

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

TROVE BRANDS, LLC,
Petitioner,

v.

CAMELBAK PRODUCTS, LLC,
Patent Owner.

IPR2025-00146
U.S. Patent No. 10,165,879

DECLARATION OF MICHAEL JOBIN

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I, Michael Jobin, do hereby declare as follows:

I. INTRODUCTION

1. I am making this declaration at the request of Patent Owner CamelBak Products, LLC (“CamelBak”) in the matter of this *Inter Partes* Review of U.S. Patent No. 10,165,879 (the “’879 patent”).

2. I am being compensated for my work on this matter and for reasonable and customary expenses associated with my work and testimony in this proceeding. My compensation is not contingent on the outcome of this matter or the specifics of my testimony, and I have no other interest in this case or the parties thereto.

3. I have been asked to provide my opinions regarding whether claims 1, 3, 5-8, and 10-19 (the “Challenged Claims”) of the ’879 patent are unpatentable insofar as they would have been anticipated and/or obvious to a person having ordinary skill in the art (“POSITA”) at the time of the alleged invention, in light of the prior art, based on the grounds of unpatentability set forth by Petitioner in its Petition in this matter.

4. It is my opinion that none of the Challenged Claims are unpatentable in that they would not have been anticipated and/or obvious to a POSITA based on the grounds of unpatentability set forth in the Petition.

5. In the preparation of this declaration, I have reviewed the below as well as any other documents cited herein that are not listed below:

- Paper 1 - Petition for *inter partes* review of U.S. Patent No. 10,165,879
- Ex. 1001 - U.S. Patent No. 10,165,879 (“the ’879 patent”)
- Ex. 1002 - Order on Stipulation and Joint Motion to Amend the Case Schedule (*Trove Brands, LLC v. Camelbak Products, LLC*, et al., No. 23-cv-04267-PCP (N.D. Cal.), Dkt. No. 92 (June 18, 2024))
- Ex. 1003 - Declaration of Glenn E. Vallee, Ph.D. in support of petition for *inter partes* review of U.S. Patent No. 10,165,879
- Ex. 1004 - United States Patent No. 6,279,773 to Kiyota (“Kiyota”)
- Ex. 1005 - United States Patent Publication No. 2007/0039959 to Choi, et al. (“Choi”)
- Ex. 1006 - Certified English translation of Korean Utility Model Registration No. 20-0282506 to Park (“Park”)
- Ex. 1007 - Translation certificate for Korean Utility Model Registration No. 20-0282506 to Park
- Ex. 1008 - Korean Utility Model Registration No. 20-0282506 to Park
- Ex. 1009 - Certified English translation of International Publication No. WO 2004/063042 to Ribarits, et al. (“Ribarits”)
- Ex. 1010 - Translation certificate for International Publication No. WO 2004/063042 to Ribarits, et al.
- Ex. 1011- International Publication No. WO 2004/063042 to Ribarits, et al.
- Ex. 2002 - Claim Construction Order in *Trove Brands, LLC v. CamelBak Products, LLC*, et al., No. 23-cv-04267-PCP (N.D. Cal.), Dkt. No. 108 (November 8, 2024) (“CC Order”).
- Ex. 2003 - File history for U.S. Patent No. 10,165,879, U.S. Patent Application No. 15/817,013
- Ex. 2005 - Cambridge Dictionary – “automatically”
- Ex. 2006 - Oxford English Dictionary – “automatic”
- Ex. 2007 - Meriam-Webster Dictionary – “automatic”

6. In forming the opinions expressed below, I have considered: the documents listed above, the relevant legal standards, including the standards for anticipation and obviousness; any additional documents or authorities as cited in the body of this declaration; and my own knowledge and experience based upon my background, education, training, and work experience.

7. I may rely upon these materials, my knowledge and experience, and/or additional materials to rebut arguments raised by the patent owner. Further, I may also consider additional documents and information in forming any necessary opinions, including documents that may not yet have been provided to me.

8. Unless otherwise noted, all emphasis in any quoted material has been added.

II. QUALIFICATIONS AND PROFESSIONAL EXPERIENCE

9. My complete qualifications and professional experience are described in my *Curriculum Vitae*, a current copy of which can be found in **Exhibit 2004**. The following is a brief summary of my relevant qualifications and professional experience.

A. Educational Background

10. I received two degrees from the University of Michigan in 1991, a Bachelor of Science in Engineering with a focus on mechanical engineering, and a Bachelor of Fine Arts in Industrial Design with a focus on product development,

both cum laude. I was the recipient of the Kiefer Award for excellence in Industrial Design.

B. Career History

11. I am currently the Director of Product Development at 908 Devices, Inc. in Boston, Massachusetts. I have more than 33 years of experience in product and technology development as a mechanical engineer, consultant and entrepreneur. I have worked in various product development companies throughout my 33-year career, and have I developed many products that demonstrate knowledge and experience relevant to the subject matter at issue in this case, including numerous fluid-containing and dispensing devices, such as those for beverages and other liquids. I have summarized below this relevant work experience, as well as some relevant project examples.

12. After my undergraduate degrees, I was hired as a program manager by Design 4 Plastics, Inc. I leveraged my industrial design and engineering education to develop a wide range of products. My projects included a heavy emphasis on plastic part design (including injection molding, rotational molding, vacuum and pressure forming) and sheet metal fabrication (stamping, forming). While there, I designed fluid pumps for laboratory and industrial fluid dispensing applications and a custom impeller pump for insufflation of the abdomen during laparoscopic surgery.

I also developed garden hose accessories such as hose reels and sprayers that used quick disconnect fittings and valves.

13. For Coca-Cola, I developed a disposable valve for a bag-in-box syrup dispensing system.

14. Next, in 1996, I joined Proteus, Inc. as Senior Mechanical Engineer. There, I focused on product design and engineering of products for consumer, medical, and laboratory applications. For example, I developed a disposable cartridge for laboratory analysis of blood samples.

15. For PUR, I developed a faucet-mounted water filter with a replaceable cartridge and a rotary actuated valve, as well as filtered water pitchers.

16. I founded Boston Innovation in 1998, focusing on developing precision fluidic dispensing instruments for pharmaceutical research applications that leveraged a novel pressure activated valve technology that I invented. In these instruments, sample fluid was stored in small sealed reservoirs, and precision low volumes dispensed by the translation of a needle and application of a rinse fluid and/or air pressure. *See, e.g.*, U.S. Pat. Nos. 6,085,773 and 6,706,538.

17. During this time, I developed and licensed novel valve technology to Delta Faucet. This project was focused on a high flow tub fill valve for residential plumbing use.

18. For Gillette, I designed a disposable shaving cream dispenser.

19. In 2000, I joined Arthur D. Little, where I led mechanical engineering of a next-generation network storage product, integrating contributions of mechanical, software, hardware and industrial designers.

20. I founded MicroBioSciences in 2001. There, I invented and developed novel disposable fluid handling cartridges for high throughput screening in pharmaceutical research.

21. Later in 2001, I joined Altitude, Inc., a product development consulting firm, first as Engineering Manager, and then I was promoted to Director of Engineering in 2005. I performed design and engineering activities, and I led a team of designers and engineers to develop a wide range of consumer products, medical devices and instrumentation.

22. I developed coffee makers for Sunbeam and Mr. Coffee, as well as a coffee carafe with a refined pour spout to minimize drips.

23. I also developed a wide range of home humidifiers for Honeywell, Kaz, and Vicks. These included water reservoirs with removable caps and elastomer valves.

24. In addition, I developed a bottled water dispenser for PUR with chilled and heated water and dispensing valves. This included a refillable water reservoir with a wide mouth threaded cap and valve for easy cleaning.

25. For Exact Sciences, I designed a custom cylindrical sample collection and shipping vessel with a large diameter threaded lid and gaskets.

26. I developed the first integrated ice shaving and blending frozen drink appliances designed for home use for Margaritaville. These products included a reservoir for ice, a robust motor and rotary ice shaving blade, a blender, and electronic controls.

27. I also developed a wine preservation and dispensing system for home use. The product stored multiple wine bottles at the user-selected optimum temperature using thermoelectric chiller technology and used valves and air pressure for dispensing, and vacuum for preservation.

28. I developed a handheld eye medication dispenser for Optimyst. This product included a custom disposable fluid reservoir and ultrasonic dispensing technology. *See, e.g.,* U.S. Patent Nos. D597,206; 8,545,463; 8,012,136.

29. I developed commercial carpet cleaning extraction technology for Tennant Company. This included fluid reservoirs, valves and plumbing connections.

30. I also developed pressure washers for Briggs and Stratton and a range of safety eyewear for UVEX. These included adjustable features leveraging advanced injection molding techniques, such as in-mold assembly. *See, e.g.,* U.S. Patent Nos. 7,758,789; 7,246,901; 7,237,892; 7,210,777; 7,175,270.

31. In 2008, I founded Aston Technology Advisors and continued with product development and consulting activities. There, I developed an instrument that uses sound to measure wind. This included a novel hydronic heating system for melting snow. *See* U.S. Patent Nos. 8,958,269 and 9,279,821.

32. I worked with a major beer company on a home keg dispenser, including work on a plastic recyclable vessel for beer.

33. I developed a custom, portable container and dispenser for hand sanitizer.

34. In 2012, I co-founded 908 Devices Inc. to develop portable chemical detection instrumentation based on mass spectroscopy. Here, I have developed various instruments with applications in pharmaceutical research, forensics and hazardous material identification at the point of need. These instruments include complex fluid handling, fluidic and pneumatic connectors, custom vacuum pumps, pressure regulators and pressure sensors. *See* U.S. Patent Nos. D703,074; D703,075; 9,093,253; 9,502,226; 9,698,000; 9,978,574; 10,438,787.

35. At 908 Devices, I have also developed various customized fluid vials, bottles, caps, gaskets and packaging for shipping chemical reagents.

36. Throughout my professional career, I have designed products that have won various awards, including: Industrial Designers Society of America (IDSA)

IDEA Awards, R&D 100, The Scientist Top 10 Innovations, and The Instrument Business Outlook Industrial Design Gold Award.

37. I have served as an expert witness in numerous patent cases, including cases relating to fluid-containing and fluid-dispensing devices, such as single-serve coffee makers, liquid dispensing valves, and elastomeric dispensing valves for water bottles, among others. For example, I was hired on behalf of the United States Patent & Trademark Office as a technical expert witness in a case related to a USPTO Examiner's rejection of patent claims relating to single-serve coffee pods for single-serve coffee systems. My work in that case involved technical analysis of relevant prior art. Key issues in that matter included high volume manufacturing of thermoformed plastic pods, forming and assembly of filter baskets, and fluidics technology for fluid flow through the system under high pressure. Ultimately, the USPTO Examiner's rejection was affirmed on appeal.

C. Patents

38. I am a named inventor on nineteen issued utility patents and six issued design patents, listed below. These patents range in technologies from consumer products to medical devices to instrumentation and address technical issues like precision fluid handling, injection molding, and compact mass spectroscopy.

- U.S. D932,046 Fluidic cartridge assembly
- U.S. 10,438,787 Integrated mass spectrometry systems

- U.S. 9,978,574 Sample collection in compact mass spectrometry systems
- U.S. 9,698,000 Integrated mass spectrometry systems
- U.S. 9,502,226 Sample collection in compact mass spectrometry systems
- U.S. 9,279,821 Deicing system in sodar systems
- U.S. 9,093,253 High pressure mass spectrometry systems and methods
- U.S. 8,958,269 Transducer for phased array acoustic systems
- U.S. D703,074 Handheld sensor
- U.S. D703,075 Sensor device
- U.S. 8,545,463 Ophthalmic fluid reservoir assembly for use with an ophthalmic fluid delivery device
- U.S. 8,525,111 High pressure mass spectrometry systems and methods
- U.S. 8,012,136 Ophthalmic fluid delivery device and method of operation
- U.S. 7,758,789 Temple bar assembly for eyeglasses
- U.S. D597,206 Ophthalmic misting device
- U.S. 7,246,901 Adjustable length upper frame member for eyeglasses
- U.S. 7,237,892 Temple bar with ball and socket hinge and method of making same
- U.S. 7,210,777 Floating lens brow bar attachment for eyeglasses
- U.S. 7,175,270 Flexible frame assembly for eyeglasses
- U.S. D534,446 Handheld instrument
- U.S. 7,080,904 One piece spectacle with temple pre-load
- U.S. 6,706,538 Microvolume liquid dispensing array
- U.S. 6,085,773 Automatic fluid switching valve
- U.S. D425,979 Window fan
- U.S. 5,794,897 Transmission line hanger, a method of attaching the hanger and the resulting assembly

III. RELEVANT LEGAL STANDARDS

39. I am not an attorney. In preparing and expressing my opinions and considering the subject matter of the '879 patent, I am relying on certain basic legal principles that counsel have explained to me. These principles are discussed below.

40. I have been informed that a party challenging a claim's patentability in an *inter partes* review bears the burden to show by a preponderance of the evidence that the claim is unpatentable in view of the prior art. I understand that a "preponderance" means "more likely than not."

41. I understand that prior art to the '879 patent includes patents and printed publications in the relevant art that predate the priority date of the alleged invention recited in the '879 patent. As noted, here, I have been instructed to assume January 21, 2009, is the priority date of the '879 patent.

42. I have been informed and understand that a patent claim is unpatentable as "anticipated" under 35 U.S.C. § 102 if each element of that claim is disclosed either explicitly or inherently in a single prior art reference. I understand that the question of anticipation is whether a POSITA would have reasonably understood or inferred from the prior art reference's teachings that every claim element was disclosed in that single reference. I further understand that for an element that is not explicitly disclosed by a prior art reference to be deemed inherently disclosed by the reference, the element must be "necessarily present" in the reference. For

anticipation by a prior art patent or printed publication, I further understand that the reference's description must enable a POSITA to practice the claimed invention without undue experimentation.

43. I have been informed that a patent claim is unpatentable as "obvious" under 35 U.S.C. § 103 if the differences between the claimed invention and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which the subject matter pertains. I have also been informed by counsel that the obviousness analysis takes into account factual inquiries including the level of ordinary skill in the art, the scope and content of the prior art, and the differences between the prior art and the claimed subject matter.

44. I understand that for a claim to be unpatentable as obvious, the party asserting unpatentability must identify prior art references that alone or in combination with one or more other prior art references would have rendered the claim obvious to one of ordinary skill in the art at the time of the invention.

45. I understand that a single prior art reference can render a claim obvious if it would have been obvious to modify that reference to arrive at the patented invention. I understand that it is appropriate to look to the knowledge of a POSITA in assessing whether it would have been obvious to modify a single prior art reference to produce the claimed invention.

46. I have been informed that where, as here, an obviousness defense is based on a combination of prior art references, a patent claim is not obvious unless a POSITA would have been motivated to combine or modify prior art elements to obtain the invention as set forth in the claim with a reasonable expectation of success. I understand that a motivation to combine prior art references can come from the references themselves or from the understanding of a POSITA.

47. I have been informed that references must be considered in their entirety from the view of a POSITA at the time of the invention, but that viewing the art through hindsight is impermissible.

48. I have been informed that in considering obviousness, it is relevant to consider whether the prior art includes references that “teach away” from the claimed invention. I understand that a reference teaches away from the claimed invention if a POSITA, reading the reference, would be discouraged from following the path of the claimed invention or would be led in a divergent direction.

49. I have been informed that a POSITA at the time of the invention would not have been motivated to combine references and their teachings when doing so would have violated the principle of operation of the reference being modified because a POSITA generally would not be motivated to modify a reference in a way that contradicts its basic teachings or by making it inoperable for its intended purpose.

50. I have been informed that mere knowledge of known alternative arrangements does not alone provide a reason that a POSITA would be motivated to combine the known alternative to arrive at the invention. Likewise, motivation is not necessarily present simply because a POSITA had the capability to make the necessary modification to arrive at the invention.

51. I have been informed that design patents are different from utility patents in that they are directed to the appearance of an article of manufacture and thus must depict an “ornamental design.”

