Trove Brands, LLC,
Petitioner,
v.
CamelBak Products, LLC,
Patent Owner

IPR2024-01137 (U.S. Patent No. 10,676,255 C1)

Patent Owner CamelBak Products, LLC's Demonstratives

Oral Argument – November 14, 2025

Grounds

1) **Ground 1:** Claims 1, 3-5, 9-11, 13, 18, and 19 would have been obvious over **Nakajima** in view of the knowledge of a POSA

2) **Ground 2:** Claims 12 and 14-16 would have been obvious over **Nakajima** in view of **Gardner**

3) **Ground 3:** Claims 1, 9, 11, 13, and 17-19 would have been obvious over **Ribarits** in view of the knowledge of a POSA

4) **Ground 4:** Claims 2-7 and 20-23 17 and 18 would have been obvious over **Ribarits** in view of **Panicci** and/or **Hughes**

Issues

1) The proper construction of the following terms:
   a) "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"
   b) "coupled to the pivotal mount for pivotal movement with the pivotal mount"
   c) "wherein the resilient mouthpiece is adapted to resiliently compress responsive to compressive forces applied to the resilient mouthpiece by a user's teeth"

2) Whether Nakajima fails to disclose a resilient mouthpiece that is "pivotal about an axis defined by the pair of lateral projections" (Grounds 1-2)

3) Whether Nakajima fails to disclose a resilient mouthpiece that exhibits "pivotal movement with the pivotal mount" (Grounds 1-2)

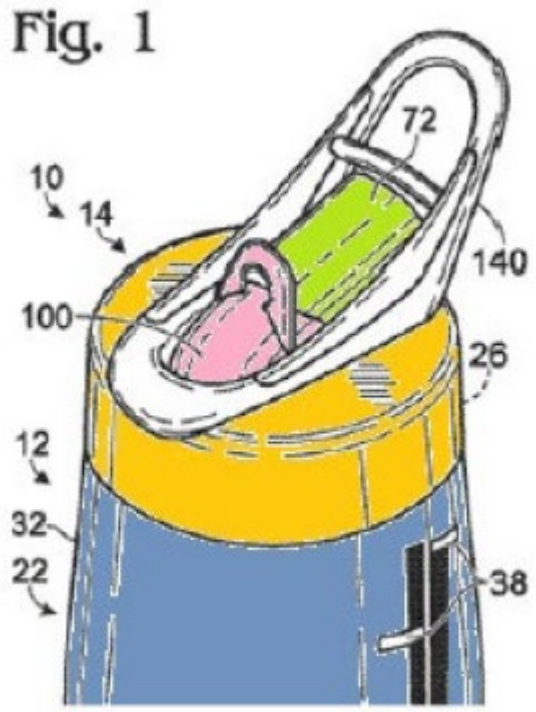
4) Whether Ribarits fails to disclose a resilient mouthpiece that is "adapted to resiliently compress responsive to compressive forces applied to the resilient mouthpiece by a user's teeth" (Grounds 3-4)

5) Whether Ribarits fails to disclose a resilient mouthpiece that is "coupled to a pivotal mount" (Grounds 3-4)

’255 Patent Overview

’255 Patent Overview

“stowed position”

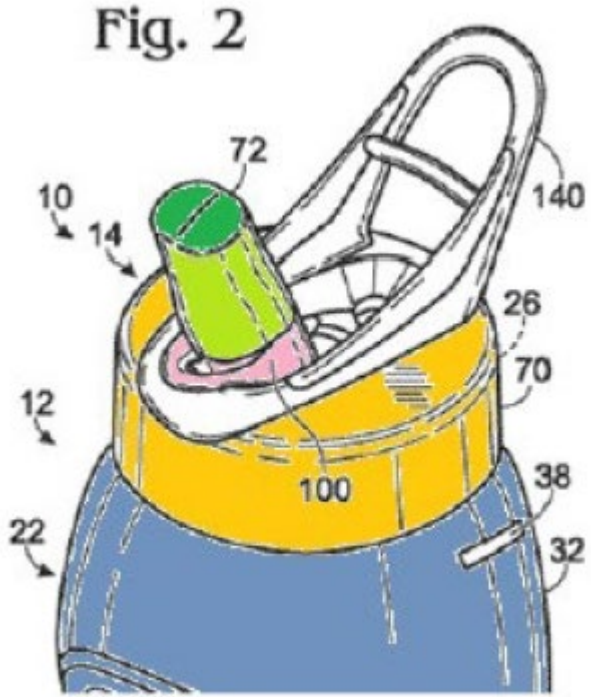


resilient mouthpiece 72

pivotal mount 100

cap assembly base 70

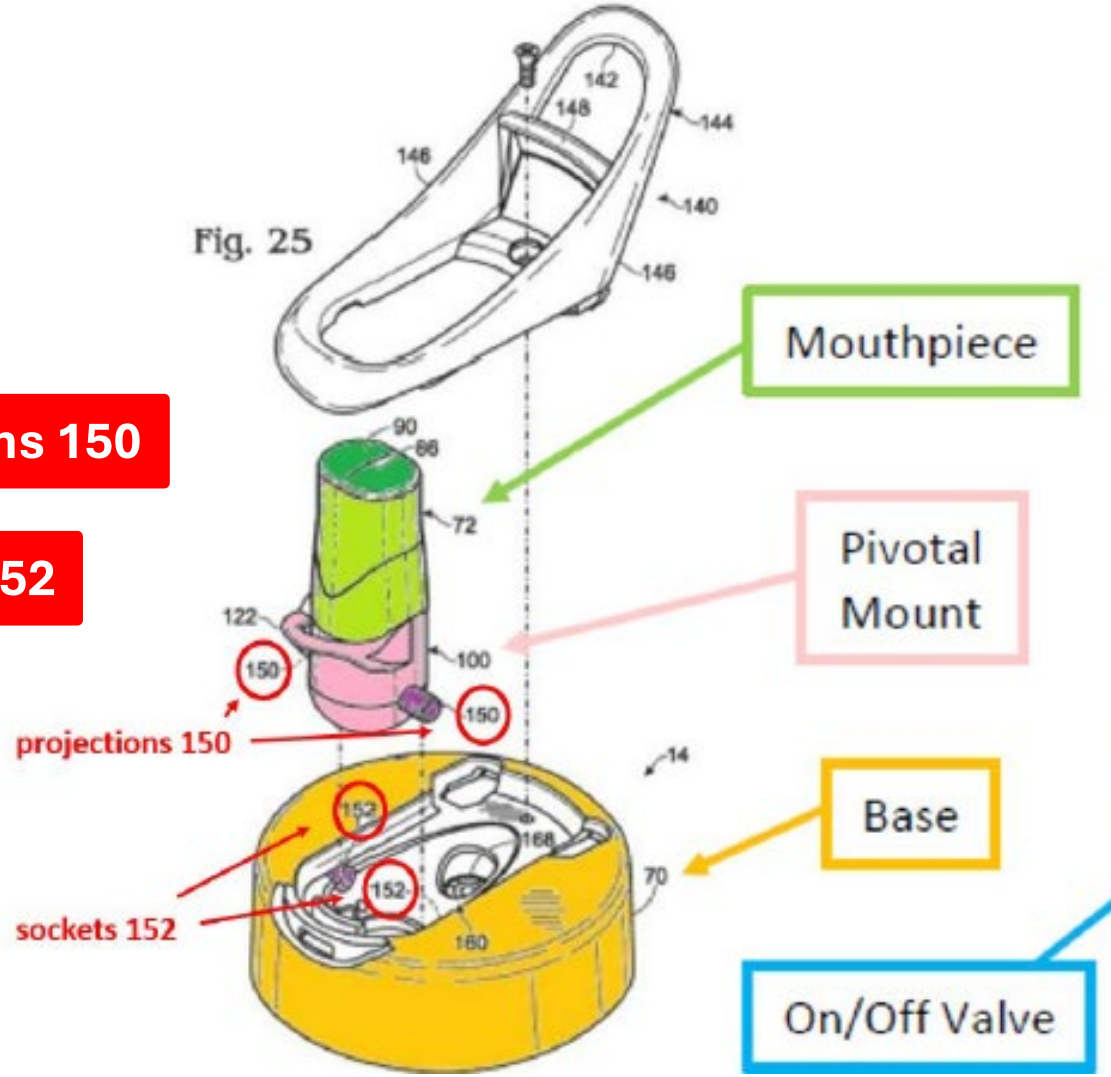
“dispensing position”



’255 Patent Overview

projections 150

sockets 152



“rotatable mechanism”

