UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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TROVE BRANDS, LLC,

Petitioner,

v.

CAMELBAK PRODUCTS, LLC,

Patent Owner.

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IPR2024-01137

Patent 10,676,255 C1

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**PATENT OWNER'S SUR-REPLY**

# TABLE OF CONTENTS

I. Introduction ..... 1

II. Claim Construction ..... 1

A. "wherein the resilient mouthpiece is pivotal about an axis defined by the pair of lateral projections as the pair of lateral projects rotate within the pair of sockets" ..... 1

B. "coupled to the pivotal mount for pivotal movement with the pivotal mount" ..... 9

C. "wherein the resilient mouthpiece is adapted to resiliently compress responsive to compressive forces applied to the resilient mouthpiece by a user's teeth" ..... 11

III. Petitioner Has Failed to Prove Unpatentability of Any Challenged Claim by a Preponderance of the Evidence ..... 15

A. Grounds 1 and 2 Based on Nakajima Fail ..... 15

1. Nakajima Fails to Disclose a "Resilient Mouthpiece is Pivotal About an Axis Defined by the Pair of Lateral Projections" ..... 15

2. Nakajima's Mouthpiece Does Not Move Pivotally With The Pivotal Mount ..... 21

B. Grounds 3 and 4 Based on Ribarits Fail ..... 23

1. Petitioner Fails To Show How Ribarits' Alleged *Mouthpiece* is "Adapted to Resiliently Compress Responsive to Compressive Forces Applied to the Resilient Mouthpiece by a User's Teeth" ..... 23

2. Ribarits Fails to Disclose "a Resilient Mouthpiece Coupled to the Pivotal Mount" ..... 26

IV. Conclusion ..... 28

# TABLE OF AUTHORITIES

**Page(s)**

## Cases

*Accent Packaging, Inc. v. Leggett & Platt, Inc.*,
707 F.3d 1318 (Fed. Cir. 2013) .....7

*Am. Piledriving Equip., Inc., v. Geoquip, Inc.*,
637 F.3d 1324 (Fed. Cir. 2011) .....3

*Elbit Sys. of Am., LLC v. Thales Visionix, Inc.*,
881 F.3d 1354 (Fed. Cir. 2018) .....8, 9, 17, 27

*In re Giannelli*,
739 F.3d 1375 (Fed. Cir. 2014) .....14, 15

*Intelligent Bio-Sys., Inc. v. Illumina Cambridge, Ltd.*,
821 F.3d 1359 (Fed. Cir. 2016) .....28

*Nautilus, Inc. v. Biosig Instruments, Inc.*,
572 U.S. 898 (2014).....9

## Other Authorities

37 C.F.R. § 42.23(b) .....28

**PATENT OWNER'S UPDATED EXHIBIT LIST**

| Exhibit No. | Description |
|---|---|
| 2001 | File History of *Ex Parte* Reexamination Control No. 90/015,192 |
| 2002 | August 2, 2024 Stipulation and Joint Motion to Amend the Case Schedule in *Trove Brands LLC v. CamelBak Prods., LLC and Vista Outdoor Inc.*, No. 5:23-cv-4267 (N.D. Cal.) at Dkt. 100 |
| 2003 | Docket in *Trove Brands LLC v. CamelBak Prods., LLC and Vista Outdoor Inc.*, No. 5:23-cv-4267 (N.D. Cal.) |
| 2004 | Initial Infringement Contentions in *Trove Brands LLC v. CamelBak Prods., LLC and Vista Outdoor Inc.*, No. 5:23-cv-4267 (N.D. Cal.), served December 21, 2023 |
| 2005 | Initial Invalidity Contentions in *Trove Brands LLC v. CamelBak Prods., LLC and Vista Outdoor Inc.*, No. 5:23-cv-4267 (N.D. Cal.), served January 22, 2024 |
| 2006 | Amended Invalidity Contentions in *Trove Brands LLC v. CamelBak Prods., LLC and Vista Outdoor Inc.*, No. 5:23-cv-4267 (N.D. Cal.), served July 18, 2024 |
| 2007 | Declaration of Ryan Schletzbaum |
| 2008 | U.S. Patent Application Publication No. 2005/0029271 to McDonough |
| 2009 | Japanese Patent App. Pub. No. 2001-294252 to Toudou |
| 2010 | File History of U.S. Patent No. 10,676,255 |
| 2011 | U.S. Patent No. 6,116,458 to Dark |
| 2012 | U.S. Design Patent No. D547,607 to Forsman |
| 2013 | Appendix D1 ("Ribarits" Claim Chart) to Amended Invalidity Contentions in *Trove Brands LLC v. CamelBak Prods., LLC and Vista Outdoor Inc.*, No. 5:23-cv-4267 (N.D. Cal.), served April 12, 2024 |
| 2014 | Appendix D3 ("Nakajima" Claim Chart) to Amended Invalidity Contentions in *Trove Brands LLC v. CamelBak Prods., LLC and* |

| | |
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| | *Vista Outdoor Inc.*, No. 5:23-cv-4267 (N.D. Cal.), served April 12, 2024 |
| 2015 | U.S. Patent Application Publication No. 2002/0166990 to Yang |
| 2016 | Declaration of Michael Jobin ("Jobin Decl.") |
| 2017 | American Heritage Dictionary – "pivot" |
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| 2026 | Young & Freedman – University Physics Textbook, 15th Edition (Excerpt) |
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# I. INTRODUCTION

Grounds 1 and 2 fail because it is undisputed that: i) Nakajima's alleged mouthpiece rotates about the wrong axis, not about the axis defined by the lateral projections, and ii) Nakajima's alleged mouthpiece rotates in a direction opposite that of the pivotal mount, not in a direction "with the pivotal mount." Grounds 3 and 4 fail because: i) Ribarits' mouthpiece is not designed to compress from a user's teeth because it is surrounded by a rigid spout, as the Board found at institution, and ii) Petitioner fails to prove that Ribarits' mouthpiece is "coupled to" the pivotal mount. Petitioner fails to rebut Patent Owner's arguments and offers no contrary expert testimony in its Reply.