52. I have been informed that a claim can recite elements using functional language. Such elements are known as “means-plus-function” elements and are construed according to a particular set of rules. When construing a means-plus-function element, the function recited in the claim must be identified. The element is then construed to cover the corresponding structure disclosed in the specification for performing the recited function, as well as any equivalent structures known at the time of the invention. I have been further informed that a prior art structure is equivalent to the corresponding structure in the specification if the prior art structure performs the same function—the one recited in the claim—in substantially the same way and with substantially the same results.

IV. OVERVIEW OF THE '879 PATENT

53. The '879 patent is titled "Drink Containers," and issued on January 1, 2019. Ex. 1001 (cover). The patent generally describes a drink container with a cap assembly portion and a mouthpiece assembly portion with two configurations, a dispensing configuration and a stowed configuration to selectively restrict the flow of drink liquid. *Id.*, Abstract. The cap assembly may include a "user release mechanism," to automatically release the mouthpiece assembly from the stowed to the dispensing configuration. *Id.*, 1:55-62, 6:22-28. The application that matured into the '879 patent, U.S. Patent Application No. 15/817,013, was filed on November, 17, 2017, and it claims priority to U.S. Patent Application No. 12/357,114, filed on January 21, 2009. *Id.*, p.2.

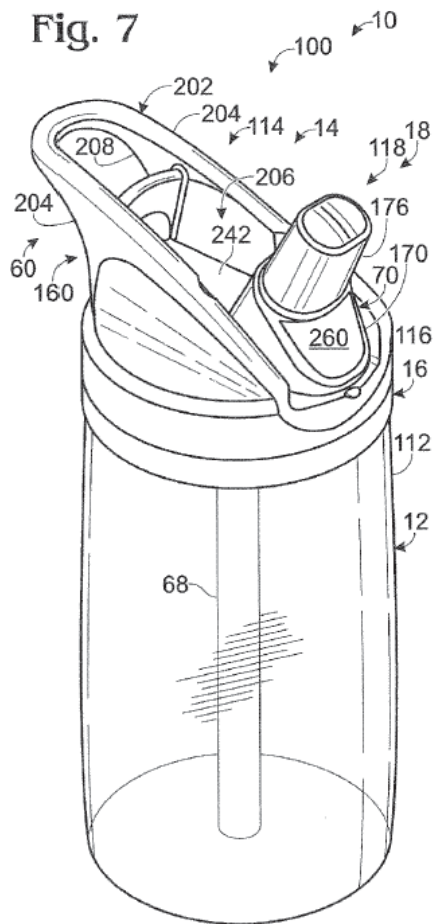
54. The '879 patent has 20 claims. *Id.*, 21:24-24:21. Independent claim 1 is the only independent claim.

55. Dependent claims 3, 5-8, and 10-19 all depend directly or indirectly from, and incorporate the limitations of, claim 1. *Id.*, 22:27-24:14. Claim 3 adds that the "sliding member is configured to slide relative to the base of the cap assembly." *Id.*, 22:28-30. Claim 5 adds that "the tube portion includes structure for securing the tube portion to the rigid collar member and restricting relative movement between the tube portion and the rigid collar member." *Id.*, 22:33-37. Claim 6 adds that "the mouthpiece assembly further includes a mouthpiece portion that includes the outlet

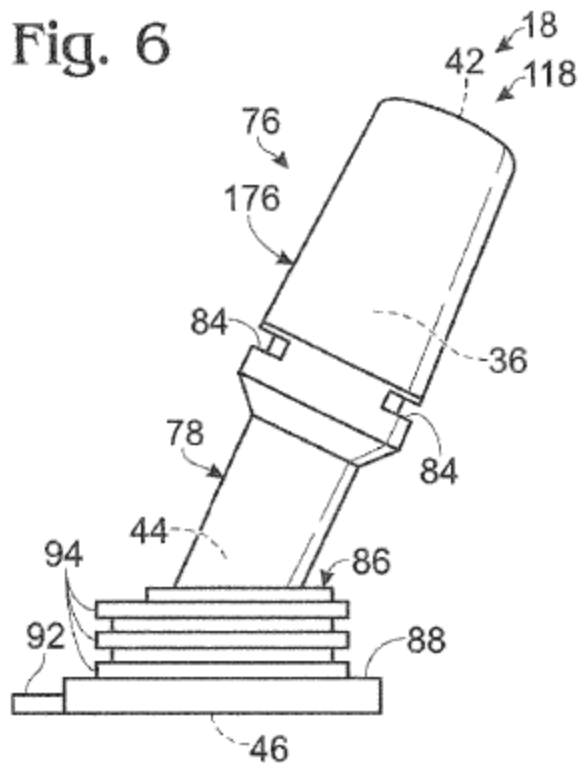
and is constructed of the resiliently deformable material.” *Id.*, 22:37-41. Claim 7 depends directly from claim 6 and further adds that “the mouthpiece assembly includes mouthpiece-securing structure that secures the mouthpiece portion to the rigid collar member and restricts relative movement between the mouthpiece portion and the rigid collar member.” *Id.*, 22:42-46. Claim 8 depends directly from claim 7 and further adds that “one of the mouthpiece portion and the tube portion includes the mouthpiece-securing structure.” *Id.*, 22:47-49. Claim 10 depends directly from claim 6 and further adds that “the mouthpiece portion and the tube portion are constructed as a unitary assembly.” *Id.*, 23:1-3. Claim 11 add that “the mouthpiece assembly further includes an anchor portion.” *Id.*, 23:4-7. Claim 12 depends directly from claim 11 and further adds that “the anchor portion has a greater exterior perimeter than the tube portion.” *Id.*, 23:7-8. Claim 13 depends directly from claim 11 and further adds that “the anchor portion and the tube portion are construed as a unitary assembly.” *Id.*, 23:9-11. Claim 14 depends directly from claim 11 and further adds that “the anchor portion defines a recess that is sized and shaped to engage and mate with corresponding structure of the base.” *Id.*, 23:12-15. Claim 15 depends directly from claim 11 and further adds that “the anchor portion further includes a projecting flange.” *Id.*, 23:17-18. Claim 16 depends directly from claim 11 and further adds that “the anchor portion is sized to restrict passage of the anchor portion through the through-passage.” *Id.*, 23:19-21. Claim 17 adds that “the crimping

region at least partially biases the mouthpiece assembly to the dispensing configuration.” *Id.*, 24:1-3. Claim 18 adds that “the cap assembly further includes a pair of lateral guards.” *Id.*, 24:4-5. Claim 19 depends directly from claim 18 and further adds that “the cap assembly further includes a dust cover portion.” *Id.*, 24:10-11.

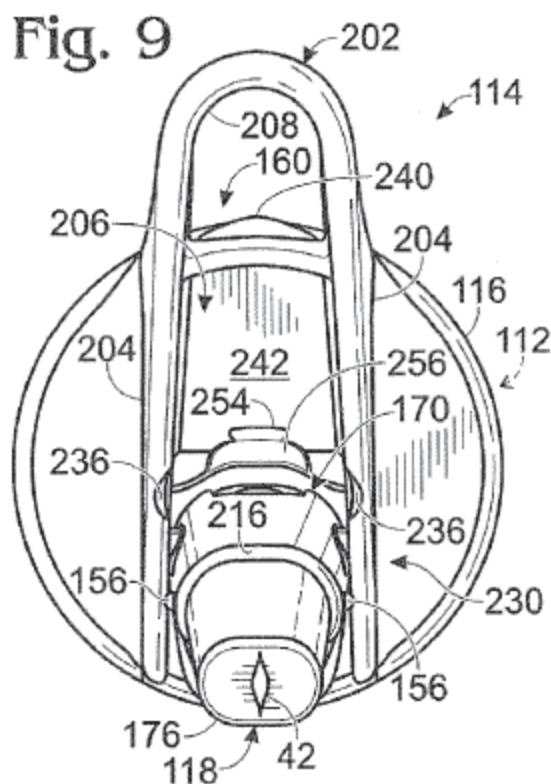
56. The ’879 patent discloses various embodiments to illustrate the claimed drink containers. Figure 7 below represents an example drink container according to the ’879 patent, including a cap assembly (14) and a mouthpiece assembly (18). *Id.*, 4:14-19, 4:5-63, Fig 7.



57. Mouthpiece assembly (18) includes a mouthpiece portion (76), tube (78), and anchor portion (86), as is represented in Figure 6 below. Ex.1001, 8:37-40, Fig. 6.



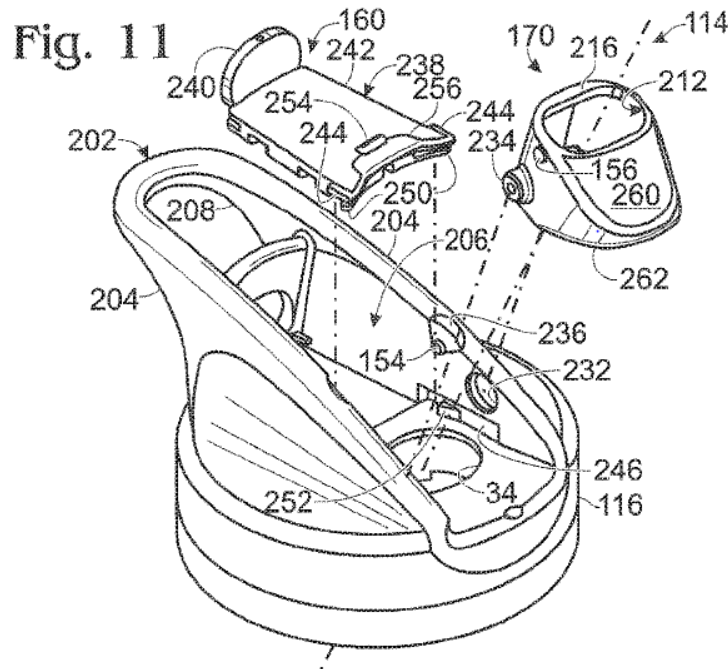
58. Figure 9 below represents a top view of an exemplary cap assembly (114) according to the invention, including a user release mechanism (160), which further includes a user engagement pad (240) and a sliding member including a generally planar portion (242). Ex.1001, 12:63-13:7, Fig. 9. The sliding member is configured to slide upon user actuation of the user release mechanism (160), automatically disengaging the catch structures and releasing the mouthpiece assembly to move from the stowed to the dispensing configuration. Ex.1001, 13:1-5, 13:22-32, Fig. 9.



59. The exploded view provided by Figure 11 below further illustrates the sliding member 238 and the catch structures 154 and 156. The specification states that “the first catch structure of cap assembly 114 includes a pair of cylindrical depressions 154” and “the second catch structure of the rigid collar member includes a pair of hemispherical protrusions 156.” *Id.* 12:37-41.¹ These catch structures mate

¹ A POSITA would have appreciated that elements 154 (the cylindrical depressions) are the locations of the first catch structures since the first catch structures include the cylindrical depressions, and would have appreciated that elements 156 are at the locations of the second catch structures since the second catch structures include the hemispherical protrusions 156. As such, I often refer to first catch structures 154 and second catch structures 156 for uniformity and consistency. *Id.*, 12:39-41.

when the mouthpiece assembly is in the stowed configuration. *Id.* 12:34-36. Sliding member 238, with its engagement pad 240, is also illustrated below in the exploded view of Figure 11 and, as illustrated, is separate from the first and second catch structures 154 and 156.



60. The application that matured into the '879 patent was filed November 17, 2017. The applicant cited Kiyota and Choi in an IDS filed concurrently with the application. Ex. 2003, 238-316. In the first non-final office action of April 2, 2018, the Examiner issued a double patenting rejection over U.S. Patent Number 9,820,595, which granted from the subject application's immediate parent (U.S. Patent Application Number 15/398,569). *Id.*, 203-04. Upon accepting a subsequently filed terminal disclaimer, the examiner allowed all of the claims as

originally filed and did not provide a statement on the reasons for allowance. *Id.*, 166-67, 188.

V. LEVEL OF ORDINARY SKILL IN THE ART

61. I understand that my assessment of the claims of the '879 patent and the teachings of the prior art and my analysis and opinions herein must be undertaken from the perspective of what would have been known or understood by a person having ordinary skill in the art, reading the '879 patent on its priority date and in light of the specification and file history of the '879 patent. I refer to such a person as a "POSITA."

62. I was asked to determine the level of ordinary skill in the art that a POSITA would have had in the field of the '879 patent as of its priority date.

63. I understand there are multiple factors relevant to determining the level of ordinary skill in the pertinent art, including: (1) the levels of education and experience of persons working in the field at the time of the invention; (2) the sophistication of the technology; (3) the types of problems encountered in the field; and (4) the prior art solutions to those problems. I have considered and analyzed each of these factors in arriving at my opinion regarding the level of ordinary skill in the art.

64. I have been instructed to assume that January 21, 2009, the filing date of the priority parent application (U.S. Patent Application No. 12/357,114) to which

the '879 patent claims priority, is the correct priority date for the '879 patent. I have not been asked to offer any opinion on whether the '879 patent is properly entitled to this priority date.

65. In my opinion, a POSITA in the field of the '879 patent, as of January 21, 2009 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.

66. I note that Petitioner's declarant, Dr. Vallee, opined that, in his, opinion, "one skilled in the art would have had an undergraduate degree in mechanical engineering or equivalent coursework, as well as one or more years of experience in designing, prototyping, and/or manufacturing fluid containers or similar products. More work experience may substitute for less education, and vice versa." Ex.1003, ¶ 29.

67. I do not discern any meaningful difference between my opinion and Dr. Vallee's opinion as to the level of ordinary skill in the art that would have any impact on my opinions in this proceeding, and my opinions would be the same applying either definition.

68. I note that I met at least these minimum qualifications set forth in my proposed definition and set forth in Dr. Vallee's proposed definition to be considered

a POSITA as of the assumed priority date of the '879 patent of January 21, 2009.

And while my qualifications at that time exceeded that of a POSITA, I nonetheless placed myself back in the shoes of the hypothetical POSITA having the education and experience level set forth in these proposed definitions as of January 21, 2009 (rather than my own shoes) when performing my analysis and arriving at my opinions in this matter.

69. I understand that a person of ordinary skill in the art is not a specific real individual, but rather a hypothetical individual having the qualities reflected by the factors above. This hypothetical person has knowledge of all prior art in the relevant field and takes from each reference what it would teach to a person having the education and experience of a POSITA.

70. Even if not expressly stated below, all of my opinions expressed herein are offered from the perspective of this hypothetical POSITA, as provided in the definitions set forth above and as of January 21, 2009. Further, I may in some cases use the present tense (e.g., “a POSITA would understand”) instead of the past tense (e.g. “a POSITA would have understood”) for simplicity and brevity, but all opinions below are given from the perspective of what a POSITA would have understood as of January 21, 2009.

VI. CLAIM CONSTRUCTION

71. I have been instructed to assume certain claim constructions apply to certain claim terms, and for other claim terms, I have also been asked to offer my opinion regarding the correct claim construction of those terms. I discuss these claim constructions below. For those claim terms not addressed with express constructions below, I have been instructed to apply the plain and ordinary meaning of those claim terms as would have been understood by a POSITA as of the assumed priority date of the '879 patent after reviewing the patent and its file history.

A. “user release mechanism”

72. I note that Petitioner has proposed in this proceeding to construe “user release mechanism” as being a means-plus-function limitation governed by 35 U.S.C. § 112(f) and as requiring the corresponding structure of the '879 patent’s “sliding member 238 (and its component parts)” for all grounds. Pet., at 20-23.

73. I also note that the Petition asserts that the recited functions of the “user release mechanism” are

“(i) to automatically disengage the first and second catch structures upon actuation of the user release mechanism and thereby release the mouthpiece assembly to move via its bias from the stowed configuration to the dispensing configuration” and (ii) being “biased to urge the sliding member away from a position where the sliding member disengages the first and second catch structures.”

Id., 21-22.

74. I also understand that a claim construction order has been issued by the district court in the co-pending district court case between Petitioner Trove and Patent Owner CamelBak. *See* Ex. 2002. I understand that the district court construed the term “user release mechanism” in that order. Ex. 2002, 21.