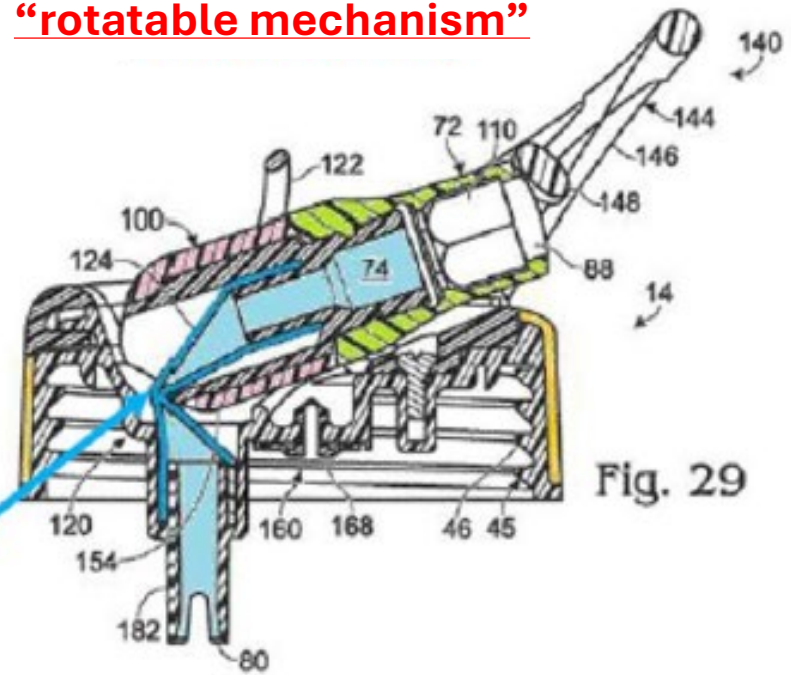


Fig. 29

’255 Patent Overview

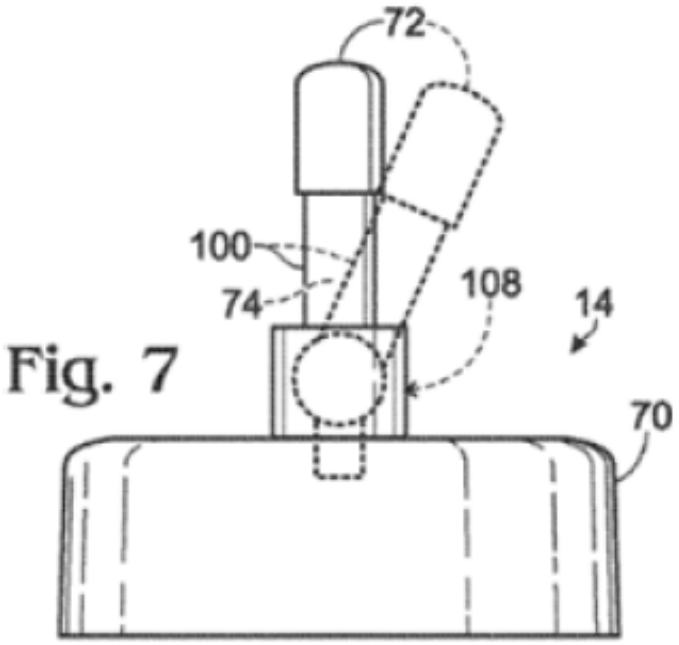


Fig. 7

resilient mouthpiece 72

pivotal mount 100

cap assembly base 70

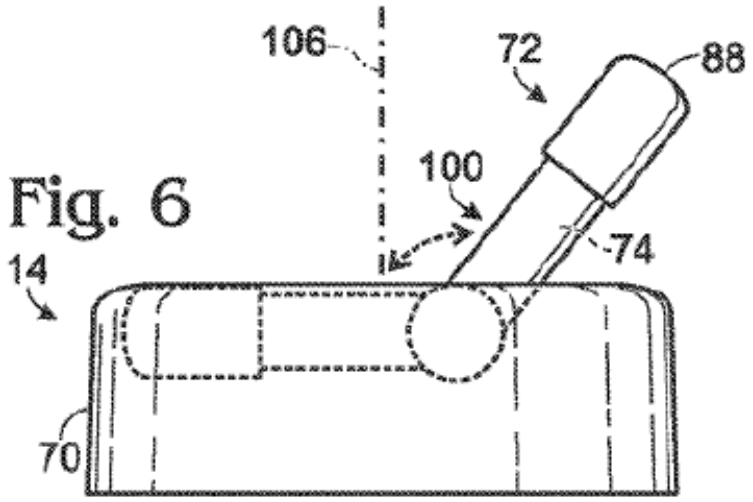
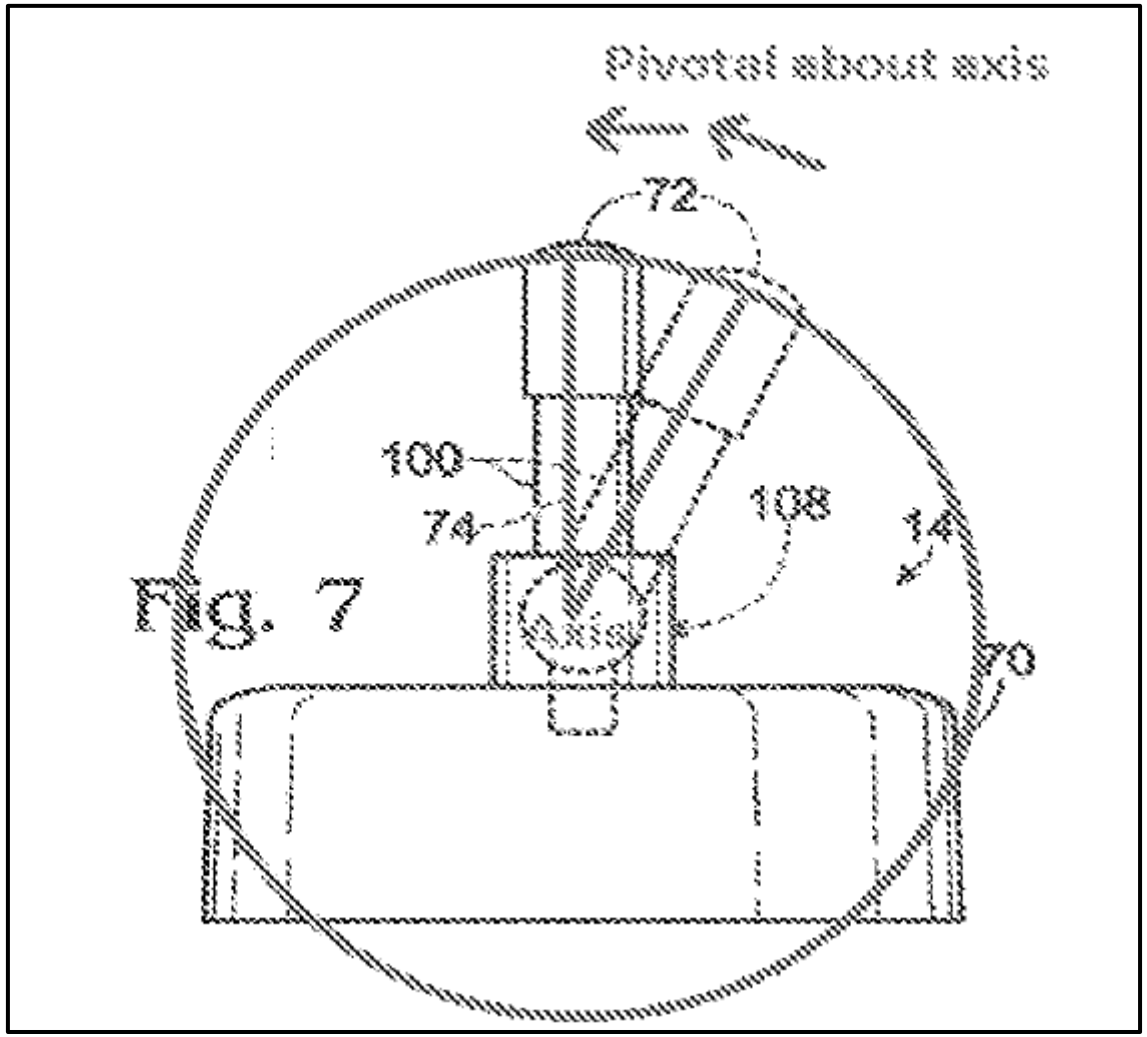
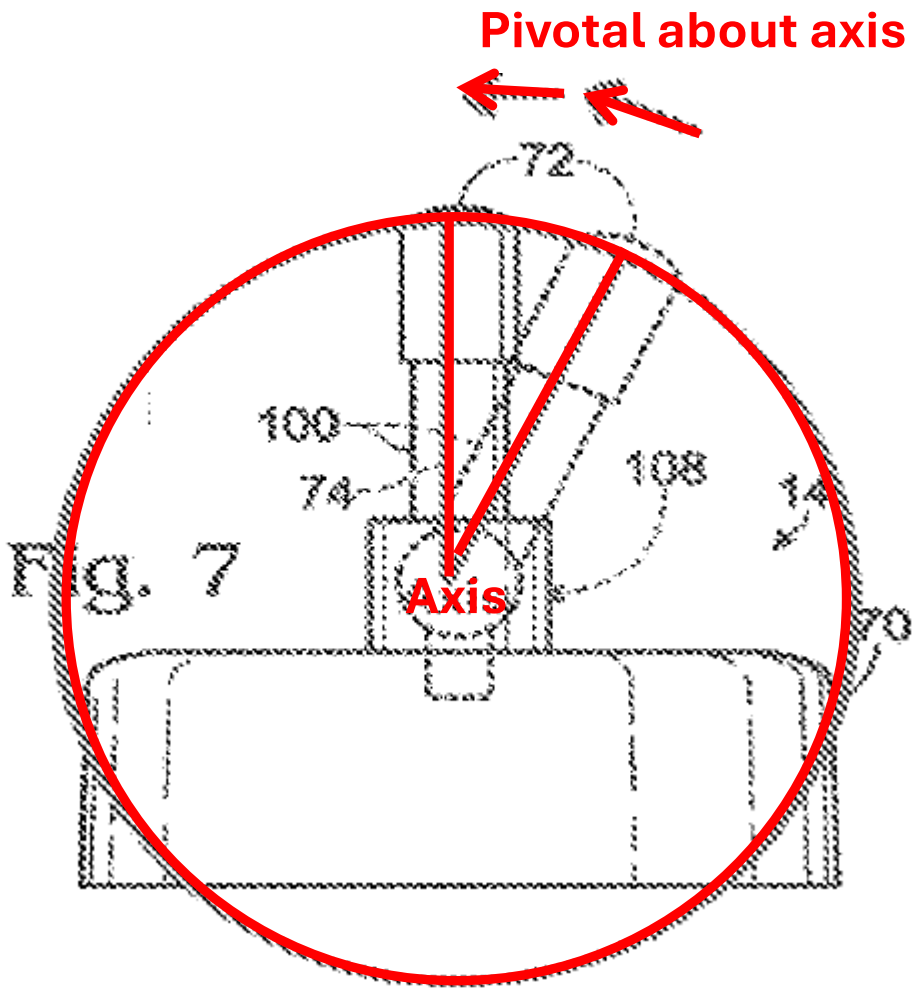


Fig. 6

’255 Patent Overview





Claim 1

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 removably 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 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;

...

Claim 1 (cont.)

...

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

wherein the resilient mouthpiece and the pivotal mount are configured to be selectively pivoted between a stowed position and a dispensing position, and further in the dispensing position, the dispensing outlet is positioned further away from the cap assembly base than when the resilient mouthpiece and the pivotal mount are in the stowed position;

wherein the resilient mouthpiece is **adapted to resiliently compress responsive to compressive forces applied to the resilient mouthpiece by a user's teeth**; and

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

wherein when the manual 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 the 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.

Issue 1: Claim Construction

Claim construction: "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"

- Means that the resilient mouthpiece "moves with **rotational motion about an axis of rotation defined by the pair of lateral projections** as the pair of lateral projections rotate within the pair of sockets" and that, as a matter of physics, **rotational motion** about the axis of rotation defined by the lateral projections **requires maintaining a constant distance/radius between the mouthpiece and the axis of rotation defined by the lateral projections**.

Claim construction: "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"

- Institution decision (Paper 9) (January 28, 2025), at 14-15:

> At this stage, we 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" as recited in Limitation 1[b][3][i] during the trial phase. As cited by Petitioner, from the closed position, for example, the

Rotational motion required

- Board's construction of **"pivotal axis for pivotal movement"** in institution decision in IPR2025-00140 (June 6, 2025) (Paper 14, at 13) regarding related U.S. Pat. No. 11,851,250:

> For purposes of this decision on institution, we adopt Patent Owner's proposed construction of "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." This construction is consistent with the Specification, which describes pivoting in the context of rotating. For example, in discussing lateral projections 150 that are

Rotational motion required

- **Claim language:**

> a resilient mouthpiece 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;

- **Specification:**

> 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. This illustrative mounting con-

Rotational motion required

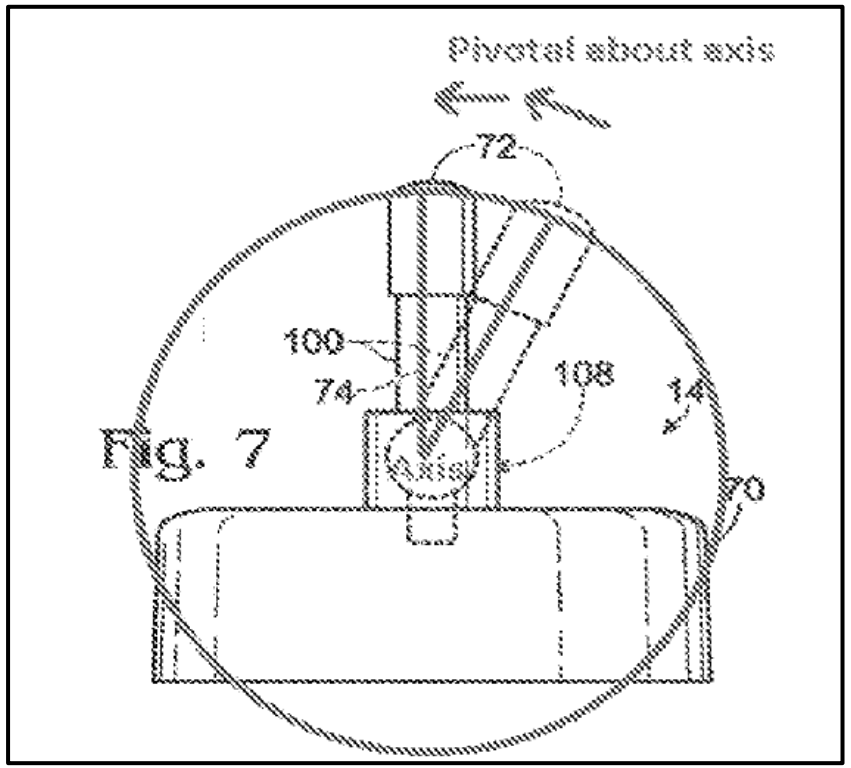
- **Specification:**
  - "…the **rotational** position of the valve assembly…." (Ex.1001, 5:16-23)
  - "…the mouthpiece, and at least a portion of the mount, may be coupled to the base of the cap assembly by a joint (and/or valve) 108, such as may take the form of **a pivotal joint**, a ball joint, or other suitable structure **that provides for adjusting the angular and/or rotational orientation of the mount** relative to the base of the cap assembly." (Ex.1001, 7:54-60)
  - "…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 (and typically at least a portion of the mount and/or fluid conduit) is **rotated** to a position in which the obstruction no longer prevents drink fluid from passing through the fluid conduit." (Ex.1001, 12:20-28)

