depicted in Miller.” Ex.1003, ¶ 74. In each of Miller's seven figures, Miller's cap, the alleged “closure” is in a closed position that makes it impossible to see whether any opening exists underneath. *See* Ex. 1006, Figs. 1-7; Ex.2009, ¶¶165-166. This can be seen in exemplary Figure 1 below:

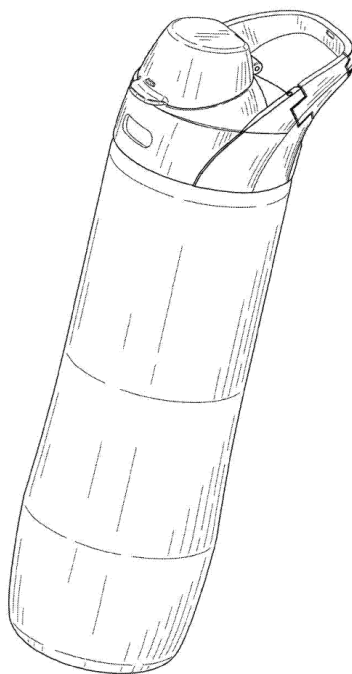


FIG. 1

Ex. 1006, Fig. 1. Petitioner argues that “any cap assembly would necessarily include *an opening* forming a passageway for dispensing the beverage.” Pet., 85. But the claim language does not merely recite an “opening.” Instead, it recites a “drink spout *extending from the base*.” As Dr. Vallee admitted, “just a hole in the base” would not satisfy this claim element. Ex.2011, 194:15-21 (“I don’t read that claim element to be like it’s just a hole in the base.”). Thus, even assuming there “necessarily” must be an “opening” under the cap for dispensing liquid in Miller, an “opening” is merely a “hole,” which Dr. Vallee admits would not constitute “a drink spout extending from the base.” A POSITA would not have understood a mere opening or hole to be a “drink spout extending from the base,” because it would not have any structure “extending from the base.” Ex.2009, ¶¶167-169.

A POSITA would not have understood Miller to necessarily disclose “a drink spout extending from the base,” because even if it were assumed to have a hole or opening under its cap, beverage containers lacking “drink spouts extending from the base”—including those having a mere hole or opening in the base with no structure “extending from the base”—were known in the art at the time of the ’252 Patent. Ex.2009, ¶¶170-173; Ex.1005, 7:11–12 (Leoncavallo describing an embodiment that just uses an “outlet opening formed in end wall 34 of the closure 10” rather than a drink spout extending from the base); Ex.2023 (U.S. Design Patent No. D945,819), Figs. 1 & 9; Ex.2024 (U.S. Design Patent No. D751,339), Figs. 1 & 8. Some such examples are shown below:

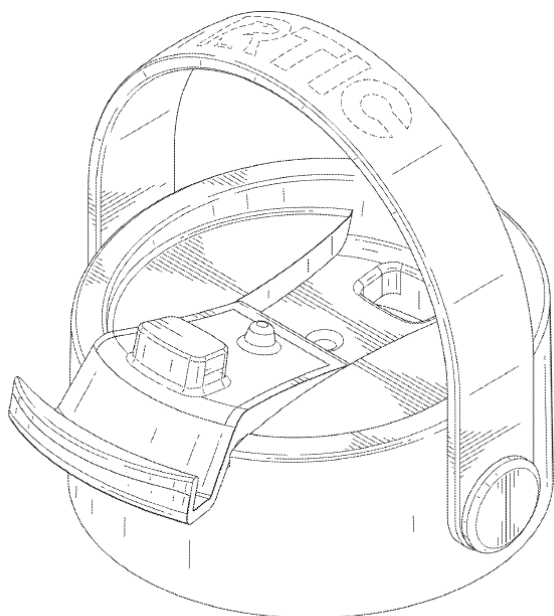


FIG. 9

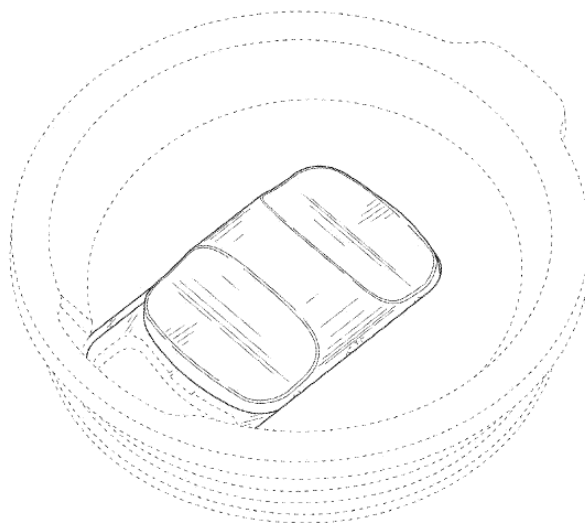


FIG. 1

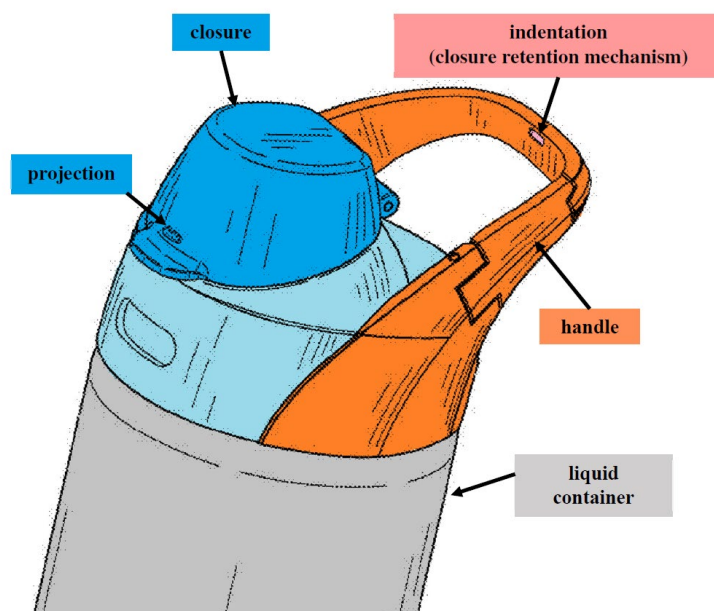
Ex.2023, at Fig. 9 (left); Ex.2025, at Fig. 1 (right). Therefore, Miller could have had a mere hole or opening under its cap like these known designs such that it could still

dispense liquid but not have a “drink spout extending from the base” necessarily present. Ex.2009, ¶¶170-173.

Second, Petitioner fails to show that Miller discloses that its alleged “closure” is “configured to be removably coupled relative to the drink spout,” as required by the claims, because Miller’s figures all depict the cap/closure covering anything underneath. Because Miller provides no views with its cap open, it is impossible to tell whether the cap ever couples to any drink spout under the cap (even if Miller were assumed to have a “drink spout extending from the base”). Ex.2009, ¶¶174-175. In addition, even if such a spout existed, the cap need not necessarily even touch the drink spout. Ex.2009, ¶176. Petitioner relies on Dr. Vallee’s unsupported and conclusory assertions that “[o]ne skilled in the art would have understood that any cap assembly including a spout would *necessarily* need” the cap assembly to be “removably coupled” relative to a drink spout. Ex.1003, ¶ 226. But Dr. Vallee’s assertion, which has no evidentiary or factual support, is entitled to little or no weight. 37 C.F.R. § 42.65(a); *see also Xerox Corp. v. Bytemark, Inc.*, IPR2022-00624, Paper 9 (P.T.A.B. August 24, 2022) (precedential). Further, Petitioner fails to identify any evidence that any such “removabl[e] coupl[ing]” of the “closure” relative to any “drink spout” would necessarily “selectively restrict dispensing of drink liquid through the passage [defined by the drink spout] and [] selectively permit dispensing of drink liquid through the passage when removed from the drink

spout” per claims 5 and 19. Again, even if Miller were assumed to have a drink spout under its cap, there is no evidence that the cap would ever even come into contact with any imagined drink spout, much less selectively restrict or permit dispensing of liquid from it, because Miller provides no view under the cap. Ex.2009, ¶176; Ex.2011, 185:20-186:4, 208:5-209:14. Though Petitioner argues this would be necessary “to prevent spills,” the cap could itself prevent spills without restricting fluid flow through any spout. Ex.2009, ¶176.

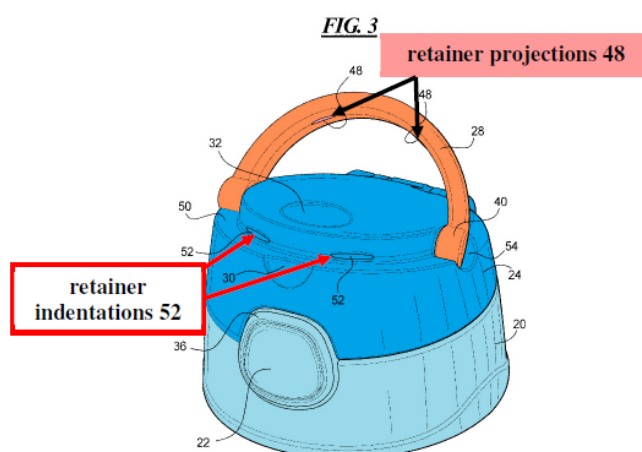
Third, Petitioner and Dr. Vallee rely on pure speculation to contend that Miller’s handle includes the claimed “closure retention mechanism.” Ex.2009, ¶177. Specifically, Petitioner and Dr. Vallee speculate that an apparent “projection” on Miller’s alleged “closure” would “snap together” with an apparent “indentation” in Miller’s handle. Pet., 88-89.