75. Specifically, I understand the court held that this is a means-plus-function term governed by 35 U.S.C. § 112(f) and construed the required function to be: “[a]utomatically disengaging the first and second catch structures upon actuation of the user release mechanism and thereby releasing the mouthpiece assembly to move via its bias from the stowed configuration to the dispensing configuration” and “[u]rging the [sliding member/displacement mechanism] away from a position where the [sliding member/displacement mechanism] disengages the first and second catch structures *Id.*, 15, 19 (second and third brackets in original). In addition, I understand the court construed the required corresponding structure for performing this function for claim 1 “as including sliding member 238, engagement pad 240, planar portion 242, tabs 244, springs, leaf springs, biasing members 250, tabs 252, collar engagement portion 254, and depression 256.” *Id.*, 20.

76. Even though the district court constructed the “user release mechanism” as sliding member 238 (and its component parts), I have been instructed to only apply the corresponding structure identified by the district court that

Petitioner applied in its Petition in this matter, *i.e.*, the sliding member 238 (and its component parts).

77. Therefore, without opining on the correctness of such a construction, I have been instructed to assume that the claim term “user release mechanism,” is a means-plus-function term governed by 35 U.S.C. § 112(f), as found by the district court and as proposed by Petitioner. I have also been instructed to assume that the correct recited function for this claim term in claim 1 is that recited by the district court as set forth above. Finally, I have been instructed to assume that the required corresponding structure for this claim term is the sliding member 238 (and its component parts), as proposed by Petitioner.

78. Therefore, I have in my analysis relied on a construction of “user release mechanism” that requires the sliding member 238 (and its component parts) of the ’879 patent.

B. “to automatically disengage the first and second catch structures”

79. I note that Patent Owner submits that the claim limitation “to automatically disengage the first and second catch structures” means that the claimed disengagement must be at least in part caused by the bias of the mouthpiece assembly as opposed to being wholly caused by the user. I agree with this construction. This construction is supported by both the intrinsic and extrinsic evidence.

80. First, the plain claim language supports this construction. Claim 1 recites that the “user release mechanism” performs the function of “automatically disengag[ing] the first and second catch structures,” “thereby” the mouthpiece assembly is “release[d]” to “move via its bias.” Thus, claim 1 makes clear that the mouthpiece assembly has a bias, and this automatic action results in the mouthpiece assembly moving via its bias.

81. Second, the specification also confirms this meaning. The ’879 patent specification repeatedly equates its use of “automatic” in this manner to movement under the force of a bias. This is opposed to being movement that is wholly under the action of the user (i.e., wholly manual in nature). Ex. 1001, at 1:60-61 (“the mouthpiece assembly is biased toward the dispensing configuration *and thus moves automatically under its bias* upon release by the user-release mechanism”), 6:25-28 (“the mouthpiece assembly may be configured *to move automatically via, or under, its bias* to the dispensing configuration upon release from its stowed configuration.”), 11:21-23 (“a portion of the mouthpiece assembly . . . may be biased *to pivot automatically to the dispensing configuration when not restrained from moving under this bias.*”).

82. Third, this construction is also consistent with dictionary definitions indicating that “automatic” or “automatically” requires at least some lack of user intervention, so as to distinguish the term “automatic” from “manual.” Ex. 2007, at

1 (“done or produced as if by machine” or “having a self-acting or self-regulating mechanism”); Ex. 2005, at 1 (“If a machine or device does something automatically, it does it independently, without human control.”); Ex. 2006, at 2-3 (“self-acting once set in motion” or “[o]f a machine, appliance, etc.: that does not require an operator; that works by itself under fixed conditions, with little or no direct human control”).

83. It is my opinion that a POSITA, therefore, would have understood that the claimed “automatic[]” disengagement means that “the claimed disengagement must be at least in part caused by the bias of the mouthpiece assembly as opposed to being wholly caused by the user.”

VII. THE PETITION DOES NOT ESTABLISH THE UNPATENTABILITY OF ANY OF THE CHALLENGED CLAIMS

A. Ground 1 – The Petition fails to show that the combination of Kiyota, Choi, and Ribarits discloses a “user release mechanism” or renders obvious the “rigid collar member” of Claim 1.

84. I am of the opinion that the Petition fails to show a reasonable likelihood of prevailing on Ground 1 because Petitioner fails to show with a reasonable likelihood that the combination of Kiyota, Choi, and Ribarits discloses or renders obvious at least the “user release mechanism” and “rigid collar member” of claim 1. Initially, I note that, while the Petitioner asserts Ground 1 on the combination of Kiyota, Choi, and Ribarits, the Petition only relies on Kiyota and Choi for claim 1. Pet., 31.

85. Petitioner only contends the “user release mechanism” is disclosed (not rendered obvious) by Kiyota and relies on arguing that Kiyota discloses an “equivalent” to the corresponding structure. Pet., 44 (“Kiyota *discloses* a user release mechanism that performs the recited function.”) (emphasis added). However, Petitioners proffers nothing more than conclusory argument and expert testimony in support of this assertion, which should be disregarded. Patent Owner proffers reasoned argument establishing that Kiyota’s alleged equivalent does not perform the alleged function in substantially the same way to achieve substantially the same results.

86. For the “rigid collar member,” Petitioner does not contend that Kiyota discloses this element and instead attempts to combine Choi to render obvious this element. Pet., 39 (“Choi discloses a rigid collar member (mount 100) which ‘may be pivotally moved relative to the base.’”). But, as discussed below, Petitioner’s proposed combination would plainly change the principle of operation of Kiyota and render it inoperable for its intended purpose.

87. The Petition does not cure these deficiencies in its challenges to any of the dependent claims. *See* Pet., 48–69 (setting forth challenges to dependent claims 3, 5-8, and 10-19 under Ground 1). Accordingly, the defects in Petitioner’s to independent claim 1 infect all challenged claims under Ground 1.

1. The Petition does not show that with a reasonable likelihood that Kiyota discloses the “user release mechanism” of claim 1.

88. Petitioner relies on Kiyota alone as disclosing an alleged “equivalent” under 35 § 112, ¶6 of the corresponding structure of the ’879 patent for the claimed “user release mechanism” of claim 1. *See generally*, Pet., 44-46. However, Petitioner’s highly conclusory analysis is directed only at whether Kiyota’s structure allegedly performs the same function and fails to analyze whether it does so in substantially the same way to achieve substantially the same result. *See id.*, 45-46 (“This is substantially the same in Kiyota where a user presses buttons 40, which slide to automatically disengage the first and second catch structures.”). In addition, I will discuss arguments and supporting evidence establishing that Kiyota’s alleged user release mechanism does not perform the recited function in substantially the same way to achieve substantially the same result. By failing to present non-conclusory argument or evidence in support of these two additional required prongs and in light of Patent Owner’s contrary argument and evidence, it is my opinion that the Petition does not establish a reasonable likelihood with regard to this claim element and with regard to the entirety of Ground 1.

89. Petitioner contends that “user release mechanism” should be construed as a means-plus-function limitation under §112(6). *See generally id.*, 23-23. The district court also did so in the related litigation. Ex. 2002, 15, 19-20. Patent Owner

does not dispute that §112(6) applies for the purposes of this Preliminary Response.

POPR, Sec. VA. Petitioner acknowledges that this means the “user release mechanism” must be construed to cover the disclosed corresponding structure in the written description of the ’879 patent that corresponds to the recited function of the “user release mechanism,” as well as equivalent structures. Pet., 21 (“Means-plus-function claims are construed using a two-step process. First, the ‘function’ is identified. Next, the patent specification structure corresponding to the recited function is identified.”) (internal citations omitted).

90. Claim 1 of the ’879 patent requires:

a user release mechanism adapted to automatically disengage the first and second catch structures upon actuation of the user release mechanism and thereby release the mouthpiece assembly to move via its bias from the stowed configuration to the dispensing configuration;

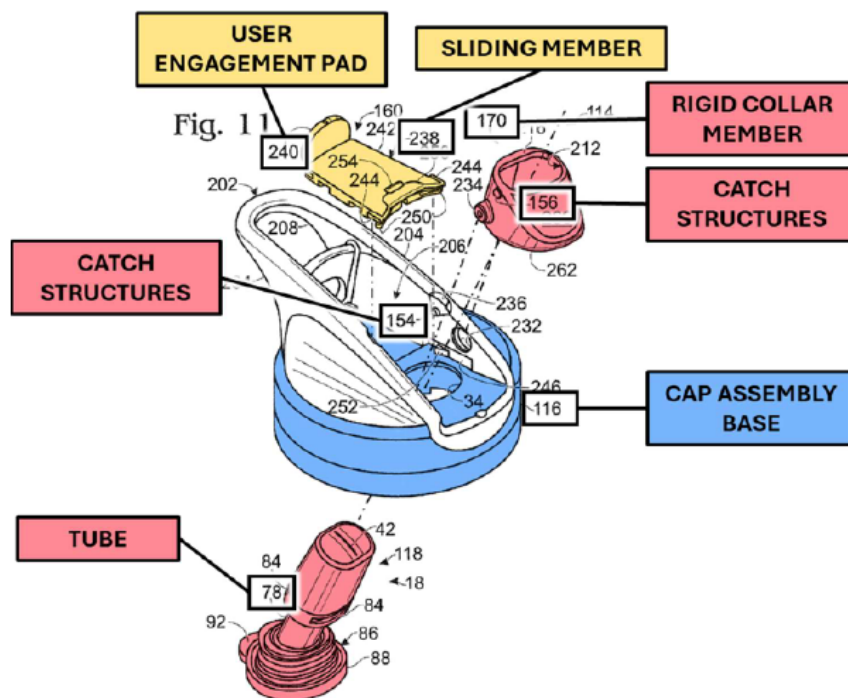
wherein the user release mechanism includes a sliding member with a user engagement pad; wherein the user release mechanism is biased to urge the sliding member away from a position where the sliding member disengages the first and second catch structures; and wherein the sliding member is configured to slide relative to the base of the cap assembly to selectively disengage the first and the second catch structures.

91. The Petitioner argues that the primary reference Kiyota discloses the claimed “user release mechanism.” Pet., 44. It does not rely on Choi or Ribarits for this element, nor does it contend that the “user release mechanism” is rendered obvious by Kiyota. *See generally id.*, 44-46.

92. Petitioner asserts that the “structures in Kiyota that perform the claimed user release mechanism function are equivalent to the structures of the ’879 patent.” *Id.* Petitioner contends in highly conclusory fashion that Kiyota discloses structures that “perform the claimed function in the same way to achieve the same result.” Pet., 45 (citing Ex.1003, ¶ 98) (“In one embodiment of the user release mechanism of the ’879 patent, for example, a user pushes a sliding element forward, towards the mouthpiece assembly, to disengage the catch structures. This is substantially the same in Kiyota where a user presses buttons 40, which slide to automatically disengage the first and second catch structures.”).

93. In asserting that Kiyota discloses the “user release mechanism,” Petitioner construes the claimed “user release mechanism” to require the “sliding member 238 (and its component parts)” of the ’879 patent as the corresponding structure. *Id.*, 22. Petitioner then contends that when “a user pushes a sliding element forward, towards the mouthpiece assembly, to disengage the catch structures” in the ’879 patent, it “is substantially the same in Kiyota where a user presses buttons 40, which slide to automatically disengage the first and second catch structures.” *Id.* 45-46 (citing Ex.1003, ¶98).

94. The Petition includes an annotated Figure 11, reproduced below, from the ’879 patent to illustrate various structures, including the “sliding member 238” and its “user engagement pad 240.” *Id.*, 23.



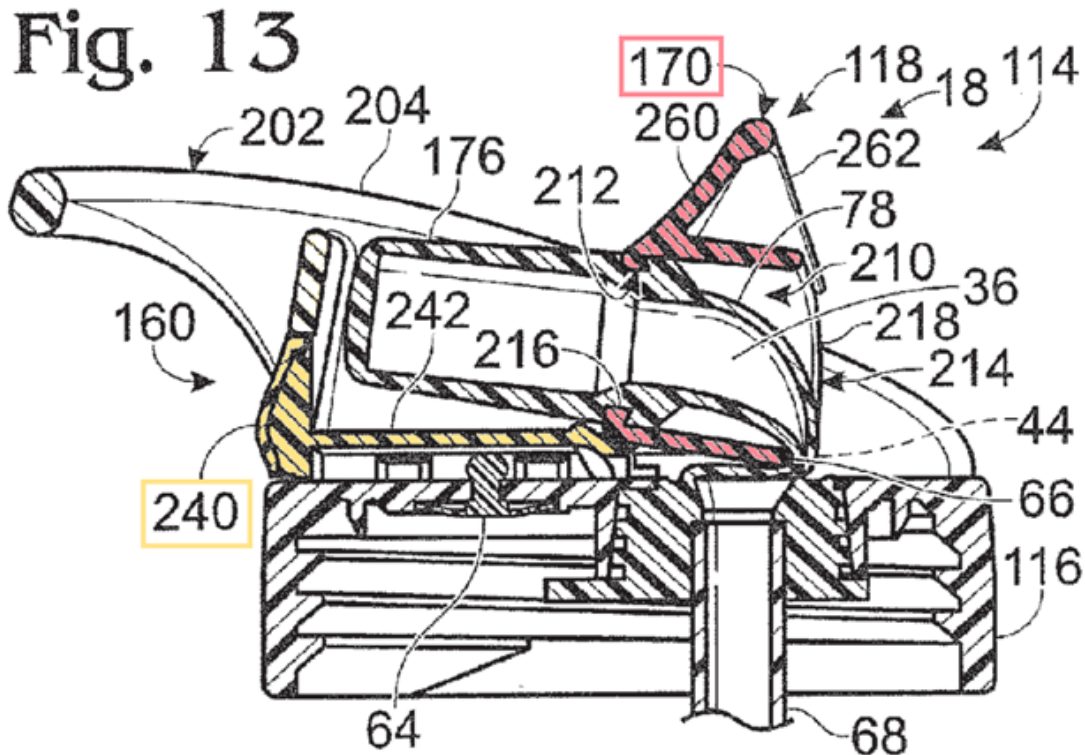
Id. (citing Ex.1001, FIG. 11 (annotated by Petitioner)). The Petition describes the sliding member 238 as performing the following functions:

“(i) to automatically disengage the first and second catch structures upon actuation of the user release mechanism and thereby release the mouthpiece assembly to move via its bias from the stowed configuration to the dispensing configuration” and (ii) being “biased to urge the sliding member away from a position where the sliding member disengages the first and second catch structures.”

Id., 21-22.

95. I have made the following annotations to Figure 13 of the '879 patent to further illustrate how the sliding member structure interacts with the rigid collar member 170 to disengage the catch structures 156 from the catch structures 154. Ex. 1001, 13:21-32. The yellow color has been added to illustrate what Petitioner

identified as the sliding member 238 in its annotated Figure 11 above, while the pink has been added to illustrate what Petitioner identified as the rigid collar member 170 and catch structures 154, 156 in its Figure 11 above.



Ex.1001, Fig.13 (annotated).

96. I am of the opinion that the Petition does not show that Kiyota discloses a structure that performs “the identical function, in substantially the same way, with substantially the same result” as the sliding member 238 of the ’879 patent. *Kemco Sales, Inc. v. Control Papers Co.*, 208 F.3d 1352, 1364 (Fed. Cir. 2000).

97. Petitioner’s only contention with regard to this three-part legal test is that when “a user pushes a sliding element forward, towards the mouthpiece assembly, to disengage the catch structures” in the ’879 patent, “[t]his is

substantially the same in Kiyota where a user presses buttons 40, which slide to automatically disengage the first and second catch structures.” Pet., 45-46 (citing Ex.1003, ¶98).