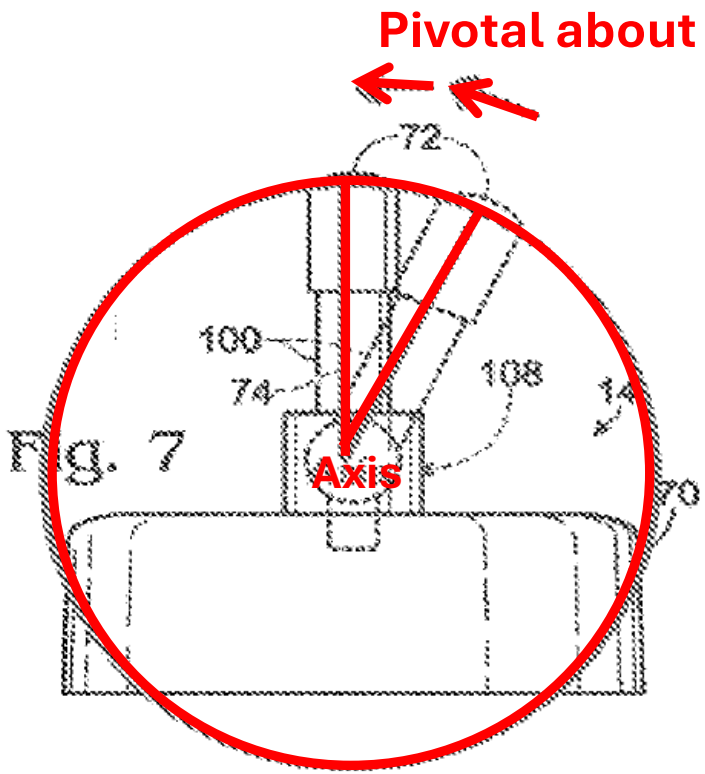
Rotational motion required

- **Petitioner's Declarant, Dr. Vallee:**
  - The pivot axis is "analogous with the **axis of rotation of the pivotal mount**" (Ex.2025 (Vallee Tr.), at 104:16-21)
  - "[T]here is a spout that **rotates** from a stowed position to an unstowed position" (Ex.2025, at 22:5-13)
  - Referred to the "**rotation**" of the mouthpiece between dispensing and stowed configurations (Ex.2025, at 32:2-12)
  - Describing the pivotal mount which "**rotate[s]** around" an "axis" (Ex.2025, at 38:1-19)
  - "Q. So when the claims used the term pivotal about an axis, do you understand that to mean **rotational about an axis of rotation**? A. I think that's correct. . . ." (Ex.2025, at 56:19-57:1)
  - "Q. So would you agree that the lateral projections define an axis of rotation as the lateral projections rotate within the pair of sockets? A. **Yes. It is an axis of rotation**." (Ex,2025, at 58:16-59:7)

Rotational motion required

Reexam History:

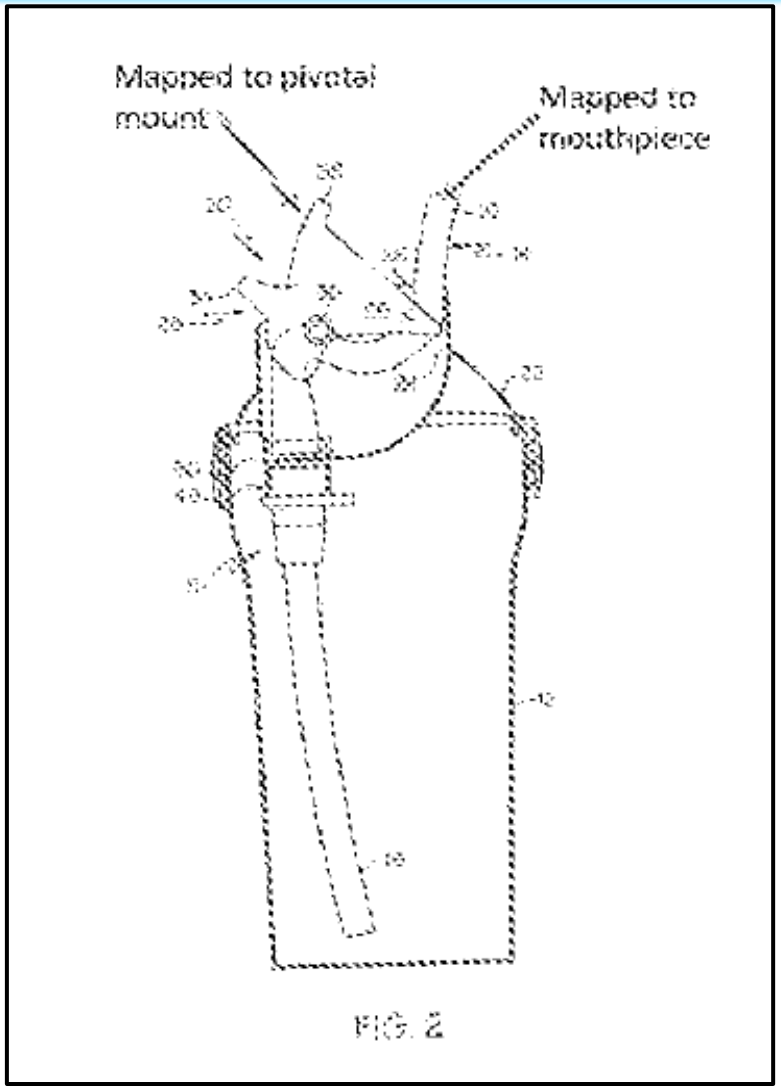




As shown above, the mouthpiece 72 is pivotal about an axis defined by the pair of lateral projections as they rotate. In the Office Action, the Examiner maps the recited mouthpiece to the end portion 16 of straw 14, shown:

Rotational motion required

Reexam History:



Mapped to pivotal mount

Mapped to mouthpiece

"straw positioning mechanism 20"

"axle projections 30" (pivotal axis)

"drinking end 16"

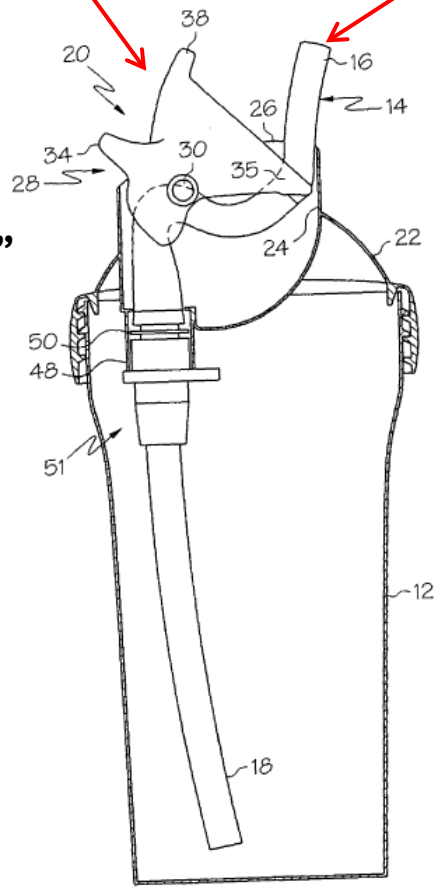


FIG. 2

Rotational motion required

Reexam History:

However, portion 16 of the straw in McDonough (mapped to the resilient mouthpiece) is not pivotal about an axis defined by the pair of lateral projections as the pair of lateral projections rotate within the pair of sockets, as required by the claims. This is shown, for example, in Figs. 2-3 of McDonough:

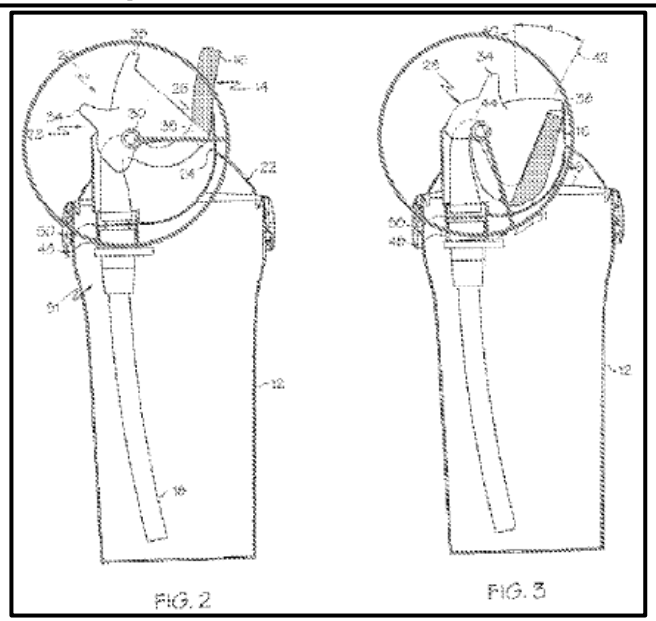


FIG. 2 FIG. 3

As shown in the figures above, when the straw positioning member 20 is pivoted about a pivotal axis, the end portion 16 of straw 14 is pulled downwards. The end portion 16 of the straw (mapped to the resilient mouthpiece) is not "*pivotal about an axis defined by the pair of lateral projections*" as required by the claims.

Rotational motion required

Reexam History:

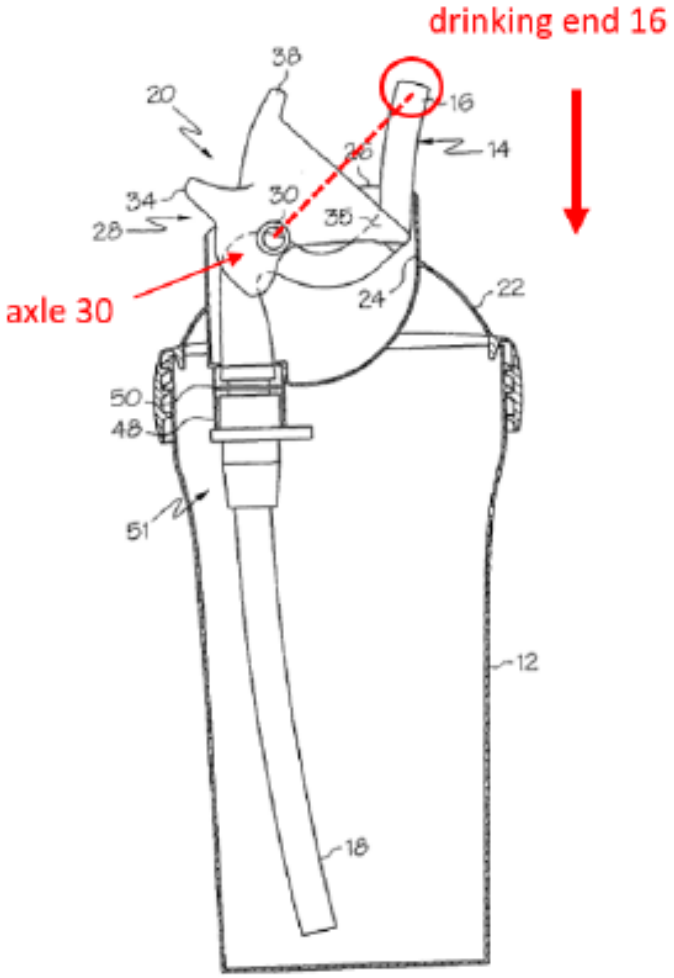


FIG. 2

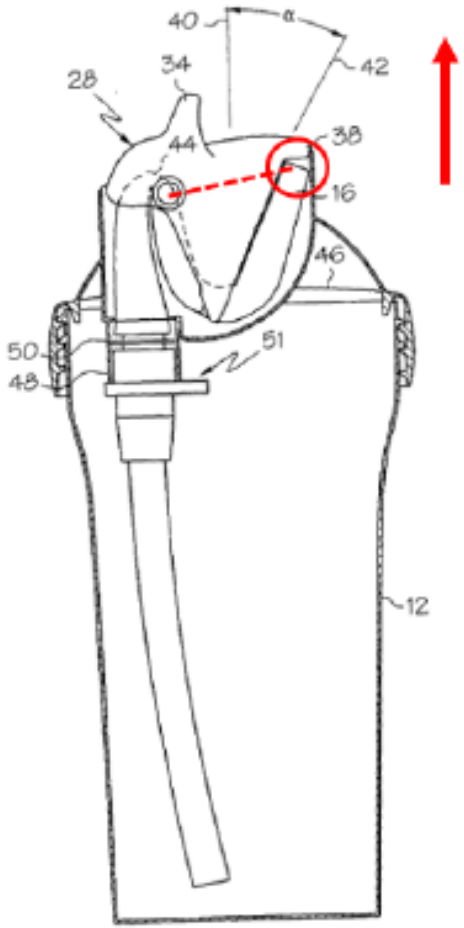


FIG. 3

Rotational motion required

Patent Owner's Expert, Michael Jobin:

> 69. From this reexamination history, a POSITA would have understood that the Patent Owner was distinguishing between translational movement in McDonough (i.e., upward and downward movement) of the alleged mouthpiece, portion 16 of the straw, from the claimed "pivotal movement" about an axis that patent owner had annotated in Figure 7 (rotational movement about the alleged pivotal axis at axles 30). In other words, the requirement that the movement of the mouthpiece must be "pivotal about an axis" is not satisfied by upward and downward translational movement relative to the alleged axis.

Definition of rotational motion

Patent Owner's Expert, Michael Jobin:

> 72. The concept of rotational movement occurring about an axis of rotation would have been well understood by a POSITA at the time of the '255 patent. An

> physics course, wherein "[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.2022, at 1; *see*

> particular time interval." Ex.2023 at 258-259. Rotational motion is distinct from translational motion, "in which an object moves along a straight or curved line." Ex.2023 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.

Definition of rotational motion

Patent Owner's Expert, Michael Jobin:

below likewise shows a rolling ball or wheel. But even when translational motion and rotational motion are combined, if there is a rotational component, ***it must still have a fixed radius to the axis of rotation*** to be considered rotational.

Figure 10.13 The motion of a rolling wheel is the sum of the translational motion of the center of mass and the rotational motion of the wheel around the center of mass.

