

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

TROVE BRANDS, LLC,

Petitioner

v.

CAMELBAK PRODUCTS, LLC,

Patent Owner

IPR2025-00140

U.S. Patent 11,851,250

**PATENT OWNER'S PRELIMINARY RESPONSE
PURSUANT TO 37 C.F.R. § 42.107**

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PATENT OWNER'S EXHIBIT LIST

Exhibit No.	Description
2001	Declaration of Michael Jobin (“Jobin Decl.”)
2002	File History from <i>Ex Parte</i> Reexamination Control No. 90/015,192 regarding U.S. Patent No. 10,676,255
2003	Japanese Patent App. Pub. No. 2001-294252 to Toudou
2004	<i>Curriculum Vitae</i> of Michael Jobin
2005	Merriam-Webster Dictionary - “mouthpiece”
2006	Institution Decision in IPR2024-01137 regarding U.S. Patent No. 10,676,255
2007	American Heritage Dictionary – “pivot”
2008	Cambridge Dictionary – “pivot”
2009	Oxford Concise English Dictionary – “pivot”
2010	McGraw-Hill Dictionary of Scientific and Technical Terms – “pivot”
2011	Merriam-Webster Dictionary – “pivot”
2012	Science Facts – “Rotational Motion”
2013	Halliday & Resnick – Fundamentals of Physics Textbook
2014	U.S. Patent No. 10,676,255 (“the ’255 patent”)
2015	U.S. Patent Application Publication No. 2005/0029271 to McDonough (“McDonough”)

I. INTRODUCTION

Petitioner Trove Brands, LLC challenges claims 1–18 of U.S. Patent No. 11,851,250 (“the ’250 patent”), asserting grounds of obviousness based on two primary references: Nakajima and Ribarits. The ’250 patent is generally directed to drink containers having a “cap assembly” that includes a mouthpiece coupled to (or disposed on) a pivotal mount for “*pivotal movement with the pivotal mount.*” Nakajima fails to disclose this limitation. Further, the claims require a “mouthpiece” that defines “the dispensing outlet” and that is either “coupled to” or “disposed on” the pivotal mount. Ribarits fails to disclose these limitations.

First, Ground 1 relies solely on Nakajima as allegedly disclosing the mouthpiece’s claimed requirement of “pivotal movement with the pivotal mount,” which itself must be coupled to the cap assembly base “at two joints that define a pivotal axis for pivotal movement of the pivotal mount.” Nakajima fails to disclose a mouthpiece that satisfies this requirement. The alleged *mouthpiece* of Nakajima identified by Petitioner does not move pivotally with the pivotal mount about its pivotal axis defined by the joints. Nakajima’s alleged *mouthpiece* do not pivotally move with the pivotal mount, because it only rotates about a different axis and does not rotate about the claimed “pivotal axis” about which the pivotal mount rotates. Instead, Nakajima’s mouthpiece moves translationally, not pivotally (i.e., rotationally) relative to the “pivotal axis,” just like the McDonough prior art that was

distinguished by Patent Owner during reexamination of a parent patent to the '250 patent as not moving pivotally about a pivotal axis because it moves translationally upward and downward relative to the alleged axis. In addition, Nakajima's alleged *mouthpiece* also does not pivotally move "with" the pivotal mount because it rotates in a direction opposite to that of alleged pivotal mount, which is away from and not "with" the pivotal mount. All of Petitioner's challenges under Ground 1 fail on this basis.

Second, Grounds 2 and 3 also fail. First, the structure in Ribarits that allegedly defines the "dispensing outlet" is not a "mouthpiece" because it is not designed for a user to put his or her mouth on it to draw liquid from the container and, thus, not a "mouthpiece." Second, Ribarits's alleged "mouthpiece" is neither "coupled to the mount outlet of the pivotal mount" as required by claim 1 nor "disposed on the pivotal mount" as required by claims 7 and 13. All of Petitioner's challenges under Grounds 2 and 3 fail on these bases.

For all these reasons, and as further explained below, Patent Owner respectfully requests that the Board deny institution of the Petition.

II. THE '250 PATENT

The '250 patent is titled "Drink Bottles" and is generally directed to drink bottles having cap assemblies including mouthpieces attached to a pivotal mount, such that the mount may be pivoted from a stowed to a dispensing position. Ex.1001

at Abstract, 3:4-10, 6:32-36; Ex.1002 at claims 1, 7, and 13. In some embodiments, the patent describes the cap assembly including a dust cover, which at least partially covers the mouthpiece and pivotal mount in the stowed position. *Id.* at Abstract, 17:1-11. The patent describes drink containers with removable cap assemblies that define a fluid conduit, including a pivotal mount coupled to a pivotal mount, and an on/off valve to selectively restrict the flow of drink fluid when the mouthpiece and pivotal mount are in a stowed position. Ex.1001 at Abstract, 3:2-14, 6:29-39.

A. Claims

The '250 patent has 18 claims. Ex.1001 at 19:1–22:57. Petitioner challenges claims 1–18, with claims 1, 7, and 13 being the only independent claims. Independent claim 1 recites:

1. A drink container, comprising:
 - a **fluid container** having a neck with an opening and having an internal compartment sized to hold a volume of potable drink fluid;
 - a **cap assembly** removably coupled to the fluid container to cover the opening, wherein the cap assembly defines a fluid conduit for drink fluid to flow from the fluid container and through the cap assembly to a user, wherein the fluid conduit includes an inlet through which drink fluid from the fluid container may enter the fluid conduit, and a dispensing outlet through which drink fluid in the fluid conduit may be dispensed from the cap assembly to a user, and further wherein the cap assembly comprises:
 - a **cap assembly base** coupled to the neck of the fluid container, wherein the cap assembly base is configured to be selectively and repeatedly decoupled from and re-coupled to the neck of the fluid container;
 - a **pivotal mount** coupled to the cap assembly base at two joints that define a pivotal axis for pivotal movement of the pivotal mount relative to the cap

assembly base, the pivotal mount defining a hollow passage, the hollow passage having a mount outlet on a distal end of the pivotal mount;

a mouthpiece coupled to the mount outlet of the pivotal mount for pivotal movement with the pivotal mount relative to the cap assembly base;

wherein the mouthpiece defines a portion of the fluid conduit, including the dispensing outlet;

wherein the mouthpiece and the pivotal mount are configured to be selectively pivoted between a stowed position and a dispensing position, wherein the mouthpiece is at least partially covered by a dust cover when the mouthpiece and pivotal mount are in the stowed position, and wherein the dispensing outlet is positioned further away from the cap assembly base when the mouthpiece and the pivotal mount are in the dispensing position than when the mouthpiece and the pivotal mount are in the stowed position; and;

an on/off valve having a closed configuration, in which the on/off valve obstructs the fluid conduit to restrict drink fluid from flowing between the inlet and the dispensing outlet, and an open configuration, in which the on/off valve permits drink fluid to flow through the fluid conduit from the inlet to the dispensing outlet; wherein the on/off valve includes a flexible tube that defines a portion of the fluid conduit;

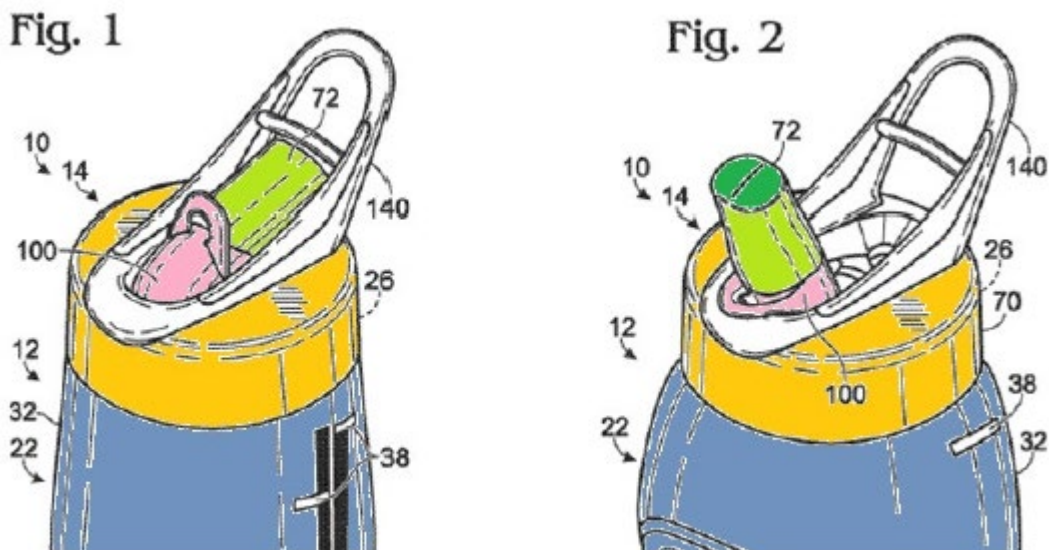
wherein when the on/off valve is in the closed configuration, the tube is crimped to obstruct the flow of drink fluid through the fluid conduit; and

wherein when manual on/off valve is in the open configuration, the tube is not crimped and does not obstruct the flow of drink fluid through the fluid conduit.

Ex.1001 at claim 1. Claims 7 and 13, which are also independent, recite the additional limitation of “configured to at least partially cover the mouthpiece when the mouthpiece and pivotal mount are in the stowed position, wherein the dust cover remains stationary when the mouthpiece and the pivotal mount are selectively pivoted between the stowed position and the dispensing position.” Ex.1001 at claims 7, 13.

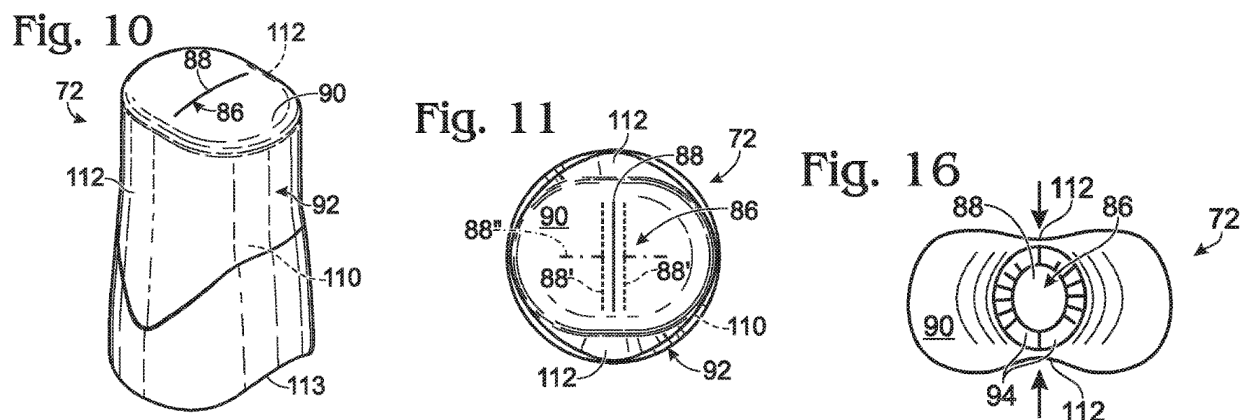
B. Specification

The '250 patent discloses various embodiments of drink containers. For example, the '250 patent describes a drink bottle 10 (blue) with a cap assembly 14 having a base 70 (orange) that includes a pivotal mount 100 (pink) having a mouthpiece 72 (green), as shown below. Ex.1001 at 2:57–61, 3:2–10, 6:59-62, Figs. 1–2.



Ex.1001, Figs. 1–2 (annotated); Pet. at 9. The pivotal mount 100 and mouthpiece 72 can pivot together between: i) a stowed position (shown in Figure 1) in which the mouthpiece is not suitably positioned for a user to drink from it, and ii) a dispensing position (shown in Figure 2) in which the mouthpiece is oriented in a suitable position for the user to drink fluid from the bottle. Ex.1001 at 3:11-20, 7:18–41. In some embodiments, the mouthpiece may have an opening, such as a slit, that is

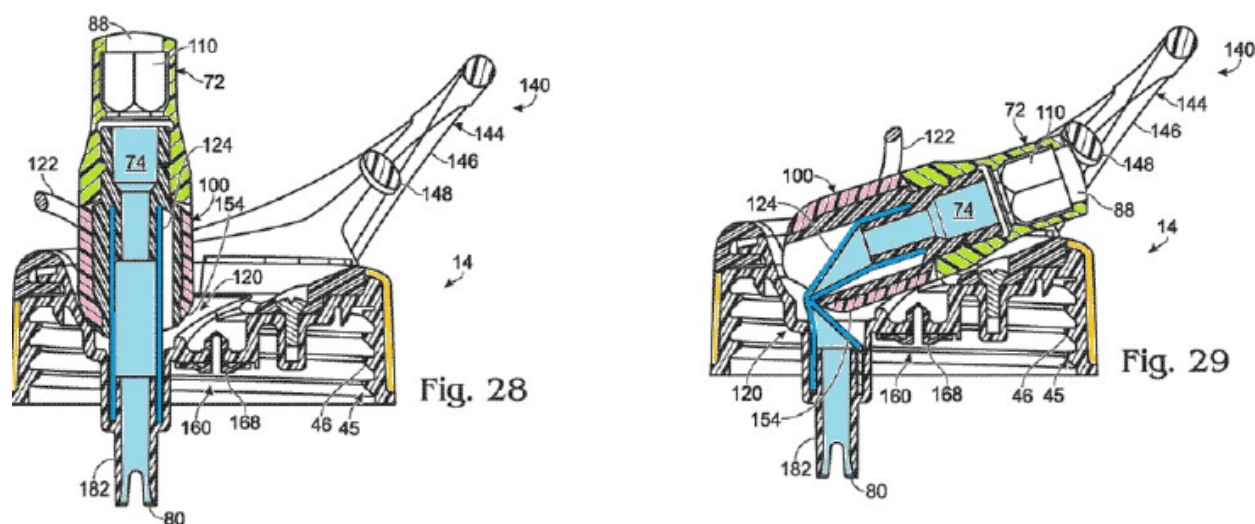
biased to a closed configuration but that may be opened to a dispensing configuration by a user biting on it to deform it so that fluid can flow through the opening. Ex.1001 at 8:7-12, 8:44–67, Figs. 10–16.



Ex.1001, Figs. 10, 11 & 16. A benefit of this mouthpiece, in certain embodiments, is that the bottle may be positioned to a desired drinking orientation without any fluid being dispensed until the user bites the mouthpiece. Ex.1001 at 10:4–21.

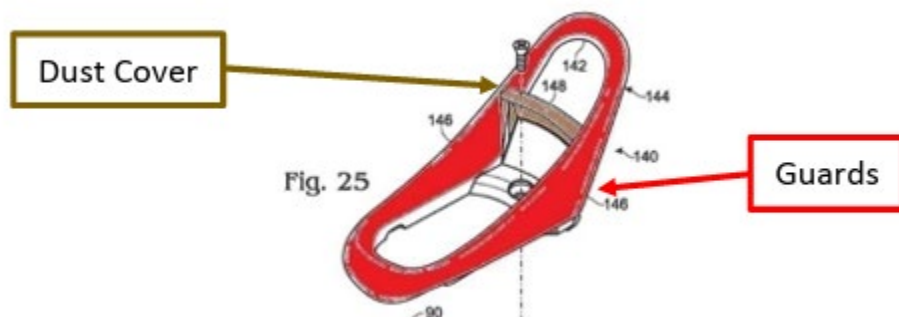
Some embodiments include a flow-restricting, on/off or shutoff valve in addition (or as an alternative) to such a mouthpiece. Ex.1001 at 10:21–45. This on/off valve can be selectively configured between: i) a closed configuration in which the fluid conduit is obstructed to prevent fluid from flowing from the fluid container to the face of the mouthpiece, and ii) an open configuration in which fluid flows to the face of the mouthpiece and may be selectively dispensed through the mouthpiece. Ex.1001 at 10:46–11:5, 11:32–37. The annotated versions of Figures 28 and 29 below illustrate this open configuration (left) and this closed configuration

(right), respectively, of an on/off or shutoff valve implemented using a flexible tube 124 that is crimped when in the stowed configuration and reopened when in the dispensing configuration. Ex.1001 at 18:14–29, Figs. 28–29.



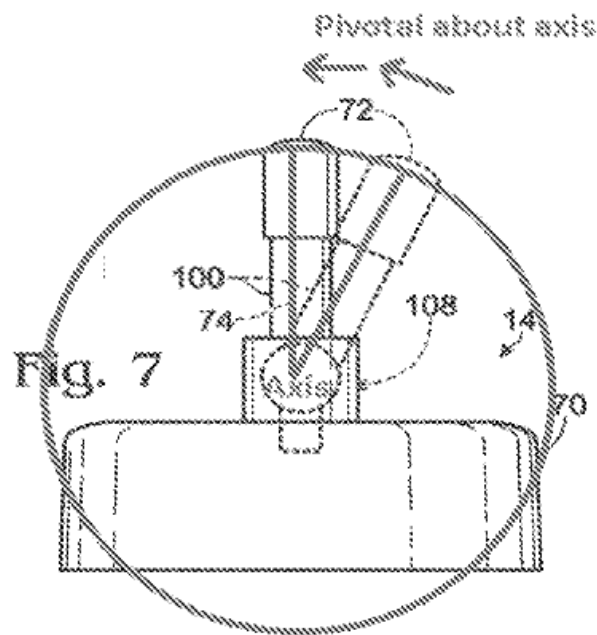
Ex.1001, Figs. 28–29 (annotated); Pet. at 9.

As shown in the annotated version of Figure 25 below, in some embodiments, the pivotal mount 100 includes lateral guards 146 (red) and a dust cover 148 (brown) which at least partially covers the dispensing outlet. Ex.1001 at 17:1-11, Fig. 25.



Ex.1001, Fig. 25 (annotated); Pet. at 10.

Claims 1, 7 and 13 each recite that “a pivotal mount coupled to the cap assembly base at two joints that define a pivotal axis for pivotal movement of the pivotal mount relative to the cap assembly base,” and that the mouthpiece is “coupled to the mount outlet of the pivotal mount” or “disposed on the pivotal mount” for “pivotal movement with the pivotal mount relative to the cap assembly base the pivotal mount for pivotal movement *with the pivotal mount*.” The patentee stated during a reexamination of the parent of the '250 patent, the '255 patent, that this limitation is shown, for example, in Figure 7 of the '255 patent and provided the below annotated version of Figure 7:



Ex.2002 at 179. In describing this figure, the patentee explained that “the mouthpiece 72 is pivotal about an axis defined by the pair of lateral projections as

they rotate,” and (labeling the adjustable/pivotal joint 108 as the “axis”) illustrated how the mouthpiece 72 and pivotal mount 100 are pivotal together about this common axis. *Id.* (underline in original).