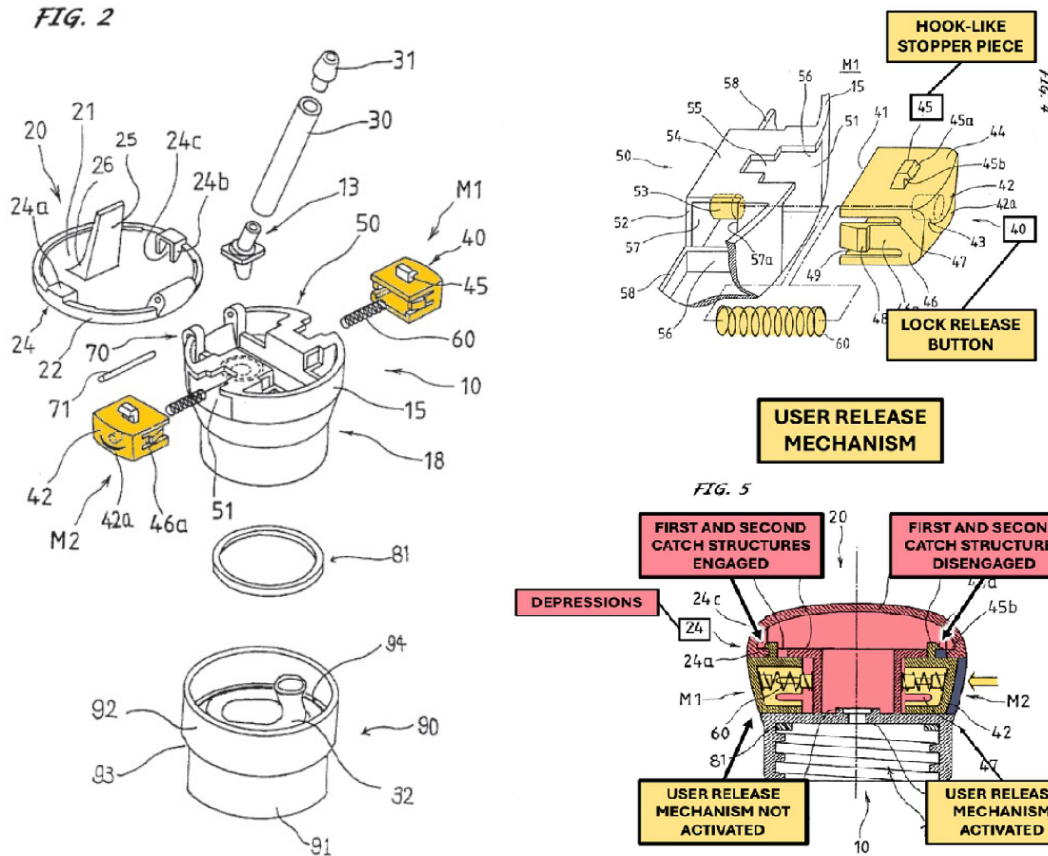
98. First, this assertion amounts to nothing more than Petitioner contending that Kiyota’s structure performs substantially the same function as the function recited for the “user release mechanism” in the claim, which is only the first prong of the required three-prong test. That is, Petitioner contends that a user pressing Kiyota’s buttons 40 performs substantially the same function as a user pushing the sliding member 238 of the ’879 patent to automatically disengage the first and second catch structures. The recited function in the claim already requires that the user release mechanism “automatically disengage the first and second catch structures upon actuation.” Thus, Petitioner has only asserted that Kiyota’s buttons 40 perform substantially the same function as that claimed for the “user release mechanism” of claim 1 of the ’879 patent, which is insufficient to meet the separate “way” and “result prongs of the test for a mean-plus-function “equivalent” under § 112, ¶6. *Odetics, Inc. v. Storage Tech. Corp.*, 185 F.3d 1259, 1267 (Fed. Cir. 1999) (“Functional identity and either structural identity or equivalence are **both necessary**.”); *Chiuminatta Concrete Concepts, Inc. v. Cardinal Indus., Inc.*, 145 F.3d 1303, 1309 (Fed. Cir. 1998) (finding the “way” prong not satisfied notwithstanding performance of the same function and noting that “[a]lmost by

definition, two structures that perform the same function may be substituted for one another” but “[t]he question of known interchangeability is not whether both structures serve the same function, but whether it was known that one structure was an equivalent of another.”).

99. Second, Petitioner merely asserts, in conclusory fashion, that the structures in Kiyota and the '879 patent are equivalent because “[t]hey perform the claimed function in the same way to achieve the same result. Pet. 45 (citing Ex. 1003, ¶ 98). Dr. Vallee’s declaration is equally conclusory, as fails to add any analysis or discussion of the two structures beyond what appears in the Petition itself. *Compare id.*, 45-46 with Ex.1003 ¶98. Petitioner only alleges one similarity between “how” both structures operate—that they both involve pushing a structure forward toward a mouthpiece assembly to disengage catch structures—and neither Petitioner nor its declarant explain why this alleged similarity demonstrates that Kiyota’s structure functions in “substantially the same way” to achieve “substantially the same result” as the sliding member 238 in the '879 patent. *See* Pet., 45–46; Ex.1003, ¶98.

100. I disagree with Dr. Vallee and the Petitioner, and I’m of the opinion that Kiyota’s lock release buttons do not operate in substantially the same way as the '879 patent’s sliding member, nor do they realize substantially the same result. Petitioner ignores several differences. For example, the '879 patent describes a single sliding member that performs the recited function by lifting another portion

of the mouthpiece assembly—rigid collar 170—which disengages the catch structures. *See* Pet., 22 (annotating Ex.1001, Fig. 11); Ex.1001, 12:54–65, 13:15–25. In contrast, Kiyota discloses two “lock release buttons 40, 40” that must be “simultaneously depressed,” which disengages the alleged catch structures integral to each lock release button (“stopper pieces 45, 45”) from depressions 24c, 24c. Ex.1004, 8:65–9:7; *see* Pet., 45 (alleging both of Kiyota’s lock release buttons are equivalent to the ’879 patent’s sliding member); Ex.1003, ¶ 97 (describing Dr. Vallee’s understanding of how Kiyota’s lock release buttons must be “simultaneously depressed”). Further, the “lock release buttons 40, 40” directly release the lid, not the mouthpiece assembly (rigid collar member and tube). This is in contrast with the claimed structure, which indirectly disengages the catch structures that are located on the rigid collar member and the lateral guards. Kiyota’s structures are illustrated by the annotations below.



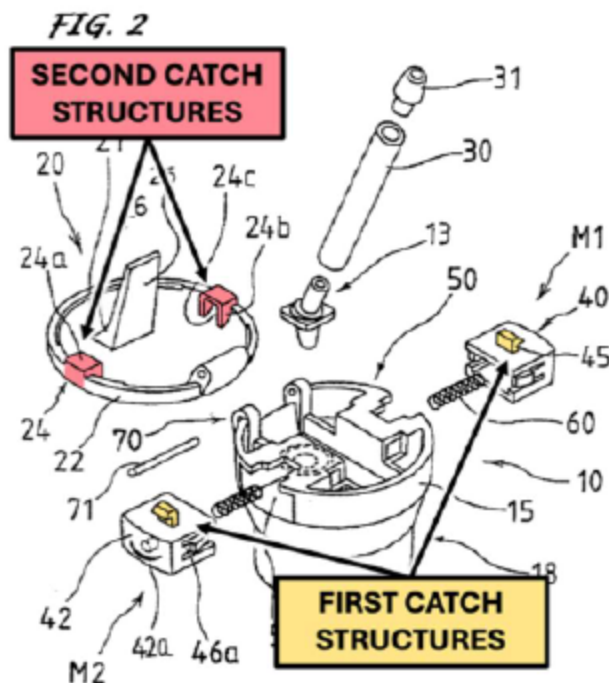
Pet., 45 (right); see Ex.1004, Figs. 2, 4, 5. I've annotated Figure 2 (left).

101. The first substantial difference in the way the structures function is that Kiyota requires a user to press two buttons, while the '879 structure only requires a user to press one sliding member. As can be seen in the annotated Figure 5 above, releasing the alleged mouthpiece in Kiyota requires a user to press simultaneously on two distinct, opposing buttons (40) on the sides of the cap assembly where the '879 patent describes a user only engaging a single sliding member 238 on the top of the cap assembly. Ex.1001, 12:63-68, 13:22-32; Ex.1004, 8:65-9:7. Figure 2 above, the exploded diagram, also illustrates the two buttons, which I've annotated

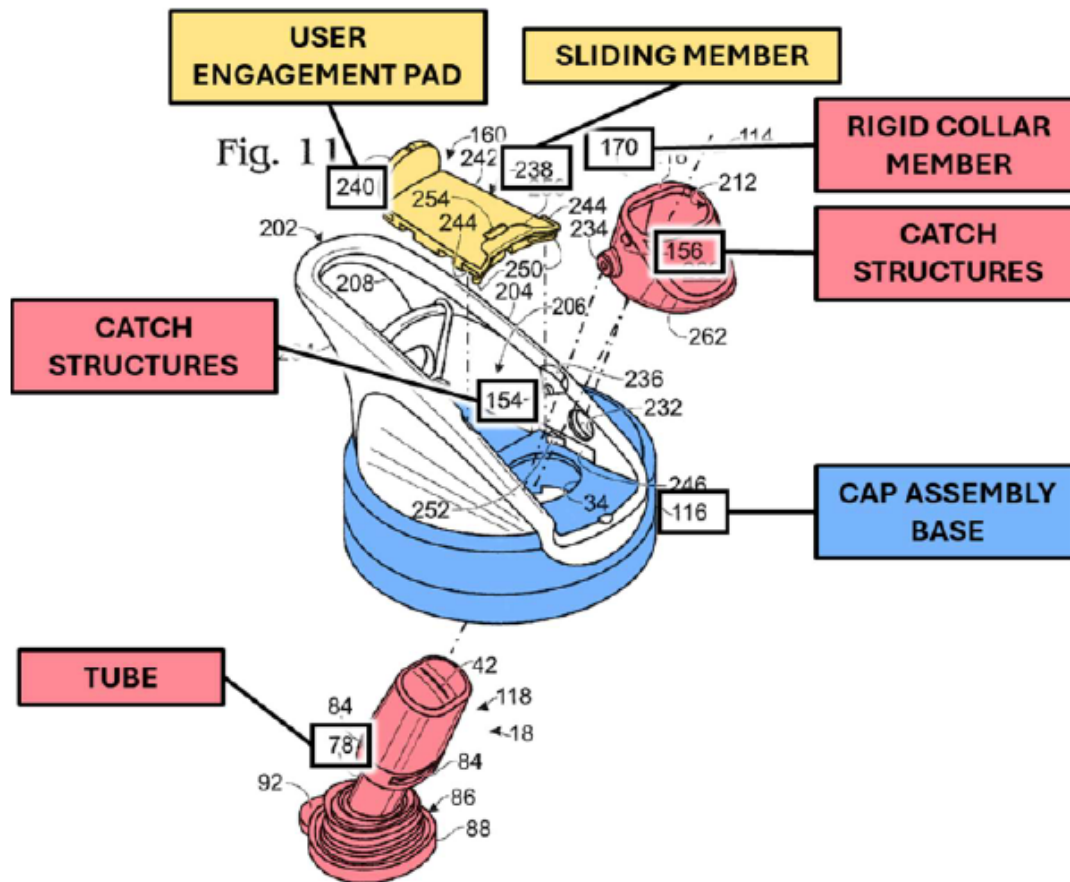
in yellow. Ex. 1004, Fig. 2 (annotated). Petitioner asserts that Kiyota's two-release mechanism "certainly disclose *a* structure that performs the recited function." Pet., 46 (emphasis in original). However, Kiyota's device would not function without *both* buttons being pressed because each button has a stopper piece (an alleged catch mechanism). See, e.g., Ex. 1004, Fig. 5 (illustrating *both* buttons 40 having a stopper piece 45), see also *id.* 8:65–9:7 ("stopper pieces 45, 45"). Kiyota itself states this: "[I]t is necessary to operate each switching device M1, M2 [which include buttons 40, 40] simultaneously." Ex. 1004, 11:33-34. As can be seen in Figure 2 above, the buttons are part of what is labeled the M1 and M2 switching devices. *Id.*, 6:1-2 ("M1 is composed of a socket 50 and a lock release button 40."). Thus, engaging only one of Kiyota's buttons to disengage its stopper piece would still leave the other stopper piece fully engaged and the lid would not open, since each button has an individual hook like stopped piece 45. *id.*, 5:61-63 ("[E]ach of M1, M2 is made of the same member arranged in opposition to each other."). Thus, Petitioner fails to "certainly" show "*a* structure" in Kiyota that performs an identical function in substantially the same way as the sliding member 238 of '879 patent because any one of the buttons alone would not open the lid 20. This is substantially different from the sliding member of the '879 patent that requires a user to push only one piece. Ex. 1001, 12:63-64 ("Sliding member 238 includes a user engagement pad 240."). In contrast to Kiyota where one button releases one of two alleged catch structures needed to open

the lid, the user release mechanism of the '879 patent releases each catch structure for opening the mouthpiece. *Id.*, (“Sliding member 238 includes a collar engagement portion 254 that is adapted to engage the rigid collar member and force disengagement of the first and second catch structures upon actuation.”). A POSITA would have seen this as a substantially different way in which the structures function, since pressing Kiyota requires pressing two buttons, while pressing the '879 sliding member alone will function to open the mouthpiece. A POSITA would have seen this as a substantially different result as well because pressing one of Kiyota's buttons does nothing, while pressing the '879 sliding member opens the mouthpiece.

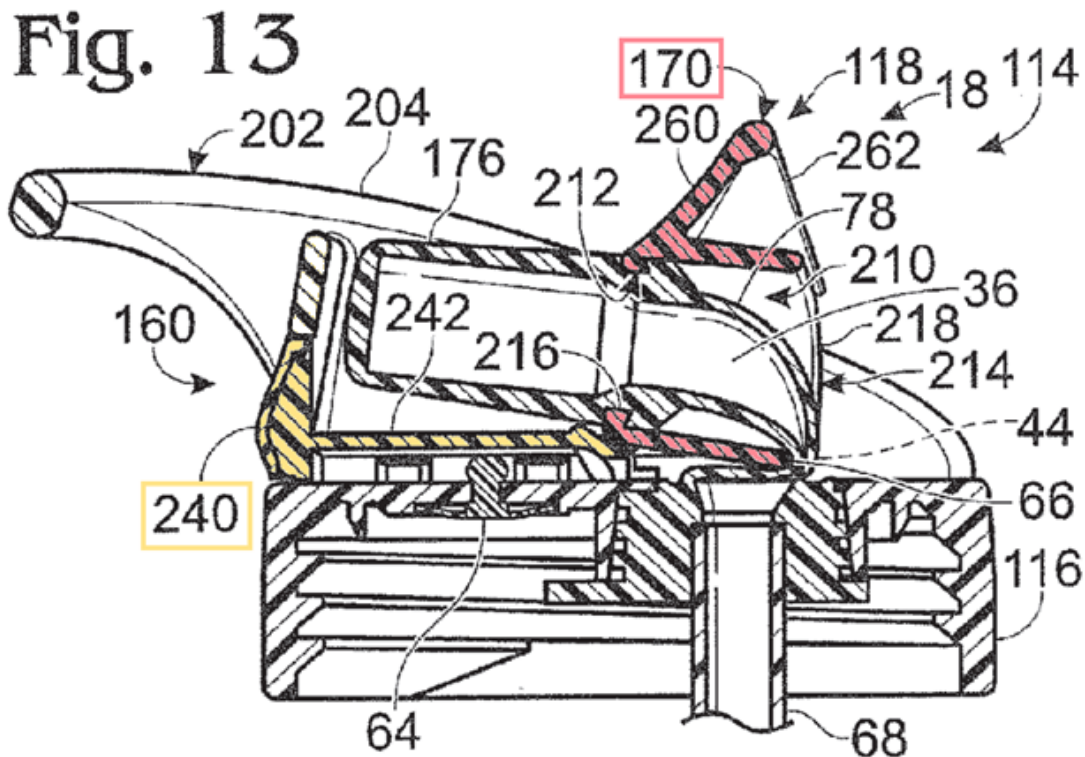
102. The second substantial difference in the way the structures function stems from Kiyota's structures each having an alleged catch structure that is integral with the lock release buttons. Ex. 1004, 7:10-11 (“Moreover, the stopper piece 45 is projected from the upper plate 44 of the lock release button 40”). This can easily be seen in Petitioner's annotations of Kiyota's Figure 2, reproduced below from the Petition, and indicating the first catch structures in yellow and protruding from the lock release buttons. *Id.*



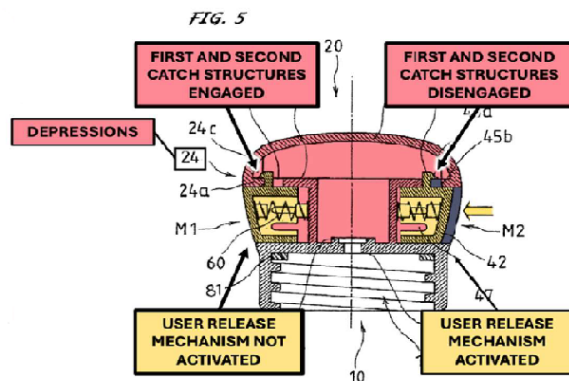
Pet., 44 (annotating Ex. 1004, Fig. 2). However, the '879 patent instead describes a sliding member that forces movement of the rigid collar member, which disengages the catch structures located elsewhere, as can be seen in Petitioner's own annotations of Figure 11 that annotate the catch structures in pink, visibly separate from the sliding member annotated in yellow. Ex.1001, 12:63-68, 13:22-32; Ex.1004, 6:28-35.