# II. CLAIM CONSTRUCTION

## A. "wherein the resilient mouthpiece is pivotal about an axis defined by the pair of lateral projections as the pair of lateral projects rotate within the pair of sockets"

Remarkably, Petitioner argues that the meaning of "pivotal about an axis" where the axis is defined by a pair of lateral projections as they "***rotate***" merely "***include[s]***" rotational motion, but does not require it. Reply, 3. As such, Petitioner contends any motion relative to a point it identifies as the alleged "axis" is sufficient. This is plainly incorrect. Rotational motion about an axis of rotation ***is required***. By

suggesting otherwise, Petitioner improperly reads out the required term "pivotal" in an attempt to encompass any movement relative to the claimed lateral projections.

The Board's construction of the nearly identical term, "pivotal axis for pivotal movement," in IPR2025-00140 in the continuation '250 patent demonstrates Petitioner is incorrect. In that proceeding, the Board adopted Patent Owner's construction "two joints that define a pivotal axis for pivotal movement of the pivotal mount" as "two joints that ***define an axis of rotation for rotational motion*** of the pivotal mount about the axis." Ex.2028, at 13 (emphasis added). The Board found that "[t]his construction is consistent with the Specification, which describes pivoting in the context of rotating," noting that the specification discusses lateral projections that are "rotatable within the sockets" so as to "function as rotatable supports, or axles, upon which the mount and any attached mouthpiece may be pivotally moved." *Id.* at 13-14. The Board's construction applies with even more force here given the '255 patent claim language's express use of the term "***rotate***."

Petitioner improperly attempts to read the term "pivotal" out of the claim by suggesting that ***any*** movement relative to the lateral projections is sufficient. *See* Reply, 5; *see id.* at 21-22. This contradicts the plain claim language's recitation that the mouthpiece must be "pivotal about an axis" and that the axis must be defined by

lateral projections as they "rotate." Petitioner fails to refute that rotational motion about an axis of rotation is required and fails to offer any construction of its own.

Petitioner mistakenly argues Patent Owner's construction imports a limitation into the claims. Reply at 3-4. Instead, Patent Owner merely "give[s] meaning to the limitations actually contained in the claims." *Am. Piledriving Equip., Inc., v. Geoquip, Inc.*, 637 F.3d 1324, 1331 (Fed. Cir. 2011). The requirement that the mouthpiece engage in "pivotal movement" and be "pivotal about an axis" must be given meaning, not read out of the claims as Petitioner attempts to do.

Further, Patent Owner has never relied on lexicography or disavowal, and Petitioner's argument to the contrary is a strawman. *See e.g.*, Reply, 3-4. Patent Owner merely seeks to give the term "pivotal about an axis" its full plain and ordinary meaning in light of the intrinsic evidence of requiring rotational motion about an axis of rotation. *See* POR, 16-17; *see also id.* at 20, 24, 31. Patent Owner does not rely on any deviation from this full plain meaning through any alleged lexicography or disavowal. Instead, under *Phillips*, Patent Owner's construction correctly captures the plain meaning of this term in light of all of the intrinsic and extrinsic evidence. POR, at 15-35; Ex.2016, ¶56-75.

Patent Owner's construction is confirmed by all of the intrinsic evidence, including: 1) the plain claim language, which uses the terms, "pivotal," "axis," and

"rotate," 2) the specification, all of whose embodiments depict motion in a circular path (i.e., constant radius), and 3) the reexamination history, in which the patentee annotated the '255 patent's Figure 7 with a circular path (i.e., constant radius) and labeled it "pivotal about an axis" while distinguishing that from McDonough's upward and downward translational movement. POR, 18-23. And Petitioner proffers no expert testimony to rebut Patent Owner's expert or his analysis of the intrinsic evidence, including the reexamination history. Ex.2016, ¶¶65-66. As such, the intrinsic evidence confirms that "pivotal about an axis" requires rotational motion about an axis of rotation, which means the mouthpiece moves in a circular path (i.e., a constant radius/distance to the axis) and does not merely move in an upward/downward translational manner relative to the projections. POR, 23-31.

Petitioner argues that mere descriptions in the file history of prior art references, rather than a claim, typically do not constitute a disclaimer. Reply, at 5. But the patentee did not merely describe McDonough. Instead, the patentee applied the claim language itself when annotating "pivotal about an axis" on Figure 7 and then using the exact claim language to distinguish the upward/downward movement in McDonough as *not* being "pivotal about an axis." And Petitioner again relies on a strawman, arguing no disclaimer occurred.

Instead, Patent Owner is merely arguing that the reexamination statements confirm the plain meaning of "pivotal about an axis" as reflected in the claim language and specification. POR, at 29-30 (citing cases). Importantly, the prosecution history can inform the meaning of claim terms without constituting a disclaimer of claim scope. *Id*. (citing *Univ. of Massachusetts v. L'Oreal S.A.*, 36 F.4th 1374, 1379 (Fed. Cir. 2022)).

Petitioner also argues that the patentee distinguished McDonough on multiple grounds such that there are multiple reasonable interpretations of patentee's statements. Reply, at 5-6. This, too, misses the mark. First, Patent Owner is not relying on disclaimer. Second, it is irrelevant that other arguments were because any of those arguments can inform the proper construction. POR, 30 (citing *Gentry Gallery, Inc. v. Berkline Corp.*, 134 F.3d 1473, 1477 (Fed. Cir. 1998) (any grounds among multiple argued may indicate the proper construction).

Further, Petitioner's argument that the definition of rotational motion from physics, which requires "a rigid body" maintain a constant radius from the axis of rotation, should not apply because the claimed mouthpiece is allegedly non-rigid based on its compressibility is unfounded. Reply, 6-8. In the absence of external force from the user to compress the mouthpiece, the mouthpiece is, indeed, a "rigid body" such that the definition of rotational motional from physics applies. This is

because the mouthpiece is "resilient," meaning that it automatically returns to and maintains its original shape without permanent deformation. Ex.1001, at 8:50-51, 8:64-9:6; Pet., at 33 (citing Ex.1003, at ¶99), 37. When describing the mouthpiece as "resilient," the '255 patent explains that "the mouthpiece is constructed to automatically return to its closed, or sealed, configuration when the compressive forces, such as may be applied by a user's teeth or mouth, are no longer applied" and that "unless forces are being exerted to the mouthpiece to deform the mouthpiece to a dispensing configuration, the mouthpiece will be in its closed, or sealed, configuration." Ex.1001, at 8:50-51, 8:64-9:6. Indeed, Petitioner and its expert admit that, in the context of mouthpieces, resilient materials ensure that the mouthpiece "[does] not permanently deform in response to compressive forces applied by the user's mouth." Pet., at 33 (citing Ex.1003, at ¶99); *see also id*. 37. Because the mouthpiece maintains its shape absent application of force from the user, it can be assumed to be a "rigid body" such that the definition of rotational motion from physics applies, and it, therefore, maintains a constant radius from the axis of rotation. Patent Owner's expert explained that this rigid body assumption would apply when he opined that the mouthpiece is "a rigid body," Ex.2016, ¶72, and Petitioner provided no contrary expert testimony or evidence.