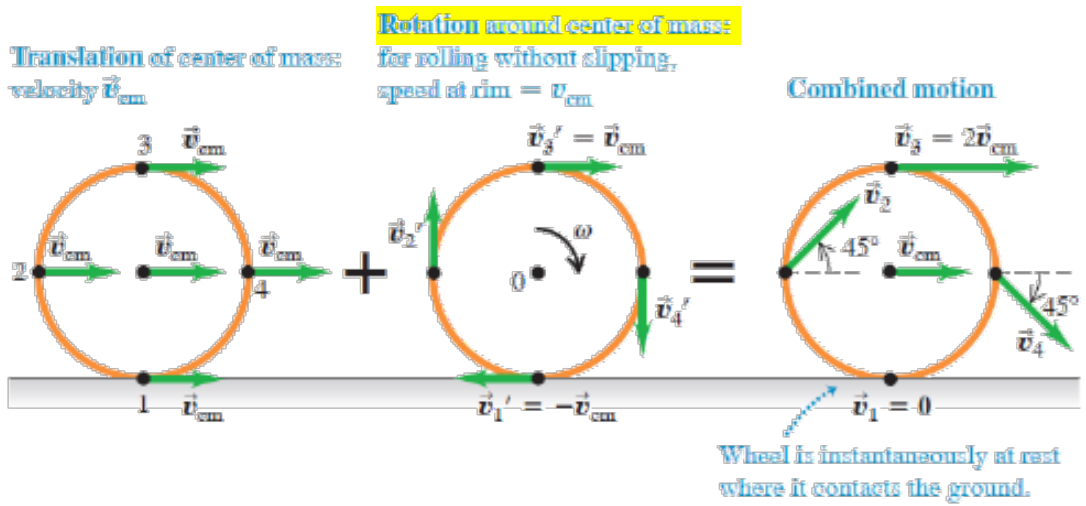
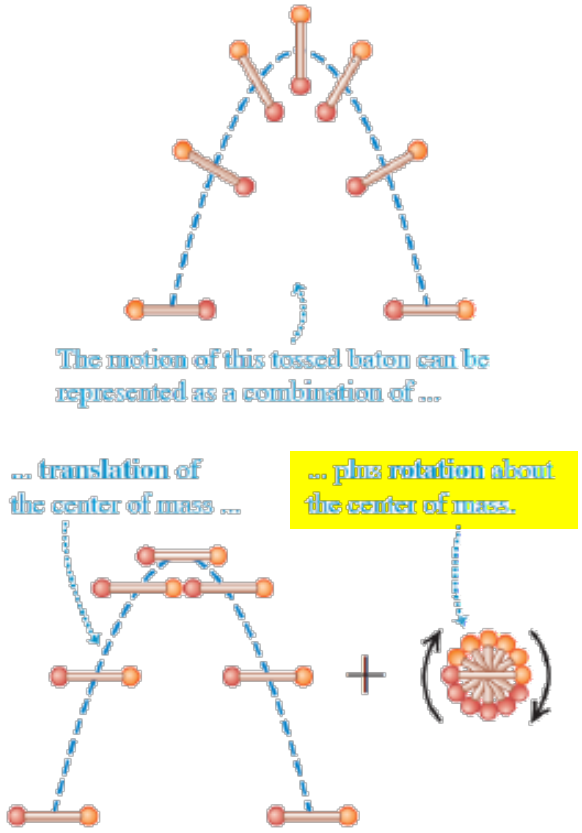


Figure 10.11 The motion of a rigid body is a combination of translational motion of the center of mass and rotation around the center of mass.



Mouthpiece moves in circular path with fixed radius

Reexam History:

Fig. 7 of 255 patent:

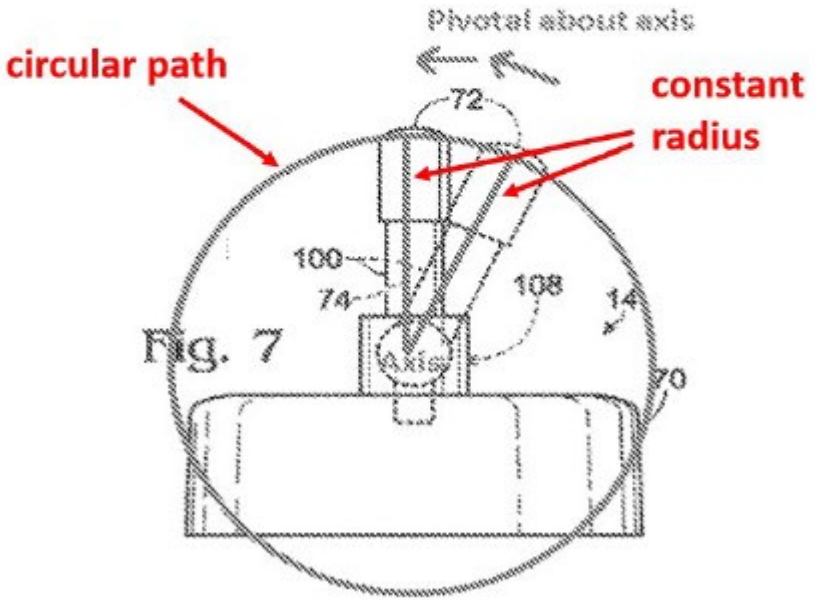


Fig. 7

Figs. 2-3 of McDonough:

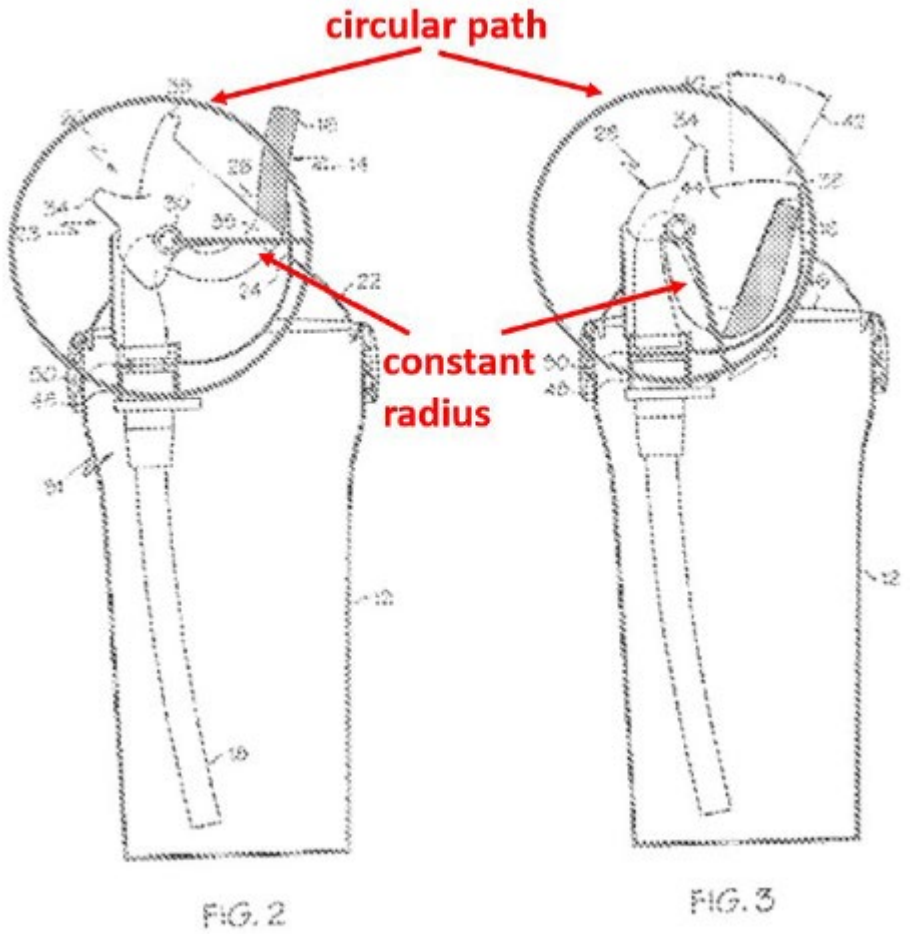


FIG. 2 FIG. 3

The “resilient mouthpiece” is a rigid body

’255 patent:

dispensed from the drink bottle. Mouthpiece **72** may be referred to as a self-sealing valve, or valve assembly, because 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 to maintain the mouthpiece in its dispensing configuration. Therefore, 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.

Petitioner’s Declarant, Dr. Vallee:

resisting excessive forces applied by the user. In the context of mouthpieces, a well-known purpose for using resilient materials was to ensure that the mouthpiece did not permanently deform in response to compressive forces applied by the user’s mouth, which could affect fluid flow.

Patent Owner’s Declarant, Michael Jobin:

velocity. In this case, all points of a rigid body (such as the mouthpiece and pivotal mount) maintain a constant distance from the axis of rotation, because if they did not maintain a constant distance from the axis, the path would not be circular and therefore the motion would be translational instead of rotational.

Claim construction: "coupled to the pivotal mount for pivotal movement with the pivotal mount"

- Requires 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

Claim 1:

> a resilient mouthpiece coupled to the pivotal mount for pivotal movement with the pivotal mount relative to

1) "pivotal movement" = rotational movement

2) "with" ≠ away from

Claim construction: "coupled to the pivotal mount for pivotal movement with the pivotal mount"

resilient mouthpiece 72

pivotal mount 100

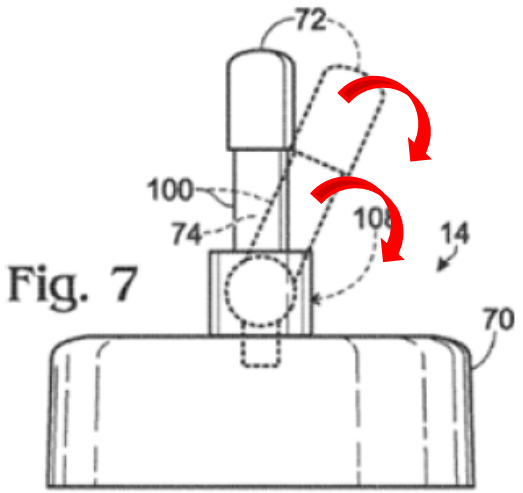


Fig. 7

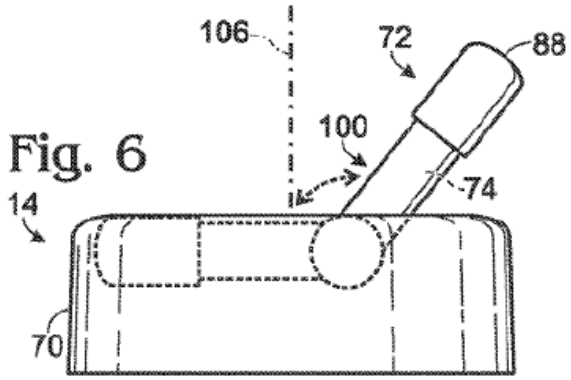


Fig. 6

Fig. 1

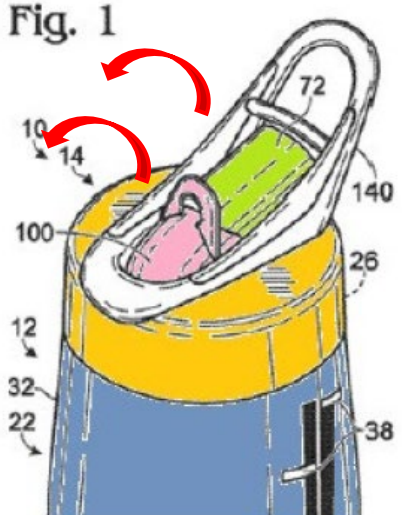
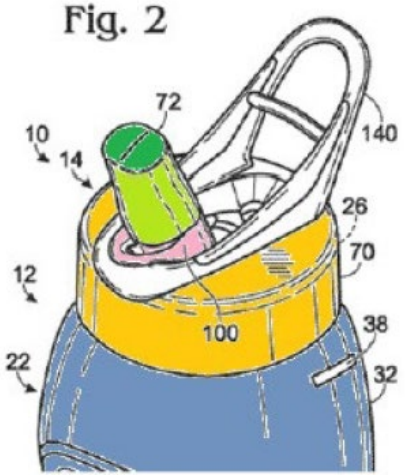


Fig. 2



Claim construction: "wherein the resilient mouthpiece is adapted to resiliently compress responsive to compressive forces applied to the resilient mouthpiece by a user's teeth"

- The term "adapted to" in this limitation means **"designed or configured to"** and is **not satisfied by mere hypothetical capability**.
  - Thus, the resilient mouthpiece must be **designed or configured** to resiliently compress responsive to compressive forces applied to the resilient mouthpiece by a user's teeth, and **it is not sufficient that a resilient mouthpiece can be made to be capable of such, *e.g.*, by modification**.