C. Prosecution History

The Petition provides no discussion of either the examination of the application leading to the issuance of the '250 patent, or the reexamination of the parent of the '250 patent, the '255 patent. This omission—perhaps intentional—is particularly glaring because, as set forth below, Petitioner’s grounds fail to account for the key distinctions found between the claimed drink bottles of the '250 patent and the prior art by the original Examiner and by the three Reexamination Specialists of the Central Reexamination Unit. Specifically, Petitioner’s primary references lack the same key features as the prior art considered during examination and reexamination. Patent Owner, therefore, provides the below detailed discussion of these examinations.

The '250 patent issued from U.S. Patent Application No. 17/565,354 (“the '354 application”) and claims priority through a chain of continuation applications to the application that issued as U.S. Patent No. 7,533,783 and that was filed December 20, 2005. One of the applications in the chain of continuations leading to the '250 patent issued as U.S. Patent No. 10,676,255 (the “'255 patent”) (Ex.2014). The '255 patent was the subject of *Ex Parte* Reexamination Request No. 90/015,192

(“the ’192 reexamination”), which was filed January 18, 2023. Ex.2002. The ’250 patent also claims priority to both U.S. Provisional Application No. 60/706,700, filed August 8, 2005, and U.S. Provisional Application No. 60/670,828, filed April 11, 2005. Ex.1001 at (63), (60). The ’250 patent shares a common specification with the ’255 patent.

1. Examination of the ’250 Patent

The ’354 application that matured into the ’250 patent was filed on December 29, 2021. Ex.1001 at (22). All claims were rejected as anticipated by McDonough (U.S. Pat. Pub. No. 2005/0029271 (Ex.2015)). Ex.1009 at 5. In response, the Applicant amended claim 1 to require: i) that the mouthpiece be “coupled to the mount outlet” of the pivotal mount, and ii) the pivotal mount “defining a hollow passage, the hollow passage having a mount outlet on the end of the pivotal mount.” Ex.1009 at 15. The Applicant amended claims 7 and 13 to require that the dust cover or dispensing guard “remains stationary when the mouthpiece and the pivotal mount are selectively pivoted between the stowed position and the dispensing position.” Ex.1009 at 17, 19. The Applicant then argued that these amended limitations of claims 1, 7, and 13 were not disclosed or suggested by McDonough. Ex.1009 at 22-30. In response to the amendment, the Examiner issued a notice of allowance. Ex.1009 at 31.

2. *Ex Parte* Reexamination of Parent '255 Patent

The '192 reexamination of the parent '255 patent was ordered in response to a third-party reexamination request that was assigned a filing date of January 18, 2023. Ex.1002; Ex.2002 at 1-114. The request relied on two primary references, McDonough¹ and Toudou², in asserting fifteen substantial new questions of patentability (“SNQs”). Ex.2002 at 22–25. In response to the request, reexamination was ordered as to all requested claims with regard to all SNQs. *Id.* at 551–561. A rejection of the claims subject to reexamination was issued. *Id.* at 585. The claims were rejected as being: i) either anticipated by McDonough or obvious over McDonough in view of other references, and ii) obvious over Toudou in view of other references. *Id.* at 116-124.

In response, the patentee amended claim 1 to require that the pivotal mount comprise “a mount outlet” and to require that the resilient mouthpiece be “engaged with the mount outlet” and also be “removably coupled to” the pivotal mount, as shown by the underlined text in the claim amendment below:

¹ U.S. Patent App. Pub. No. 2005/0029271 to McDonough (Ex.2015).

² Japanese Patent App. Pub. No. 2001-294252 to Toudou (Ex.2003).

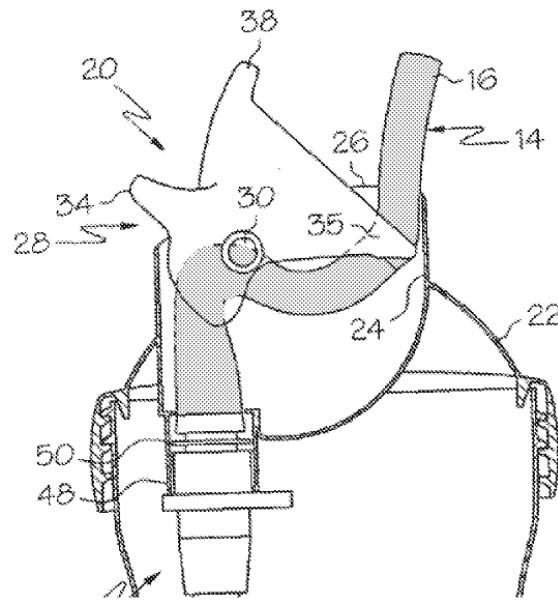
a pivotal mount coupled to the cap assembly base for pivotal movement relative to the cap assembly base, the pivotal mount comprising a mount outlet, wherein the pivotal mount includes a pair of lateral projections, wherein the cap assembly base defines a pair of sockets into which the pair of lateral projections extend;

a resilient mouthpiece engaged with the mount outlet and removably coupled to the pivotal mount for pivotal movement with the pivotal mount relative to the cap assembly base, wherein the resilient mouthpiece is pivotal about an axis defined by the pair of lateral projections as the pair of lateral projections rotate within the pair of sockets;

Id. at 168. As discussed above, the patentee also added independent claim 20 with the same language, as well as the additional limitation directed to the “dust cover.” *Id.* at 172-173.

The patentee then distinguished McDonough from the amended claim language in two primary ways.

First, the patentee distinguished McDonough by arguing that it did not disclose a resilient mouthpiece that is engaged with a mount outlet of a pivotal mount or a resilient mouthpiece that is removably coupled to the pivotal mount, as required by the amended limitations. *Id.* at 176–179. The Examiner had mapped the claimed “pivotal mount” to the “straw positioning mechanism 20” of McDonough and had mapped the claimed “mouthpiece” to the first end 16 of the flexible straw 14 of McDonough, which are each shown in the version of Figure 2, as annotated by the patentee (shown below). *Id.* at 178.



Ex.2015, Fig. 2 (annotated); *see* Ex.2002 at 178. The patentee argued that neither straw 14 nor its end 16 (the alleged mouthpiece) are coupled or removably coupled to the straw positioning mechanism 20 (the alleged pivotal mount), because the straw is merely inserted and “passes through the straw positioning mechanism 20,” rather than being coupled or removably coupled to it. Ex.2002 at 636. The patentee similarly argued that the end 16 of straw 14 is not “engaged with any outlet of the straw positioning mechanism 20,” and, thus, that McDonough failed to disclose a mouthpiece “engaged with a mount outlet” of the pivotal mount, as required by the amended claim language. *Id.*

Second, the patentee argued that McDonough also failed to disclose that the mouthpiece is “pivotal about an axis defined by the pair of lateral projections as the pair of lateral projections rotate within the pair of sockets.” Ex.2002 at 179–181. The

Examiner had mapped the claimed “lateral projections” to the “axle projections 30” of McDonough about which the straw positioning mechanism 20 rotates. *Id.* at 131. As illustrated in the below annotated versions of Figure 2 and 3 provided by patentee during the reexamination, the straw’s end 16 (mapped to the mouthpiece) “is not pivotal about an axis defined by the pair of lateral projections” but instead is merely “pulled downwards” with the straw 14. *Id.* at 180 (emphasis in original).

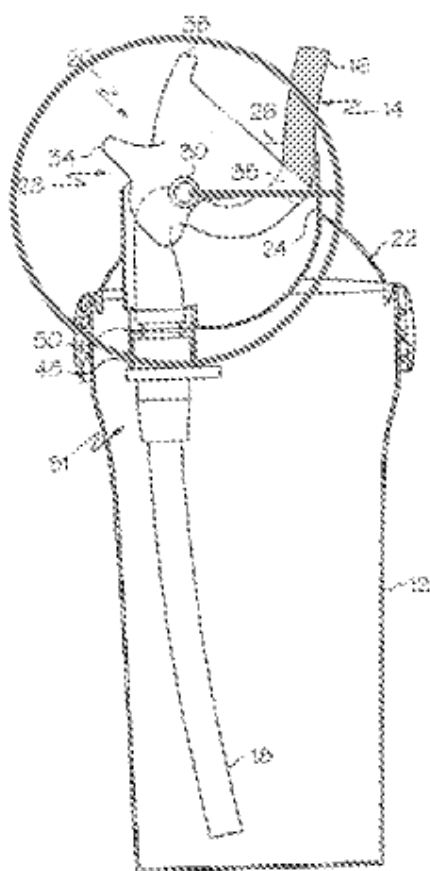


FIG. 2

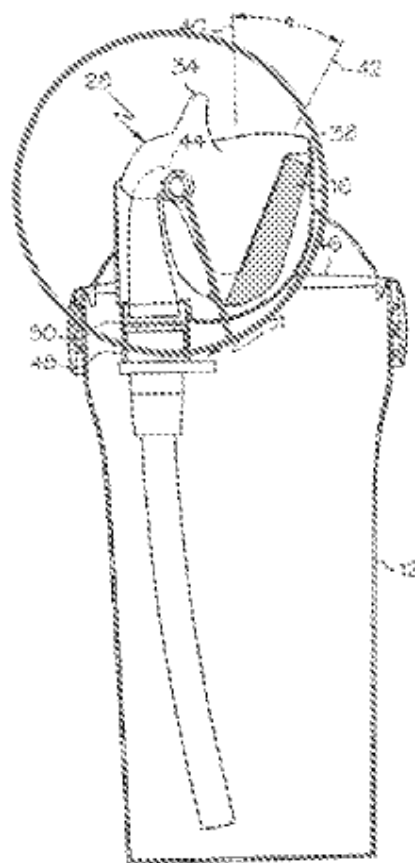
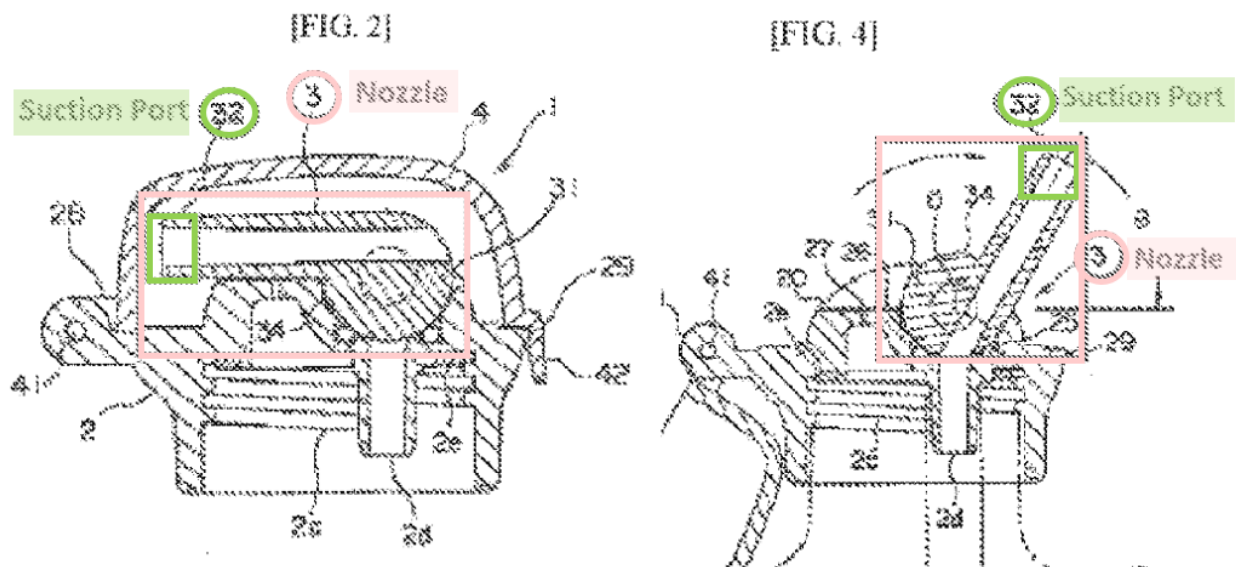


FIG. 3

Id. at 180.

The patentee then distinguished Toudou from the independent claims by arguing, *inter alia*, that it, too, failed to disclose the amended claim limitations. *Id.* at 183-187. The Examiner had mapped the claimed “pivotal mount” to Toudou’s pivoting nozzle 3 (pink below) and had mapped the “mouthpiece coupled to the pivotal mount” to the suction port 32 (green below) at the end of nozzle 3, as shown in the below annotated versions of Figures 2 and 4 that patentee submitted during the reexamination.³ *Id.* at 183-184.



Id. at 642. The patentee then distinguished Toudou because the suction port 32 of Toudou is an integral part of its nozzle 3 that forms the end of the nozzle—

³ The annotated figures in the reexamination file history are in black-and-white but Patent Owner has overlaid color for clarity.

specifically, the patentee argued that Toudou failed to disclose: i) any “mount outlet” of nozzle 3 that is distinct from the “mouthpiece” (mapped to suction port 32) itself, or ii) a “mouthpiece” (suction port 32) that is “engaged with a mount outlet” on the nozzle 3 and that is “removably coupled to” the nozzle 3 (pivotal mount), rather than just a mouthpiece (suction port 32) that merely “forms an integral portion of the nozzle [i.e., pivotal mount].” *Id.*

The Examiner then issued a Notice of Intent to Issue Reexamination Certificate and explained in a “Statement of Reasons for Patentability and/or Confirmation” that the amendments made by patentee distinguished both McDonough and Toudou. *Id.* at 193-195.

III. PETITIONER’S GROUNDS AND CITED REFERENCES

Petitioner asserts that the challenged claims would have been obvious based on three (3) grounds—specifically, Petitioner argues that: claims 1, 2, and 4-6 are obvious over Nakajima⁴ in view of the knowledge of a POSITA (Ground 1); claims

⁴ Japanese Patent Publication No. 2002-211613 to Nakajima (Ex.1004) (English translation).

1, 2, 4-8, 10-14, and 16-18 are obvious over Ribarits⁵ in view of Panicci⁶ and/or the knowledge of a POSITA (Ground 2); and claims 3, 9, and 15 are obvious over Ribarits in view of Panicci and/or the knowledge of a POSITA, in further view of Hughes⁷ (Ground 3).

A. Nakajima

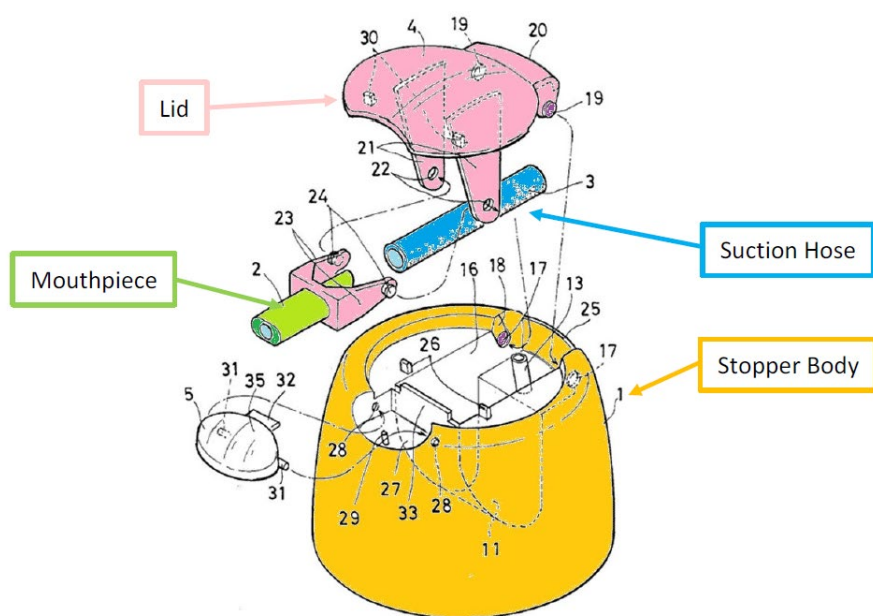
Japanese Patent Publication No. 2002-211613 to Nakajima (Ex.1004) (“Nakajima”) was published on July 31, 2002. Nakajima is directed to a stopper for a liquid container, where the stopper includes a mouthpiece. Ex.1004 at Title, Abstract. The stopper includes a lid attached by a hinge to the stopper where the lid can be removed from the stopper to simplify the process of cleaning the lid. *Id.* at Abstract, [0025], [0028]. For example, the lid can be removed for cleaning by simply applying a slight bending force or horizontal twisting force to detach the lid at the hinge from the stopper. *Id.* ¶¶[0025], [0027]–[0028].

⁵ International Publication No. WO 2004/063042 to Ribarits et al. (Ex.1006) (English translation).

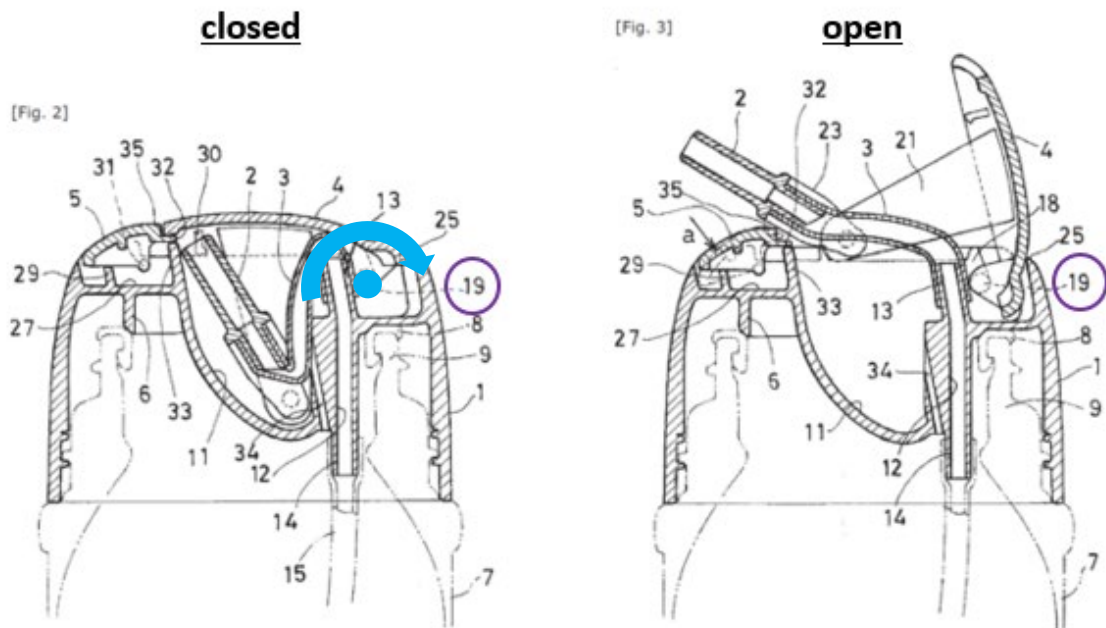
⁶ U.S. Patent No. 4,485,963 to Panicci (Ex.1007).