Instead, Petitioner makes pure attorney argument that a user might intervene by applying an external force to alter the mouthpiece by bending/deforming it. Reply, at 7-9. But whether a user may alter an apparatus to avoid the claim language is irrelevant to whether that apparatus falls within the scope of a claim. *See, e.g.*, *Accent Packaging, Inc. v. Leggett & Platt, Inc.*, 707 F.3d 1318, 1327 (Fed. Cir. 2013) (finding that it was irrelevant that a user could alter an accused apparatus to make it satisfy the claim because "a device does not infringe simply because it is possible to alter it in a way that would satisfy all the limitations of a patent claim") (quoting *High Tech Med. Instrumentation, Inc. v. New Image Indus., Inc.*, 49 F.3d 1551, 1555 (Fed. Cir. 1995)). Ultimately, Petitioner does not dispute that the mouthpiece is a rigid body and maintains a constant radius to the axis of rotation if a user does not intervene to bend or deform it.[1]

Petitioner does not dispute that its declarant conceded that the pivotal movement of the mouthpiece is rotational motion about an axis of rotation. POR, 20

[1] Indeed, the very fact that the '255 patent specification and claims expressly refer to the rotational nature of the mouthpiece despite describing its ability to compress from a user applying force demonstrates that the '255 patent treats the resilient mouthpiece as a rigid body capable of rotational motion.

(citing Ex.2025, 104:16-21; *see also id.* at 22:5-13, 32:2-12, 38:1-19). And, as Patent Owner's expert explained, a POSITA, who would have understood that rotational motion about an axis of rotation, as defined by physics, requires that a rigid body, e.g., a mouthpiece, maintains a constant radius/distance to the axis, as demonstrated by the intrinsic and extrinsic evidence. Ex.2016, ¶¶72-75. Petitioner proffers no contrary evidence or testimony and instead resorts to pure attorney argument regarding user deformation, which is irrelevant under the law, as discussed above, and which should be given no weight in any event. *Elbit Sys. of Am., LLC v. Thales Visionix, Inc.*, 881 F.3d 1354, 1359 (Fed. Cir. 2018) ("Attorney argument is not evidence and cannot rebut other admitted evidence."). Therefore, Patent Owner's construction, which is supported by all the intrinsic and extrinsic evidence, should be adopted.[2] POR, 35.

[2] If the Board wishes to slightly modify the construction to account for user deformation, Patent Owner would not be opposed to requiring that a constant distance/radius to the axis of rotation is maintained "in the absence of deformation of the mouthpiece by the user during rotation." Nakajima still fails to meet such a construction, and Nakajima fails to disclose any deformability of its mouthpiece in any event.

Finally, Petitioner's argument that this construction injects indefiniteness into the claims is pure, unsupported attorney argument that should be disregarded. *See* Reply, at 11; *Elbit*, 881 F.3d at 1359. Petitioner provides no support for its contention that the distance/radius to the axis "cannot be consistently measured or confirmed." *See id*. The claims need only inform with "reasonable certainty" those skilled in the art about the scope of the invention, *Nautilus, Inc. v. Biosig Instruments, Inc.*, 572 U.S. 898, 901 (2014), and Petitioner provides no evidence that claims would not, as construed, so inform a POSITA. In contrast, as Petitioner does not refute, POSITAs "have consistently applied the concept of rotational motion from physics to describe real-world mechanical systems, despite minor dimensional deviations" from ideal such as those caused by manufacturing tolerances or temperature variations, and "the '255 patent is a prime example" because it uses rotation to describe aspects of its design even though such dimensional variations would have been present. Ex. 2016, ¶104.

### B. "coupled to the pivotal mount for pivotal movement with the pivotal mount"

While construction of the preceding term alone establishes that Petitioner's Nakajima grounds fail, construction of this additional limitation provides a further basis on which they fail. The intrinsic and extrinsic evidence all demonstrates this limitation means "that the mouthpiece and pivotal mount must engage in rotational

motion ***in the same direction about the same axis of rotation*** defined by the lateral projections." POR, 35 (emphasis added). The claim language requires that the mouthpiece undergo "pivotal movement ***with*** the pivotal mount," not ***away from*** the pivotal mount. POR, 36. All of the written description and figures confirm this meaning as understood by a POSITA. POR, 36-39.

Petitioner argues that the claim language recites that the mouthpiece must undergo "pivotal movement with the pivotal mount *relative to the cap assembly base*" such that "the mouthpiece pivots relative to the cap assembly base." Reply, at 12. Petitioner is not incorrect that the claims also require pivoting "relative to the cap assembly base" but this argument ignores the additional claim requirement that the mouthpiece be engaged "for pivotal movement ***with*** the pivotal mount." Given that the claimed pivotal movement requires rotational motion about an axis of rotation, like admitted by Petitioner's declarant and found by the Board in the related '250 IPR, as discussed in Section II.A, this limitation requires rotation ***with***, rather than away from, the claimed pivotal mount.

Patent Owner is not importing limitations or limiting the claims to particular embodiments. Instead, Patent Owner is simply giving meaning to language that is already present: pivotal movement ***with*** the pivotal mount. Petitioner's argument regarding the ability of the user to deform the mouthpiece in a direction opposite

that of the pivotal mount fails for the same reasons discussed above—namely, because the mouthpiece is "resilient" and therefore rigid in the absence of user deformation and because such user alteration cannot, as a matter of law, cause the '255 patent's mouthpiece to either satisfy or not satisfy the claims. *See supra* Sec. II.A.