Pet. at 89. But Miller is a design patent that, under the law, must depict only an “ornamental design” (Ex. 1006 at Claim) and not functional features. *See, e.g., PHG Technologies, LLC v. St. John Companies, Inc.*, 469 F.3d 1361, 1366 (Fed. Cir. 2006). Thus, Miller’s alleged “projection” and “indentation” are ornamental, not functional. Further, none of Miller’s figures ever depict the alleged “projection” on the alleged “closure” snapping into the alleged “indentation,” and Miller contains no written description of such, forcing a POSITA to speculate as to undisclosed functions. Ex.2009, ¶177. Thus, Petitioner has failed to adequately demonstrate that Miller discloses the claimed handle including the claimed “closure retention mechanism.” *See Wasica Fin. GmbH v. Cont’l Auto. Sys., Inc.*, 853 F.3d 1272, 1284 (Fed. Cir. 2017) (affirming Board’s finding that prior art did not teach limitation and noting that “it has long been understood that ambiguous references do not, as a matter of law, anticipate a claim.”).

Further, Petitioner argues that Miller would have been understood to disclose a “closure retention mechanism” because a POSITA allegedly “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.” Pet., 90. To support this contention, Petitioner relies on the Lane reference (Ex. 1007). *Id.* However, as shown in Petitioner’s annotated version of Fig. 3 below, Lane discloses *a handle* that folds down to stow in a closed

cap/closure, which is the *opposite* of claims 5 and 19's handle, which includes a closure retention mechanism configured to receive and retain *a closure/cap in a stowed position* when the closure/cap is opened:



Pet. 90 (citing Ex. 1007, Fig. 3 (annotated)); Ex.2009, ¶178. Thus, Lane's *stowed handle in a closed cap/closure* does not suggest that the '252 patent's claimed *stowed open cap/closure* is conventional. Ex.2009, ¶178. Further, unlike Petitioner's speculatively alleged "indentation" in Miller's handle for receiving the alleged "projection", Lane's handle includes *projections*, not indentations, that engage with Lane's cap's *indentations*. Ex.2009, ¶178. Thus, Lane's handle does not receive anything whatsoever and has an engagement mechanism that is the *opposite* of that which Petitioner speculates is present in Miller. Ex.2009, ¶178. Lane, therefore, does not support Petitioner's argument that a POSITA would recognize Miller to disclose a "closure retention mechanism." Ex.2009, ¶178.

Petitioner also relies on Samartgis and Leoncavallo as establishing that “a pivotal closure cooperating with a handle to maintain the closure open while drinking was conventional at the time of the invention.” Pet., 90-91. But this argument fails, because, as discussed above, Samartgis does not teach a closure retention mechanism that “receive[s]” a closure, that “retains” a closure in a “stowed position,” or that is “equivalent” to tabs 56 of the ’252 patent. *See supra* Secs. VI.A.1- VI.A.3. Leoncavallo similarly does not disclose a closure retention mechanism that is an “equivalent” of the required tabs 56 of the ’252 patent. *See supra* Sec. VI.B.1. Thus, Samartgis and Leoncavallo do not cure the deficiency in Miller or support that Miller discloses the claimed “closure retention mechanism.” Ex.2009, ¶¶179-180.

2. Petitioner Has Failed to Show that The Elements of Claims 5 and 19 Missing from Miller would have been Obvious over Leoncavallo or the Knowledge of a POSITA

The Petition’s attempts to fill gaps in Miller with Leoncavallo’s disclosure are also unavailing.