⁷ U.S. Patent No. 6,523,711 to Hughes (Ex.1008).

As shown in the below annotated version of Figure 1 of Nakajima from the Petition, Nakajima's stopper includes a stopper body 1 (orange), a mouthpiece 2 (green), a suction hose 3 (blue), a lid 4 (pink) having a hinge portion 20, and a button 5 that serves as a disengaging means (not colored). Ex.1004 ¶¶[0012], [0016], Fig. 1.

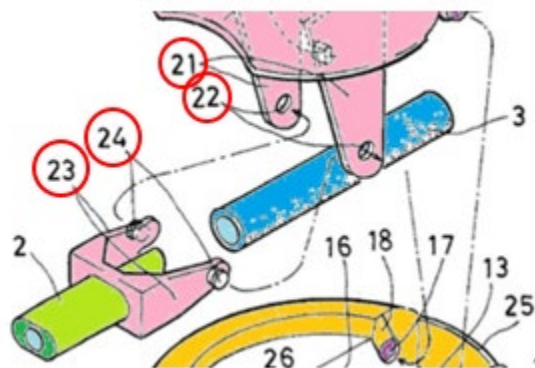


Pet. at 20 (citing and annotating Ex.1004, Fig. 1). The lid 4 is attached to the stopper body 1 via a hinge that is comprised of: i) the lid 4's hinge shafts 19, 19 (circled purple below) that are "rotatably fitted into" ii) each of the shaft receiving recesses 17, 17 (circled red below) of the stopper body 1, as shown in the annotated version of Figures 1 and 4 below. Ex.1004 ¶¶[0015]–[0016], Fig. 1, Fig. 4.

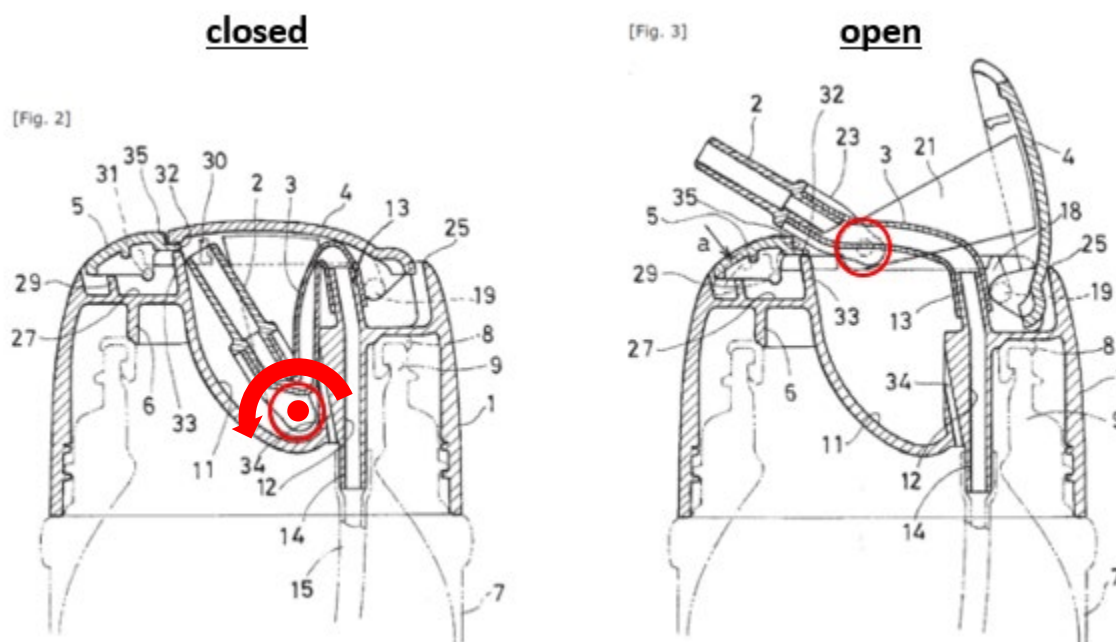


Ex.1004, Figs. 2–3 (annotated).

The mouthpiece 2 includes arms 23 having protrusions 24 that are “rotatably fitted into” holes 22 at the bottom of leg pieces 21 provided on the underside of the lid 4, as shown in the below annotated excerpt of Figure 1, with these components circled in red. Ex.1004 ¶[0016].



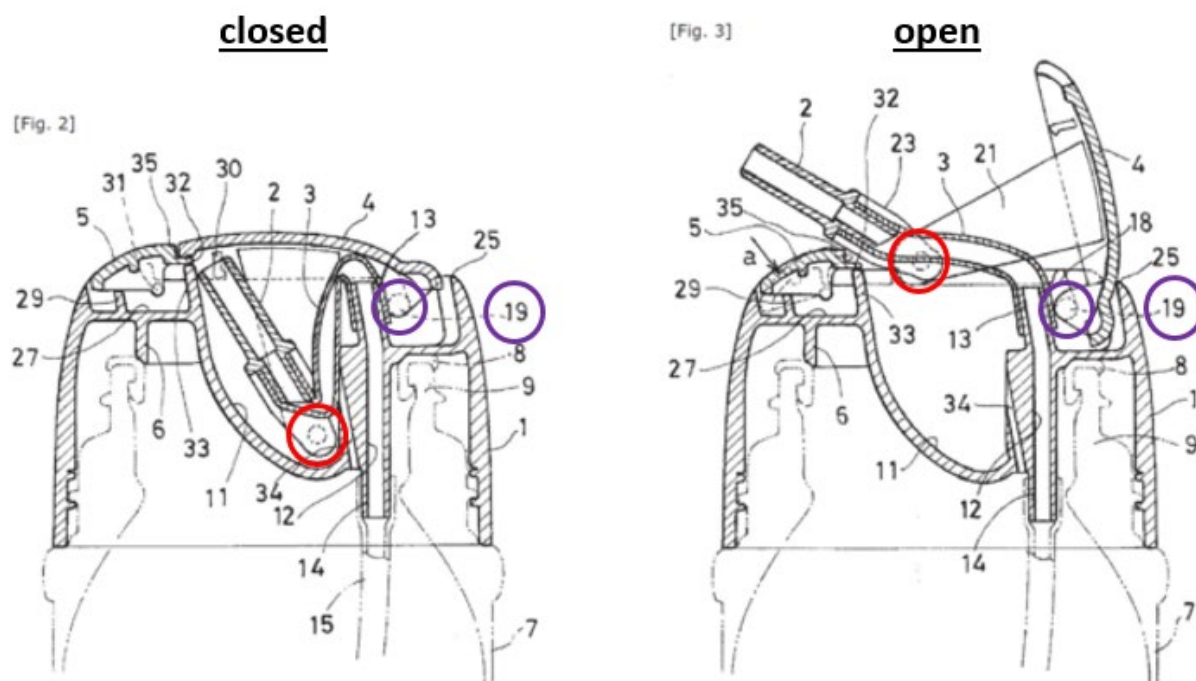
Ex.1004, Fig. 1 (annotated). This configuration causes the mouthpiece to pivot about the axis defined by the protrusions 24 (circled in red below) as they rotate within the holes 22 when the lid 4 is opened and closed—specifically, as shown in Figure 2 below, the mouthpiece pivots clockwise about this axis as the mouthpiece is “pulled in” and “folded into the storage recess 11” as the lid is closed, and, as shown in Figure 3 below, the mouthpiece pivots counterclockwise about this axis (shown by red arrow below) until the mouthpiece “protrudes above the button 5” when the lid is opened. Ex.1004 ¶¶[0018], [0022]–[0024], Figs. 2–3.



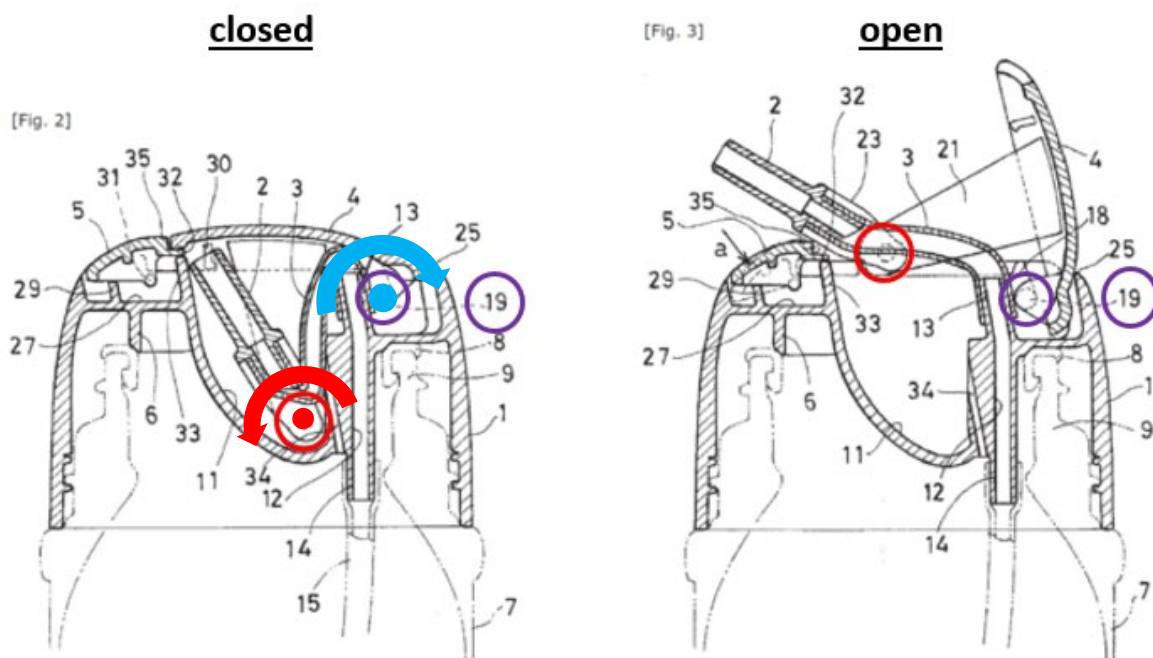
Ex.1004, Figs. 2–3 (annotated). As shown below, the mouthpiece 2 pivots about the axis defined by the protrusions 24 (circled in red below), and does *not* pivot about the axis defined by the hinge shafts 19 (circled in purple below). This is because the

mouthpiece is in contact with the wall of the storage recess 11 during opening and closing and because the mouthpiece is not rigidly attached to lid 4. This prevents the mouthpiece 2 from moving in alignment with the lid 4, thereby preventing it from pivoting about the axis defined by the hinge shafts 19, about which the lid pivots.

Ex.1004, Figs. 2–3.



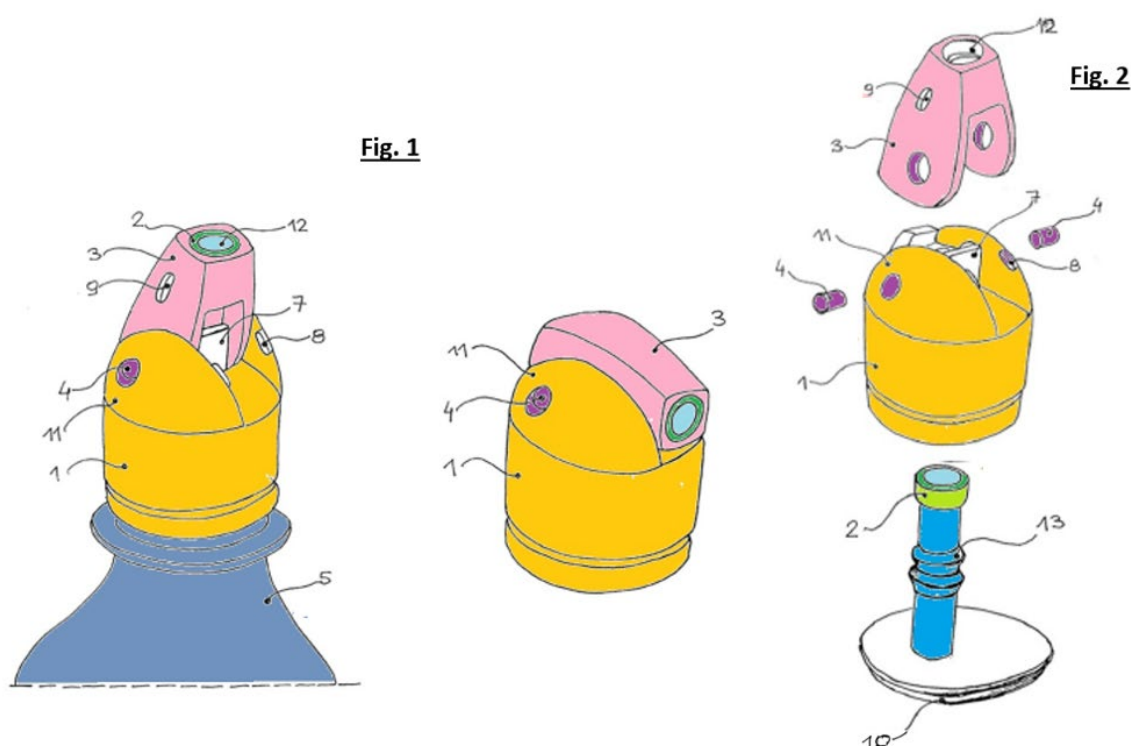
Ex.1004, Figs. 2–3 (annotated). Further, as shown by the annotations below, the lid moves from the closed position to the open position by pivoting in a clockwise direction about the axis defined by the hinge shafts 19 (shown by blue arrow below). As this happens, the mouthpiece 2 pivots in a counterclockwise direction about a different axis, which is defined by the protrusions 24 (shown by the red arrow below).



Ex.1004, Figs. 2–3 (annotated).

B. Ribarits

International Publication No. WO 2004/063042 to Ribarits et al. (“Ribarits”) was published on July 29, 2004. Ribarits is generally directed to a drinking device that is designed such that it can be opened and closed with one hand. Ex.1006 at Abstract, 2. The drinking device includes a closing cap 1 (orange), a drinking spout 3 (pink) that rotates about two axial pins 4 (purple), a bottle 5 (dark blue), and a tubular element 2 (light blue & green) that is “inserted into said cap” and also “inserted” in the drinking spout, as shown in the annotated versions of Figures 1 and 2 below. *Id.* at Abstract, 2, claim 1, Fig. 1.



Ex.1006, Figs. 1–2 (annotated). As shown above, the drinking spout 3 can be in an open position (Fig. 1 at left) or in a closed position (Fig. 1 at right). Ex.1006 at 2, Fig. 1. As shown in the annotated version of Figure 2 below, the tubular element 2 is inserted into the cap 1 and drinking spout 3. Ex.1006 at Abstract, 2 (“[A] sealed tubular element of rubber or latex is inserted in both these parts When the drinking spout is pivoted open, the elastic tube inserted therein is straightened and the opening is thus released.”), claim 1 (“the sealed tubular element (2) is inserted into the drinking spout (3)”), Fig. 2.

Fig. 2

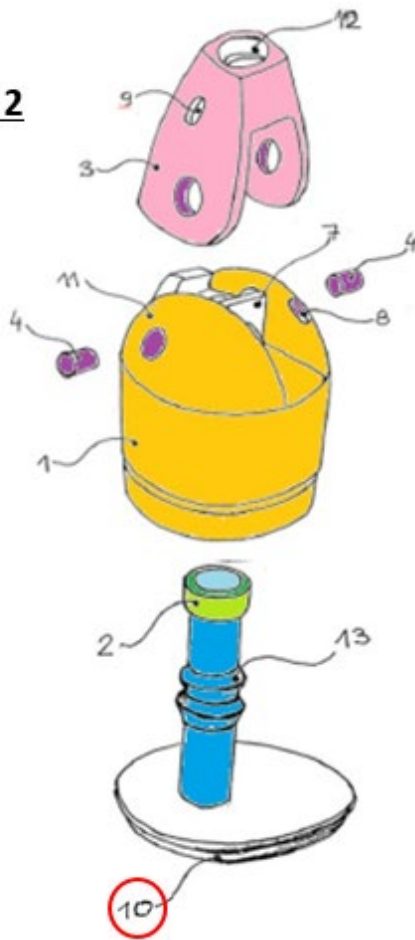
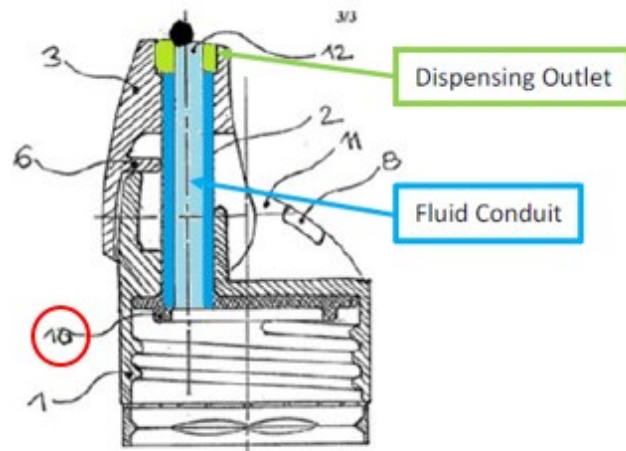