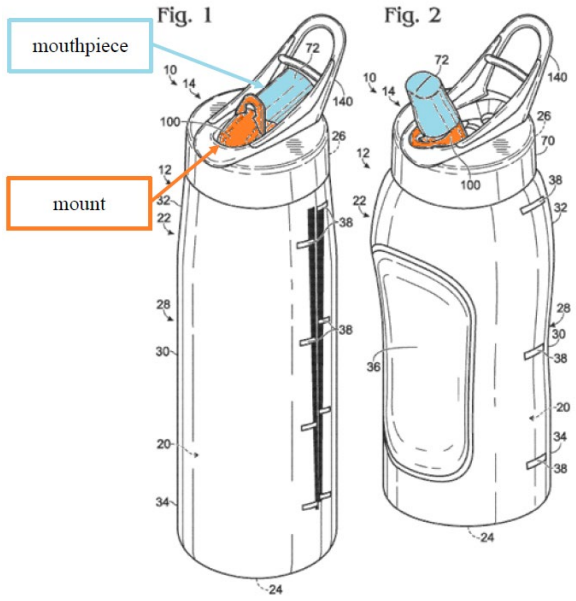
- ***Aspex Eyewear, Inc. v. Marchon Eyewear, Inc.*, 672 F.3d 1335, 1349 (Fed. Cir. 2012)** ("adapted to" requires claim elements be "designed or configured to accomplish the specified objective, *not simply that they can be made to serve that purpose*") (emphasis added).
- ***In re Man Mach. Interface Techs. LLC*, 822 F.3d 1282, 1286 (Fed. Cir. 2016)** ("We have noted that the phrase 'adapted to' generally means 'made to,' 'designed to,' or 'configured to,' . . ..").
- ***In re Giannelli*, 739 F.3d 1375, 1379 (Fed. Cir. 2014)** ("[H]ere the written description makes clear that 'adapted to,' as used in the '261 application, has a narrower meaning, viz., that the claimed machine is designed or constructed to be used as a rowing machine whereby a pulling force is exerted on the handles.").

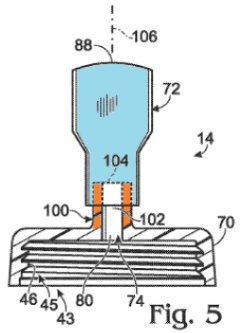
Claim construction: "wherein the resilient mouthpiece is adapted to resiliently compress responsive to compressive forces applied to the resilient mouthpiece by a user's teeth"

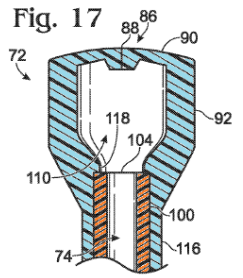
figuration, such as is shown in FIGS. **10-15**. In use, the mouthpiece is adapted to be configured to the dispensing configuration by a user placing the mouthpiece in the user's mouth and biting upon or otherwise compressing the appropriate portions of sidewalls **92** of the mouthpiece, such as

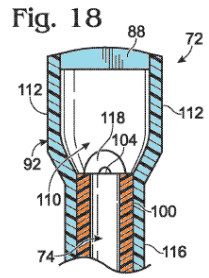
assembly. In FIG. **2**, the cap assembly is shown with the mount in a dispensing configuration in which the mouthpiece is oriented in a suitable position from which a user may draw drink fluid from the drink bottle through mouthpiece **72** when the user bites upon the mouthpiece or otherwise urges the mouthpiece from the illustrated sealed configuration to a dispensing configuration. In FIG. **1**, the

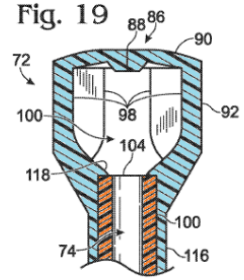
configuration, with the stowed configuration typically corresponding to an orientation in which the mouthpiece is not suitably positioned for a user to bite upon the mouthpiece to configure the mouthpiece to a dispensing configuration. The

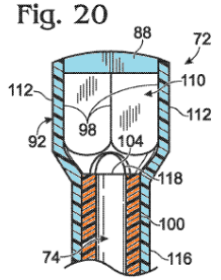








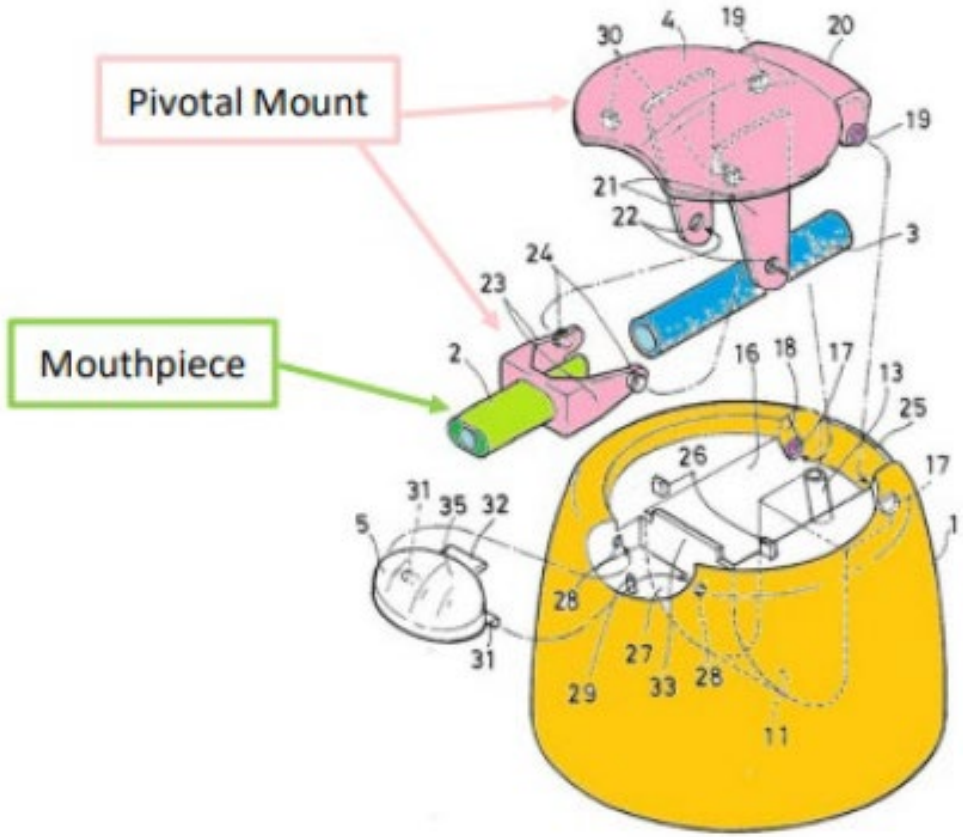


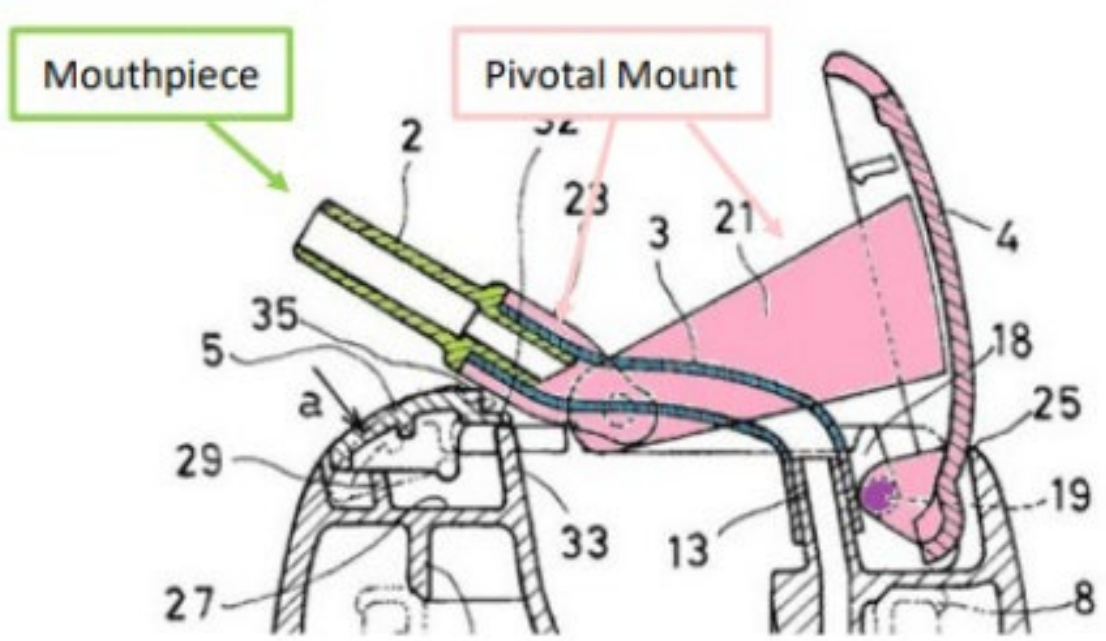


Issue 2: Nakajima fails to disclose a resilient mouthpiece that is "pivotal about an axis defined by the pair of lateral projections"

Nakajima fails to disclose a resilient mouthpiece that is "pivotal about an axis defined by the pair of lateral projections"

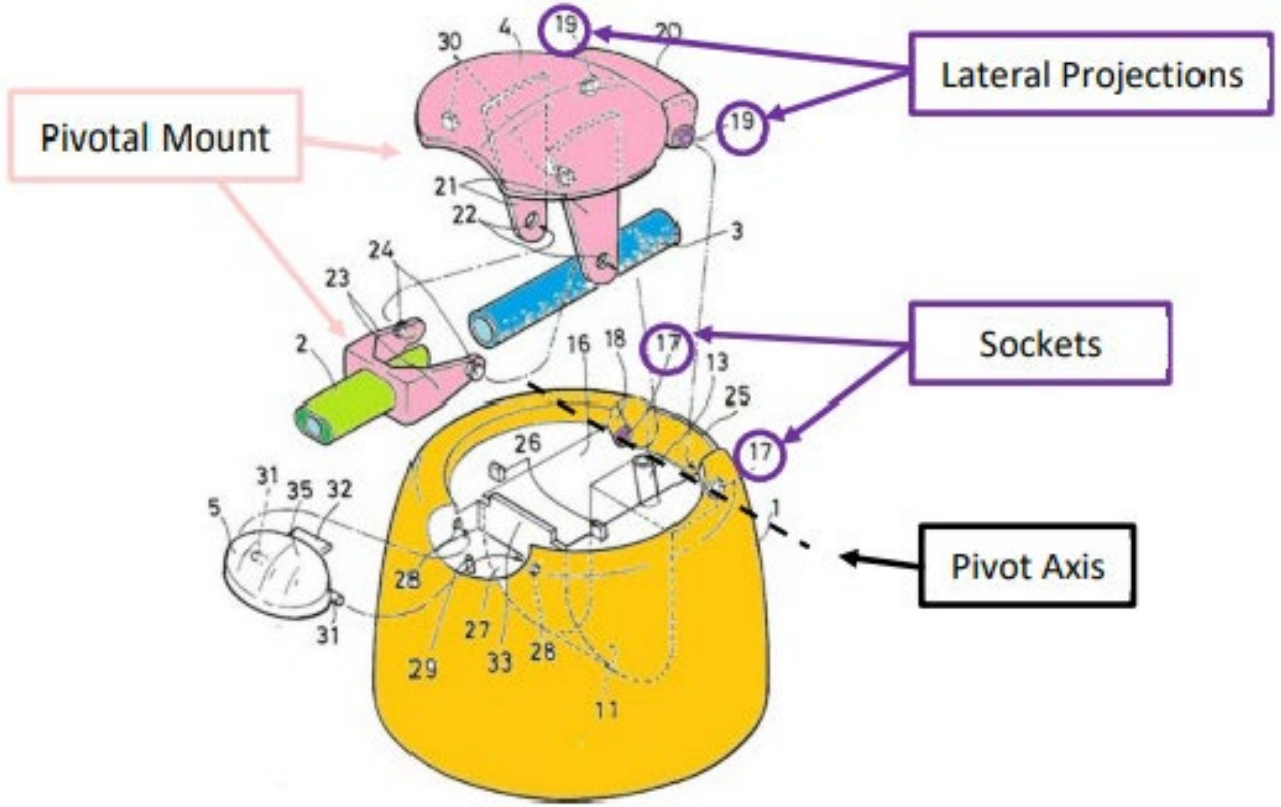
- Petitioner identifies only the **green portion** of mouthpiece 2 (not arms 23 or protrusions 24) as being the claimed "mouthpiece"