The Board, therefore, should construe this limitation to require rotational motion in the same direction about the same axis of rotation.[3]

### C. "wherein the resilient mouthpiece is adapted to resiliently compress responsive to compressive forces applied to the resilient mouthpiece by a user's teeth"

At institution, the Board determined that it was unnecessary to construe this limitation, because the Board found that Petitioner had not adequately explained how even its plain language was satisfied by Ribarits given that its mouthpiece "is

[3] If the Board wishes to slightly modify the construction to account for user deformation, Patent Owner would not be opposed to requiring rotational motion in the same direction about the same axis of rotation "in the absence of deformation of the mouthpiece in the opposite direction by the user during rotation." Nakajima still fails to meet such a construction, and Nakajima fails to disclose any deformability of its mouthpiece in any event.

surrounded by" the alleged pivotal mount. Paper 9, at 8-9, 16-17. Petitioner ignores the Board's determination and incredibly argues that the user's teeth need not actually be able to apply compressive forces to compress the mouthpiece. Reply, 14. Petitioner then argues that the claim language "simply describes what the structure ***might do***, not a required condition." *Id.* at 14-15 (emphasis in original). While the Petition fails to explain how even the plain language is satisfied, claim construction is nonetheless appropriate here because it demonstrates an additional basis on which the Ribarits grounds fail.

Petitioner is incorrect to suggest that this limitation is not structural and instead merely recites what the structure "***might do***" or an intended use. *See* Reply, at 14-15. This limitation is, indeed, a structural limitation requiring that the mouthpiece be "designed or configured to" resiliently compress responsive to compressive forces applied to the resilient mouthpiece by a user's teeth. POR, 39-44. If Petitioner were correct that this limitation merely requires the mouthpiece have sufficient "resilient compress[i]bility" such that it would be *capable of* compressing from the bite force of a person's teeth regardless of whether a user can apply such force would be contrary to the'255 patent. The patent describes that, in the dispensing configuration, the user is allowed to drink when biting the mouthpiece, and in the stowed position, the user is not able to bite the mouthpiece. POR, at 42-

44. Further, the figures show that the mouthpiece extends beyond the pivotal mount so that the mouthpiece is exposed to the user's bite. *Id.* There is no embodiment in which compressibility by human teeth is used as a mere measure of "a particular degree of 'resilient compress[i]bility'" such that it is irrelevant whether a user can actually bite the mouthpiece to compress it, as Petitioner argues. *See* Reply, at 14-15.

The specification's statement that "the mouthpiece is *adapted to be configured to* the dispensing configuration by a user placing the mouthpiece in the user's mouth" does nothing to aid Petitioner's argument. *See* Reply, at 15-16 (citing Ex.1001, 8:51-54). This sentence uses "configured to the dispensing configuration" to simply mean changing the configuration of the mouthpiece by *moving it* from the stowed configuration to the dispensing configuration where the user is able to "plac[e] the mouthpiece in the user's mouth." Ex.1001, 8:51-54. Thus, this indicates "adapted to" is being used, consistent with Patent Owner's construction, to mean that the design or configuration of the mouthpiece permits the user to actually place the mouthpiece in their mouth, not that it is merely sufficiently compressible such that a human could hypothetically compress it with their teeth if the design allowed.

Patent Owner's construction in no way excludes embodiments in which the mouthpiece is self-sealing. The '255 patent describes that seal-sealing occurs by the

mouthpiece returning to its "closed, or sealed, configuration when the compressive forces, such as may be applied by a user's teeth or mouth, are no longer applied" and that "unless forces are being exerted to the mouthpiece to deform the mouthpiece to a dispensing configuration, the mouthpiece will be in its closed, or sealed, configuration." Ex.1001, 8:64-9:6. Thus, a self-sealing mouthpiece is entirely consistent with one that is *configured or designed* to allow a user to bite it with their teeth to compress it. Indeed, the patent describes "bite-actuated, self-sealing mouthpieces," confirming that the mouthpieces can be both bite-able and self-sealing. *Id*., 9:32-35. Also, that the patent describes embodiments in which the bottle may be collapsible such that user may squeeze it to force the flow of fluid through a bite valve without biting it (Reply, at 16 (citing Ex.1001, at 9:65-10:2, 10:15-19) does nothing to change the claims' express requirement that the mouthpiece must be "adapted to resiliently compress responsive to compressive forces applied by a user's teeth."

Petitioner's attempt to distinguish *In re Gianelli* also fails because neither the claims nor specification refer to a user's bite as being merely a measure of the degree of compressibility of the mouthpiece material. Instead, the entirety of the intrinsic evidence confirms that the actual design of the mouthpiece allows a user to bite down

on it to compress it, confirming the narrow meaning of "adapted to" applies under *In re Gianelli.* POR, 40-44.

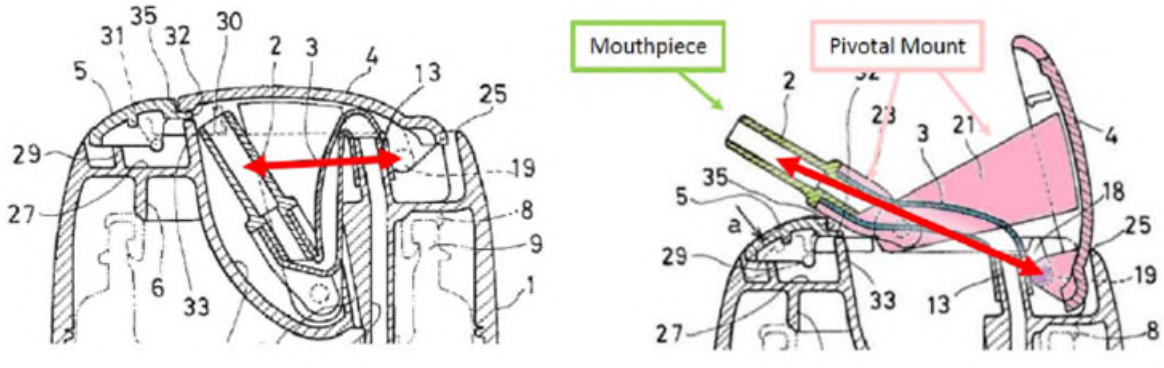
Finally, that a narrower dependent claim may recite additional limitations (e.g., "opposed bite regions" and "opposed lips" that urge away to enlarge a dispensing outlet) does nothing to show that "adapted to" has the broader "capable of" meaning. The mouthpiece can be designed or configured to allow a user to compress it with their teeth without having specific "opposed bite regions" or "opposed lips" that move to "enlarge" a dispensing outlet.