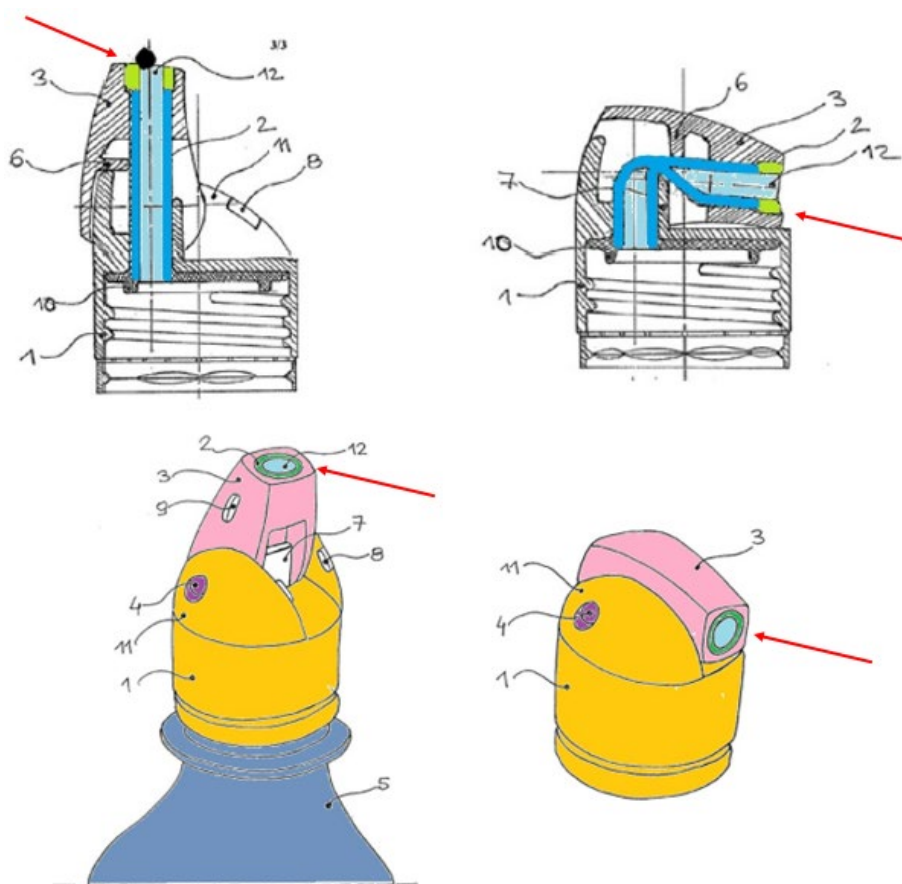
Fig. 3



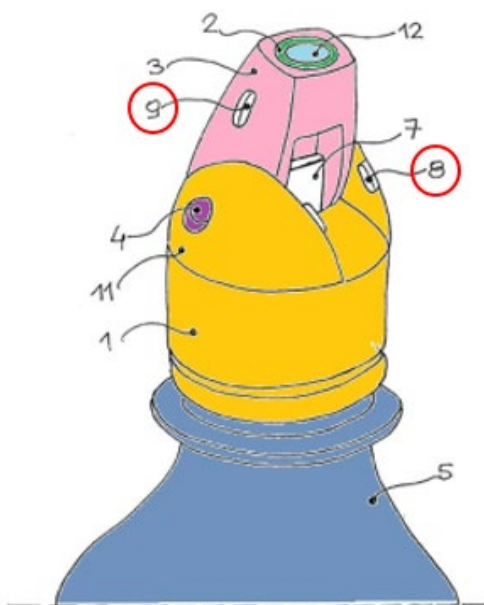
Ex.1006, Fig. 2 (annotated). As shown above, the tubular element 2 includes sealing rings 10 (red) that hold the inserted tubular element in place within the cap 1 and drinking spout 3 by screwing the neck of the bottle into the thread of the cap and tightening the sealing rings 10 in place. Ex.1006 at 2 (“the tightness is given by screwing the neck of the bottle onto the sealing part of this [tubular] element”); *id.* (“[the] common close cap [is] provided with a thread”), claim 1 (“when the closing cap (1) is screwed onto the bottle (5), the required tightness is obtained by means of the sealing rings (10)”), claim 2 (“the sealed tubular element (2) has, in its broad

sealing surface, one or several projecting sealing rings(10)”). The pressure of screwing the cap onto the bottle provides the required tightness to hold the inserted tubular element 2 in place. The tubular element can be made of “rubber, “latex,” or “plastics.” Ex.1006 at 2, claim 4.

As shown by the red arrows in the annotated versions of Figures 1 and 3 below, the opening (green) of the tubular element 2 is flush with and does not extend beyond the drinking spout 3; and, thus, because the drinking spout 3 shields the tubular element 2, a user is not able to apply force to the tubular element 2 using the user’s teeth. Ex.1006, Figs. 1 & 3.



Ex.1006, Figs. 1 & 3 (annotated). As shown below, the cap 1 also includes two knobs 8 that can snap into two recesses 9 on the sides of the drinking spout 3 when the spout is in the closed position as a “securing mechanism” to “prevent an accidental opening of the drinking spout.” Ex.1006 at Abstract, 2, claim 1, Figs. 1–2.



Ex.1006, Fig. 1 (excerpt) (annotated).

C. Secondary References

Petitioner also relies on the Panicci (Ex.1007) and Hughes (Ex.1008) references in its grounds of alleged unpatentability. Pet., 13–14. However, Panicci and Hughes both are asserted only as secondary references in combination with Ribarits as primary references. Because Patent Owner’s arguments herein identify deficiencies with regard to each of the primary references for each of the independent claims, and because Petitioner does not rely on any of these secondary references to

cure any of those deficiencies, Patent Owner does not summarize or otherwise address these secondary references herein.

IV. LEVEL OF ORDINARY SKILL IN THE ART

A person having ordinary skill in the art would have had a bachelor's degree in mechanical engineering or the equivalent coursework and approximately one year of experience with liquid-containing devices, with more work experience substituting for less education and vice versa. Ex.2001, ¶50. Petitioner sets forth a similar, though slightly different, level of ordinary skill in the art. Pet., 15. However, Petitioner fails to show a reasonable likelihood of prevailing on any claim even under the level of ordinary skill in the art Petitioner sets forth, and, thus, Patent Owner discerns no material difference between the definitions provided by the parties for purposes of the Board's decision on whether to institute this proceeding. Petitioner admits as much when it suggests that its "Petition does not turn on [its] specific definition of the level of ordinary skill." Pet., 15.

V. CLAIM CONSTRUCTION

Petitioner does not propose constructions in the Petition for any claim terms in the '250 patent. Pet., 15. Nevertheless, as shown below, the Petition relies on an improperly broad understanding of "mouthpiece" and "pivotal movement with the pivotal mount" where "two joints . . . define a pivotal axis for pivotal movement of

the pivotal mount.” Patent Owner, therefore, provides the proper construction for these terms below.

Patent Owner reserves the right to address the proper construction of additional claim terms in the future, as needed. By reserving such arguments at this stage, Patent Owner does not concede that the Petition uses claim language consistent with its proper construction(s).

A. “mouthpiece” (claims 1, 7, 13)

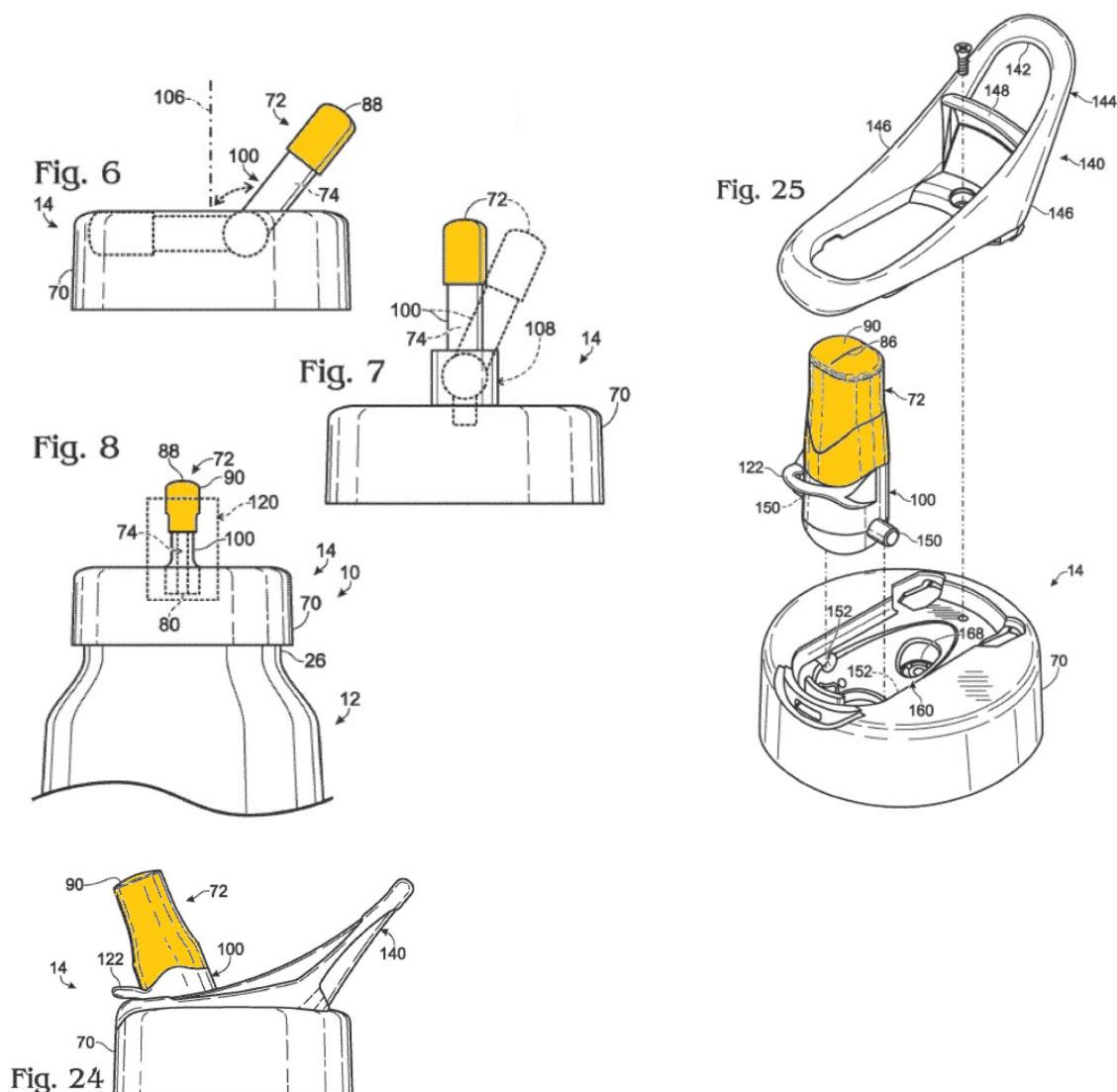
The term “mouthpiece” appears in independent claims 1, 7, and 13 and several dependent claims. Consistent with the intrinsic and extrinsic evidence, “mouthpiece” should be construed to mean “a part designed for a user to put his or her mouth on to draw liquid from the container.”

The plain language of the claims supports this construction. Indeed, the word itself supports the first part of the construction; “mouthpiece”—a compound of “mouth” and “piece”—is a piece (or part) that goes in the mouth. Meanwhile, the text of related limitations supports the second part of the construction. As recited by claims 1, 7, and 13, the claimed “mouthpiece” “defines a portion of the fluid conduit, including the dispensing outlet.” Ex.1001, 19:30–31, 20:43–44, 21:58–59; Pet., 11. The dispensing outlet is the outlet “through which drink fluid in the fluid conduit may be dispensed from the cap assembly to a user.” *Id.*, 19:12–14, 20:27–29, 21:42–44.

The specification of the '250 patent further supports this construction. For example, it describes the “mouthpiece” as a portion of the overall cap assembly where the liquid is dispensed to a user drinking the liquid from the drink container. Ex.1001, 3:14–20 (“the mouthpiece is oriented in a suitable position from which a user may draw drink fluid from the drink bottle through mouthpiece 72”). The '250 patent also describes embodiments of mouthpieces including “a bite-actuated mouthpiece, or valve assembly, 72 upon which a user may bite to configure the mouthpiece from a closed configuration to a dispensing configuration.” *Id.*, 3:4–10. In all embodiments described, the mouthpiece is where a user puts his or her mouth to drink the liquid. *See id.*, 8:45–53 (“[i]n use, the mouthpiece is adapted to be configured to the dispensing configuration by a user placing the mouthpiece in the user’s mouth . . .”), 5:17–24 (describing the user “drinking from the mouthpiece”), Fig. 2, 6:59–62 (describing drink fluid being dispensed through mouthpiece 72), 7:23–26 (discussing “adjustable positioning of the mouthpiece” to “permit a user to adjust the orientation of the mouthpiece to a user-selected drinking orientation”).

In each of these examples of mouthpieces, a POSITA would have understood that a user would be putting their mouth on it to draw liquid from the container. Ex.2001, ¶¶57-62. Further, the figures of the '250 patent consistently depict the mouthpiece (72) as being a straw-like structure designed to allow a user to place

their mouth to draw or drink liquid from it. Ex.1001, Figs. 6–8, 24, 25; Ex.2001, ¶61.



Ex.1001, Figs. 6–8, 24, 25 (annotated). The intrinsic evidence thus uniformly supports that the ordinary meaning of “mouthpiece,” in the context of the ’250 patent, is a “part designed for a user to put his or her mouth on to draw liquid from the container.” Ex.2001, ¶¶57-62.

This is further supported by the dictionary definition of “mouthpiece.” Meriam-Webster defines a “mouthpiece” as “a part (as of an instrument) that goes in the mouth or to which the mouth is applied.” Ex.2005. The extrinsic evidence is therefore consistent with the intrinsic evidence’s usage: a “mouthpiece” would have been understood by a POSITA to be “a part designed for a user to put his or her mouth on to dispense liquid from the container.” Ex.2001, ¶¶57-62.

B. “two joints that define a pivotal axis for pivotal movement of the pivotal mount” (claims 1, 7, 13)

This limitation should be construed to mean “two joints that define an axis of rotation for rotational motion of the pivotal mount about the axis.” Patent Owner believes this construction is necessary to confirm that “a pivotal axis for pivotal movement” requires an axis of rotation about which the pivotal mount engages in rotational motion. The Board suggested construction of a very similar claim term would be helpful in its institution decision in IPR2024-01137 regarding the ‘255 patent, which is the parent to the ‘250 patent at issue here. Ex.2006, at 14-15 (“[W]e preliminarily determine Petitioner has shown that Nakajima teaches or reasonably suggests each element of claim 1, but we encourage the parties to develop the record regarding the meaning of “pivotal about an axis” . . . during the trial phase.”).

The specification confirms that a pivotal axis for pivotal movement provides for rotational motion about an axis of rotation. Ex.2001, ¶¶64-68. Specifically, the

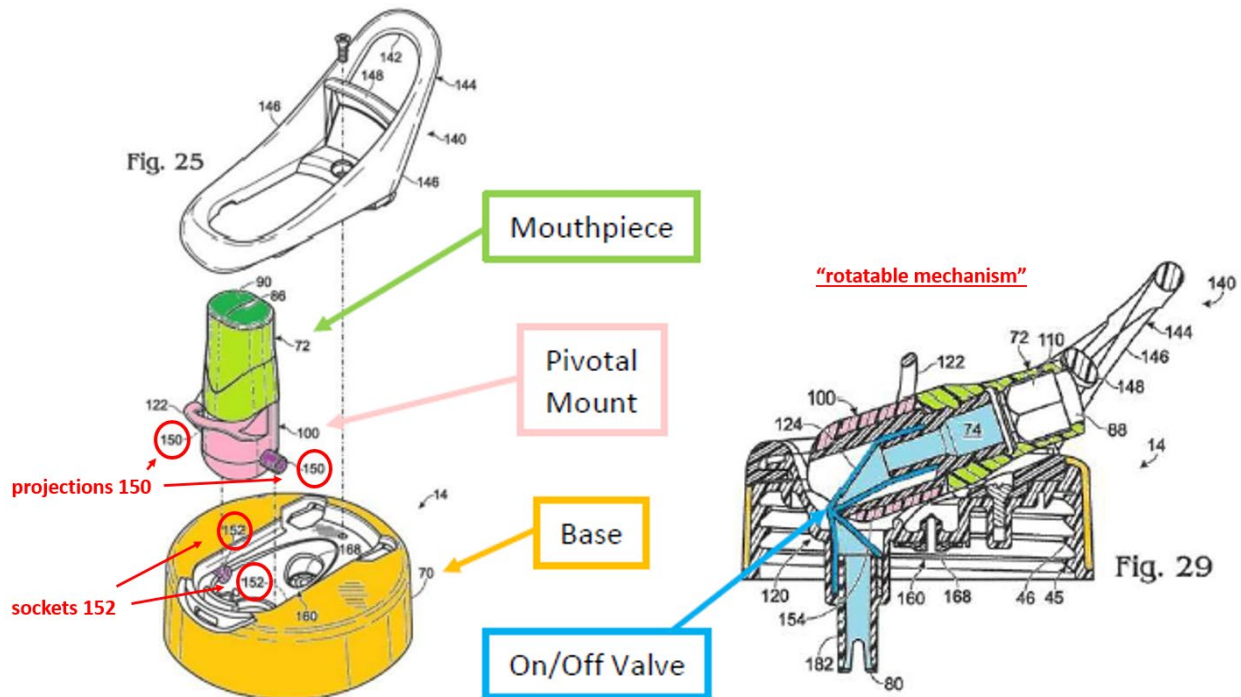
specification describes the “**rotational** position” of the bite-actuated valve assembly, Ex.1001, at 5:9-17, and further describes the ability to adjust the “**rotational orientation**” of the pivotal mount via a pivotal joint that couples the pivotal mount to the cap assembly. *Id.* at 7:47-53 (describing that the mouthpiece and at least a portion of the pivotal mount “may be coupled to the base of the cap assembly by a joint (and/or valve) 108, such as may take the form of a pivotal joint, a ball joint, or other suitable structure that provides for adjusting the angular and/or **rotational orientation** of the mount relative to the base of the cap assembly.”). The specification also describes that the on/off valve can be provided via a “**rotatable mechanism**” in which “a portion of the fluid conduit upstream from the internal chamber of the mouthpiece (such as the inlet, outlet, or an intermediate portion of the mount) is selectively obstructed until the mouthpiece . . . is **rotated** to a position in which the obstruction no longer prevents drink fluid from passing through the fluid conduit.” *Id.*, at 12:13-21.

The specification describes that the joints for coupling the pivotal mount to the base of the cap assembly may be implemented as lateral projections on the mount that are received into and are “**rotatable within**” sockets defined by the base:

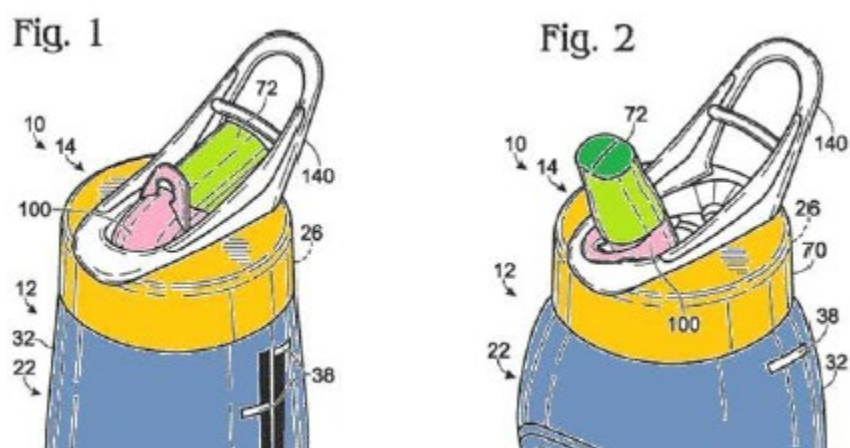
FIG. 25 also illustrates a non-exclusive example for a suitable pivotal mounting mechanism for mount 100, with the mount including lateral projections 150 that are received into sockets 152 defined by portions

of the base 70 and handle 140 of the cap assembly. The projections are *rotatable* within the sockets, and thereby function as *rotatable supports, or axles, upon which the mount and any attached mouthpiece may be pivotally moved* relative to the base of the cap assembly, such as between stowed and dispensing configurations and/or otherwise within the previously discussed range of positions.