First, Petitioner argues that it would have been obvious to modify Miller to include the claimed “drink spout” in view of Leoncavallo. Pet., 86. The only reason provided by Petitioner is a highly conclusory allegation that “including a drink spout disclosed in Leoncavallo would provide a *convenient way* for the user to drink the beverage contained in the liquid container.” Pet., 96. However, like discussed above,

Petitioner ignores that the claimed drink spout must “extend[] from the base” and does not encompass a mere opening or hole. An opening or hole would also provide “a convenient way for the user to drink the beverage contained in the liquid container,” as demonstrated by the drink bottles designs known at the time that simply used a hole or opening rather than a spout “extending from the base.” *See* Ex.2023; Ex.2024; Ex.1005, 7:11–12; Ex.2009, ¶181. Indeed, **Leoncavallo** itself has an embodiment that uses such an “outlet opening” rather than a “spout.” Ex.1005, 7:11-12. Petitioner provides no reasoning whatsoever for why a POSITA would have chosen a “drink spout extending from the base” over a design (like Leoncavallo’s) using a hole or opening or why such the claimed “drink spout extending from the base” design would have been more convenient than a design using a hole or opening. Ex.2009, ¶182; Ex.1005, 7:11-12. There are many reasons why a POSITA would not have chosen a “drink spout extending from the opening,” including the fact that: i) such a design requires more materials to “extend[] from the base” than a design using a simple hole or opening, ii) such spouts typically require elastomeric materials for user comfort and those materials are harder to clean and keep bacteria free, iii) such spouts can suffer from more wear and tear over time that can require replacement than mere openings, and iv) because such spouts may require crimping or more involved closure mechanisms than a mere hole or opening. Ex.2009, ¶183. A POSITA, therefore, would not have found the claimed “drink

spout extending from the base” to be a more convenient way to dispense liquid over other alternatives, such as a simpler hole or opening design, and as such would not have been motivated based on convenience to choose a spout over an opening, including to choose Leoncavallo’s spout design over its opening design. Ex.2009, ¶183.

Second, with regard to the requirement that the “closure” must be “configured to be removably coupled relative to the drink spout” so as “to selectively restrict dispensing” of liquid through the spout, Petitioner argues in conclusory fashion that “including a closure and plug disclosed in Leoncavallo would provide the user 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.” Pet., 96. Thus, all Petitioner argues is that it would provide “a way” a POSITA *could use* to securely close the spout, but Petitioner provides no rationale for why a POSITA *would have* used this way. Ex.2009, ¶184. As discussed, known bottles at the time used a simple hole or opening with a simple closure for closing the hole/opening that did not require coupling to or restricting fluid flow through any drink spout extending from the base. Ex.2009, ¶184; Ex.2024; Ex.2024; Ex.1005, 7:11–12; *see also* Ex. 1005, 7:1-18. As a result, these designs often provided simpler closures than those requiring coupling to and restricting of fluid flow through drink spouts, such as those requiring crimping of elastomeric spouts. Ex.2009, ¶184. Indeed, **Leoncavallo itself** discloses an alternative embodiment

having an “outlet opening formed in the end wall 34” rather than a “spout 34” that also uses a plug seal 94 to seal this opening; and Petitioner provides no reason why a POSITA would have chosen Leoncavallo’s spout-based closure than that its design using a sealing closure for a mere opening that does not use a spout. Ex.2009, ¶185; Ex.1005, 7:1-18. Therefore, a POSITA would not have been motivated to use Leoncavallo’s spout-based closure based on its mere ability to close its spout because other designs, not requiring such were available, including those that were simpler and superior. Ex.2009, ¶185.

Third, Petitioner argues that the claimed handle including the “closure retention mechanism” would have been obvious over Miller in view of “the knowledge of one skilled in the art and commonality of closure retention mechanisms appear as protrusions on handles (such as Leoncavallo).” Pet., 93. Notably, Petitioner does *not* contend that it would have been obvious in view of Leoncavallo, and Petitioner does *not* argue a POSITA would have been motivated to combine Leoncavallo’s very different alleged “closure retention mechanism” with Miller’s alleged “closure retention mechanism.” Pet., 93, 95-97. Further, merely because closure retention mechanisms using handles may have been known does not establish obviousness or a motivation to modify or combine a reference. *Virtek Vision Intl. ULC v. Assembly Guidance Sys., Inc.*, 97 F.4th 882, 887 (Fed. Cir. 2024) (element being “known” in the prior art is not sufficient to establish motivation to

combine); *Vision Intl. ULC v. Assembly Guidance Sys., Inc.*, 97 F.4th 882, 887 (Fed. Cir. 2024); *KSR Intern. Co. v. Teleflex Inc.*, 550 U.S. 398, 418 (2007) (“[A] patent composed of several elements is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art.”). In addition, alleged closure retention mechanisms using protrusions on handles (such as Leoncavallo) are not necessarily “equivalent” to the tabs 56 on the interior of the handles of the ’252 patent, as discussed above regarding Leoncavallo’s very different, non-equivalent protrusion-based design. *See supra* Sec. VI.B.1; Ex.2009, ¶187. Petitioner, therefore, has failed to meet its burden of proving how or why the “knowledge of one skilled in the art” or known alleged closure retention mechanisms using protrusions on handles would have motivated a POSITA to arrive at the claimed “closure retention mechanism,” including its tabs 56.