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

### A. Grounds 1 and 2 Based on Nakajima Fail

#### 1. Nakajima Fails to Disclose a "Resilient Mouthpiece is Pivotal About an Axis Defined by the Pair of Lateral Projections"

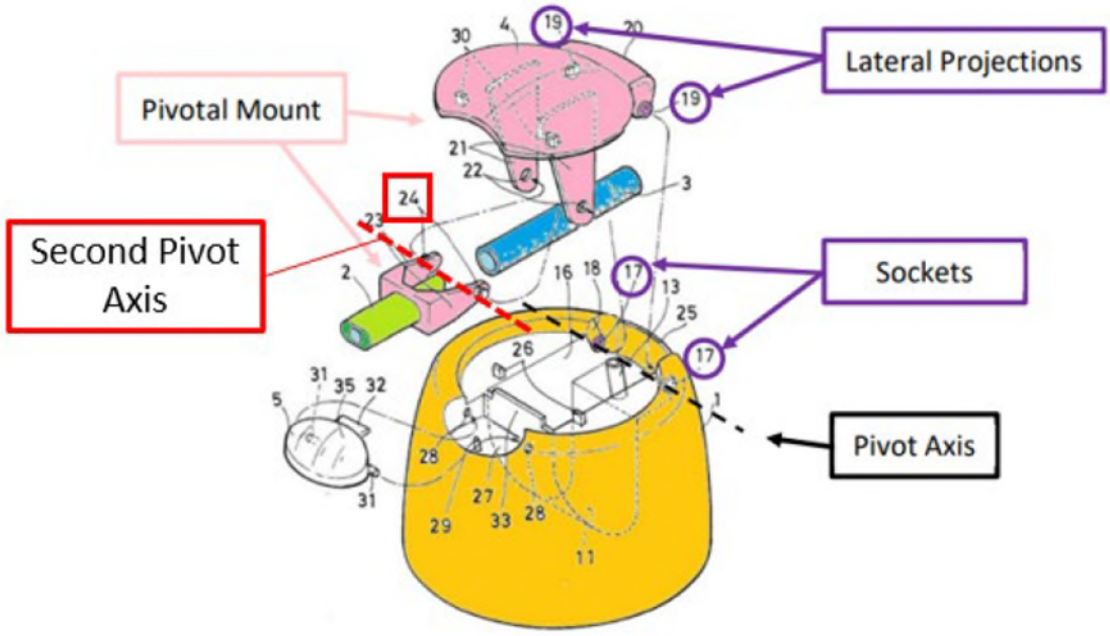
Petitioner does not dispute and its declarant admits that the alleged *mouthpiece* of Nakajima (*i.e.*, the green portion of Nakajima's mouthpiece 2) never maintains a constant radius/distance to the alleged *pivotal axis defined by the pair of lateral projections* (*i.e.*, the hinge shafts 19) as it moves. POR, 51-53; Reply, 19-22; Ex.2025 at 126:18-127:2 (Dr. Vallee admitting). This is shown by the red arrow annotations below:




POR, 53 (citing Ex.1004, Figs. 2-3 (annotated); Ex.2016, ¶92). Therefore, if the Board adopts Patent Owner's construction requiring that "the resilient mouthpiece moves with rotational motion about an axis of rotation defined by the pair of lateral projections" and that, as a matter of physics, rotational motion about an axis of rotation requires maintaining a constant distance/radius between the mouthpiece and the axis of rotation (*see supra* Sec. II.A), then there is no dispute that Nakajima fails to satisfy this limitation under this construction.

Petitioner contends that the alleged *mouthpiece* in Nakajima is "pivotal" about the alleged *axis* (*i.e.*, hinge shafts 19) merely because it is attached to the arms 23 whose protrusions 24 rotate within the holes 22 of lid 4 as the lid rotates about the alleged axis. Reply, at 20-22. That is, Petitioner contends that merely because the alleged mouthpiece pivots about a "Second Pivot Axis" that is "directly coupled to lid 4" and the "mouthpiece moves" when the lid 4 rotates about the hinge shafts 19,

"Nakajima's mouthpiece must pivot about the axis defined by the hinge shafts 19 while pivoting about the Second Pivot Axis." Reply, at 21.




POR, 48; Reply, 21.

Petitioner fails to identify what construction of "pivotal about an axis" it is applying and also proffers no supporting evidence or expert testimony. Petitioner's attorney argument fails to rebut any of the expert testimony proffered by Patent Owner. *Elbit*, 881 F.3d at 1359. Specifically, Petitioner fails to rebut the explanation provided by Patent Owner's expert that because the alleged *mouthpiece* rotates freely, under the force of gravity, about the Second Pivot Axis and is never held in alignment relative to the lid, it ***never*** pivots/rotates about the axis defined by the hinge shafts 19 about which the lid rotates—and thus, the rotation of the *mouthpiece*

about the Second Pivot Axis is not "additional rotation" in addition to rotation about the hinge shafts 19 but is instead the ***only*** rotation of the *mouthpiece* about an axis.[4] POR, 50-51 (citing Ex.2016, ¶90). Further, Petitioner fails to refute that it is irrelevant that the connection point at the very center of the protrusions 24 (*i.e*., the Second Pivot Axis) to the lid 4 can be potentially said to rotate (in a clockwise manner) about the hinge shafts 19 with the lid 4, because this only shows rotation of a point that is part of the *pivotal mount* (colored pink) about the hinge shafts 19 and ***not*** part of the alleged *mouthpiece* (colored green). POR, 57-59 (citing Ex.2016, ¶¶96-99). This is because, as Petitioner and its declarant admit, the Petition maps only the green highlighted portion of Nakajima's mouthpiece 2 to the claimed *mouthpiece*, not the entirety of Nakaima's mouthpiece 2. POR, 45-46 (citing Pet., 25, 28-33; Ex.2016, ¶86; Ex.2025 at 100:20-101:22; POR, 52. Thus, any

[4] As Patent Owner explained, and Petitioner failed to refute, the mouthpiece's rotation about the Second Pivot Axis is not "additional rotation" in addition to rotation of the mouthpiece about a first axis defined by the hinge shafts 19, as suggested by the Board at institution. POR, 50-53. Instead, the mouthpiece's rotation about the Second Pivot Axis is its ***only*** rotation about an axis of rotation because the mouthpiece's movement relative to the hinge shaft 19 is ***never*** rotational motion. *Id*.

rotational/pivotal movement of the protrusions 24 about the hinge shafts 19 is ***not*** rotational/pivotal movement of the *mouthpiece* about the hinge shafts 19. POR, 57-59 (citing Ex.2016, ¶¶96-99). Petitioner fails to respond to the analysis set forth in this testimony and instead merely repeats its unsupported argument that ***any*** movement of the mouthpiece resulting from the movement of the Second Pivot Axis that is connected to the lid 4 is pivotal about the hinge shafts 19 merely because the lid 4 is pivotal about the hinge shafts.