Id. at 16:50-60. Consistent with this description, Petitioner's annotated version of Figure 25 and 29 below (with additional annotations in red by Patent Owner) depict the mouthpiece 72 (green) and pivotal mount 100 (pink) being rotatably supported at the joint created by the mount's projections 150 (red) rotating within the sockets 152 (red) of the base (yellow):



Pet., 3; Ex. 1001, at Figs. 25 & 29 (annotated). As shown in Petitioner’s annotated versions of Figures 1 and 2 below, the mouthpiece 72 and pivotal mount 100 rotate together about the joint created by the projections rotating within the sockets between a closed position (Fig. 1) and an open position (Fig. 2):



Pet., 9; Ex.1001, Figs. 1-2 (annotated). The specification is replete with description of rotational motion about the joint that couples the pivotal mount to the base, and the figure also consistently depict the pivotal mount and mouthpiece engaging in rotational motion together about an axis of rotation.

This construction is also consistent with the plain and ordinary meaning of the base term “pivot” as revealed by common and technical dictionaries, which all support that a “pivot” is a point about which something rotates or turns. Ex.2007 (“A short rod or shaft on which a related part rotates or swings The act of turning on or as if on a pivot. . . . To cause to rotate, revolve or turn.”); Ex.2008 (“a fixed point supporting something that turns or balances . . . to turn or twist”); Ex.2009

(“the central point, pin, or shaft on which a mechanism turns or oscillates”); Ex.2010 (“A short, pointed shaft forming the center and fulcrum on which something turns, balances, or oscillates”); Ex.2011 (“a shaft or pin on which something turns”).

A POSITA reviewing the '250 patent would have likewise understood that the claim “pivotal axis for pivotal movement of the pivotal mount” where the pivotal axis is defined by the claimed “two joints” means that the claimed pivotal mount engages in rotational motion about an axis of rotation defined by the two joints. Ex.2001, ¶¶63-70. The concept of rotational motion, which occurs about an axis of rotation, would have been a well understood concept to a POSITA from the basic principles of physics, such as those taught in an undergraduate physics course—a prerequisite to a bachelor’s degree in mechanical engineering degree or equivalent, as set forth above in Section IV (Level of Ordinary Skill). Ex.2001, ¶69. A POSITA would have understood that rotational motion is a type of motion in which all points of a rigid body maintain a constant distance from an imaginary axis (i.e. an axis of rotation) and rotate in circular paths about a common axis with a common velocity. Ex.2001, ¶70 (citing Ex.2012, at 1 (“[R]otational motion . . . is a type of motion in which all points of a rigid body maintain a constant distance from an imaginary axis and rotate in circulate paths about a common axis with a common velocity”)); Ex.2013, at 259 (describing rotation about an “axis of rotation” as requiring that “every point of the body moves in a circle whose center lies on the axis of rotation,

and every point moves through the same angle during a particular time interval”). A POSITA would have understood rotational motion, “in which an object turns about an axis,” to be distinct from translational motion, “in which an object moves along a straight or curved line.” Ex.2001, ¶70 (citing Ex.2013 at 258). If a rotating body does not maintain a constant distance from the axis of rotation, then its path will cease to be circular and its motion will be translational, not rotational. Ex.2001, ¶70.

Therefore, consistent with the Board’s request in its institution decision in IPR2024-01137 regarding the parent ‘255 patent that the parties construe “pivotal about an axis,” Ex.2006, at 14-15, Patent Owner requests that the Board construe “two joints that define a pivotal axis for pivotal movement of the pivotal mount,” a used in claims 1, 7, and 13 of the ’250 patent to mean “two joints that define an axis of rotation for rotational motion of the pivotal mount about the axis.”

C. “a mouthpiece [coupled to the mount outlet of]/[disposed on] the pivotal mount for pivotal movement with the pivotal mount” (claims 1, 7, 13)

Patent Owner requests that this term be construed to mean “a mouthpiece [coupled to the mount outlet of]/[disposed on] the pivotal mount that moves with rotational motion about the same axis of rotation defined by the two joints as the pivotal mount in the same direction as the pivotal mount.”

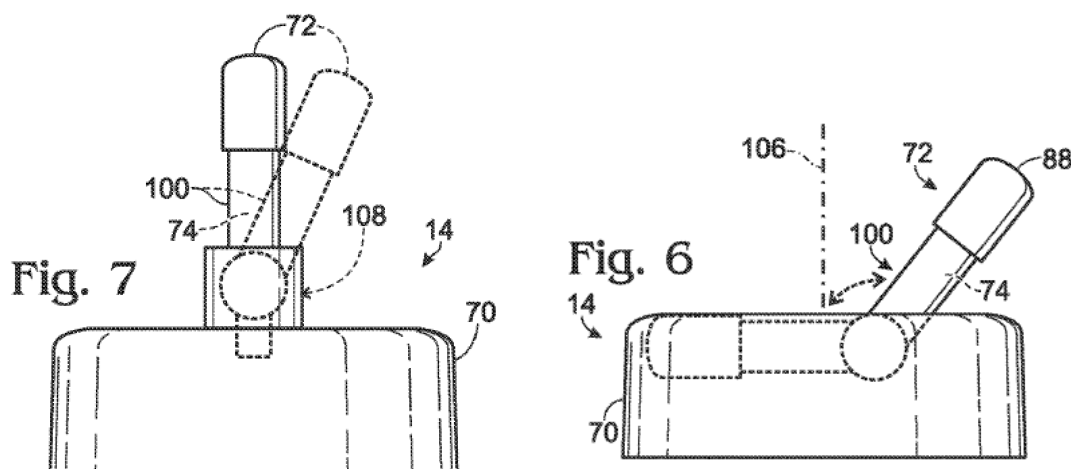
While the preceding limitation specifies that the pivotal mount “pivotally” moves about a “pivotal axis,” this limitation is directed to how the *mouthpiece*

coupled to or disposed on the pivotal mount moves. Specifically, the plain claim language indicates that the mouthpiece engages in “pivotal movement *with* the pivotal mount.” Because, as construed above, the “pivotal axis for pivotal movement of the pivotal mount” means “an axis of rotation about which the pivotal mount engages in rotational motion,” the mouthpiece also must move with rotational motion about the same axis of rotation as the pivotal mount in order to engage in “pivotal movement *with* the pivotal mount.” *See supra* Sec. V.B.

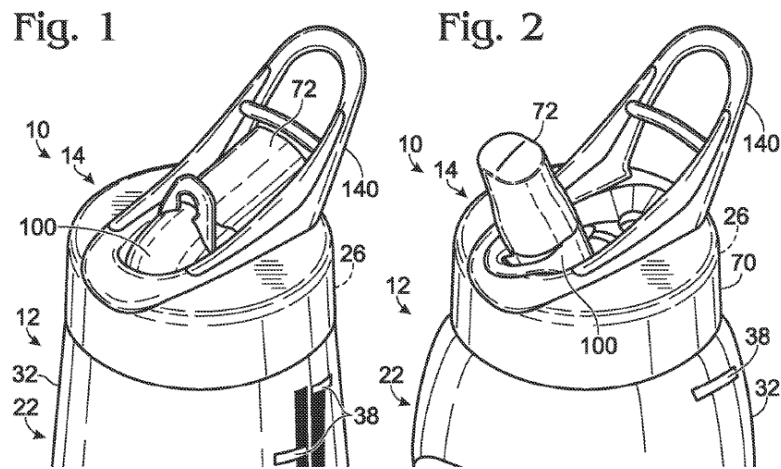
First, the claim language supports this construction. As noted, the claims recite a “pivotal axis for pivotal movement of the pivotal mount.” Ex.1001, 19:21–24, 20:36–41, 21:51–54. And the “pivotal axis” is defined by the “two joints” at which the “pivotal mount [is] coupled to the cap assembly base.” *Id.* No other pivotal axis for pivotal movement is described in the claims. In addition, the claims also recite “a mouthpiece [coupled to the mount outlet of]/[disposed on] the pivotal mount “for *pivotal movement with* the pivotal mount.” Ex.1001, 19:27–29, 20:40–42, 21:51–54 (emphasis added). The claim language thus requires that the pivotal movement of the mouthpiece mirrors the pivotal movement of the pivotal mount, which must occur about the “pivotal axis.” Thus, to move pivotally “with” the pivotal mount, the mouthpiece must also engage in rotational motion about the same axis of rotation, i.e., the claimed “pivotal axis” that is “defined by” the two joints. In addition, to move pivotally “with” the pivotal mount, the mouthpiece must move

in the same direction as (not away from) the pivotal mount, because moving in an opposite direction away from the pivotal mount would not be moving pivotally “with” the rotational mount.

The '250 specification further supports Patent Owner’s proposed construction. Indeed, in every embodiment, the pivotal mount and the mouthpiece pivot together in the same direction about the same pivotal axis defined by the two joints. *See, e.g.*, Ex.1001, at 7:47–53; *see also id.*, at 3:11–13, 7:18–23, 7:59–62, 9:30–33. The figures likewise depict in every embodiment that the pivotal mount and mouthpiece engage in rotational motion together about the same axis in the same direction.



Id., Fig. 7 (showing mouthpiece 72 and pivotal mount 100 rotating about the same pivotal axis defined by joint 108 in the same direction); Fig. 6.



Id., Figs. 1-2 (showing mouthpiece 72 and pivotal mount 100 rotating together in the same direction about the same joint where mount 100 attaches to cap).

Fig. 21

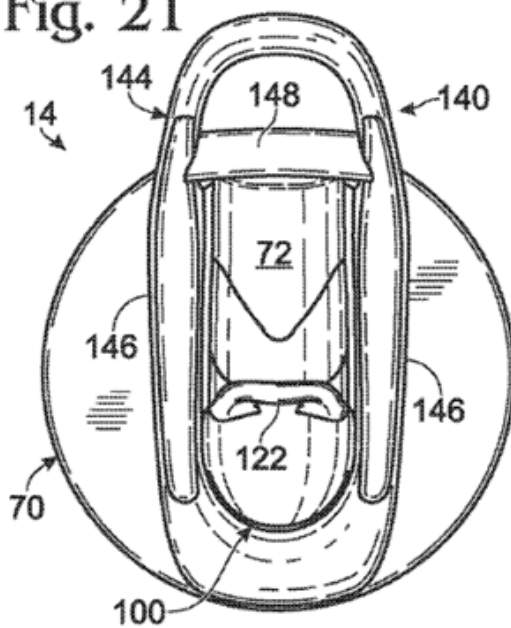


Fig. 22

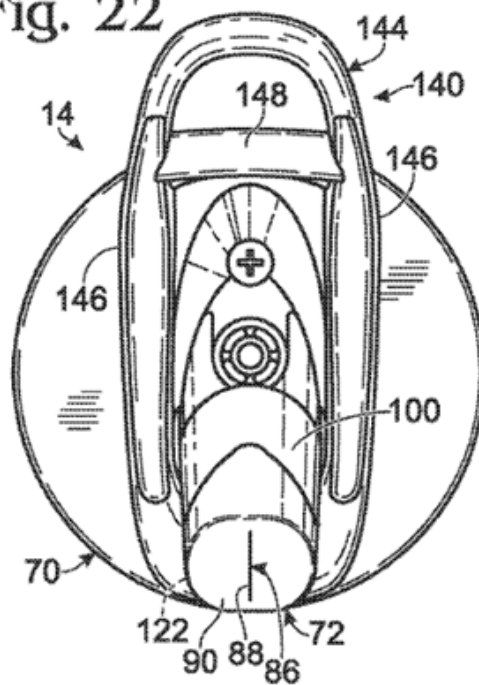


Fig. 23

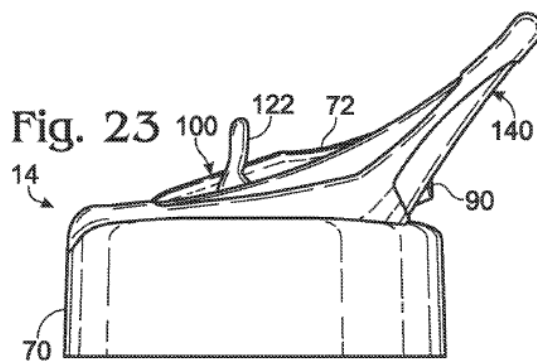
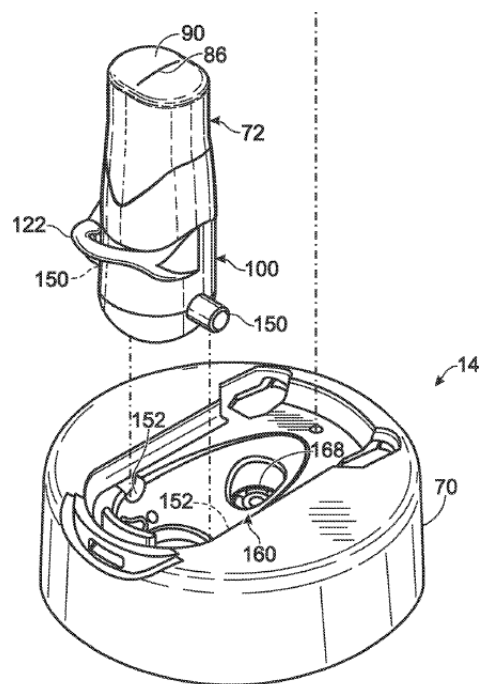
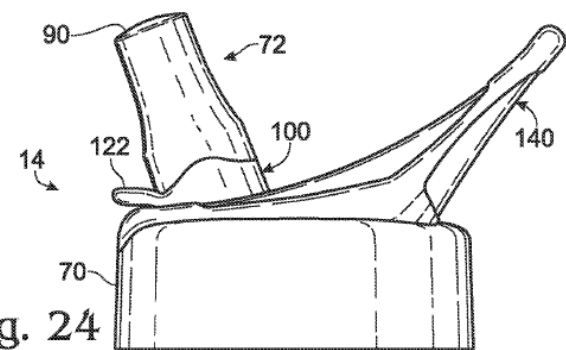


Fig. 24



Id., Figs. 21–25; *see also id.*, Figs. 26–29.

Furthermore, the specification describes every embodiment as comprising a “mouthpiece” coupled to or disposed on a “pivotal mount” that rotates together with the “pivotal mount” in the same direction. Ex.2001, ¶78. For instance, the ’250 patent states that the pivotal mount is “*rotatable* within the sockets, and thereby function as rotatable supports, or axles, upon which the mount and any attached mouthpiece may be pivotally moved relative to the base of the cap assembly, such as between stowed and dispensing configurations.” *Id.*, 16:54–60 (emphasis added).

This construction is further supported by the prosecution history of a parent patent to the ’250 patent—specifically, the ’192 reexamination history of the ’255 patent. Ex.2001, ¶79. Patent Owner’s arguments overcoming the rejection of claim 1 over McDonough during the parent ’255 patent reexamination support this construction. In particular, Patent Owner distinguished the up-and-down translational movement of McDonough’s alleged “mouthpiece” from the pivotal movement required by the claims. *See* Ex.2002 at 638; *see also id.* at 588-89 (setting forth ground of rejection for claim 1); Ex.2001, ¶79. As shown below, a POSITA would have understood from Patent Owner’s arguments that the mouthpiece and the pivotal mount rotate together about the same axis of rotation in the same direction, rather than engaging in up and down translational movement. Ex.2001 ¶79.

Referring to the annotated figures (below) from McDonough, Patent Owner argued that “portion 16 of the straw” of McDonough—mapped to the mouthpiece

by the Reexamination Specialist and highlighted by Patent Owner’s annotations—
“is not pivotal about an axis defined by the pair of lateral projections.” Ex.2002 at
638. The Specialist had mapped the pivotal axis to the “axle projections 30” of
McDonough about which the straw positioning mechanism 20 rotates. *Id.* at 588-89.
As illustrated in the below annotated versions of Figure 2 and 3 provided by patentee
during the reexamination, the straw’s end 16 (mapped to the mouthpiece) “is not
pivotal about an axis defined by the pair of lateral projections,” as argued by Patent
Owner. *Id.* at 638 (emphasis in original).

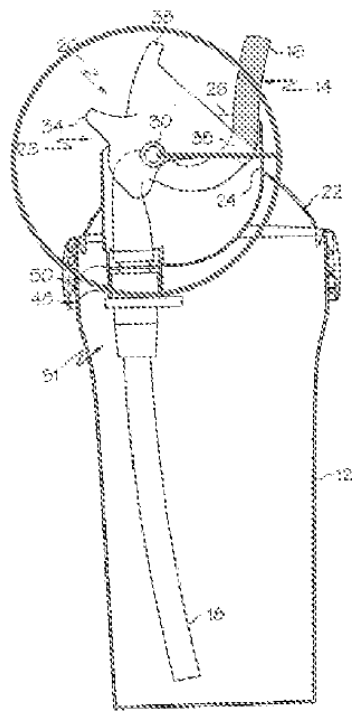


FIG. 2

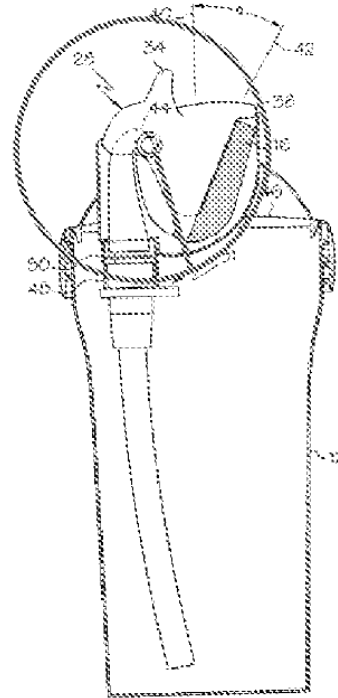
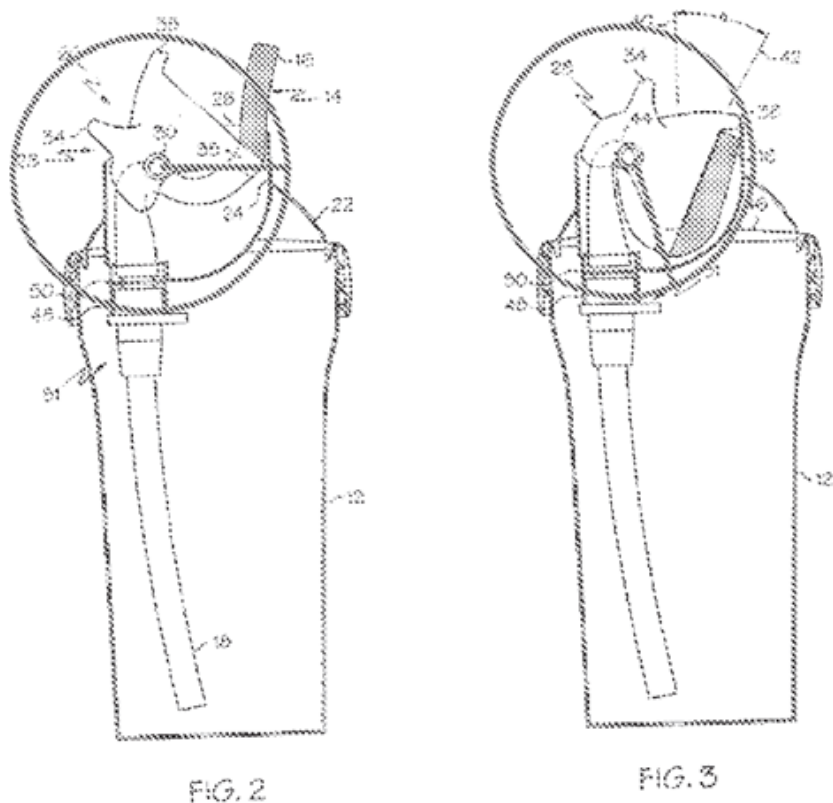


FIG. 3

Instead, the Patent Owner argued that “when the straw positioning member
20 is pivoted about a pivotal axis [i.e. axles 30], the portion 16 of straw 14 is pulled

downwards.” *Id.* (underline added). Thus, Patent Owner was distinguishing the upward and downward translational movement of the alleged mouthpiece (i.e., portion 16 of the straw) in McDonough from the claimed pivotal movement about an axis, which would have required rotational movement of the mouthpiece about the alleged pivotal axis (i.e., axes 30), not mere upward and downward translational movement. Ex.2001 ¶¶80-81.