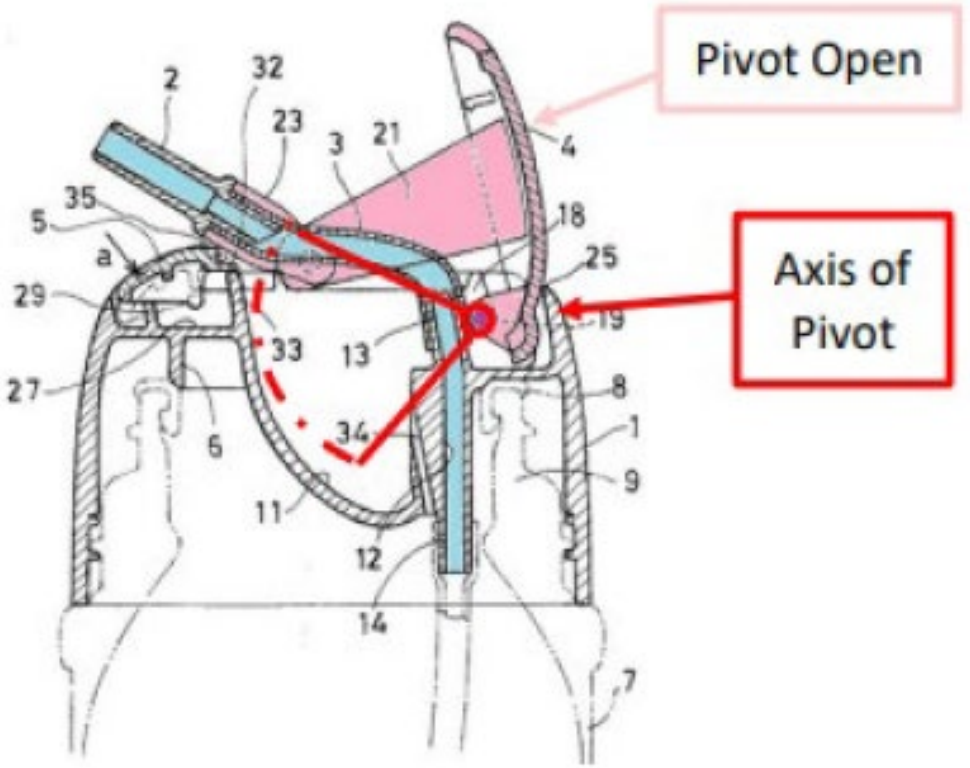




Nakajima fails to disclose a resilient mouthpiece that is "pivotal about an axis defined by the pair of lateral projections"

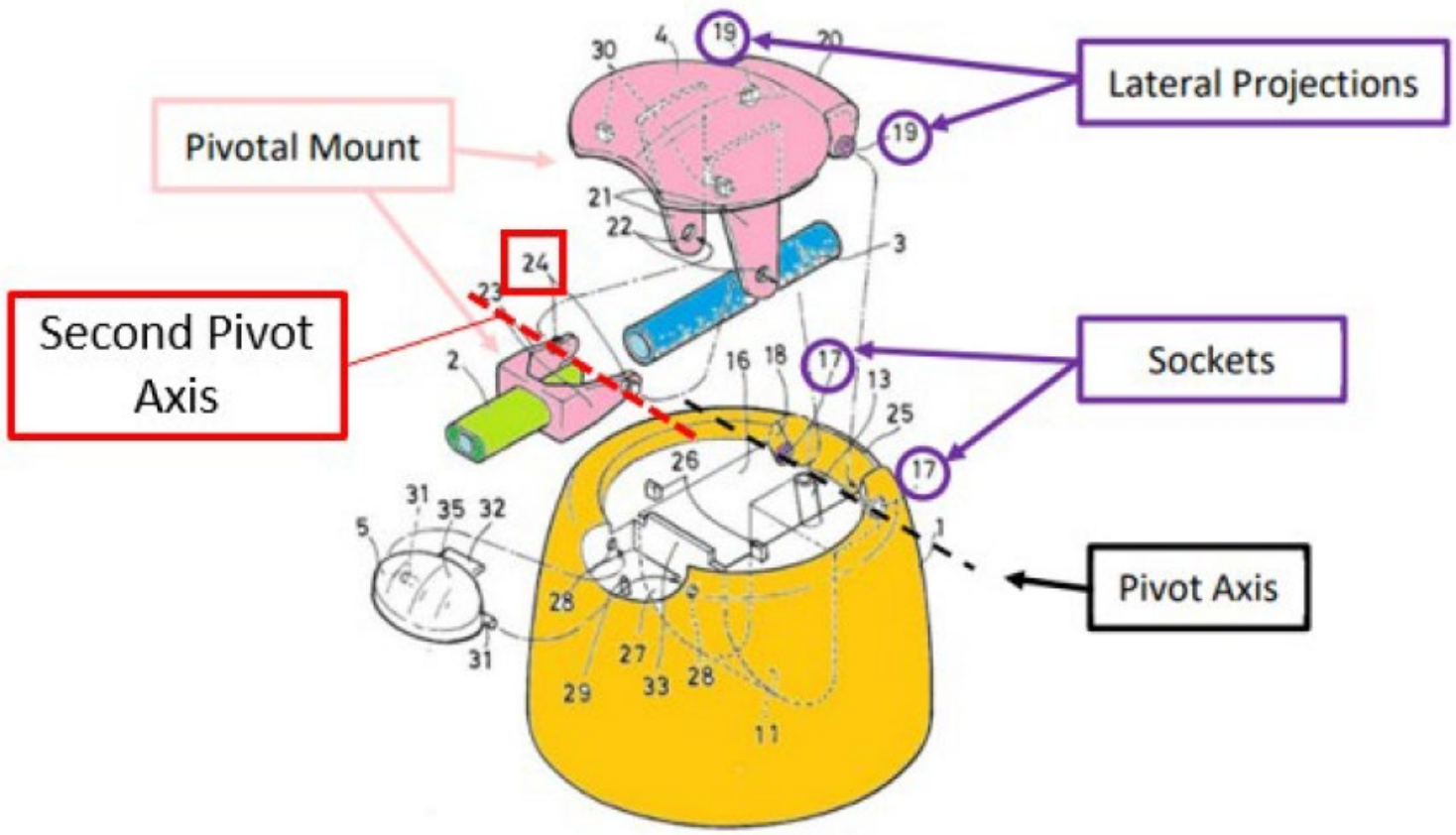
- Petitioner identifies **hinge shafts 19** of the lid as being the claimed "lateral projections" that define the claimed "axis"





Nakajima fails to disclose a resilient mouthpiece that is "pivotal about an axis defined by the pair of lateral projections"

- The alleged **"mouthpiece"** only rotates about **protrusions 24**, not about **hinge shafts 19**.



Nakajima fails to disclose a resilient mouthpiece that is "pivotal about an axis defined by the pair of lateral projections"

[0003] In such a mouthpiece, a lid covering mouthpiece inside when stored in the storage recess is attached so as to open and close freely, and the mouthpiece moves up and down in conjunction with the opening and closing of the lid.

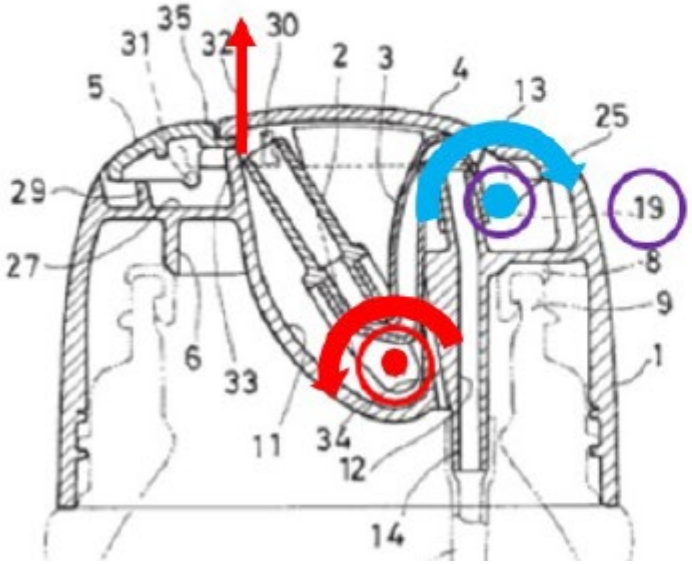
Alleged "mouthpiece" moves **up** and rotates **counter-clockwise** about **protrusions 24**

Lid rotates **clockwise** about **hinge shafts 19**

Alleged "mouthpiece" **does not** rotate clockwise (or at all) about **hinge shafts 19** – no "additional rotation" about **hinge shafts 19**

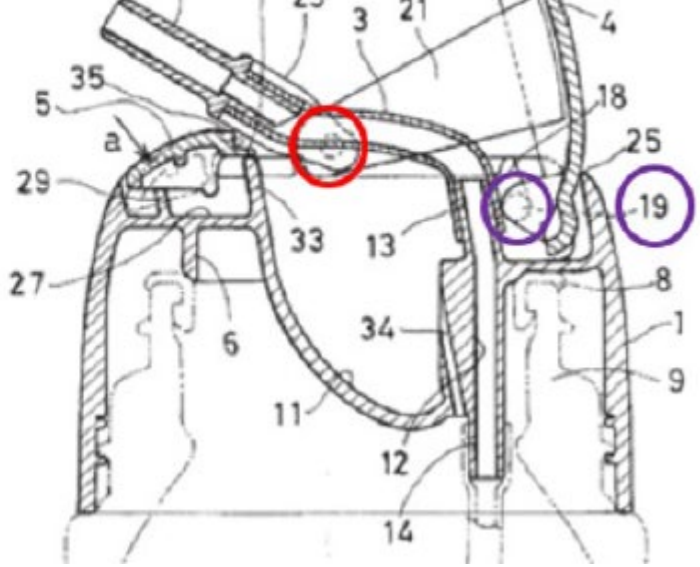
closed

[Fig. 2]



open

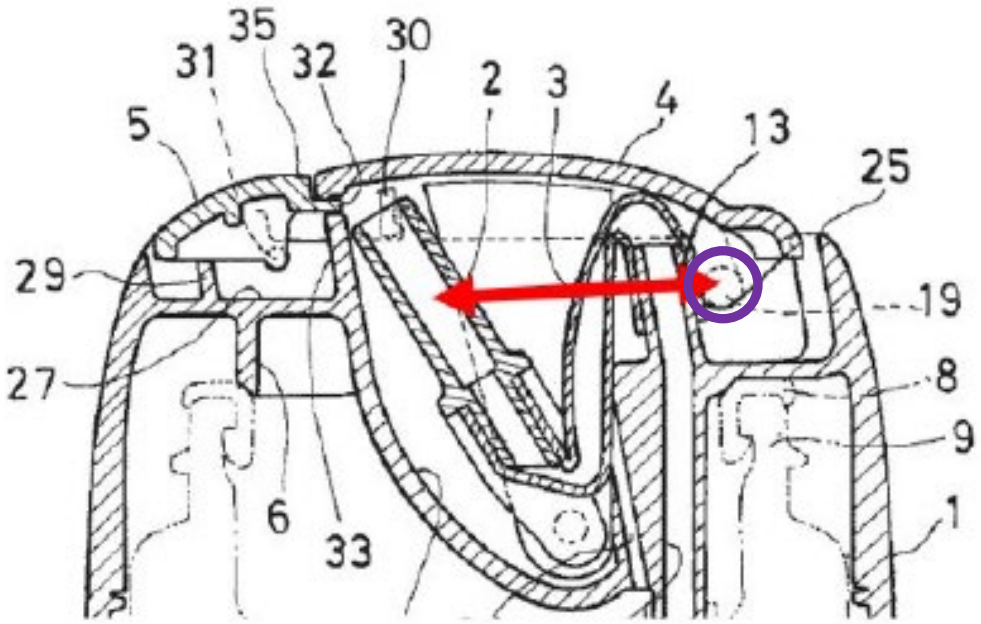
[Fig. 3]

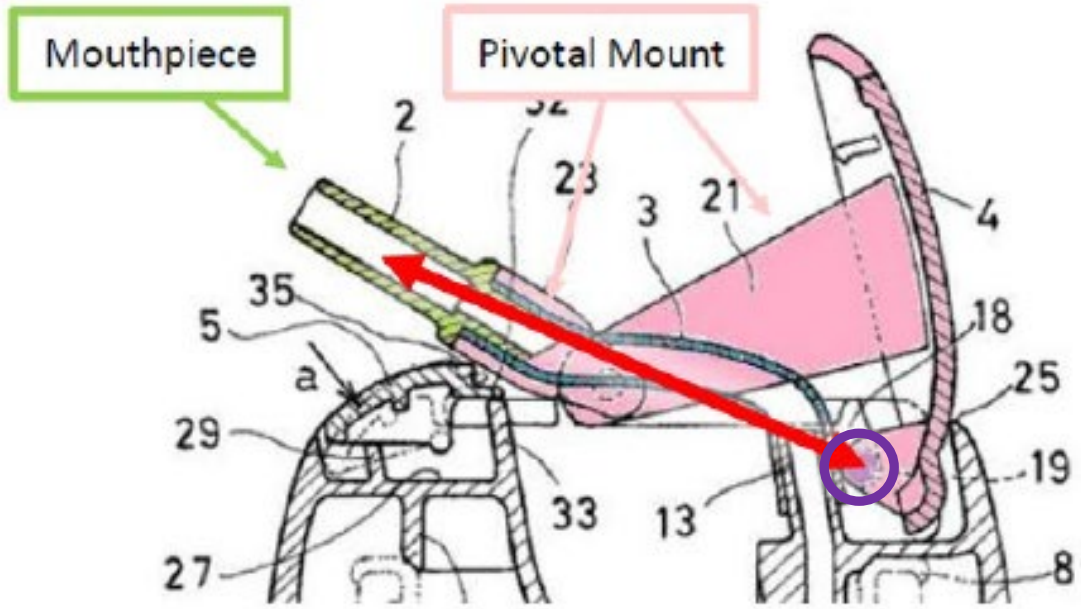


Nakajima fails to disclose a resilient mouthpiece that is "pivotal about an axis defined by the pair of lateral projections"