But Petitioner fails to refute or proffer any testimony rebutting the explanation of Patent Owner's expert that such motion of the mouthpiece in Nakajima is merely translational movement relative to the hinge shafts 19, not rotational/pivotal movement about an axis of rotation defined by the hinge shafts. POR, 53 (citing Ex.2016, ¶92). Petitioner also fails to meaningfully respond to and proffers no rebuttal expert testimony to Patent Owner's expert's explanation that this translational motion is like the translational motion of the drinking end 16 of McDonough's straw, which was distinguished during reexamination as being ***not*** "pivotal about an axis." POR, 53-56 (citing Ex.2016, ¶93-95). Petitioner's unsupported attorney argument that the connection/coupling at the Second Pivot Axis defined by the protrusions 24 distinguishes the movement of Nakajima's mouthpiece from the straw in McDonough (Reply, at 22) merely reiterates an

irrelevant point, like discussed above: because this connection at protrusions 24 is part of the alleged *pivotal mount*, not the alleged *mouthpiece*, it is irrelevant to and does not show any rotational/pivotal movement of the alleged *mouthpiece* about the hinge shafts 19, which Petitioner failed to refute, as noted above. POR, 57-59 (citing Ex.2016, ¶¶96-99).

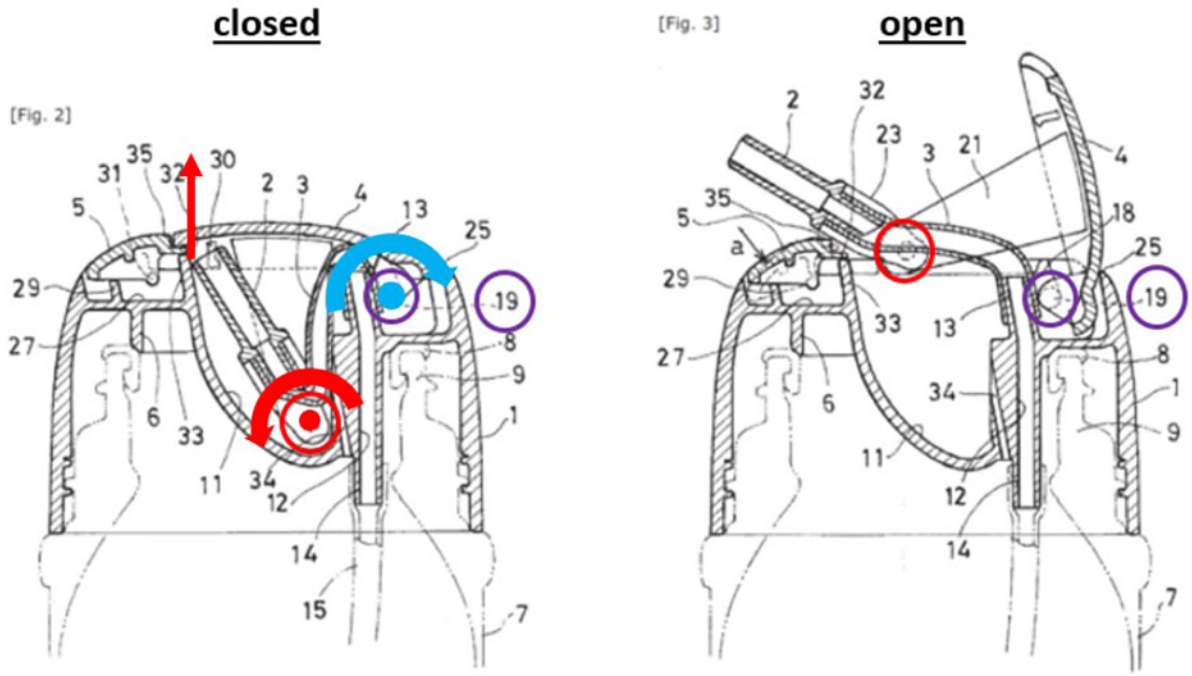
Petitioner resorts to making the extreme argument that the claims require "'pivotal'—not 'translational' or 'rotational'—movement." Reply, at 21-22. Petitioner, thus, argues that any movement of the mouthpiece whatsoever relative to a point (the alleged axis) is sufficient and need not be rotational (nor translational, apparently). This entirely reads out the modifier "pivotal" from the claims, which is improper.

Finally, it is noteworthy that Petitioner fails to adopt any of the theories advanced by its declarant during deposition, including that motion need only have a "rotational component" to be "pivotal" and that Nakajima's mouthpiece has a "rotational component" of motion. POR, 60-64. Patent Owner and its expert thoroughly refuted such a theory, and Petitioner fails to respond. *Id*. Patent Owner also thoroughly debunked Dr. Vallee's theory that the moon rotates about the sun based on the moon's rotation about the earth and the earth's rotation about the sun,

as well as his theory based on manufacturing tolerances and temperature variations—none of which Petitioner responded to. POR, 64, n.1.