Ex.2002 at 638; *see* Ex.2015, Figs. 2–3. The below annotated version of Figures 2 and 3 of McDonough, which provides a clearer reproduction of its reference numerals, shows that the alleged *mouthpiece* (upper portion 16 of the straw) merely

engages in up and down translational motion (red arrows), rather than rotational motion about the axis defined by the axles 30. Ex.2001 ¶81.

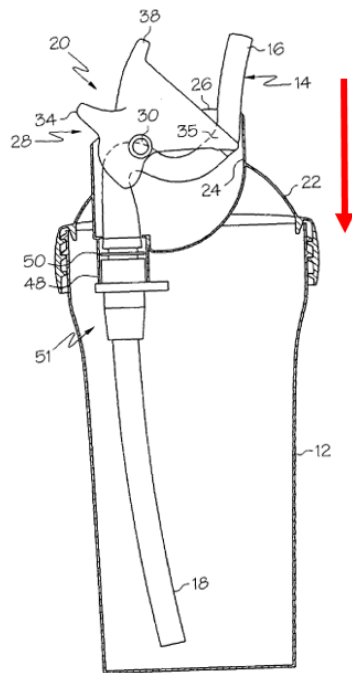


FIG. 2

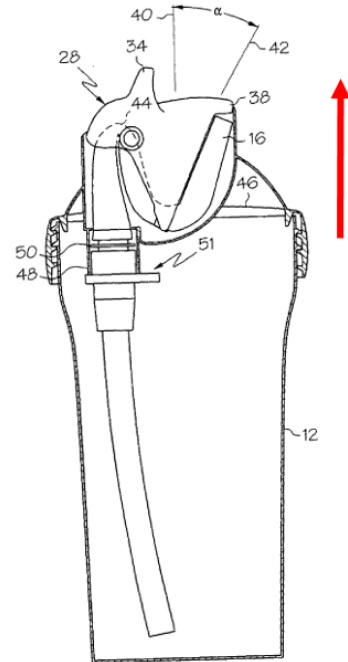


FIG. 3

Ex.2015, Figs. 2–3 (annotated). Thus, Patent Owner’s arguments distinguished the identified *mouthpiece*—straw portion 16—as not having pivotal movement about the same identified *pivotal axis* as the element mapped to the *pivotal mount*—straw positioning member 20—which rotates about the axles 30 (alleged *pivotal axis*). Ex.2001 ¶81. A POSITA would have understood from these arguments distinguishing McDonough that the *mouthpiece* must exhibit the same kind of pivotal movement about the same *pivotal axis* as the *pivotal mount*. Ex.2001 ¶81. That is, the mouthpiece must rotate about the same axis of rotation as the pivotal

mount, and it is not enough for the mouthpiece to have mere translational movement relative to the axis of rotation of the pivotal mount. Ex.2001 ¶81.

Accordingly, “a mouthpiece [coupled to the mount outlet of]/[disposed on] the pivotal mount for pivotal movement with the pivotal mount” recited in claims 1, 7, and 13 means “a mouthpiece [coupled to the mount outlet of]/[disposed on] the pivotal mount that moves with rotational motion about the same axis of rotation defined by the two joints as the pivotal mount in the same direction as the pivotal mount.”

VI. PETITIONER HAS NOT SHOWN A REASONABLE LIKELIHOOD OF PREVAILING ON ANY CLAIM FOR GROUND 1

Contrary to Petitioner’s assertions, Petitioner has failed to show that Nakajima discloses certain limitations of the claimed *mouthpiece* recited by the independent claims. Because Petitioner fails to show a reasonable likelihood of prevailing on any claim, institution should be denied. *See* 35 U.S.C. § 314(a).

A. Ground 1 Fails Because Nakajima Does Not Disclose the *Mouthpiece’s* Required *Pivotal Movement with the Pivotal Mount* of the Claims

Petitioner cannot prevail on Ground 1 as to any claim of the ’250 patent because Nakajima—the primary reference for this ground—does not disclose the *mouthpiece’s* required *pivotal movement with the pivotal mount* required by the challenged claims.

As shown below, under both the plain claim language, which is addressed first, and under Patent Owner's constructions, which are addressed second, Nakajima does not disclose a *pivotal mount* that *pivotaly move[s]* about a *pivotal axis* defined by the *two joints* of the *pivotal mount* and a *mouthpiece* that *pivotaly move[s]* *with the pivotal mount*, as required by claim 1.

First, in particular, under the plain claim language, Nakajima's alleged *mouthpiece* freely pivots independently from the rest of the alleged *pivotal mount* and, as a result, pivots about a different axis such that it never pivots about the same pivotal axis as the pivotal mount, and thus never *pivotaly moves with the pivotal mount*.

Second, additionally, under Patent Owner's claim constructions, Nakajima's alleged *mouthpiece* never moves with rotational motion about the same axis as the pivotal mount in the same direction as the pivotal mount. *See supra* Sec. V.C. As discussed above, rotational motion, by its very definition in physics, requires maintaining a constant distance to the axis of rotation; otherwise, the motion is translational and not rotational. *See supra* Sec. V.B. Nakajima's alleged *mouthpiece* never engages in rotational motion about the same axis as the pivotal mount, because it does not maintain a constant distance to the axis of rotation, i.e., the alleged *pivotal axis*, and thus, instead, only moves translationally relative to the axis of the pivotal mount, just like the McDonough prior art that was distinguished as not having a

mouthpiece that pivotally moved about a pivotal axis. In addition, Nakajima also does not satisfy Patent Owner’s constructions, because the alleged *mouthpiece* in Nakajima also does not rotate in the same direction as the pivotal mount, and thus, for this additional reason, does not pivotally move “with” the pivotal mount about the pivotal axis.

Every claim challenged under Ground 1 is dependent from claim 1, and Petitioner relies solely on Nakajima to disclose these requirements. *See* Pet., 21–26, 33–38; Ex.1001, 19:1–20:16. Because Nakajima does not disclose or render obvious these limitations, Ground 1 must fail.

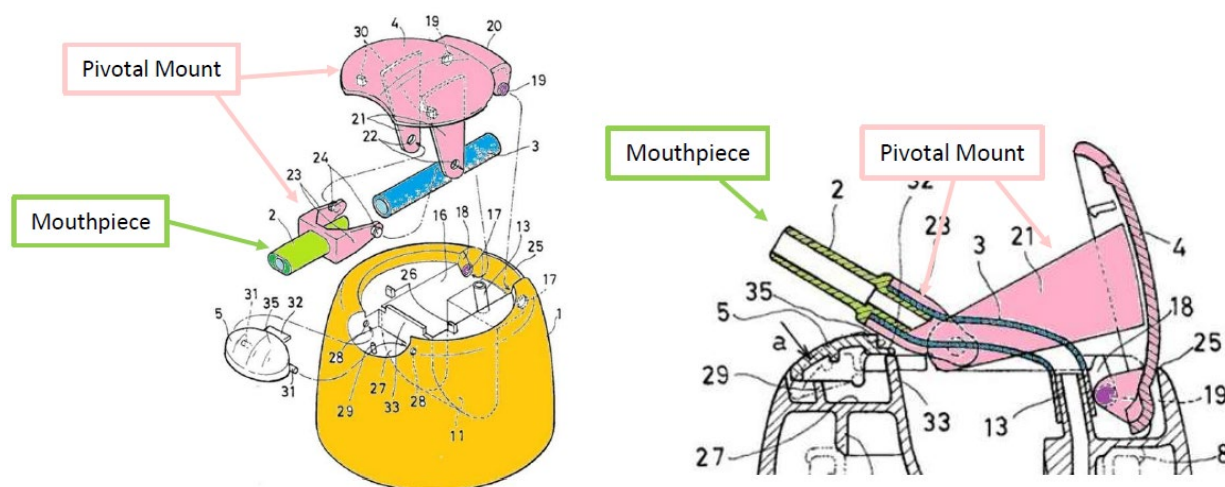
Patent Owner first applies the plain claim language and second applies its proposed claim constructions.

1. Nakajima Does Not Disclose the *Mouthpiece’s* Required *Pivotal Movement with the Pivotal Mount* of the Claims under the Plain Claim Language

Petitioner fails to show by a reasonable likelihood that Nakajima’s alleged *mouthpiece* engages in the required *pivotal movement with the pivotal mount* as required by the plain claim language of claims 1, 7, and 13. Further, the plain claim language requires “a pivotal axis for pivotal movement of the pivotal mount” that is defined by “two joints” at which the pivotal mount is “coupled to the cap assembly base,” and as such, Nakajima fails to teach that the alleged *mouthpiece* engages in

pivotal movement with the pivotal mount in the manner that the pivotal mount is required to engage in *pivotal movement* about a *pivotal axis*.

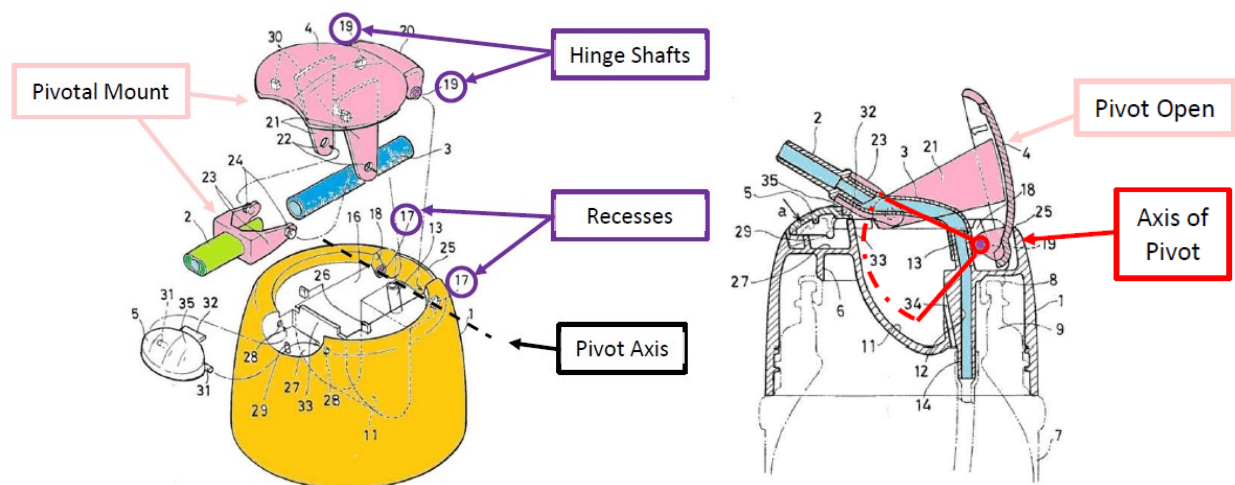
Petitioner contends the *mouthpiece* of the claim is disclosed by one particular portion of Nakajima’s “mouthpiece 2.” Ex.2001 ¶86; *see* Pet., 24–26. As indicated by the annotations reproduced below, Petitioner contends that the green annotated portion of Nakajima’s “mouthpiece 2” is the claimed *mouthpiece*. *Id.*, 24–26. Petitioner further identifies the arms 23 and their protrusions 24 of Nakajima’s “mouthpiece 2” as being part of the *pivotal mount*, along with “lid 4” (collectively annotated pink), not part of the claimed *mouthpiece* (annotated green). Pet., 21.



Pet., 21 (citing Ex.1004, Fig. 1, [0003]; Ex.1002 ¶74); *id.*, 25 (citing Ex.1004, Fig. 3). Petitioner argues that the pink annotated portion of Nakajima’s “mouthpiece 2,” which includes “arms 23” and “protrusions 24,” is part of the *pivotal mount* to which the *mouthpiece* must be coupled. *Id.*, 23; *see id.*, 25 (arguing that Nakajima discloses

or renders obvious the claimed coupling). Thus, Petitioner maps part of “mouthpiece 2” to the claimed *mouthpiece* and part of it to the claimed *pivotal mount*.

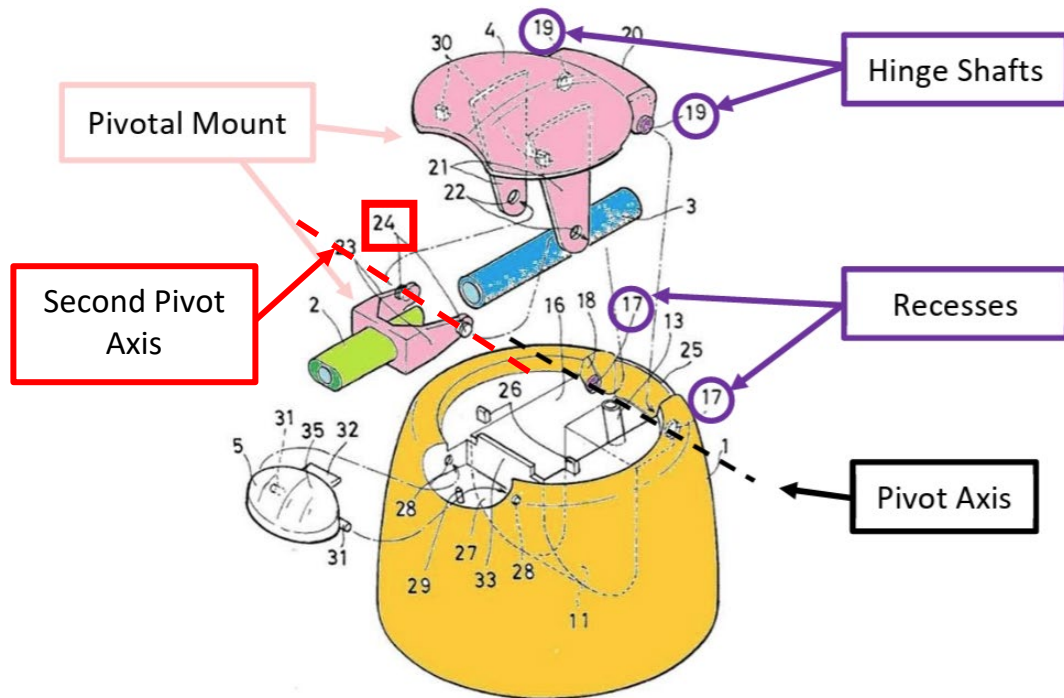
Petitioner maps the alleged *pivotal axis* to the axis defined by the hinge shafts 19 (annotated purple below) rotating within the recesses 17 in Nakajima’s lid 4. Pet., 22-23. As shown in Petitioner’s annotated versions of Figures 1 and 3 below, Petitioner labels this alleged *pivotal axis* defined by the hinge shafts 19 as “Pivot Axis” (in black) in Figure 1 and as “Axis of Pivot” (in red) in Figure 3:



Pet., 22-23 (citing Ex.1004, Figs. 1 & 3).

The alleged *mouthpiece* in Nakajima does not exhibit *pivotal movement* with the *pivotal mount*, i.e., about the alleged *pivotal axis* that the alleged *pivotal mount* engages in *pivotal movement* about. Ex.2001 ¶¶87-88; Pet., 22–23. In particular, lid 4 pivots in a clockwise direction about the axis defined by the hinge shafts 19 (the alleged *pivotal axis*) when it opens, but the alleged *mouthpiece* (green portion of mouthpiece 2) does not pivot with the lid (i.e., part of alleged *pivotal mount*) about

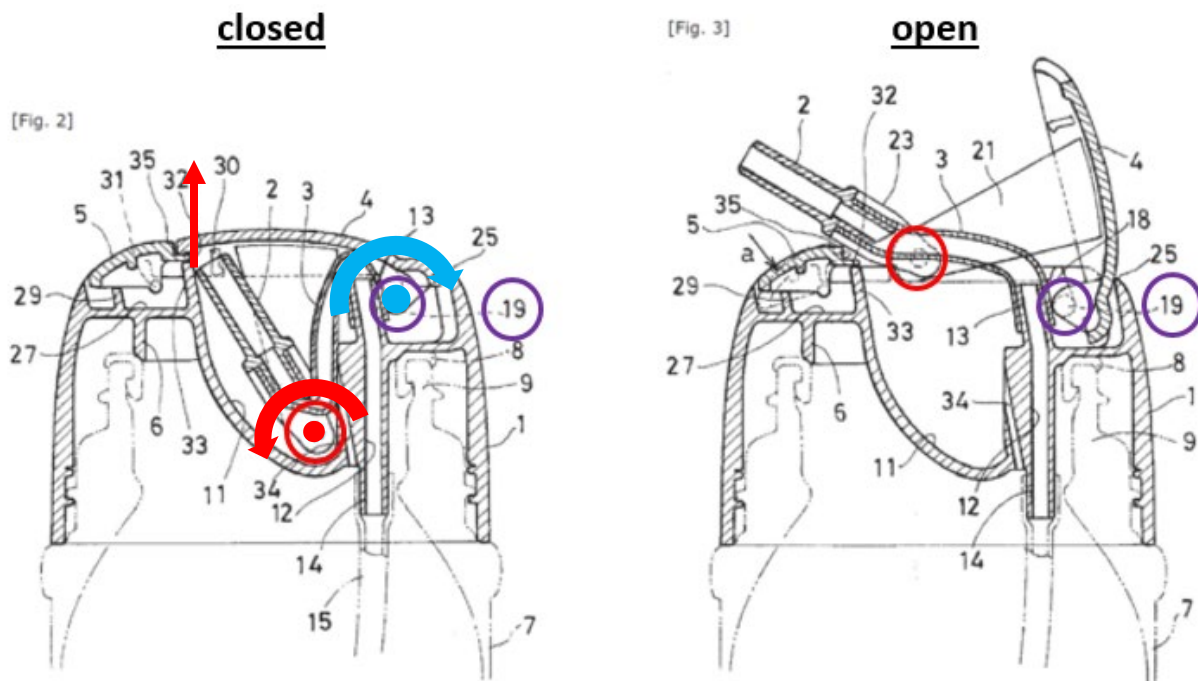
the alleged *pivotal axis*. Ex.2001 ¶88. Instead, Nakajima discloses that the alleged *mouthpiece* moves up, and then forward, when the lid 4 pivots to the open position. *Id.*; see Ex.1004 ¶3 (“[T]he mouthpiece moves up and down in conjunction with the opening and closing of the lid.”). To the extent the alleged *mouthpiece* exhibits pivotal movement, it only pivots about a different axis—one defined by protrusions 24 rotating in holes 22 (identified by the red annotations above), not the alleged *pivotal axis* defined by hinge shafts 19. Ex.2001 ¶88; see Ex.1004, [0016] (“[A] protrusion 24 on [each of] the arms 23 of the mouthpiece 2 is *rotatably fitted* into a hole 22 at the bottom end of each leg piece 21.”) (emphasis added).