Pet., 23 (annotating Ex.1001, Fig. 11). As can be seen in the illustration below, when a user presses on the engagement pad 240 of the sliding member 238, this causes the sliding member to contact and lift the rigid collar member at rim 216, and the subsequent “[p]ivoting of the rigid collar member thereby forces disengagement of the first and second catch structures.” Ex. 1001, 13:36-37.



Ex.1001, Fig.13 (annotated). In contrary, as illustrated below from Figure 5 of Kiyota (annotated by Petitioner), pressing the lock button moves the stopper piece 45 (the alleged catch structure) from one position to another in order to disengage.



Pet., 47 (annotating Ex. 1004, Fig. 5). A POSITA would have understood the mechanisms to operate in a substantially different way because pressing Kiyota's button moves an alleged catch mechanism, while pressing the '879 patent's sliding

mechanism pushes on the rigid collar member and the force causes the catch releases to disengage. A POSITA would have also understood the structures' function to have substantially different results because pushing a structure in Kiyota does nothing but disengage one of two parts necessary to open its lid, while pressing the '879 patent's sliding member acts upon the mouthpiece assembly to disengage the catch mechanisms.

103. The presence of at least these differences demonstrates that Kiyota's lock release buttons 40 do not operate in substantially the same way nor achieve substantially the same result as the sliding member 238 of the user release mechanism in the '879 patent. Two buttons that must be simultaneously actuated and that directly disengage catch structures, as in Kiyota, do not work in substantially the same way nor achieve substantially the same result as a single actuator that indirectly disengages catch structures, as in the '879 patent. Further, since Kiyota's stopper pieces 45 (alleged first catch structures) are each integral with the lock release buttons 40, depressing the lock release buttons 40 causes the stopper pieces 45 to clear the interference with connecting portions 24 (alleged second catch structures). This is substantially different from the way the slider member of the '879 patent works to push against the rigid collar member 170 and forcefully disengage the catch structures. To further elaborate, Kiyota's stopper piece 45 is moved to a *position* where it does not interfere with the connecting portions 24 to disengage the

two. This is substantially different from the '879 patent because, there, the disengagement is a result of the *displacement or deflection* of the material of the first and second catch structures. When the force applied by the sliding member 238 pushing against the rigid collar member 170 is great enough to displace or defect the material of the mated first and second catch structures, the catch structures will disengage. Thus, Kiyota relies on a position of its mechanism, while the '879 patent relies on the displacement or deflection of the catch structures, and ultimately the material forming the catch structures. As such, I am of the opinion that a POSITA would have understood the way in which Kiyota's lock release buttons function to be substantially different from the way in which the user release mechanism of the '879 functions.

104. These differences would not have been insubstantial for many reasons. A POSITA would have appreciated that the '879 patent's design would have only required one point of contact—the sliding member 238. Kiyota's two buttons 40 require two points of contact, one for each button. A POSITA would have seen the sliding member of the '879 to be advantageous because it would only require one point of contact, and thus only one finger, while Kiyota's buttons would require two points of contact, and thus at least two fingers. *Id.*

105. The '879 patent's structure would have also been superior through its use of sliding member 238, which is positioned on top of the bottle near the handle,

rather than Kiyota's structure, which requires buttons on the sides of the bottle where the user may be attempting to grip the bottle—posing a risk that the user might inadvertently depress the buttons with their grip and thereby unintentionally open the spout.

106. Further, the '879 patent's sliding member 238 would require more forceful pressure from a user's finger because the mechanism has to indirectly dislodge the mouthpiece and collar from the catch structures on the cap assembly base using an intermediary structure, the rigid collar member 170. Ex. 1001, 13:21-32. That is to say that a user would have to press on the sliding member 238 to a point where the force overcomes that of the force necessary to disengage the catch structures. *Id.*, (“Accordingly, upon actuation of the user release mechanism 160, the collar engagement portion engages rim 216 of the rigid collar member and forces disengagement of the first and second catch structures.”). This contrasts with Kiyota's use of buttons that only require a quick instantaneous horizontal in-and-out motion of a user's fingers (which could result from merely gripping the bottle) because the catch structure is a small, integral hook on the button itself that is directly disengaged. Ex. 1004, 7:64-82 (“Each stopper piece 45, 45 is moved in the same direction by this pressure, the lower edge portions 45b, 45b of each stopper piece 45, 45 are separated from depressions 24c, 24c of each connecting portion 24, 24. Thereby, each connecting portion 24, 24 is released from connection with each lock

release button 40, 40.”). As a consequence, the ’879 patent’s mechanism better prevents inadvertent openings in a superior way, as compared to Kiyota’s structure in light of its indirect, rather than direct, disengagement of the catches.

107. Further, Kiyota includes two locking mechanisms called the “pair of switching devices.” *Id.*, 5:58-59. Each locking mechanism of the pair has its own individual set of components. *Id.*, 61-64 (“Further, each switching device M1, M2 is made of the same member arranged in opposition to each other.”). Thus, at least by way of having all duplicate parts, Kiyota’s structure is more complex than the sliding member 138 and its components. This additional complexity would also lead to additional manufacturing costs, at least since there are more parts to source and to assemble.

108. Therefore, I am of the opinion that a POSITA would have understood that the differences between the “way” Kiyota’s buttons operate and the ’879 patent’s sliding member 238 operates, and the differences in the “result” achieved by Kiyota’s buttons and the ’879 patent’s sliding member 238, are far from insubstantial. Instead, these are important differences in how the two structures operate and the results they achieve that render the design of the ’879 patent’s user release mechanism far superior in providing a better ease of use (one finger instead of two) while at the same time better protecting against the risk of inadvertent actuation and thereby inadvertent opening. By failing to account for these important

differences between the “way” Kiyota’s buttons 40 operate and the “result” they achieve and the “way” the ‘879 patent’s sliding member 238 operates and the “result” it achieves, I believe that the Petition does not demonstrate a reasonable likelihood that the two operate in “substantially the same “way” to achieve “substantially the same result.”

109. Moreover, based on my understanding of § 112, as stated previously, the Petition was required to address these differences and explain why they are not substantial differences. However, neither the Petition nor Dr. Vallee explain how a POSITA would have understood these differences to be insubstantial. *See* Pet., 44-46, *see also* Ex. 1003, ¶¶ 96-99.

110. Beyond not addressing the structures’ differences, Dr. Vallee’s declaration is conclusory in that it simply states the “way” and “results” prongs are satisfied, and it does not explain why these prongs are allegedly satisfied. Ex.1003, ¶ 98 (“For example, in the first embodiment of the ’879 patent, the user pushes a sliding element forward, towards the mouthpiece assembly, to disengage the catch structures. Kiyota’s mechanism functions in substantially the same way: a user presses the release buttons, which slide toward the mouthpiece assembly to automatically disengage the catch structures.”).

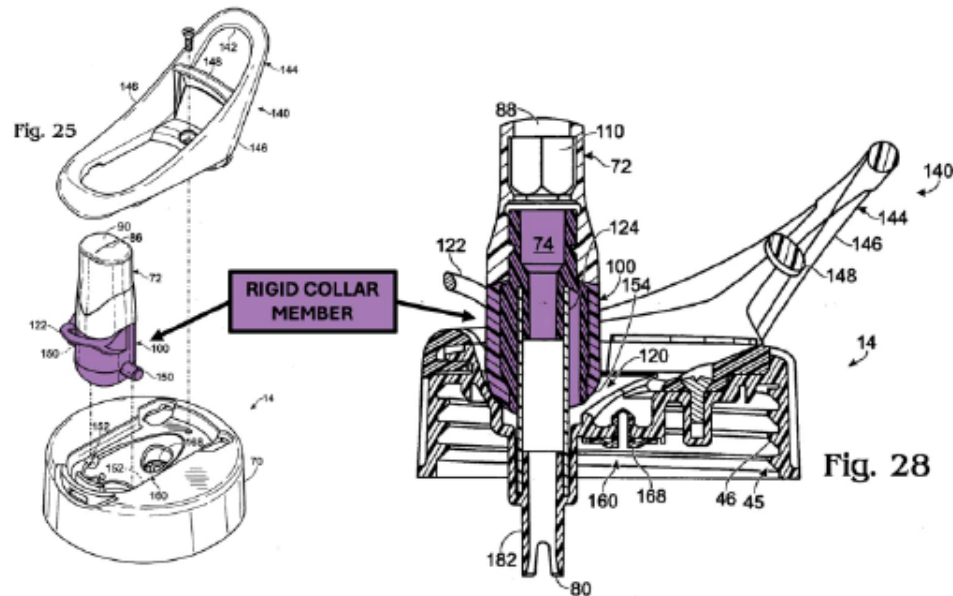
111. Petitioner does not assert an alternative obviousness theory for the “user release mechanism,” but rather relies entirely on Kiyota *disclosing* this element. *See*

Pet., 46 (“Kiyota certainly discloses *a* structure that performs the recited function.”); Ex.1003, ¶99 (Dr. Vallee stating that “it is my opinion that Kiyota nonetheless discloses a structure that performs the recited function.”).

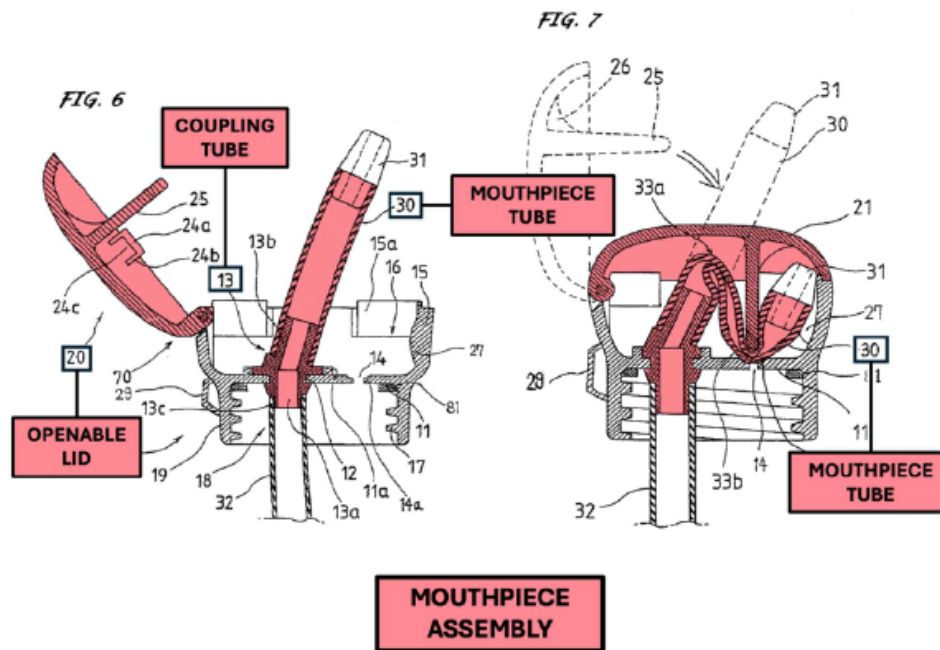
2. A POSITA would not have been motivated to combine Choi’s alleged “rigid collar member” with Kiyota to arrive at Claim 1.

112. I am also of the opinion that the Petition also fails to show by a reasonable likelihood that a POSITA would have been motivated to combine Choi with Kiyota to render obvious the “rigid collar member” of claim 1. As previously noted, only Kiyota and Choi are relied on in the Petition to alleged claim 1 is obvious. *See generally*, Pet., 39-43. Claim 1 recites “a rigid collar member that is pivotally coupled to a portion of the cap assembly and through which the tube portion at least partially extends.” Ex.1001, 21:65-68.

113. The Petition relies on combining the teachings of Choi to modify Kiyota to allegedly render this limitation obvious. Pet., 39-43. Specifically, Petitioner asserts that Choi’s mount (annotated in purple and labeled as “rigid collar member” by Petitioner below, top) and mouthpiece could be substituted for Kiyota’s mouthpiece (annotated in red by Petitioner below, bottom) to disclose the claimed “rigid collar member.” Pet. 42 (“A POSITA would have been motivated to substitute Choi’s mouthpiece and mount for Kiyota’s mouthpiece.”); *see also id.*, 40, 42.



Pet., 40 (annotating Ex. 1005, Fig. 25 and Fig. 28).



Pet., 35 (annotating Ex. 1004, Fig. 6, and Fig. 7).

114. A POSITA would not have found it obvious to modify Kiyota's mouthpiece tube to include Choi's manually pivoting mouthpiece and mount. This

is because doing so would have rendered Kiyota inoperable for its intended purpose and would have thereby violated its principle of operation. As mentioned previously, as I understand it, if the combination would have rendered Kiyota inoperable for its intended purpose by violating its principle of operation, a POSITA at the time of the invention would not have understood the combination to be obvious.

115. Kiyota's lid opens from a stowed configuration to a dispensing configuration via the upward force caused by the bias of the elasticity of the mouthpiece tube pushing the lid open. Ex. 1004, 3:5-7-12 (Kiyota states that "the invention notices elasticity and flexibility of a mouthpiece tube . . . to be stood with its elasticity by releasing the stored state at the time of use."). This principle of operation does not require the user to manually raise the mouthpiece tube into a dispensing position for use. *Id.*, 11:18:23 ("Further, as the mouthpiece tube 30 is raised by its elasticity with opening action of the openable lid 20, there is no need to push open the openable lid 20 by hands, and there is no need to pull out and raise the mouthpiece tube 30 from the storing portion by hands.").

116. On the other hand, Choi's mount for its bite-actuated mouthpiece must be manually pivoted by a user. Ex. 1005, ¶ [0077] ("flange, or lever arm, 122 that projects from the mount and provides a surface that may be grasped or otherwise suitably engaged by a user, such as by a user's finger or thumb, to draw the mouthpiece and its mount from the stowed configuration toward, or to, a ready-to-

drink configuration”). This manual method has the advantage of giving Choi’s drinking spout “a range of positions, or configurations” that can be manually selected by the user. *Id.*, ¶ [0048]. But incorporating Choi’s mount (what Petitioner alleges is a “rigid collar member”) into Kiyota’s design as the Petition proposes would render Kiyota inoperable and violate its principle of operation. Specifically, the elasticity and flexibility of Kiyota’s mouthpiece tube is critical to its operation, as that elasticity exerts the force required to open the lid and provide access to the mouthpiece tube when transitioning to a dispensing configuration. Ex. 1004, 11:18:23. Replacing Kiyota’s elastic mouthpiece tube with Choi’s rigid manually pivoting and user positionable mount and mouthpiece would eliminate Kiyota’s ability to automatically open from the upward force exerted by the elasticity of Kiyota’s alleged mouthpiece on the lid to open it. Pet., 42-43. As such, in Petitioner’s proposed combination with Choi, a user would be required to disengage Kiyota’s lock buttons, manually lift its lid, and then manually raise a pivotally attached and user-positionable mount and mouthpiece. Without manually opening the lid, the pivotally attached mount would be completely inaccessible, since Kiyota’s lid covers the entire mouthpiece tube when closed. Because Kiyota, as modified with Choi’s rigid pivoting mount in the manner proposed by the Petition, would no longer operate as intended to automatically open the lid by the elasticity of the alleged mouthpiece tube, I am of the opinion that a POSITA would not have been motivated

to use Choi's mount and mouthpiece as the "rigid collar member" in Kiyota because this would have violated its principle of operation by rendering its means of opening the lid inoperable.