### 2. Nakajima's Mouthpiece Does Not Move Pivotally With The Pivotal Mount

Petitioner does not and cannot meaningfully dispute that the alleged *mouthpiece* in Nakajima rotates in a direction opposite that of the alleged *pivotal mount* about a different axis of rotation, as shown by the red counterclockwise rotation of the alleged *mouthpiece* about a separate axis, as compared to the blue clockwise rotation of the alleged *pivotal mount* below:

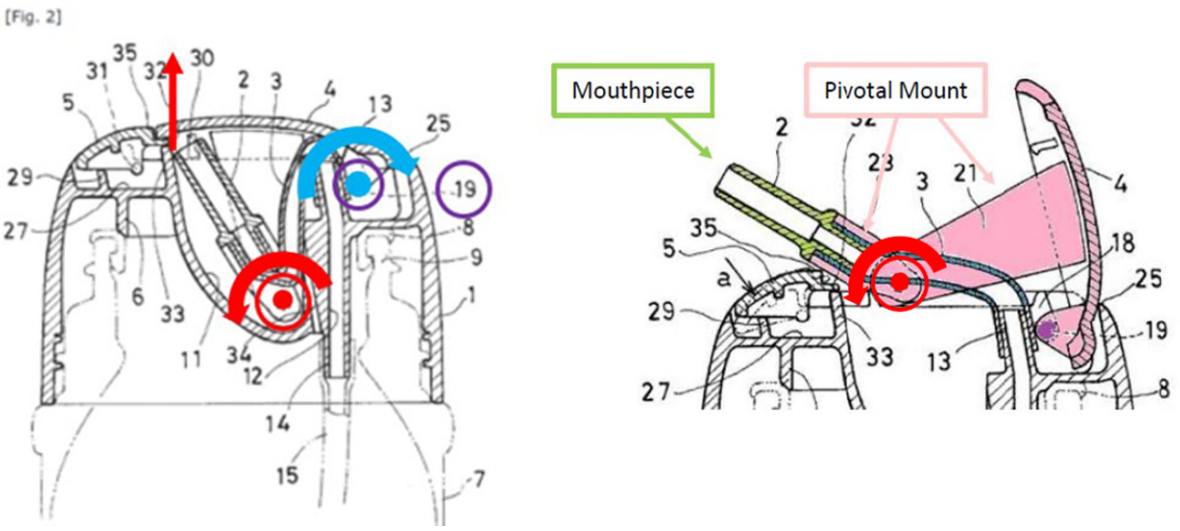



POR, 68 (citing Ex.2016, ¶108) (annotating Ex.1004, Figs. 2–3). Therefore, if Patent Owner's construction requiring rotational motion in the same direction about the

same axis of rotation is adopted (*see supra* Sec. II.B), then there is no meaningful dispute that Petitioner has failed to show Nakajima satisfies this limitation, as properly construed.

Petitioner makes a weak, entirely unsupported, attorney argument that "the red circular arrow depicts purported rotation of a component other than the mouthpiece." Reply, 24. There is no basis for this argument because, as plainly shown on the below right, the green mouthpiece, indeed, rotates about the axis annotated with the overlayed red circular arrow:

**closed** **open**




POR, 68; POR, 52 (citing Pet., 29). Petitioner fails to offer any testimony rebutting that of Patent Owner's expert who explains that the alleged *mouthpiece* rotates in a counterclockwise fashion (red) about a separate axis (red)—in a direction opposite

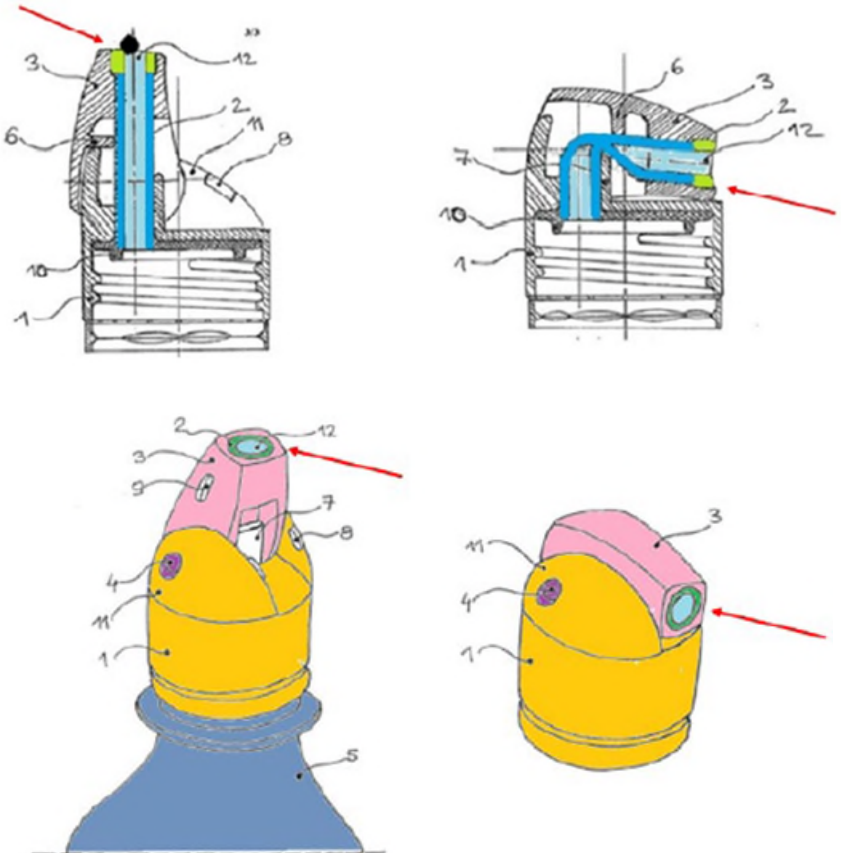
the clockwise rotation (blue) of the alleged *pivotal mount* about a different axis (blue). Ex.2016, ¶¶105-110. And the only part of Nakajima's "mouthpiece 2" that potentially rotates about the same axis as the pivotal mount in the same direction are the protrusions 24, which are irrelevant, as discussed above, because they are not part of the alleged *mouthpiece*.