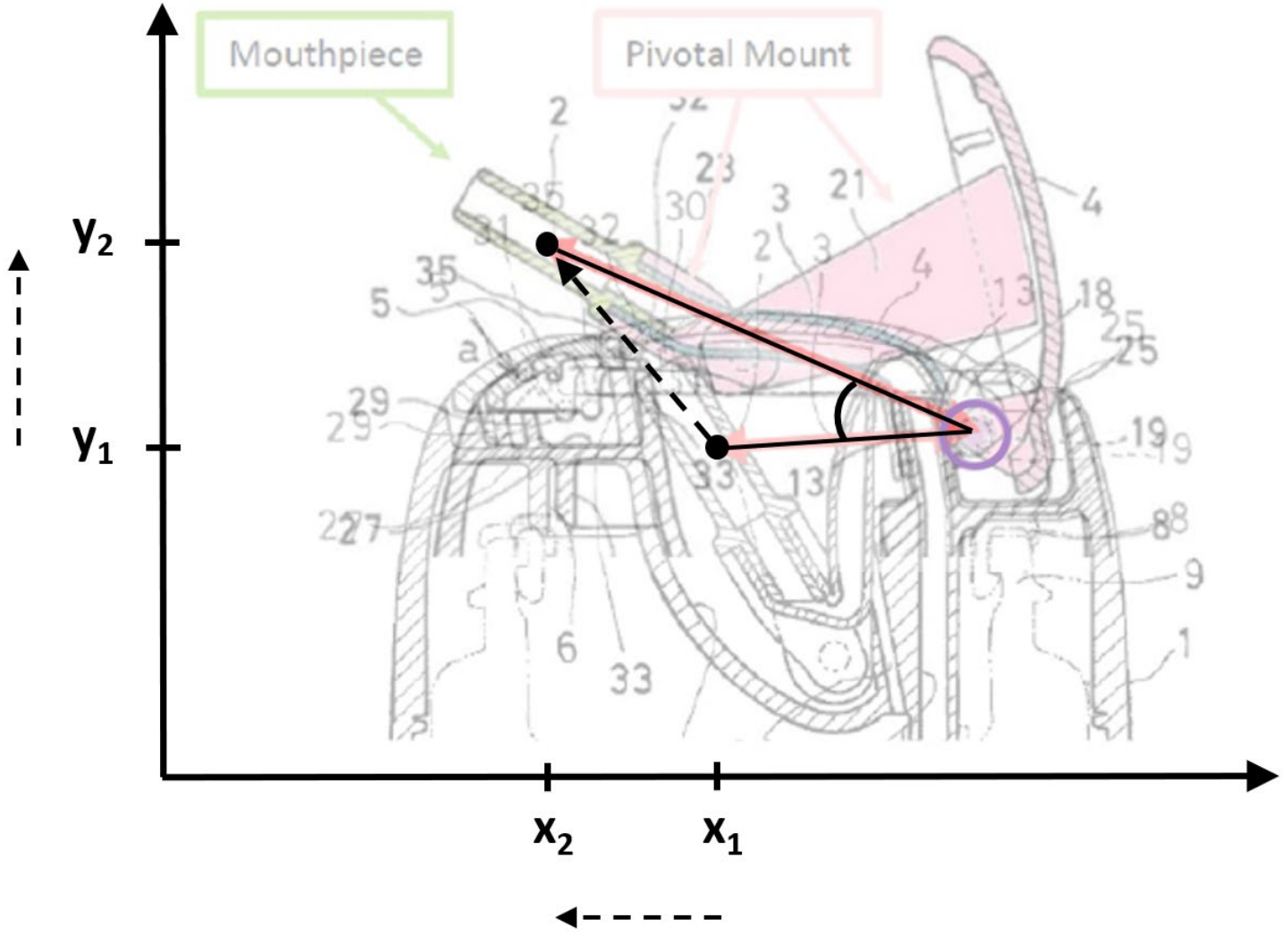
- No part of alleged **"mouthpiece"** ever maintains a constant distance/radius from alleged "axis" defined by **hinge shafts 19**

= <u>NO</u> rotation of "mouthpiece" about hinge shafts 19



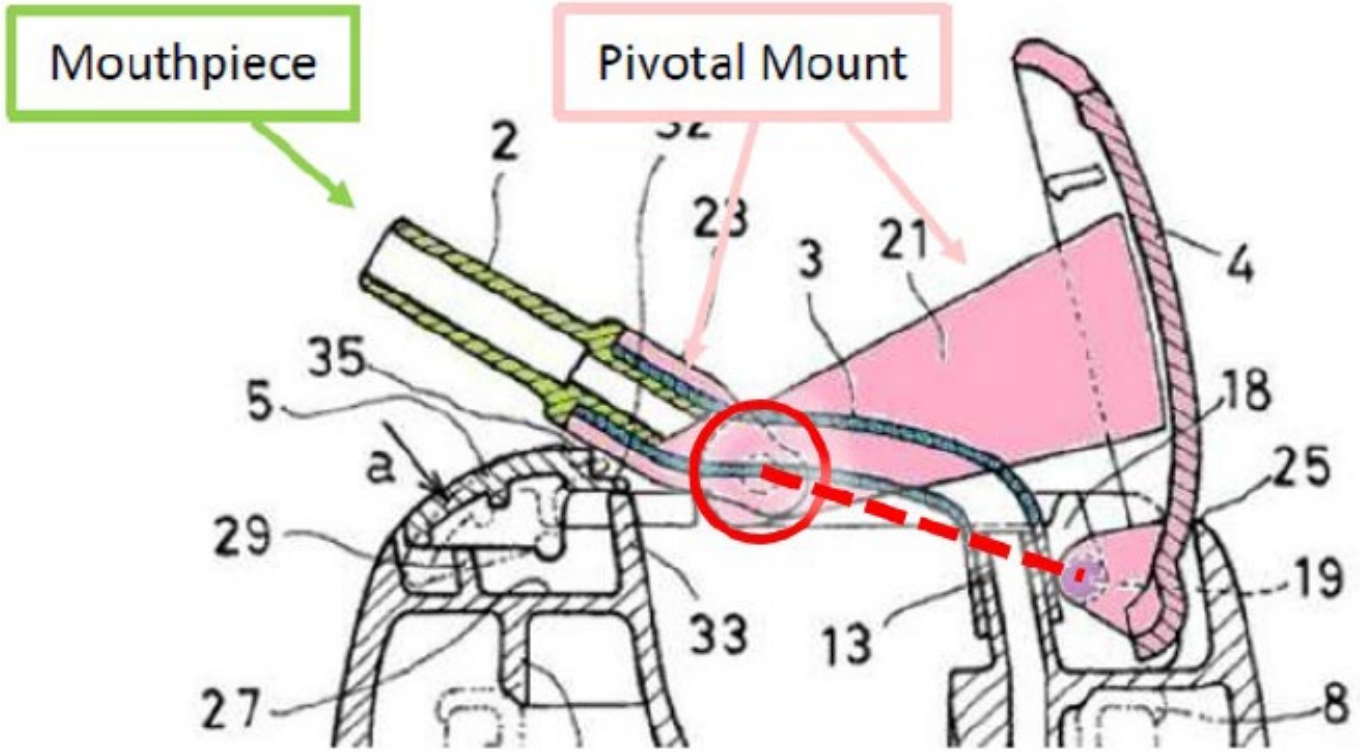


Nakajima fails to disclose a resilient mouthpiece that is "pivotal about an axis defined by the pair of lateral projections"

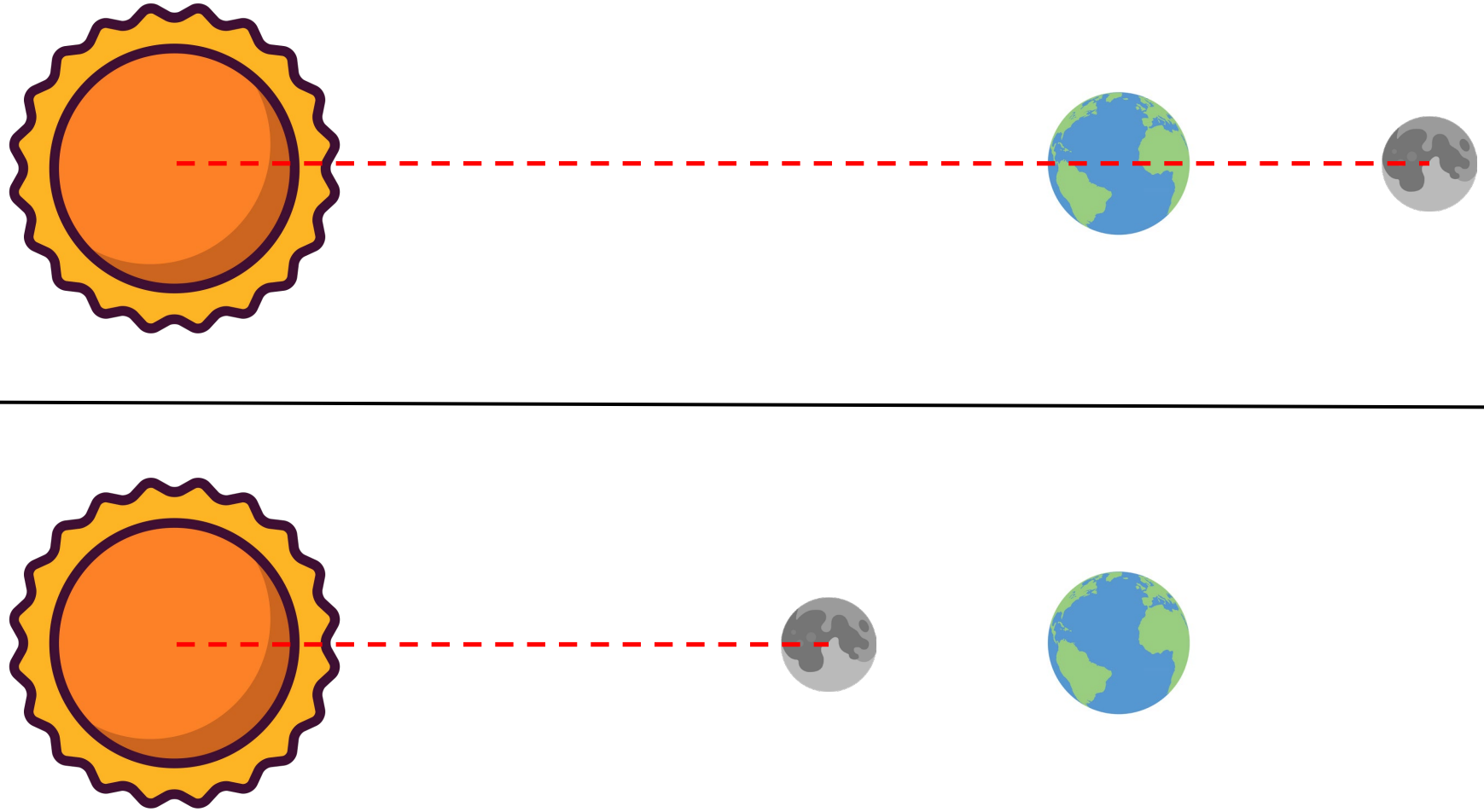


Nakajima fails to disclose a resilient mouthpiece that is "pivotal about an axis defined by the pair of lateral projections"

- Only **protrusions 24** of Nakajima's mouthpiece 2 maintain a constant distance/radius from and, therefore, rotate about **hinge shafts 19**.