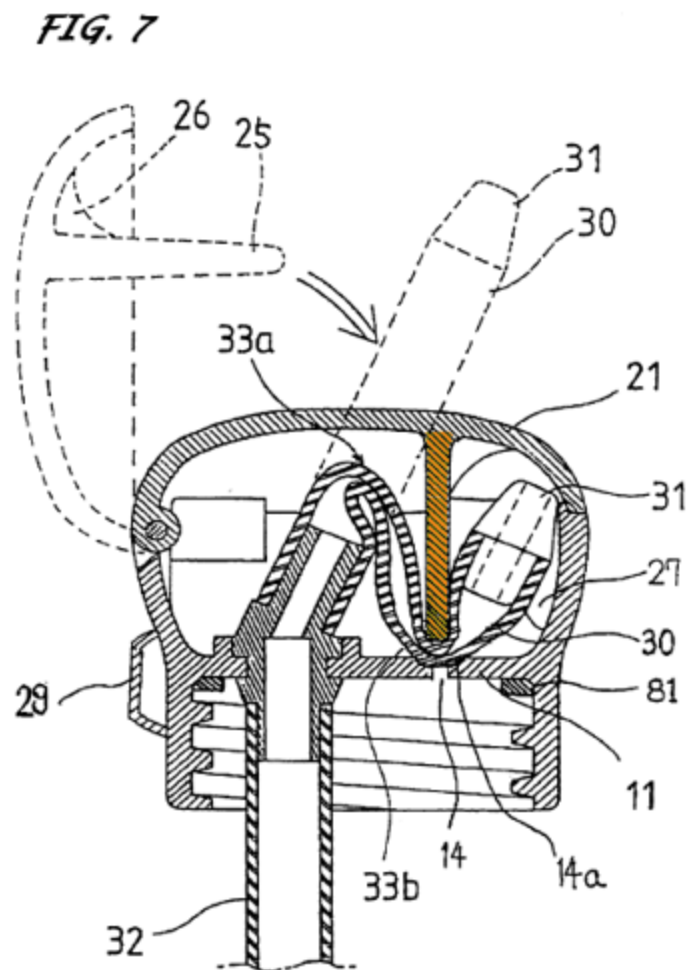
117. Additionally, incorporating Choi's mount would also render Kiyota's lock release buttons unsatisfactory for their intended purpose of holding the mouthpiece in a "folded," "storing position" and unlocking and automatically opening the lid so that "the mouthpiece tube 30" is raised "by its elasticity" with "no need to push open the openable lid 20 by hands" and "no need to pull out and raise the mouthpiece tube 30 from the storing portion by hands." Ex. 1004, 11:10-11; *see also id.*, 11:18-22). Instead, by applying Choi's design, which uses the mount and mouthpiece as a manual on/off valve, the mount and mouthpiece would have to be raised manually by hand, violating Kiyota's principle of operation. Ex. 1005, ¶ [0004]. Since Choi's mount and mouthpiece are manual, pressing the lock release buttons in Kiyota, when modified by Choi, would not automatically open the lid or raise Kiyota's mouthpiece to a drinking position nor would the buttons serve to hold the folded mouthpiece in the storing position, since the mouthpiece would already remain in the stored position unless and until opened manually by the user. *Id.*

118. Although there would be no motivation for a POSITA to make this combination because it would violate Kiyota's principle of operation and render Kiyota's design inoperable, Petitioner and its declarant Dr. Vallee allege reasons a

POSITA would have been motivated to make this combination, but each is tenuously-supported and fails for the reasons discussed below.

119. First, Petitioner alleges that the combination “would provide the advantage of a bite-actuated mouthpiece.” Pet., 42. This does not address why a POSITA would be motivated to use Choi’s mount for pivoting a mouthpiece for a “rigid collar member,” because the bite-actuated portion has nothing to do with the alleged rigid collar member portion that constitutes the component that is allegedly being combined. Ex. 1005, ¶ [0046] (“cap assembly 14 may include a mount 100 to which the bite-actuated mouthpiece is removably mounted, or secured”). That is, combining Choi’s mount as a “rigid collar member” does not require combining its bite-actuated valve, as it is not necessary for the mount and mouthpiece to be a single piece. *Id.*

120. Further, a POSITA would have viewed the bite-actuated valve of Choi as potentially problematic in Kiyota. Such valves are opened by “compressive forces.” Ex. 1005, ¶ [0052]. Combining Choi’s bite-actuated valve with Kiyota could have caused the undesirable result of Kiyota’s “pressure piece 25,” which applies pressure to the mouthpiece tube during closing, Ex. 1004, 10:1-5, to apply compressive forces to the bite-actuated valve during closing, causing potential undesired leakage during closing. To illustrate, I have annotated Figure 7 from Kiyota below:



Ex. 1004, Fig. 7 (annotated). I have annotated the presser piece 25 in orange. AS illustrated, when the lid is shut, the orange presser piece 25 folds the tube to prevent leaking. *Id.*, 11, 51-56. A POSITA would have recognized that replacing Kiyota's tube with Choi's bite-actuated mouthpiece could have caused the pressure piece to apply a compressive force suitable to open the bite valve, which as a consequence, would make the combination more susceptible to leaks.

121. Second, Petitioner alleges that "the combined cap assembly would offer improved leak protection and mouthpiece orientation control." Pet. 42-43. However,

as just noted, there would be no additional leak protection, since the combination could potentially result in Kiyota's design accidentally compressing and opening the bite valve during closing. Further, as discussed above, any such additional "orientation control" that stems from the manual nature of Choi's mount would entirely negate Kiyota's use of the elasticity of its mouthpiece tube to automatically open its lid and mouthpiece, thereby violating its principle of operation of rendering its opening mechanism inoperable.

122. Third, Petitioner alleges "the combined cap assembly" would also include "Kiyota's easy cleanability and superior protection for the mouthpiece when stowed." Pet., 42-43. This is the same language used by Dr. Vallee's declaration. Ex. 1003, ¶ 91. Neither have explained how Choi's pivoting mount used with Kiyota's design would be any easier to clean when stowed. In Kiyota's design, the stowed configuration encloses the mouthpiece, and changing the mouthpiece as proposed by Petitioner would not make it any more accessible for cleaning. Ex. 1004, 10:13-17 (When "mouthpiece tube is closed . . . [it is] stored within the storing portion 16."). Likewise, since Kiyota encloses the mouthpiece portion with the lid, any modification to the mouthpiece portion to combine Choi's mount as a "rigid collar member" would be as equally enclosed, and therefore, as equally inaccessible. *Id.* Further, adding an additional component in the form of Choi's mount as a "rigid collar member" to Kiyota's mouthpiece tube would make the tube less accessible

for cleaning because it would partially cover the tube, in addition to providing another component to clean.

123. Fourth, Petitioner asserts that “combining Kiyota and Choi is no more than the simple substitution of one known element (Choi’s mouthpiece assembly) for another known element (Kiyota’s mouthpiece assembly) to obtain predictable results.” Pet., 43. I disagree. I initially note that this is similarly unsupported by Dr. Vallee’s declaration. Ex. 1003, ¶ [0090]. However, as previously discussed, Petitioner’s proposed modification is not a simple replacement of one element for another. Substituting Kiyota’s automatically opening elastic mouthpiece tube with Choi’s manually opening pivot would have violated Kiyota’s principle of operation and would have rendered Kiyota inoperable for its intended purpose because its automatic-opening nature would be eviscerated, since the elasticity and flexibility of Kiyota’s mouthpiece tube is critical to its operation of exerting the force required to open the lid and provide access to the mouthpiece tube when transitioning to a dispensing configuration. Ex. 1004, 11:18:23.

124. Fifth, Petitioner asserts that the “combination also represents the use of known techniques . . . to modify or improve a similar device, namely Kiyota’s mouthpiece assembly.” Pet., 43. However, even if Choi’s pivoting mount and bite-actuated mouthpieces were known, their use in Kiyota’s device does not improve it. As noted, using Choi’s bite-actuated mouthpiece with Kiyota would potentially

cause it to accidentally open and leak during the closing of Kiyota's lid since its presser piece would fold or bend the mouthpiece using a compressing force. Further, the manual pivot of Choi's mount would have prevented Kiyota's lid from opening, causing the lid to require a manual opening. Thus, a POSITA would not have predicted that this modification would improve Kiyota's device.

125. Sixth, Petitioner asserts that "bite-actuated mouthpieces and pivoting rigid collars were well known, leading a POSITA to reasonably expect success in the combination." However, as I've noted, it has been explained to me that mere knowledge of known alternative devices does not by itself establish motivation.

126. Finally, Petitioner asserts that "the combination applies known techniques (using a pivoting rigid collar to control the orientation of a mouthpiece and using a bite-actuated mouthpiece to prevent leaks) to a known device (Kiyota's mouthpiece assembly) that is ready for improvement and yields predictable results, namely fewer leaks and more precise control over the orientation of Kiyota's mouthpiece portion." Pet., 43. However, as discussed, a POSITA would have understood that adding Choi's manual control would not improve Kiyota, because it violates Kiyota's principle of operation of providing an automatically opening lid and mouthpiece that does not require the user to "push open the openable lid 20 by hands" nor to "pull out and raise the mouthpiece tube 30 from the storing portion by hands." Ex.1004, 11:18-22; *id.*, 9:9-16 ("[T]he mouthpiece tube 30 pushes the top

board 21 by its elastic force, automatically opens the openable lid 20 with pressure and stands by outwardly projecting from the storing position.”). As also described, using the bite-actuated mouthpiece would not have necessarily prevented leaks, since the design of Kiyota’s lid would apply a compressive force during closing that could open the bite valve and cause leaks. Ex. 1005, ¶ [0052]

127. For these reasons, I am of the opinion that the Petition does not show a reasonable likelihood that Kiyota discloses a “user release mechanism” or that a POSITA would have been motivated to combine Choi’s alleged “rigid collar member that is pivotally coupled to a portion of the cap assembly and through which the tube portion at least partially extends.”

B. Grounds 2 and 3 – The Petition fails to show that the combination of Park and Ribarits discloses a “user release mechanism” and “rigid collar member that is pivotally coupled to a portion of the cap assembly through which the tube portion at least partially extends” of claim 1.

128. Petitioner challenges claims 1, 3, 5-8, 10-13, and 15-19 under Ground 2 based on the combination of Park and Ribarits. Petitioner challenges claim 14 under Ground 3 based on the combination of Park, Ribarits, and Kiyota. Since claim 14 depends from claim 11, which depends from claim 1, claim 14 includes each element of claim 1. Petitioner only relies on Park allegedly disclosing the claimed “user release mechanism” of claim 1. However, I’m of the opinion that the Petition does not show by a reasonable likelihood that Park discloses an “equivalent” to the “sliding member 238 (and its component parts).” I am also of the opinion that the

Petition does not show by a reasonable likelihood that a POSITA would have been motivated to combine Ribarits with Park to render obvious the “rigid collar member that is pivotally coupled to a portion of the cap assembly and through which the tube portion at least partially extends” of claim 1.

1. The Petition does not show with a reasonable likelihood that Park discloses the “user release mechanism” of claim 1.

129. As discussed above, I understand that the “user release mechanism” is being construed as a means-plus-function term governed by § 112(f) and that the corresponding structure of the “user release mechanism,” as identified by the Petitioner, in claim 1 of the ’879 patent is the “sliding member 238 (and its component parts).” Pet., 22. However, I initially note that the Petition does not explain or identify the “components parts” of the sliding member 238. *See generally id.*, 20-23.

130. The Petition relies only on Park as disclosing the “user release mechanism” of claim 1. Specifically, Petitioner argues Park discloses an “equivalent” to the ’879 patent’s “sliding member 238 (including its component parts” through Park’s disclosure of “locking means comprising operating button 30 fastened at the front surface of the opening chamber 10 that is configured to be moved forward and backward, and hook 32 . . . for locking and unlocking the cover 20.” Pet., 96 (internal quotations removed) (citing Ex. 1006, 4).

131. I am of the opinion that the Petition fails to show with a reasonable likelihood that Park's locking means is an "equivalent" under § 112(f) to the "sliding member 238 (and its component parts)" of the '879 patent because Park's locking means (the button 30 having hook 32) does not perform the "the identical function, in substantially the same way, with substantially the same result" as the sliding member 238 and its component parts.

132. The Petition simply concludes that Park discloses a "locking means" that "performs the recited function, and which is equivalent to the structure recited in the '879 patent." Pet, 95-96. Petitioner's entire argument is reproduced below:

Limitation 1[B][4] is a means-plus-function limitation. Park discloses a user release mechanism that performs the recited function, and which is equivalent to the structure recited in the '879 patent. (Ex. 1003, ¶¶262-265). Park discloses "locking means" comprising "operating button 30 fastened at the front surface of the operating chamber 10" that "is configured to be moved forward and backward, and a hook 32 ... for locking and unlocking the cover 20" (Ex. 1006, 4).

Pet., 95-96 (ellipses in original). The Petition does not explain how Park's structure performs an identical function, in substantially the same way, with substantially the same result. *See id.* The Petition does not specify which structures recited in the '879 to which it purportedly compares to Park's "locking means." *See id.* Instead, the Petition just refers to Dr. Vallee's statements. *See* Pet., 96 (citing Ex. 1003, ¶¶262-265). The Petition provides a one-sentence summary of Park's operating button, and

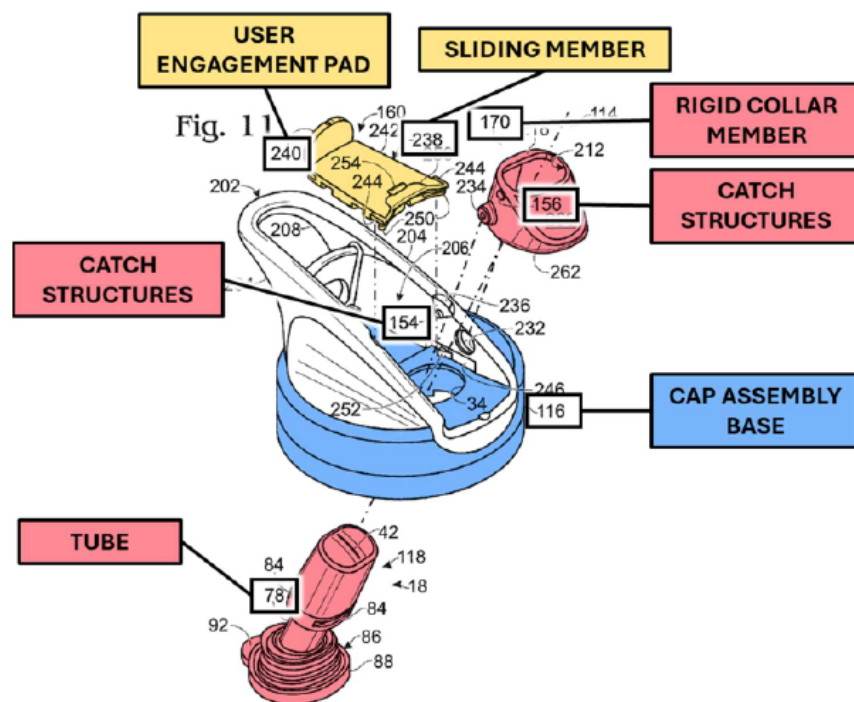
it does not mention how Park's button supposedly performs an identical function, in substantially the same way, to achieve substantially the same result as the sliding member and its components.