Pet. 22 (citing Ex.1004, Fig. 1) (red annotations added). As shown, the alleged *mouthpiece*, which Petitioner colors green, only pivots about the axis Patent Owner has labeled the second pivot axis colored red above. Ex.2001 ¶88. Thus, the alleged *mouthpiece* does not engage in *pivotal movement with the pivotal mount*. Ex.2001 ¶88.

The annotated versions of Nakajima's Figures 2 and 3 below illustrate the differences between the alleged *mouthpiece's* pivotal movement and the pivotal movement of the alleged *pivotal mount* around the *pivotal axis*. Ex.2001 ¶89. The **red** annotations indicate how the alleged *mouthpiece* moves as the lid opens, including the mouthpiece's counterclockwise rotation about the axis defined by

protrusions 24. The **blue** annotations indicate the lid's clockwise movement about a different axis, i.e., the alleged *pivotal axis* defined by the hinge shafts 19. Ex.2001 ¶89.



Ex.2001, ¶89 (annotating Ex.1004, Figs. 2–3).

A POSITA would have understood that the green portion of “mouthpiece 2” that Petitioner contends is the claimed *mouthpiece* pivots freely (e.g., in response to the force of gravity) about the red axis defined by protrusions 24. Ex.2001 ¶90. A POSITA would have understood that the movement of the alleged *mouthpiece* would never be pivotal about the axis defined by hinge shafts 19 about which the alleged *pivotal mount* pivotally moves, because the *mouthpiece* freely pivots under operation of gravity in the opposite direction about an entirely different axis instead and

nothing ever holds it in alignment with the lid (i.e., part of the *pivotal mount*) such that it engages in *pivotal movement with the pivotal mount*. *See id.*

On the contrary, Petitioner’s mapping of Nakajima parallels the Reexamination Specialists’ attempted mapping of the McDonough reference during the reexamination of the ’250 patent’s parent patent, the ’255 patent, which further confirms that the movement of Nakajima’s *mouthpiece* is not *pivotal movement with the pivotal mount* in a manner that constitutes *pivotal movement about the pivotal axis*. *See* V.C (describing Patent Owner’s arguments distinguishing McDonough from the claimed *pivotal movement about a pivotal axis*); Ex.2001 ¶91.

Like McDonough, Nakajima’s “mouthpiece” merely moves translationally “up and down” relative to the hinge shafts 19 (alleged *pivotal axis*) when the lid (mapped by Petitioner to the *pivotal mount*) opens and closes. Ex.1004 ¶3; Ex.2001 ¶92. Petitioner even quotes directly from Nakajima’s disclosure when Petitioner states that “Nakajima’s mouthpiece ‘moves up and down in conjunction with the opening and closing of the lid.’” Pet., 26 (quoting Ex.1004 ¶3). But Petitioner then asserts (without explanation) that Nakajima’s up-and-down movement of its mouthpiece somehow constitutes “pivoting movement of the mouthpiece” that Petitioner contends is shown in Figures 2 and 3 of Nakajima. Pet., 26. Neither Petitioner nor its declarant, Dr. Vallee, offer any support or explanation for their conclusion that the up-and-down translational movement expressly described by

Nakajima constitutes the pivotal movement required by the claim. *See id.* at 23-24; Ex.1003 ¶¶89, 103; Ex.2001 ¶92. And the record from the reexamination (discussed in Sec. V.C *supra*) shows that up-and-down translational movement relative to the alleged *pivotal axis* is not, in fact, “pivotal movement,” because it is merely translational up-and-down movement like that in McDonough, which Patent Owner distinguished as not being pivotal movement about a pivotal axis. Ex.2001 ¶92.

Accordingly, the alleged *mouthpiece* does not engage in “***pivotal movement with the pivotal mount***” under the plain claim language.⁸ Ex.2001 ¶93. Because Nakajima does not disclose the claimed *pivotal movement* for the *mouthpiece with the pivotal mount*, Petitioner cannot prevail against claims 1, 7, and 13 based on Ground 1.

⁸ As noted in this section, Patent Owner contends Nakajima fails to satisfy this plain claim language regardless of whether the Board decides to expressly construction the claim limitations set forth in Section V.B and V.C. However, as addressed in the next section, Patent Owner contends Nakajima also fails to satisfy the proper express claim constructions for this claim language, as well.

2. Patent Owner’s Claim Constructions Further Confirm Nakajima Fails To Disclose the *Mouthpiece’s* Required *Pivotal Movement with the Pivotal Mount* of the Claims Under the Proper Constructions

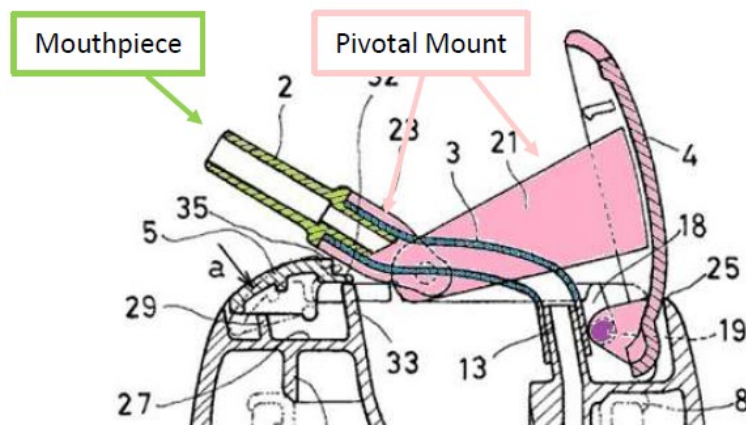
While Patent Owner contends it is clear that Nakajima fails to satisfy the plain claim language of claims 1, 7, and 13, as set forth above, Patent Owner has also provided express constructions that further demonstrate Nakajima’s deficiencies with regard to the claimed “pivotal movement with the pivotal mount” that the claimed “mouthpiece” is required to have. *See supra* Secs. V.B-V.C. Specifically, the claimed “two joints that define a pivotal axis for pivotal movement of the pivotal mount” recited in claims 1, 7, and 13 mean “two joints that define an axis of rotation for rotational motion of the pivotal mount about the axis” for the reasons set forth above. *See supra* Sec. V.B. Further, the limitation of “a mouthpiece [coupled to the mount outlet of]/[disposed on] the pivotal mount for pivotal movement with the pivotal mount” recited in claims 1, 7, and 13 means “a mouthpiece [coupled to the mount outlet of]/[disposed on] the pivotal mount that moves with rotational motion about the same axis of rotation defined by the two joints as the pivotal mount in the same direction as the pivotal mount.” *See supra* Sec. V.C. As explained below, Nakajima fails to satisfy these constructions because its alleged *mouthpiece* does not: i) move with rotational motion about the same axis of rotation as the pivotal

mount, nor does it ii) move with rotational motion in the same direction as the pivotal mount. Ex.2001 ¶96.

As such, Nakajima fails to disclose a mouthpiece “for pivotal movement with the pivotal mount,” as demonstrated by the proper express claim constructions set forth in Sections V.B and V.C, *supra*.

First, as construed, for Nakajima’s alleged *mouthpiece* to engage in “pivotal movement with the pivotal mount,” Nakajima’s alleged *mouthpiece* must move with rotational motion about the same axis of rotation defined by the two joints as the pivotal mount in the same direction as the pivotal mount. But Nakajima’s alleged *mouthpiece* does not. Specifically, it does not move with rotational motion about the same axis of rotation as the pivotal mount and, thus, does not exhibit the claimed “pivotal movement with the pivotal mount,” as construed. As set forth above, Nakajima’s alleged *mouthpiece* (the green portion of the mouthpiece 2) does not engage in rotational motion about the same axis of rotation as the alleged *pivotal mount* (i.e., about hinge shafts 19). Ex.2001 ¶97. As explained in Section V.B, *supra*, a POSITA would have understood that rotational motion about a rotational axis requires that all points of a rigid body maintain a constant distance from an imaginary axis (i.e. an axis of rotation) and rotate in circular paths about a common axis with a common velocity. Ex.2001, ¶97 (citing Ex.2012, at 1; Ex.2013, at 259). If they do not, then the motion will be translational, rather than rotational. Ex.2001,

¶97. As a reminder, Petitioner only contends the green portion of mouthpiece 2 constitutes the alleged *mouthpiece* and Petitioner contends that the arm 23 and protrusions 24 of Nakajima's mouthpiece 2 are part of the *pivotal mount*, not the claimed *mouthpiece*, as shown below:

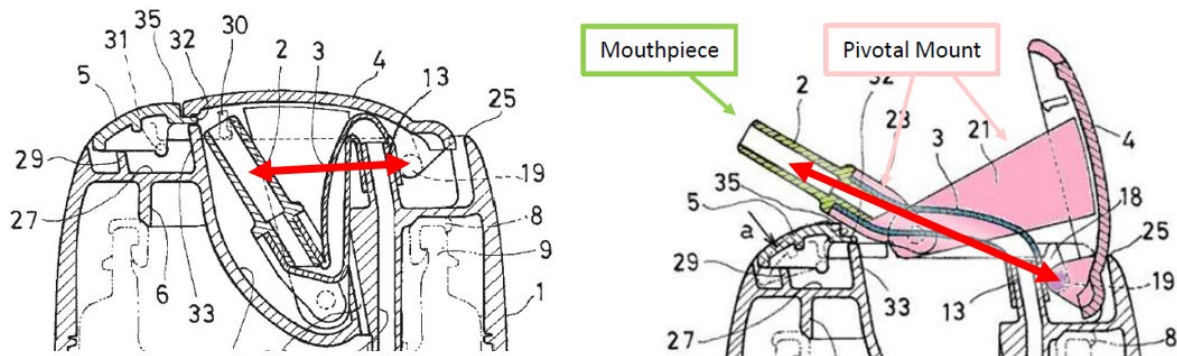


Pet., 25 (citing Ex. 1004, Fig. 3; Ex 1002, ¶79); Ex.2001, ¶98. The green alleged *mouthpiece* does not engage in rotational motion about the hinge shafts 19 about which the lid rotates, because, as discussed, rotational motion requires maintaining a constant distance between the rotating body and the axis of rotation, and the green alleged *mouthpiece* never maintains a constant distance from the axis of rotation defined by the hinge shafts 19 about which the alleged pivotal mount rotates. Ex.2001, ¶99. As discussed, a POSITA would have understood, as a matter of physics, that a constant distance must be maintained for the motion to constitute

rotational motion about an axis of rotation.⁹ Ex.2001, ¶99. Otherwise, the motion is not rotational and is instead translational motion, which is not pivotal movement about a pivotal axis (such as confirmed by Patent Owner’s argument distinguishing McDonough’s up and down translational motion). Ex.2001, ¶99. This is illustrated by the below annotations showing how the distance changes between the alleged *mouthpiece* and the alleged *pivotal axis* and is not maintained constant. Ex.2001,

⁹ Patent Owner notes that it did not expressly include this “constant distance” requirement in its express claim construction of “pivotal movement with the pivotal mount” because rotational motion, by its very definition in physics, inherently requires such a constant distance, as set forth above, and Patent Owner did not want its construction to be redundant. In any event, Patent Owner would not be opposed if the Board felt it prudent to construe the “pivotal movement with the pivotal mount limitation” as meaning “a mouthpiece [coupled to the mount outlet of]/[disposed on] the pivotal mount that moves with rotational motion, which requires maintaining a constant distance to an axis of rotation, about the same axis of rotation defined by the two joints as the pivotal mount in the same direction as the pivotal mount” as such a modification would merely be re-stating what is required for motion to be rotational motion as a fundamental principle of physics.

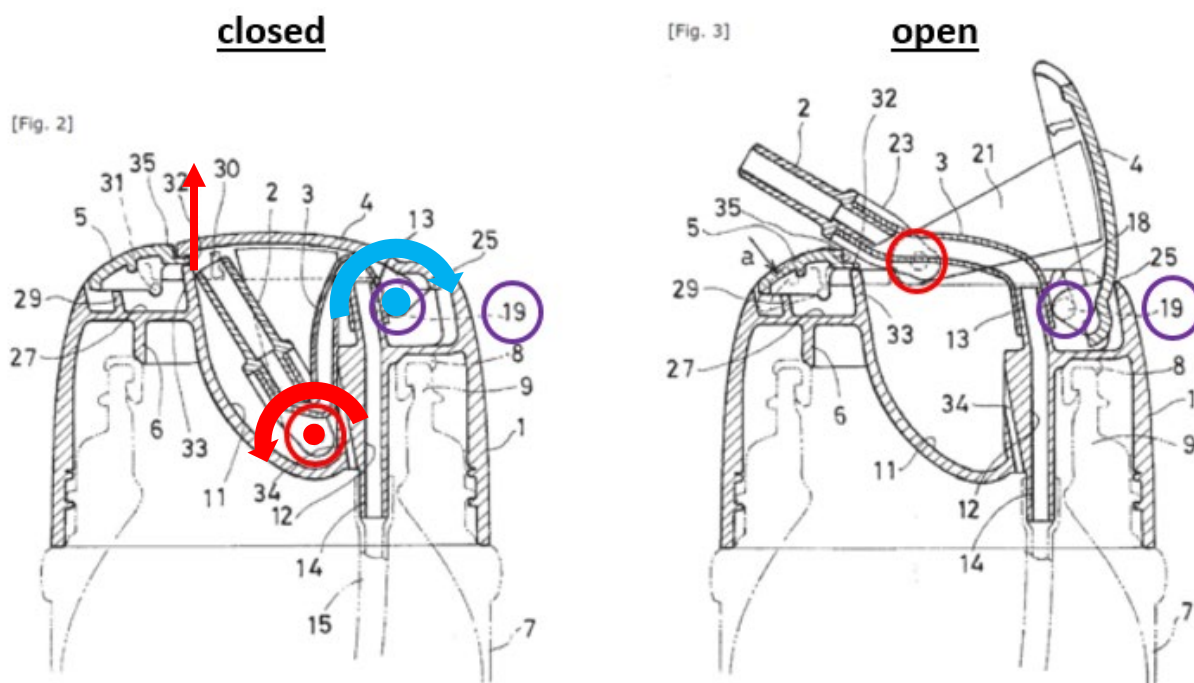
¶99. Because a constant distance is not maintained, the alleged mouthpiece does not move with rotational motion about the alleged *pivotal axis* and instead moves translationally relative to that *pivotal axis*. Ex.2001, ¶99.



Ex.1004, Figs. 2-3 (annotated); Ex.2001, ¶99. Thus, a POSITA would have understood that the alleged *mouthpiece* is merely engaged in translational upward and downward motion relative to the hinge shafts 19 (not rotational motion about the hinge shafts 19 as an axis of rotation), like the McDonough reference that the Patent Owner distinguished as not disclosing pivotal movement about a pivotal axis. Ex.2001, ¶100.

Second, as set forth above Nakajima’s alleged *mouthpiece* does not ever rotate in the same direction as the pivotal mount, as also required by Patent Owner’s construction of “pivotal movement with the pivotal mount.” Ex.2001 ¶101; *see supra* Sec. V.C. Thus Nakajima’s alleged *mouthpiece* does not engage in pivotal movement “*with*” the pivotal mount, as properly construed. Instead, as shown again

below, Nakajima's alleged *mouthpiece* rotates about a different axis of rotation than the alleged *pivotal mount* in a direction opposite the direction of rotation of the alleged *pivotal mount*, as shown by the **red** and **blue** circular arrows below. Ex.2001, ¶101.

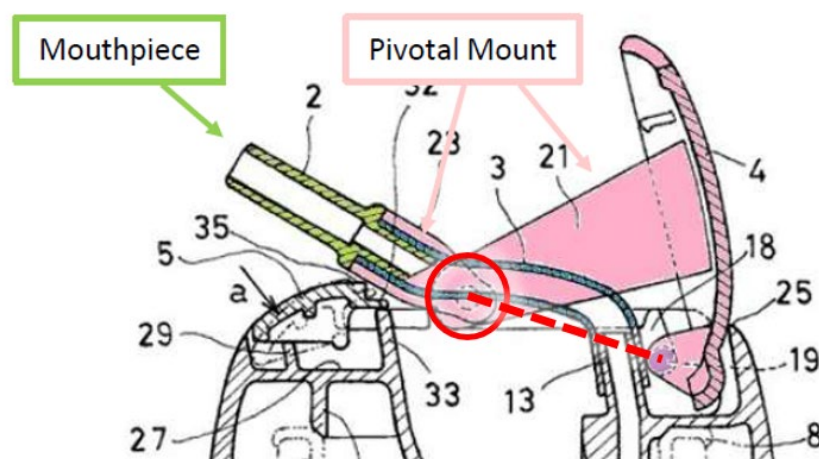


Ex.2001 ¶101 (annotating Ex.1004, Figs. 2–3).