### B. Grounds 3 and 4 Based on Ribarits Fail

#### 1. Petitioner Fails To Show How Ribarits' Alleged *Mouthpiece* is "Adapted to Resiliently Compress Responsive to Compressive Forces Applied to the Resilient Mouthpiece by a User's Teeth"

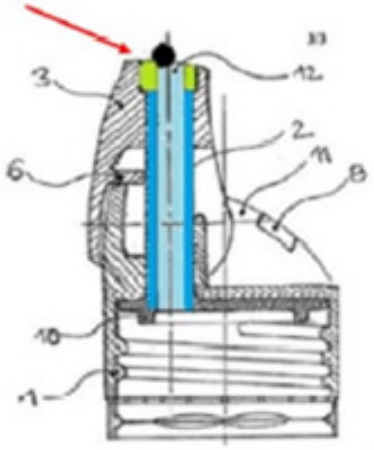
At institution, the Board found that the Petition failed to show how Ribarits satisfies even the plain language of this limitation. Paper 9, at 16-17. Specifically, the Board found that while Petitioner had stated that the alleged mouthpiece was made of rubber or latex, Petitioner had failed to adequately explain how Ribarits's mouthpiece is adapted to resiliently compress responsive to compressive forces applied by a user's teeth "considering that Ribarits's mouthpiece is surrounded by the pivotal mount." *Id*. Petitioner ignores this finding in its Reply and fails to explain how it is incorrect. *See* Reply, at 26-27. Therefore, the Board can re-affirm this finding and hold that the Ribarits grounds fail without needing to resolve the parties' claim construction dispute over the term "adapted to" given Petitioner's failure to adequately explain how even the plain language is met.

In addition, Petitioner has failed to show how this limitation is met under either Patent Owner's construction or Petitioner's construction. As shown below and found by the Board, Ribarits' alleged mouthpiece (green) is shielded by the drinking spout, preventing a user from compressing it with the user's teeth:




POR, 70-72 (citing Pet., 65–66); Ex.1006, Figs. 1 & 3; *see also* Ex.2016, ¶¶112-121. Under the correct construction, "adapted to" means "designed or configured to" here such that the resilient mouthpiece must be designed or configured to resiliently compress responsive to compressive forces applied by a user's teeth, and such that

it is insufficient for the mouthpiece to have a hypothetical capability of such compression, such as if it were disassembled and removed from the drink bottle. POR, 39-44; *see supra* Sec. II.C. This construction is plainly not met because Ribarits' alleged mouthpiece is surrounded by its rigid drink spout, as found by the Board. Petitioner makes a strained, unsupported attorney argument that Ribarits' mouthpiece has an "exposed"/"unshielded" portion at the location of the black circle in the below left figure that a user could "position teeth against" during use. Reply, 27.




Reply, 27; POR, 71. Petitioner contends this, "combined with the inherent compressibility of Ribarits' mouthpiece" satisfies Patent Owner's construction. Reply, 27. But Petitioner proffers no evidence: i) that a user could apply two or more "teeth" to this exposed portion given the claim's reference to "teeth" plural, ii) that a user could "compress" the mouthpiece from "compressive forces" applied by each

of these multiple teeth, as claimed, or iii) assuming that (i) and (ii) are even possible, that the particular rubber or latex material used would have sufficient "inherent compressibility," as alleged by Petitioner, and this awkward orientation would be such that a user's teeth could apply sufficient force to compress the mouthpiece. While any of these failures of proof would be fatal, they collectively demonstrate that Petitioner's new theory is wholly unsupported and without merit.

Further, even Petitioner's construction still requires "that the resilient mouthpiece possess a particular degree of 'resilient compressability' (sic)" such that the mouthpiece can "compress under forces exerted by a user's teeth." Reply, at 14-15. But, as the Board noted, the Petition's only argument for this limitation is that the mouthpiece is made of rubber or latex. Pet., 76. Even if Petitioner's construction were applied, neither Petitioner nor any record evidence demonstrates how Ribarits' rubber or latex is sufficiently compressible such that a user could compress it with their teeth, as opposed to a stiff rubber that a user could not compress.

**2. Ribarits Fails to Disclose "a Resilient Mouthpiece Coupled to the Pivotal Mount"**

Petitioner concedes that Ribarits's "sealed tubular element (2) is inserted into the drinking spout (3)." Reply, 28 (citing Ex.1006 at claim 1). During reexamination, the Patent Owner distinguished structures like the one in Ribarits—a rubber tube or straw merely inserted into and passing through an opening in a mount—from this

limitation requiring the mouthpiece be "coupled" to the pivotal mount. POR, 77-81. As such, Petitioner fails to support its assertion "that 'Ribarits' resilient mouthpiece is inserted through the cap assembly base and engaged with the mount outlet at the dispensing outlet,' which demonstrates Ribarits discloses coupling between the mouthpiece and pivotal mount that is removable and insertable." Reply, 28 (citing Pet., 71–73; s*ee also id.*, 79; Ex.1003, ¶227).

Petitioner then relies for the first time on Ribarits' dependent claim 7 to argue that Ribarits teaches the required coupling through its disclosure of a "snapping." Reply, 28. Specifically, Petitioner argues claim 7 discloses that "in the drinking spout (3), a broadening of the outlet opening (12) enables a snapping of the sealed tubular element (2)." *Id*. (quoting Ex.1006, claim 7). However, there is no disclosure in Ribarits that discusses what this "snapping" means and no evidence in the record as to how a POSITA would understand this disclosure. For example, it is unknown whether this "snapping" would actually be "coupled" in the sense of holding the tube in place such that it would not fall out. Notwithstanding this absence of evidence, Petitioner offers unsupported attorney argument that "[t]his snapping indicates that Ribarits' mouthpiece is pushed until it ***'snaps' into place*** in the pivotal mount." Reply, 28. This attorney argument is not evidence *Elbit*, 881 F.3d at 1359. And, in any event, Petitioner's "snapping" argument should be disregarded, because it is a

new argument raised for the first time in a reply. 37 C.F.R. § 42.23(b); Consolidated TPG (Nov. 2019), at 73; *Intelligent Bio-Sys., Inc. v. Illumina Cambridge, Ltd.*, 821 F.3d 1359, 1369 (Fed. Cir. 2016).

## IV. CONCLUSION

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

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Respectfully submitted,

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**CERTIFICATE OF WORD COUNT**

Pursuant to 37 C.F.R. § 42.24(d), the undersigned certifies that the foregoing PATENT OWNER'S SUR-REPLY, according to the word-processing system used to prepare the paper and not including those parts excluded by § 42.24(a)(1), has 5,573 words, which is within the type-volume limit set by § 42.24.

By: */Ryan Schletzbaum/*
Ryan Schletzbaum

**CERTIFICATE OF SERVICE**

Pursuant to 37 CFR § 42.6(e), the undersigned certifies that on August 26, 2025, a complete and entire copy of the foregoing Patent Owner's Sur-reply and Exhibit 2028 were provided via e-mail to Petitioner's counsel of record as follows:

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