133. Dr. Vallee provides some comparison of Park's operating button and the sliding member 238 (and its component parts). Ex. 1003, ¶ 265. Here, Dr. Vallee merely states his opinion that the operating button "performs the same function, in the same way, to achieve the same result." *See id.* Dr. Vallee attempts to support this conclusion by providing one example of how Park's operating button allegedly performs a function in substantially the same way. *Id.* He asserts that a user would press Park's operating button to disengage catch structures in substantially the same way as a user would press the '879 patent's sliding member to disengage catch structures. *Id.* However, Dr. Vallee's testimony does not provide (1) whether the button performs *an identical function* and (2) whether the button achieves *substantially the same result*. *See id.*

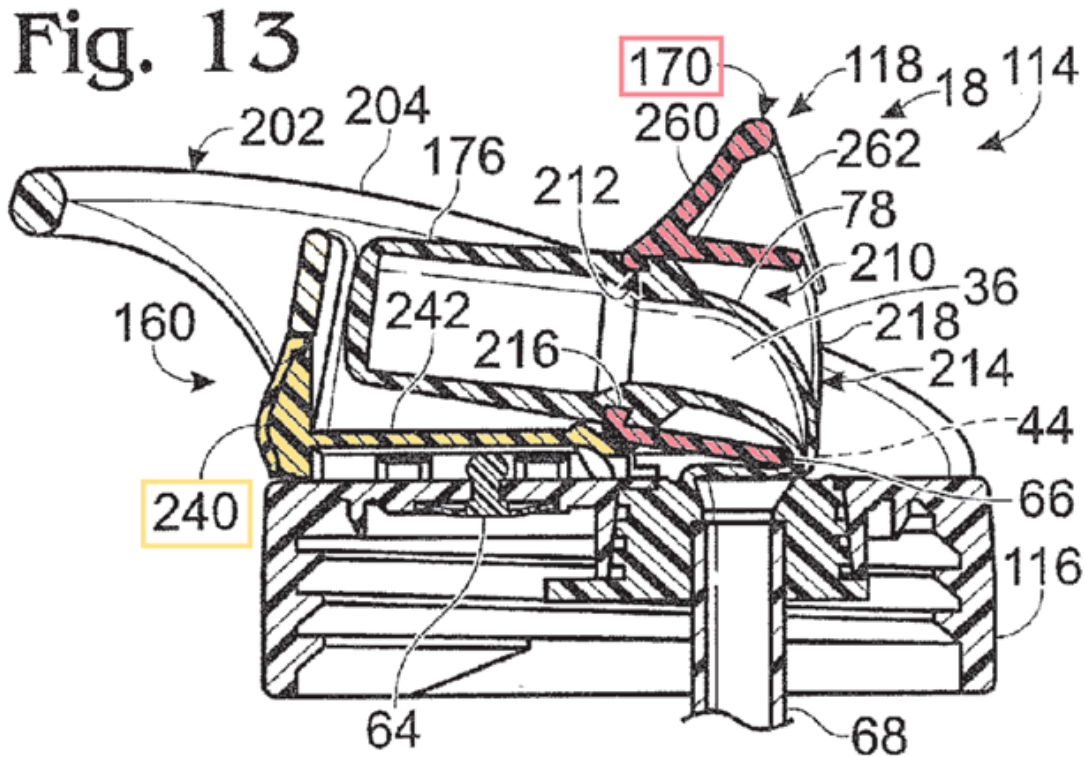
134. Although this has not been fully discussed in the Petition or by Dr. Vallee, I am of the opinion that Park's operating button does not perform an identical function, in substantially the same way, to achieve substantially the same result. First, Park's operating button does not perform an identical function to that recited in claim 1 for the '879 patent's sliding member 238 (and its component parts)

because Park's button does not function to "automatically disengage the first and second catch structures upon actuation."

135. Petitioner's annotated version of Figure 11 from the '879 patent illustrates the sliding member 238, including the user engagement pad 240, in yellow below.



Pet., 23 (annotating Ex.1001, Fig. 11). The sliding member 238 is also shown in the cross-sectional side view of Figure 13 below. I have annotated the rigid collar member in pink and the sliding member 238 with the user engagement pad in yellow to correspond with Petitioner's annotations.



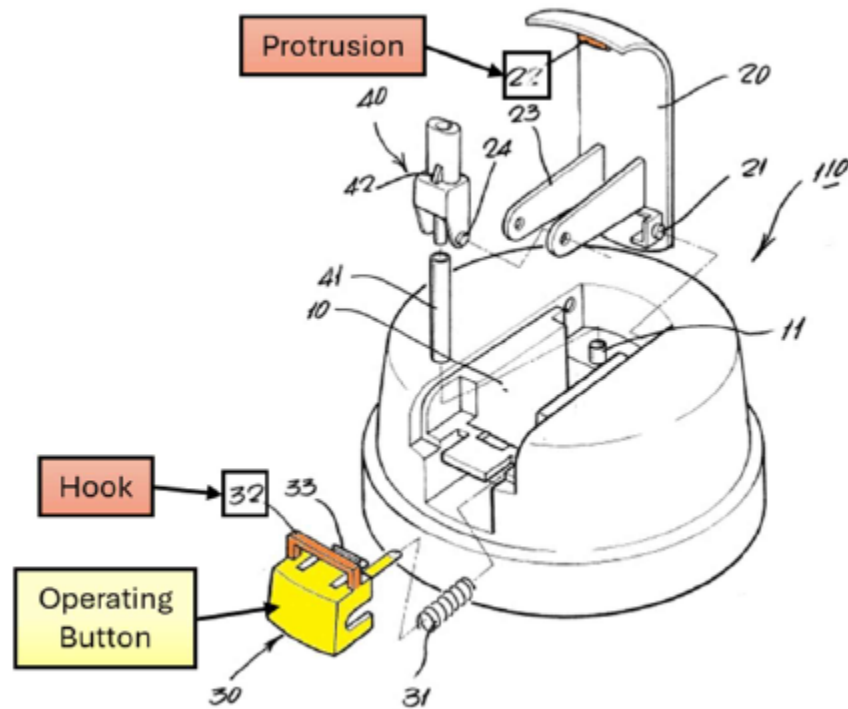
Ex. 1001, Fig. 13 (annotated).

136. The sliding member 238 of the '879 patent functions to “automatically disengage” the catch structures as recited in claim 1. As can be seen in the top image of annotated Figure 11, the catch structures 154 and 156 (annotated by Petitioner in red above) are part of the lateral guards 204 and the rigid collar member 170. Ex. 1001, 12:37-42 (“The first catch structure of cap assembly 114 includes a pair of cylindrical depressions 154 extending into the lateral guards 204 of the optional handle 202, and the second catch structure of the rigid collar member includes a pair of hemispherical protrusions 156 positioned and sized to mate with the depressions 154.”). When the mouthpiece is in the stowed configuration, the catch structures are engaged, and there is a force acting against this engagement from the bias of the

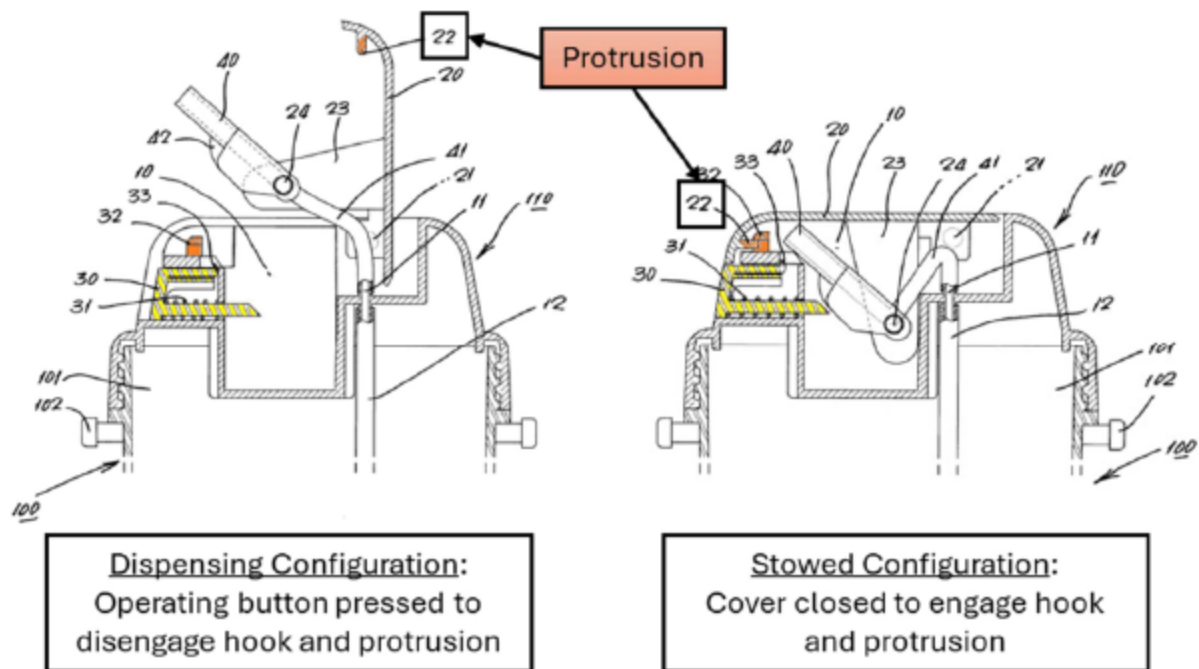
mouthpiece. *Id.* 5:61-67; *see also id.*, 12:49-51. As can be seen in Figure 13, “upon actuation of the user release mechanism 160 [which includes the sliding member 238], the collar engagement portion engages rim 216 of the rigid collar member and forces disengagement of the first and second catch structures.” *Id.*, 13:29-32. This action is “automatic” because, when the sliding member 238 is engaged, it imparts a force onto the rim of the rigid collar member, which then applies a force to the first and second catch structures (154 and 156). This is in addition to the force applied by the bias of the mouthpiece assembly to the first and second catches (154 and 156). The combination of the two forces disengage the catch structures. Ex. 1001, 13:22-32. Thus, this disengagement is not the result of entirely user-applied force. Instead, it is also partly the result of the force from the bias of the mouthpiece assembly. This disengagement then allows the mouthpiece assembly to move via its bias from the stowed configuration to the dispensing configuration. *Id.*, 13:36-40. Therefore, a POSITA would have understood the disengagement of the catch structures to happen “automatically” because the disengagement of the catch structures is at least in part caused by the bias, as opposed to being wholly caused by the user. *See also supra* Sec. VI.B.

137. Park’s operating button does not perform the identical function of “automatically disengage[ing] the first and second catch structures upon actuation” because the bias of its alleged mouthpiece assembly does not participate in this

disengagement. The disengagement of the alleged catch structures in Park is entirely caused by user action. As illustrated below, Petitioner alleges that Park's hook 32 is the first catch structure and that protrusion 22 is the second catch structure (each annotated by Petitioner in orange).



Pet., 94 (annotating Ex. 1006, Fig. 3). As can be seen in the illustration below, the user presses the operating button forward against a spring 31. Doing so moves the hook to a position where it disengages from the protrusion. Ex. 1006, 5 (As a result of the operating button being pressed, “the hook 32 formed on the front side of the operating button 30 is disengaged from the protrusion 22.”). Thus, Park's hook and protrusion are disengaged based on the location of the hook.

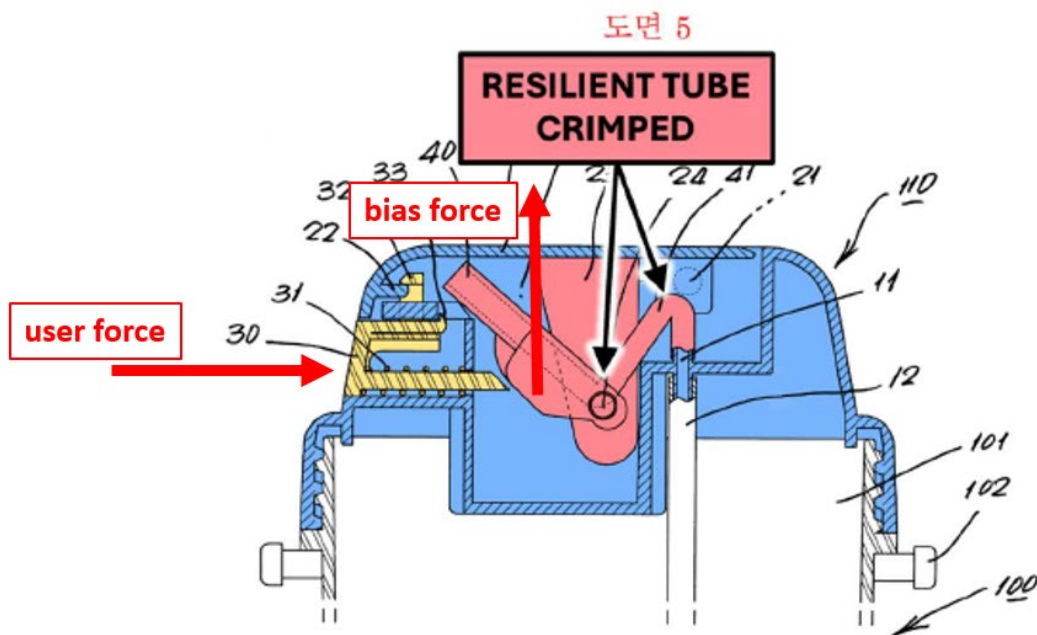


Pet., 95 (annotating Ex. 1006, Fig. 6 (left) and Fig. 5 (right)).

138. A POSITA would have understood that Park does not disclose that its operating button “automatically disengage[s]” the catch structures (i.e., hook 32 and protrusion 22), as claimed by the ’879 patent. This is because the hook 32 and protrusion 22 are wholly disengaged by the user pressing the operating button without the assistance of any bias from the mouthpiece assembly. Park’s hook is disengaged solely based on its position. When the button is pressed, the hook moves to a position where it no longer restricts the protrusion from moving upward with the cover due to the elastic force of the connecting hose. Ex. 1006, 5, Fig. 6.

139. While the elastic force of the connecting hose provides an upward force that helps to open the cover, Park does not disclose that the hose provides any lateral

force in the direction of the button press to help the user apply force against the spring 31 to disengage the hook 32 from the protrusion 22. And a POSITA would not have understood that it does. To illustrate, the force by the user (“user force”) and the force by the bias from the connecting hose (“bias force”) have been added to Petitioner’s annotated version of Figure 5 of Park. *See* Pet., 10. The mouthpiece assembly does not apply force in the same direction as the user force. Thus, the bias force does not assist with the disengagement of the hook 32 and protrusion 22.



Pet., 10; Ex.1006, Fig. 5 (annotated). Even if the connecting hose were to support any lateral bias, this bias would have been understood by a POSITA to be outward (to the left in the annotated Figure 5 above). This is because the movement of the mouthpiece assembly is constrained by the holding arm attached to the lid. It

prevents the mouthpiece assembly from moving to the right. Any compressive force would necessarily only result in motion up and to the left in this configuration. Thus, any such lateral bias would be in a direction *opposite* the user force. This force would not assist in disengaging the protrusion and hook. Instead, it would act against it.

140. Because the mouthpiece assembly provides no lateral bias assisting the user to depress the button against the spring and move the position of the hook so that it disengages from the protrusion, a POSITA would have understood that the hook and protrusion are not “automatically” disengaged, since automatic disengagement would require at least some assistance from the bias. Thus, Park’s operating button does not perform the identical function of the “user release mechanism” in the ’879 patent of “automatically disengage[ing] the first and second catch structures upon actuation.”

141. Moreover, the “way” Park’s operating button functions and the “result” it achieves are not substantially the same as for the sliding member 238 (and its component parts) of the ’879 patent. As noted, the way in which Park’s operating button functions is to be pressed against the spring. This is done without assistance of any bias from the connecting hose so as to slide the hook (alleged first catch member) from one location where it is engaged with the protrusion to another location where it is disengaged from the protrusion. Ex. 1006, Figs. 5 and 6 (illustrating the location at which the hook is engaged and disengaged from the

protrusion). In contrast, the '879 patent's sliding member places a force on the rigid collar that, in combination with the force from the bias of the mouthpiece, is great enough to automatically disengage the catch mechanism. Ex. 1001, 13:29-32. A POSITA would have understood that the difference in the "way" these two structures function is not insubstantial. This is because Park's mechanism disengages without any bias, while the '879 patent's mechanism disengages with the assistance of a bias from the mouthpiece applied between the catch structures. The '879 patent's mechanism, by providing assistance to the user, is more user friendly.