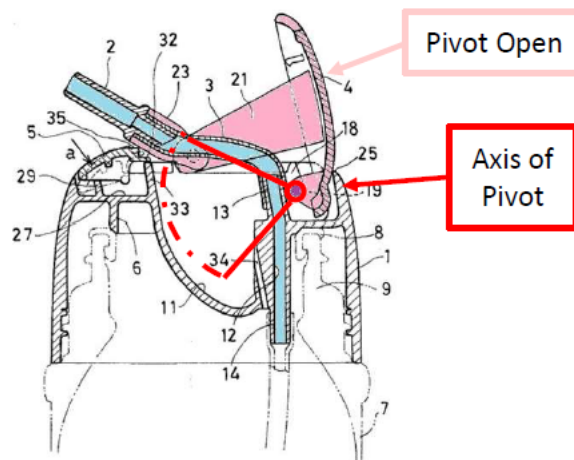
Therefore, Nakajima's alleged *mouthpiece* does not ever engage in “pivotal movement with the pivotal mount,” as construed by Patent Owner. Ex.2001 ¶102.

Finally, Patent Owner notes that the Board made a finding in its Institution Decision in IPR2024-01137 regarding the '250 patent's parent '255 patent as follows: “As cited by Petitioner, from the closed position, for example, the Nakajima's mouthpiece would appear to move based on clockwise rotation about

hinge shaft 19.” Ex.2006 at 15. Patent Owner believes that the Board may have been referring to the movement of Nakajima’s entire “mouthpiece 2,” including its arm 23 and protrusions 24, when making this statement. That is, Patent Owner does not believe that the Board was referring to just the portion of mouthpiece 2 that Petitioner colors green and labels as the alleged *mouthpiece* of the claims when the Board referred to “Nakajima’s mouthpiece” in that sentence, because, as discussed, Nakajima’s mouthpiece 2 includes the arm 23 and protrusions 24 that Petitioner contends are part of the claimed *pivotal mount* and not part of the claimed *mouthpiece*. If Patent Owner is correct in its belief, then the Board may have been merely referring to the fact that the very center of the protrusions 24 appears to potentially rotate in a clockwise direction about the hinge shafts 19 when moved from the closed position. Ex.2001 ¶104.

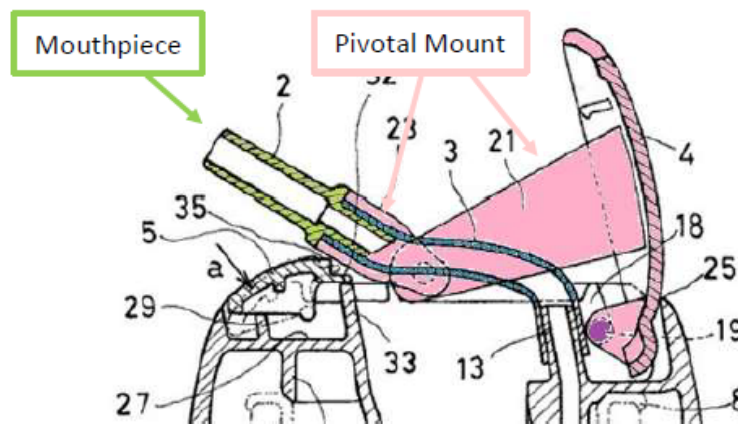


Pet., 25 (citing Ex.1004, Fig 3 (annotated)) (with Patent Owner's annotations added in red). This movement of the very center of protrusions 24 appears to be what Petitioner attempts to convey with its somewhat confusing and inaccurate annotated version of Figure 3 showing a red arc below:



Pet., 26 (citing Ex.1004, Fig. 3); Ex.2001 ¶105. However, any such potential clockwise rotation of the very center of protrusions 24 about hinge shafts 19, as found by the Board and as illustrated with Petitioner's red arc annotation, only shows potential rotational motion of the alleged *pivotal mount* about the hinge shafts 19, not the alleged *mouthpiece*. Thus, this alleged rotational movement is utterly irrelevant to showing whether Petitioner's alleged green *mouthpiece* moves with rotational motion about the axis defined by the hinge shafts 19 because the alleged *mouthpiece* does not include any of the portions of Nakajima's mouthpiece 2 colored pink, including the protrusions 24. This is because Petitioner relies on only the

green-colored portion of Nakajima's mouthpiece 2 as being the claimed *mouthpiece* and Petitioner relies on the protrusions 24 as being part of the claimed *pivotal mount*, as shown again below:



Pet., 25. As discussed above, the green portion of mouthpiece 2 of Nakajima only ever rotates about the axis of rotation defined by the protrusions 24 rotating within the holes 22 and never rotates about the axis of rotation defined by the hinge shafts 19. Ex.2001 ¶106. Therefore, it is irrelevant whether any part of arm 23, such as the very center of protrusions 24, of mouthpiece 2 of Nakajima ever rotates clockwise about the hinge shafts 19 when opening from the closed position, as shown by Petitioner's red arc annotation, and as noted by the Board at page 15 of the Institution Decision for the '255 Patent, because the arm 23 and protrusions 24 are not part of the green alleged *mouthpiece* and are instead part of the pink alleged *pivotal mount*. Ex.2001 ¶106.

Alternatively, to the extent the Board was referring to the fact that the green portion of mouthpiece 2 (that Petitioner contends is the claimed *mouthpiece*) may move translationally up and out relative to the hinge shafts 19, albeit not rotationally about the hinge shafts 19, when moved from the closed position, then this, too would be irrelevant because such translational motion does not constitute rotational motion about an axis of rotation, as is required under the proper construction.

Petitioner, therefore, has failed to show the Nakajima's alleged *mouthpiece* engages in "pivotal movement with the pivotal mount," as required by all independent claims, whether under the plain claim language or whether under Patent Owner's express constructions. Further, while Petitioner asserts obviousness, its only obviousness argument with regard to the mouthpiece limitations is that it would have been obvious for a POSITA to form the mouthpiece and pivotal mount components in two parts removably coupled to each other, in the event the mouthpiece and pivotal mount must be formed of two separable parts. *See* Pet., 25. Petitioner makes no obviousness argument with regard to the mouthpiece's requirement of "pivotal movement with the pivotal mount." Ground 1, therefore, fails as to the independent claims.

B. Given the Deficiencies in Nakajima, Petitioner Cannot Prevail on Any Claim as to Ground 1

For all the dependent claims challenged under Ground 1, Petitioner relies on and incorporates the deficient arguments directed to claim 1 under Ground 1. Pet., 33–38. Petitioner does not assert that any obvious combination or modification cures this deficiency of Nakajima. *See generally id.* Accordingly, for the same reasons Petitioner cannot prevail on claim 1, it cannot prevail on Ground 1 as to any of the challenged claims.

VII. PETITIONER HAS NOT SHOWN A REASONABLE LIKELIHOOD OF PREVAILING ON ANY CLAIM FOR GROUND 2 OR 3

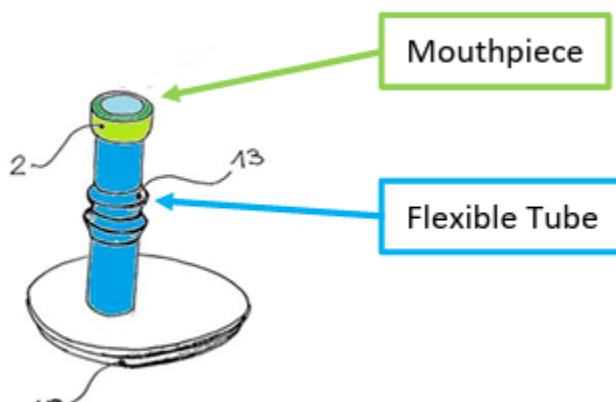
A. Grounds 2 and 3 Fail Because Ribarits Does Not Disclose or Render Obvious a *Mouthpiece* as Claimed

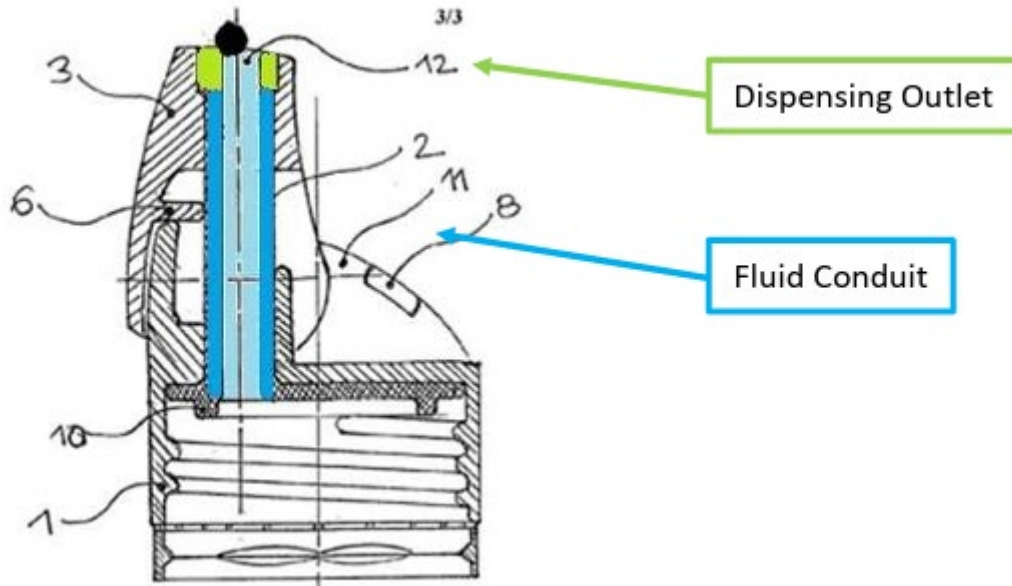
Petitioner cannot prevail on Grounds 2 or 3 (both based on Ribarits) as to any claim of the '250 patent. As shown below, Petitioner fails to show that Ribarits discloses “a mouthpiece” that defines the “dispensing outlet” and is “coupled to the mount outlet” of the pivotal mount (claim 1) or “disposed on the pivotal mount” (claims 7 and 13). Ex.1001 at 19:27-29, 20:40-42, 21:55-57. First, the structure in Ribarits that allegedly defines the “dispensing outlet” is not a “mouthpiece.” Second, Ribarits’s alleged “mouthpiece” is neither “coupled to the mount outlet” nor “disposed on the pivotal mount.”

1. Ribarits Does Not Disclose a “Mouthpiece” That Defines the “Dispensing Outlet”

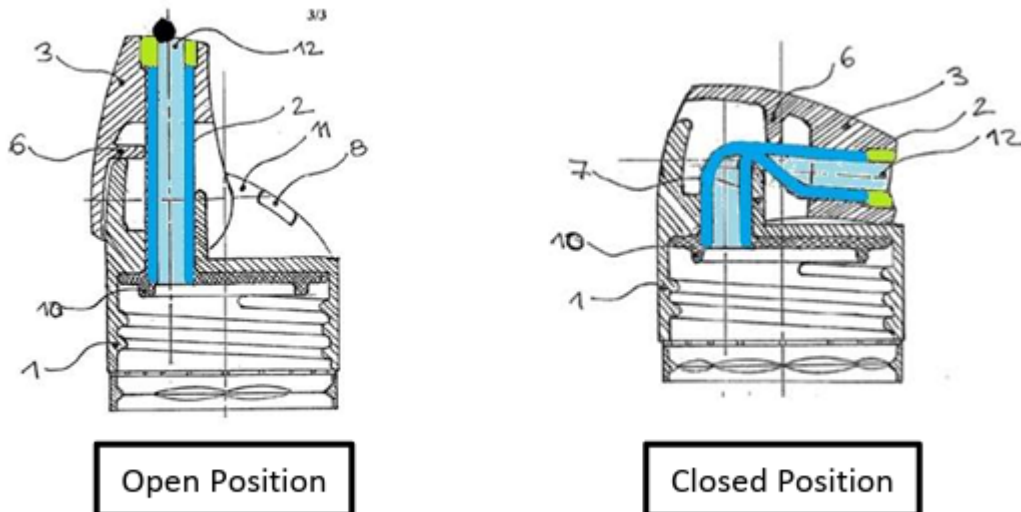
Ribarits does not disclose a “mouthpiece” that “defines a portion of the fluid conduit, including the dispensing outlet,” as recited by every independent claim of the '250 patent. Ex.1001, 19:30-31, 20:43-44, 21:58-59. The structure in Ribarits that allegedly defines the “portion of the fluid conduit” that includes “the dispensing outlet” is not a “mouthpiece.” As discussed above, a “mouthpiece” is a part designed for a user to put his or her mouth on to draw liquid from the container. *See supra* § V.A.

Petitioner identifies the end portion of Ribarits’s tube element 2 as the “mouthpiece” and contends that it “defines the portion of the fluid conduit that includes the dispensing outlet.” Pet., 46, 48. These contentions are reflected by Petitioner’s green annotations to the figures below.





Id. (annotating Ex.1006, Figs. 2, 3). The identified end portion of Ribarits’s tube element 2 (green) is not designed for a user to put his or her mouth on to draw liquid from the container. Ex.2001, ¶111. On the contrary, the alleged “mouthpiece” (again, shown below in green) is entirely surrounded by Ribarits’s drinking spout 3 and does not extend beyond it, which prevents the user from putting their mouth on it:



Pet., 53 (annotating Ex.1006, Fig. 3); *see* Ex.2001, ¶¶111-112. A POSITA would have understood that the indicated end portion of the tube is not designed for a user to put his or her mouth on it at all because it is surrounded by the drinking spout 3.¹⁰

¹⁰ Indeed, the Board’s recent institution decision in IPR2024-01137 regarding the ’250 patent’s parent ’255 patent helps illustrate this point. *See* Ex. 2006, at 16-17. In that decision, the Board found that the same alleged mouthpiece of Ribarits (the top end of tube element 2) “is surrounded by the pivotal mount,” *i.e.*, drinking spout 3, and as such, the Board found that Petitioner had failed to show how the top of the tube was adapted to be compressed by a user’s teeth. *Id.* While the claim language differs here and does not require compression by a user’s teeth, this factual finding

Ex.2001, ¶111. Instead, a POSITA would have understood that, to draw liquid from the container in Ribarits's design, a user would put his or her mouth on the drinking spout 3. *Id.*

In addition, the reason Petitioner did not and cannot map the *mouthpiece* limitation to drinking spout 3 of Ribarits is because doing so would be inconsistent with Petitioner's mappings for other claim limitations. For instance, mapping the drinking spout 3 to the *mouthpiece* would not meet the limitation requiring that "the mouthpiece defines a portion of the fluid conduit including the dispensing outlet," as required by claim 1. Nor does Petitioner argue that it does; Petitioner relies on the end portion of the flexible tube 2 to meet the "dispensing outlet" limitation. *See* Pet., 48. Moreover, Petitioner identifies the drinking spout 3 as the "pivotal mount." *Id.*, 44. For the reasons described above, the "pivotal mount" and the "mouthpiece" cannot be the same component because the "mouthpiece" must be "coupled to" the "pivotal mount," not integral to or one and the same with the "pivotal mount," which would improperly render the "coupled to" language superfluous. For at least these

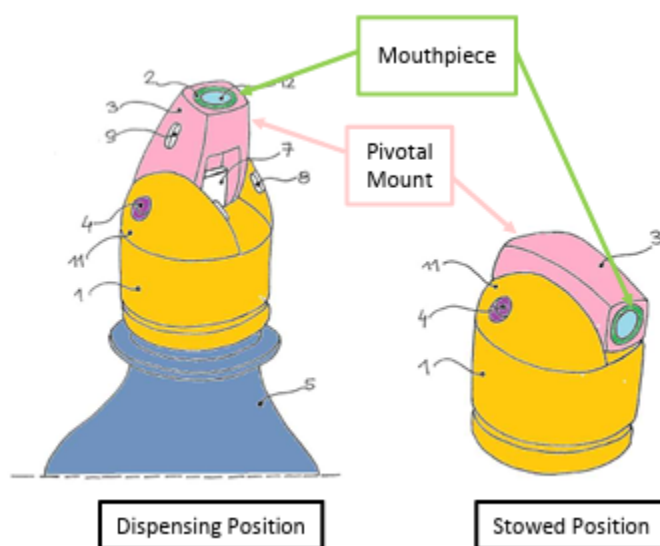
nonetheless supports that the top of tube 2 is not designed for the user's mouth because it is "surrounded by" the drinking spout 3.

reasons, the drinking spout 3 does not satisfy the claim limitations for the “mouthpiece.”

Ribarits therefore fails to disclose a “mouthpiece” that “defines a portion of the fluid conduit, including the dispensing outlet,” as required by each of claims 1, 7, and 13.

2. Ribarits Does Not Disclose the Required Relationships Between the *Mouthpiece* and the *Pivotal Mount*

Ribarits also does not disclose the mouthpiece being “disposed on” the pivotal mount, as recited by claims 7 and 13. Ex.1001, 20:40-42, 21:55-56. Rather, as shown below in Figure 2, the drinking spout (3) (shown in pink) completely surrounds the sealed tubular element (2) (shown in green). Ex.2001 ¶114-117. Thus, the tubular element (2) is disposed *in* not *on* the drinking spout (3).



Pet., 49 (annotating Ex.1006, Fig. 1).

Thus, Petitioner has failed to identify in Ribarits “a mouthpiece disposed on the pivotal mount” and Grounds 2 and 3 fail for this additional reason.

3. Given the Deficiencies in Ribarits, Petitioner Cannot Prevail on Any Claim as to Grounds 2 and 3

For every one of the dependent claims challenged under both Grounds 2 and 3, Petitioner relies on and incorporates the same deficient arguments it makes regarding Ribarits for claim 1. Pet., 60, 62. Petitioner does not assert that any obviousness combination cures these deficiencies of Ribarits. *See generally id.* at 55-63, 63-66. Accordingly, for the same reasons Petitioner cannot prevail on claim 1, it also cannot prevail on either Ground 2 or 3 as to any of the challenged claims.

VIII. CONCLUSION

For at least the foregoing reasons, Patent Owner respectfully requests that the Board deny institution of the Petition.

Dated: March 14, 2025

Respectfully submitted,

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CERTIFICATE OF WORD COUNT

Pursuant to 37 C.F.R. § 42.24(d), the undersigned certifies that the foregoing PATENT OWNER'S PRELIMINARY RESPONSE, according to the word-processing system used to prepare the paper and not including those parts excluded by § 42.24(a)(1), has 12,211 words, which is within the type-volume limit set by § 42.24.

By: /Ryan J. Schletzbaum/
Ryan J. Schletzbaum
Lead Counsel for Patent Owner

CERTIFICATE OF SERVICE

Pursuant to 37 CFR § 42.6(e), the undersigned certifies that on March 14, 2025, a complete and entire copy of the foregoing Patent Owner's Preliminary Response and Exhibits 2001–2015 were provided via email to Petitioner's counsel of record as follows:

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