For these reasons, the Board should confirm the patentability of the Challenged Claims over the grounds based on Miller.

D. Petitioner’s Ground Based on Miller in view of Leoncavallo (Ground 5) Fails To Explain How such a Combination Would Have Been Made or How it Would Work

Petitioner fails to explain how Leoncavallo would be combined with Miller or how such a combination would even work. It fails to do so because Miller, as a design patent, leaves many aspects of its design unknowable including whether it has any “drink spout extending from the base,” whether its closure couples to any

drink spout, whether its closure selectively restricts and permits dispensing of liquid, and whether it includes the claimed “closure retention mechanism”; and, if it does include any such components, then it fails to specify their design. Ex.2009, ¶188. Absent such details, it is unknown how Leoncavallo would allegedly be combined with Miller to arrive at these claimed components. Ex.2009, ¶188. A Petitioner cannot carry its burden to show obviousness where there is no “clear, evidence-supported account” of “how the combination” would work. *Personal Web Techs., LLC v. Apple, Inc.*, 848 F.3d 987, 994 (Fed. Cir. 2017); *see also Apple v. Uniloc Luxembourg S.A.*, IPR2018-00420, (PTAB August 6, 2018), Paper 7, at 18 (rejecting ground where Petitioner did not provide “a clear, evidence-supported account of how the alleged teachings work together in a cogent mapping of the claim as a whole”). As just one example, Petitioner has not explained whether or how any particular aspects of Leoncavallo’s rotating flip cap and loop assembly would be combined with Miller’s container to provide for the claimed “coupling” between the closure and drink spout and to provide for the claimed “selective[] restrict[ing]” and “dispensing” of liquid.” Ex.2009, ¶189. For example, Miller has a handle that would appear to block placement of such a rotating assembly and loop as used by Leoncavallo and to also obstruct such rotation. Ex.2009, ¶189. Because Petitioner has failed to articulate how these components relating to Leoncavallo’s closure mechanism would have been combined with Miller’s unknown and unspecified

components or how they would have worked together, Petitioner has failed to prove the obviousness of claim 5-17 and 16 and 19 over Miller in view of Leoncavallo.

E. Petitioner’s Ground Based on Miller in view of Leoncavallo in Further View of Gorskey or Johnson (Ground 6) Fails to Establish a Specific Motivation to Combine for Particular Missing Limitations or How such a Combination Would Have Been Made

Petitioner has the burden to demonstrate that a POSITA would have had reason to combine the teachings of the prior art in the manner claimed in the patent. *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007). The motivation to combine analysis must be explicit. *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006). Ground 6 fails because the Petition fails to provide *any* analysis regarding a motivation to combine Miller and either Gorskey or Johnson. Ex.2009, ¶¶191-192. In total, ground 6 is three sentences long, and the only analysis regarding motivation to combine is a statement that “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.” Pet. at 98. But the purported “reasons discussed above” apply only to Leoncavallo, Gorskey, and Johnson. Ex.2009, ¶192. Further, as discussed above Leoncavallo discloses both an opening design and a drink spout design that both use a plug seal, and Petitioner has provided no rationale why a POSITA would choose one over the other where such opening designs were common and had advantages over drink spouts designs. Ex.2009, ¶193.

As such, because Petitioner fails to address Miller in its entirety and fails to address the claimed “drink spout extending from the base,” there is no factual support for this combination, and the ground fails. Finally, because a POSITA would not have been motivated to combine Gorskey or Johnson with Leoncavallo, as set forth above, a POSITA also would not have been motivated to make the combination proposed in Ground 6. *See supra* Sec. VI.B.4; Ex.2009, ¶194.

VII. CONCLUSION

For at least the foregoing reasons, the patentability of the Challenged Claims should be confirmed.

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Respectfully submitted,

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CERTIFICATE OF WORD COUNT

Pursuant to 37 C.F.R. § 42.24(d), the undersigned certifies that the foregoing PATENT OWNER'S RESPONSE, according to the word-processing system used to prepare the paper and not including those parts excluded by § 42.24(a)(1), has 13,965 words, which is within the type-volume limit set by § 42.24.

By: /Ryan Schletzbaum/
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CERTIFICATE OF SERVICE

Pursuant to 37 CFR § 42.6(e), the undersigned certifies that on February 7, 2025, a complete and entire copy of the foregoing Patent Owner's Response and Exhibits 2009-2026 were provided via e-mail to Petitioner's counsel of record as follows:

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