142. Likewise, the "result" of a user engaging Park's operating button is to move the location of the hook (one of the alleged catch mechanisms) against the entire force of the spring, while the "result" of pushing the engagement pad 240 of the sliding member 238 in the '879 patent is to impart enough additional force (over that of the force already applied by the bias) between the two catch structures until the force holding them together is overcome and they disengage. Thus, a POSITA would not understand Park to disclose a structure equivalent to the "user release mechanism" of the '879 patent because the operating button does not perform the same function in substantially the same way to achieve substantially the same result.

2. Petitioner fails to show by a reasonable likelihood that a POSITA would have been motivated to combine Ribarits's alleged "rigid collar member" with Park for claim 1.

143. I am of the opinion that the Petition also fails does not show with a reasonable likelihood that a POSITA would have been motivated to combine Ribarits's alleged "rigid collar member" with Park so as to satisfy that element of claim 1. As noted by Petitioner, "Park does not disclose . . . 'a rigid collar member that is pivotally coupled to a portion of the cap assembly and through which the tube portion at least partially extends.'" Pet., 73.

144. Claim 1 requires "a rigid collar member that is pivotally coupled to a portion of the cap assembly and through which the tube portion at least partially extends." Ex. 1001, 21:65-68. Dr. Vallee correctly points out that Park's "tube portion of the mouthpiece assembly does not extend through the straw" and thus "a person of ordinary skill in the art would not understand 'straw 40' to constitute the claimed rigid collar member." Ex. 1003, ¶ 254. Petitioner's annotated Figure 3 from Park illustrates the straw 40 and how it is connected to connecting hose 41, which does not run through the straw 40.

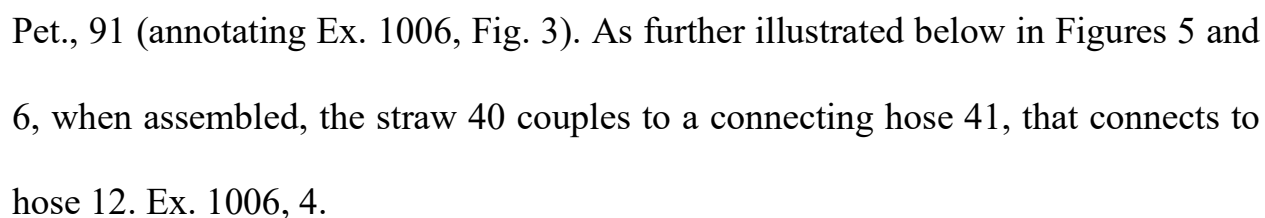
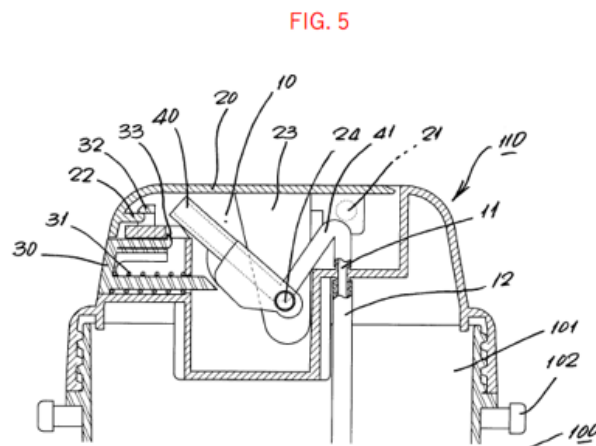


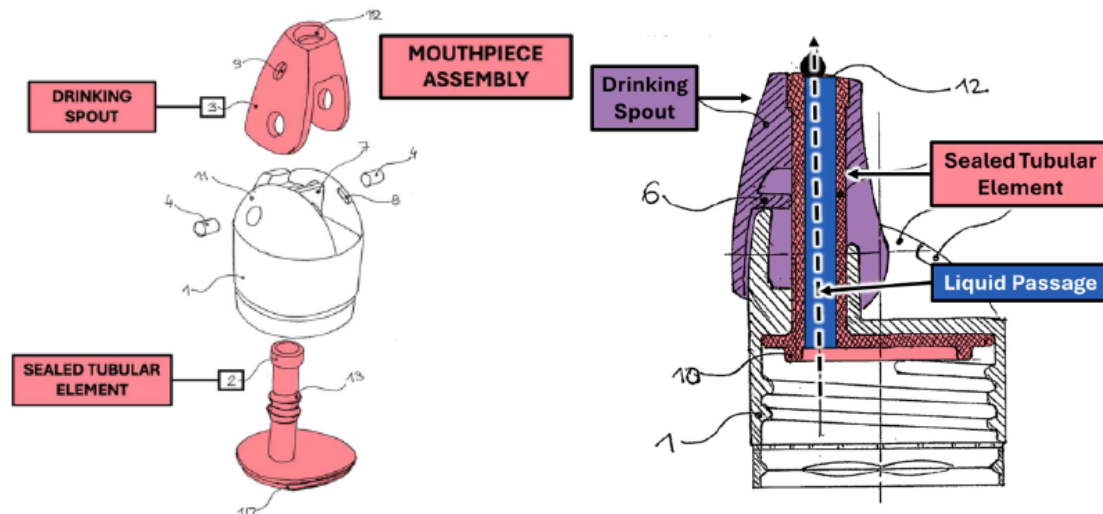
FIG. 5



Jobin Declaration

Id., Fig. 5, Fig. 6. “The straw 40 is axially coupled to the bracket 23 of the cover 20 by the hinge shaft 24” so that “the cover is unfolded by the elastic force of the connecting hose 41.” *Id.* 5.

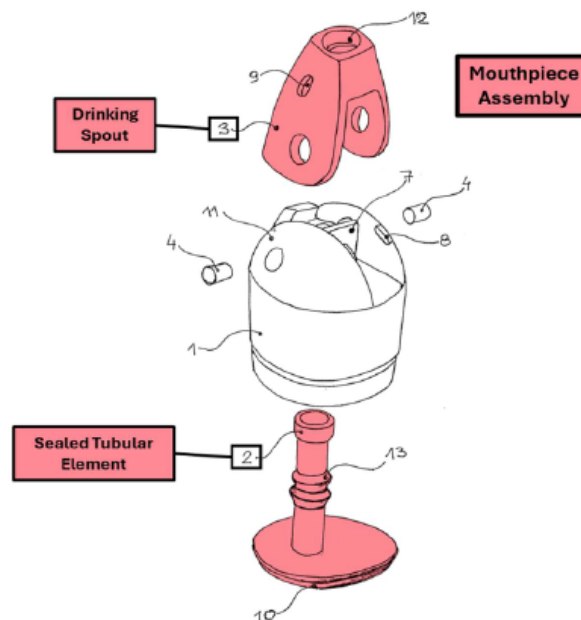
145. Because Park does not disclose a “rigid collar member” through which a tube extends, Petitioner attempts to combine Ribarits’s drinking spout, which as illustrated below, includes a sealed tubular element 2 that extends within drinking spout 3 to deliver liquid, as illustrated by Petitioner’s annotated figures below from Ribarits. Pet., 92-93.



Pet., 92 (annotating Ex. 1009, Fig. 2) (left); *id.*, 93 (annotating Ex. 1009, Fig. 3) (right).

146. The Petition, however, fails to show by a reasonable likelihood that a POSITA would have been motivated to modify Park to include Ribarits’s drinking spout and sealed tubular element.

147. First, Petitioner states that a POSITA would have “been motivated to construct Park’s straw and connecting hose as a unitary assembly of resiliently deformable material, as in Ribarits” and would have “recognized Ribarits’ one-piece construction . . . to be a routine engineering choice.” Pet., 75-76. Petitioner’s motivation is based on a faulty understanding that somehow Ribarits has a “one-piece,” “unitary” design for its drinking spout and sealed tubular element such that it provides the benefits of requiring “fewer parts,” improving efficiency, and reducing manufacturing costs. Pet., 75-76. Ribarits does not support this argument because Ribarits uses a two-piece design for the drinking spout and sealed tubular element. *See, e.g.*, Ex. 1009, Fig. 2. Petitioner’s own expert, Dr. Vallee, illustrates this in his declaration, annotating Figure 2 from Ribarits, reproduced below.

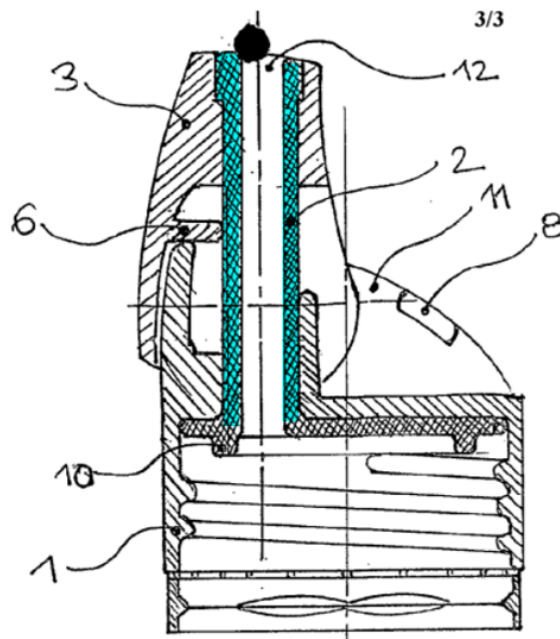


Ex. 1003, ¶ 254 (annotating Ex. 1009, Fig. 3) (showing two separate and distinct elements for the drinking spout 3 and the sealed tubular element 2). Dr. Vallee even refers to this as a “multi-part assembly.” Ex. 1003, ¶ 203 (“another multi-part assembly (Ribarits’ mouthpiece assembly).”). Petitioner wrongly contends that Ribarits describes a “one-piece construction” and has further failed to show how swapping two pieces from Ribarits (the drinking spout and sealed tubular element) with two pieces from Park (the straw and connecting hose) “would have resulted in fewer parts” and thereby improved efficiency or reduced manufacturing costs. Pet., 76.

148. Second, Petitioner asserts that “a POSITA would have recognized that such a rigid collar member [(Ribarits’s drinking spout)] could be molded with the same shape as portion [sic] of Park’s ‘straw 40’ that is coupled to ‘cover 20.’” Pet., 77. However, as I understand it, simply because a POSITA allegedly *could* have molded Ribarits’s drinking spout to the same shape as Park’s straw does not provide a motivation to do so.

149. Third, Petitioner argues a POSITA would have been motivated because “as in Ribarits, the use of a rigid collar [(the drinking spout)] would provide[] support for the more flexible mouthpiece and tube portions of the mouthpiece assembly.” Pet., 77 (citing Ex. 1003, ¶ 201). Neither the Petition nor Dr. Vallee explains why or how using Ribarits’s drinking spout and tubular element would provide more

“support.” *See* Pet., 77; *see also* Ex. 1003, ¶ 201. It seems the argument in the Petition is that Ribarits’s design would provide additional support for a portion of a tube running through the mouthpiece, since as illustrated above, there is a portion of the sealed tubular element within the drinking spout. I’ve highlighted the portion of Ribarits’s sealed tubular element that is within the mouthpiece in light blue below.



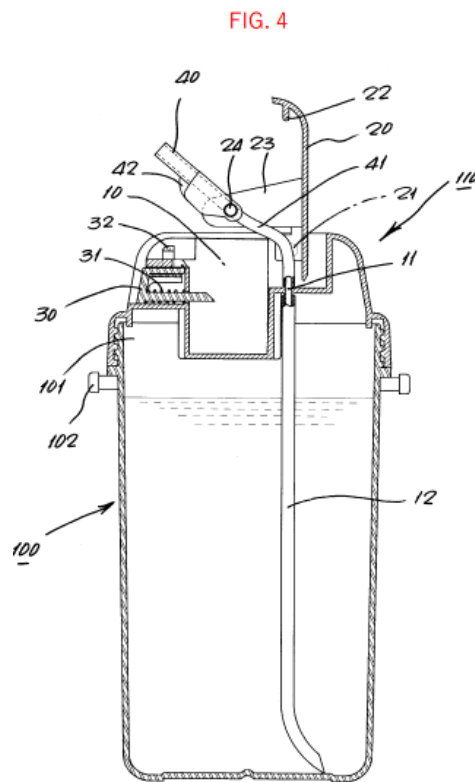
Ex. 1009, Fig. 3 (cropped and annotated).

150. However, Park does not have this problem. It does not need to provide support to a portion of the connecting hose within the straw since its design does not have a portion of the connecting hose running through the straw. Petitioner is essentially arguing that its proposed combination solves a problem that only the combination itself creates—namely, a tube portion running through the mouthpiece

that is further protected by the same mouthpiece. A POSITA would not have made the proposed combination to solve a problem that doesn't exist.

151. Fourth, Petitioner argues a POSITA would have been motivated because “as in Ribarits, the flexible mouthpiece and tube portions of the mouthpiece assembly could be inserted through and removed from the rigid collar” and “[a] POSITA would have recognized the design because it would have facilitated removal of the single-piece construction for cleaning, maintenance, or replacement.” Pet., 77 (citing Ex. 1003, ¶ 202). Here again, Petitioner relies on an incorrect understanding that Ribarits’s drinking spout and sealed tubular element are a “single-piece construction,” which its own declarant contradicts. Ex. 1003, ¶ 203 (“another multi-part assembly (Ribarits’ mouthpiece assembly).”). However, as mentioned, Ribarits’s drinking spout and sealed tubular element are two separate pieces, and this two-piece design does not offer fewer components than the two pieces in Park (the connecting hose and straw) that Petitioner suggests it replace. Further, the Petition does not explain how a POSITA would recognize Ribarits’s design as providing for enhanced “cleaning, maintenance, or replacement.” *See* Pet., 77; *see also* Ex. 1003, ¶ 202. To the contrary, “cleaning, maintenance, or replacement would be more cumbersome using Ribarits’s design. This is because Ribarits’s sealed tubular element has “several projecting sealing rings” that would require disassembly of the closing cap of the drinking device for cleaning,

maintenance, or replacement of parts, while Park's straw and connecting hose could be disassembled with just the lid raised, since the connecting hose, as illustrated, fits onto the straw portion outside of the bottles interior chamber where liquid is held. Ex. 1009, claim 2; Ex. 1006, Fig. 4. This connection can be seen in Figure 4 from Park below where the drinking straw 40 is connected to the connecting hose 41 at a location where a user can access when the lid is open.



Ex. 1006, Fig. 4.

152. Finally, Petitioner argues that a POSITA would have had a reasonable expectation of success because a “POSITA would have readily understood that Park would accommodate a single-piece construction” and “the combination would have

involved no more than the routine substitution of one mouthpiece assembly with another to provide the same overall functionality.” Pet., 77-78. However, again Petitioner relies on its faulty understanding that Ribarits’s drinking spout and tubular member are a “single-piece construction.” A POSITA would not have understood Ribarits to provide a “single-piece construction,” as these are illustrated as two separate pieces in Ribarits, Ex. 1009, Fig. 2. Further the benefits that Petitioner alleges a POSITA would have recognized from using Ribarits’s construction, including “reduced risk of inadvertent leakage, improved manufacturing efficiency, reduced manufacturing costs, and improved maintenance” are not supported by the Petitioner or Dr. Vallee. Pet., 78 (citing Ex. 1003, ¶ 203).

153. For at least these reasons, I am of the opinion that the Petition has failed to show a reasonable likelihood that Park discloses an equivalent of the ’879 patent’s alleged corresponding structure of the “user release mechanism,” i.e., sliding member 238 (and its component parts), and because it does not show a reasonable likelihood that a POSITA would have been motivated to combine Ribarits’s “rigid collar member” with Park to arrive at claim 1.