Nakajima fails to disclose a resilient mouthpiece that is "pivotal about an axis defined by the pair of lateral projections"



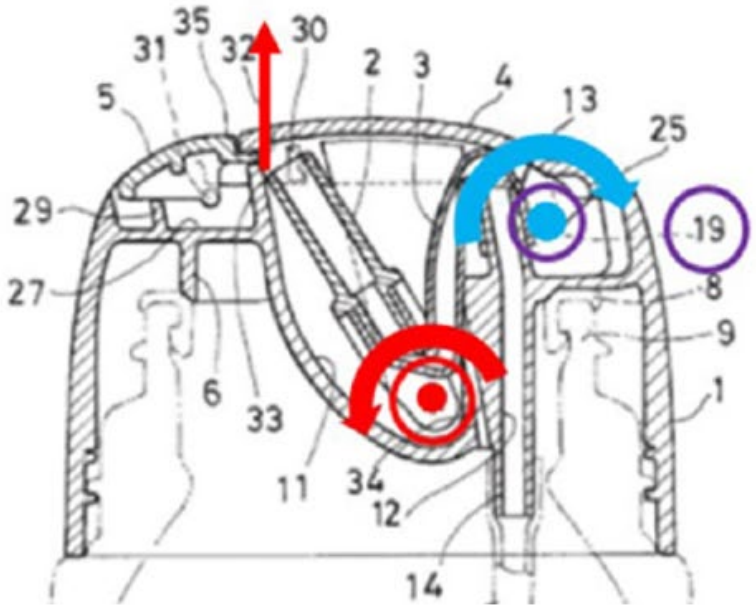
Issue 3: Nakajima fails to disclose a resilient mouthpiece that exhibits “pivotal movement with the pivotal mount”

Nakajima fails to disclose a resilient mouthpiece that exhibits "pivotal movement with the pivotal mount"

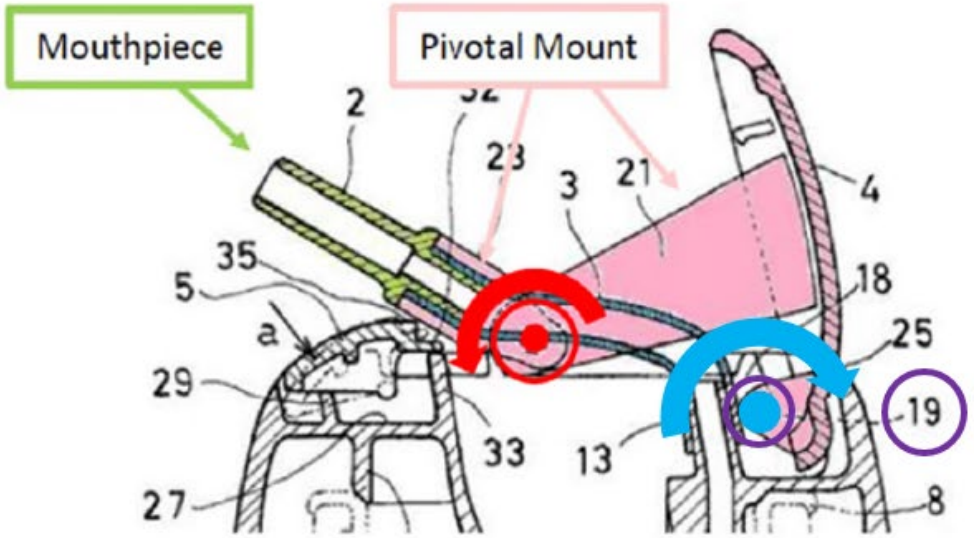
- The alleged "mouthpiece" rotates **counter-clockwise** about protrusions 24, in the **opposite direction** of the pivotal mount (lid), which rotates **clockwise** about **hinge shafts 19** (***i.e.*, about a different axis**).

closed

[Fig. 2]

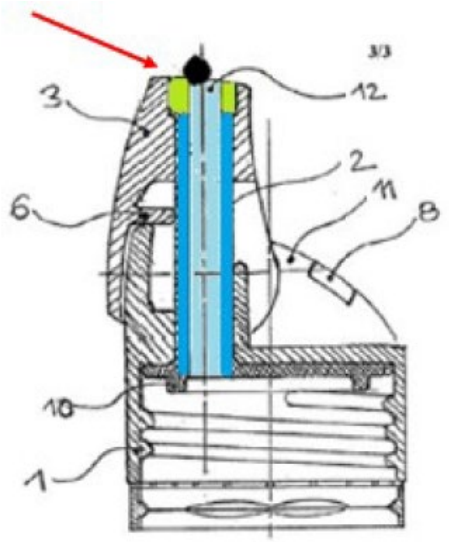


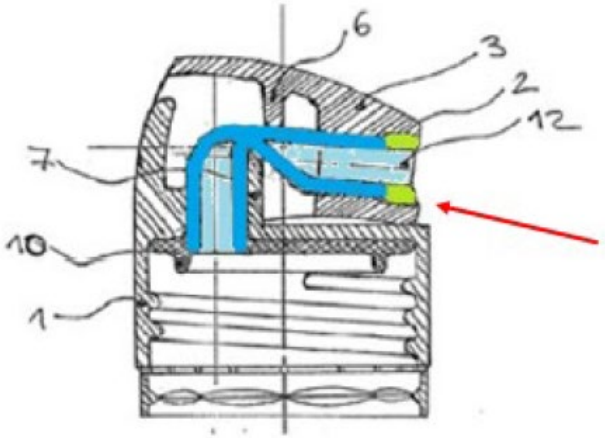
open

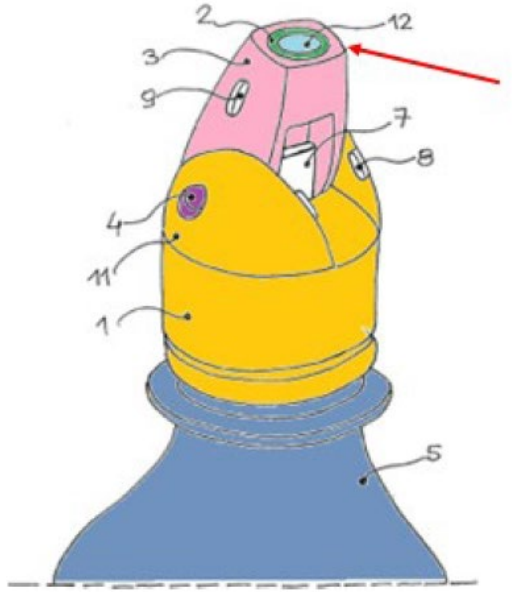


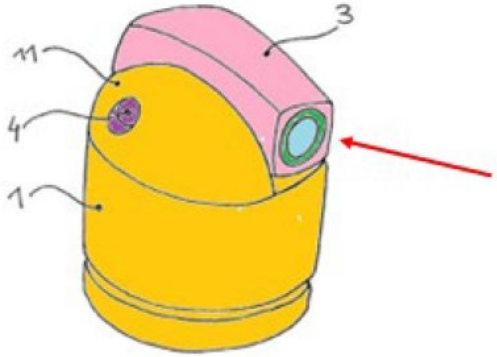
Issue 4: Ribarits fails to disclose a resilient mouthpiece that is "adapted to resiliently compress responsive to compressive forces applied to the resilient mouthpiece by a user's teeth"

Ribarits fails to disclose a resilient mouthpiece that is "adapted to resiliently compress responsive to compressive forces applied to the resilient mouthpiece by a user's teeth"









Ribarits fails to disclose a resilient mouthpiece that is "adapted to resiliently compress responsive to compressive forces applied to the resilient mouthpiece by a user's teeth"

- Institution decision (Paper 9) (January 28, 2025), at 16-17:

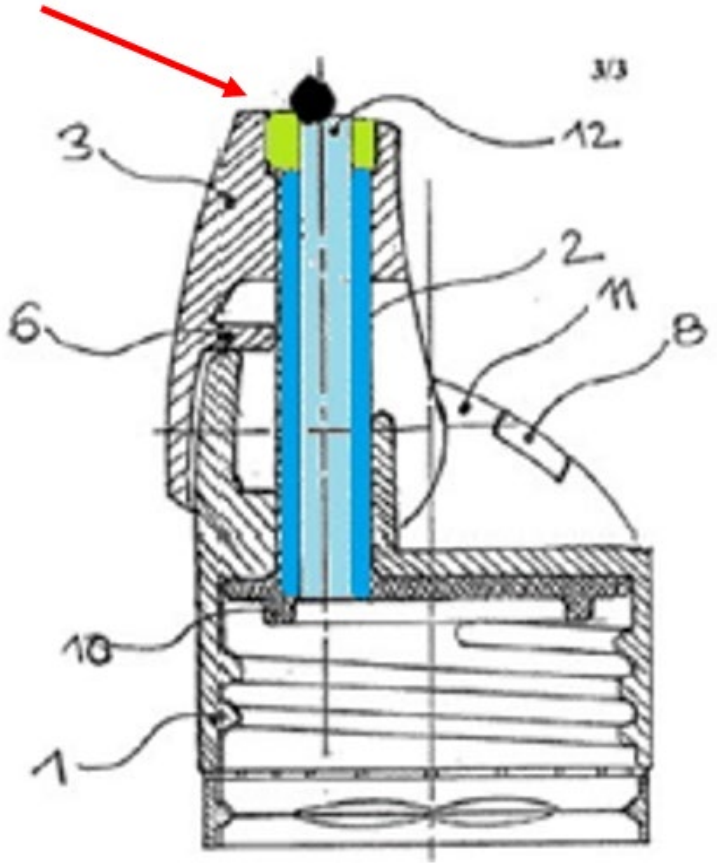
> Patent Owner argues, and we preliminarily agree, that Petitioner does not "show that the alleged *mouthpiece* in Ribartis is 'adapted to resiliently compress responsive to compressive forces applied to the resilient mouthpiece by a user's teeth,'" as required by each challenged claim.

> (colored pink), and the resilient mouthpiece (colored green). Petitioner states that Ribartis's mouthpiece is the end portion of a tubular element made of rubber or latex (Pet. 71–72), but Ribartis's mouthpiece is surrounded by the pivotal mount. Even accepting that a person of ordinary skill would have understood that rubber and latex are resilient materials, Petitioner does not adequately explain how Ribartis's mouthpiece "is adapted to resiliently compress responsive to compressive forces, such as the compressive forces applied by a user's teeth," considering that Ribartis's mouthpiece is surrounded by the pivotal mount. At this stage, we decline to

Ribarits fails to disclose a resilient mouthpiece that is "adapted to resiliently compress responsive to compressive forces applied to the resilient mouthpiece by a user's teeth"

Petitioner's Reply:

POR, 71–72 (citing Pet., 65–66). However, as shown, the green-highlighted portion of tubular element 2 is not "surrounded" on the side from which the user drinks. This matters because, during use, a user would position teeth against that exposed portion of tubular element 2 (e.g., the area marked by the black circle in the above left figure), which is not enclosed by drinking spout 3. *See also* Ex.2016, ¶119



Claim1:

"adapted to resiliently **compress** responsive to **compressive forces** applied to the resilient mouthpiece by a user's **teeth**"

Issue 5: Ribarits fails to disclose a resilient mouthpiece that is “removably coupled to a pivotal mount”

Ribarits fails to disclose a resilient mouthpiece that is "removably coupled to a pivotal mount"

'255 Patent Specification:

cap assembly. As used herein, "removably," "removably coupled," and "removably attached" refer to structures that are designed to be repeatedly connected and disconnected without destruction of the corresponding structures. Simi-

Ribarits:

1. Drinking device, consisting of a closing cap (1), a sealed tubular element (2) inserted therein, and a drinking spout (3) which is fixed in the lateral parts (11) by two axial pins (4), wherein the sealed tubular element (2) is inserted into the drinking spout (3), characterized in that when the closing cap (1) is screwed onto the bottle (5), the required tightness is obtained by means of the sealing rings (10), and in that the knobs (8) applied to the lateral parts (11) engage in the recesses (9) on the drinking spout (3).

Fig. 2

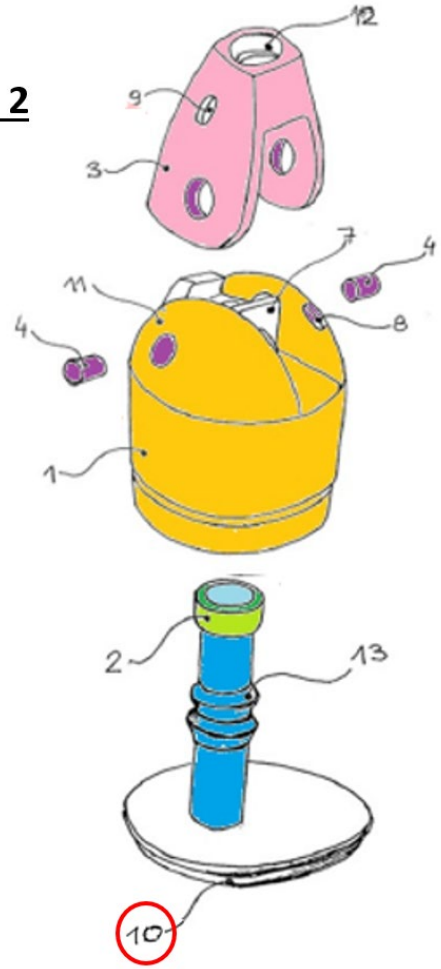
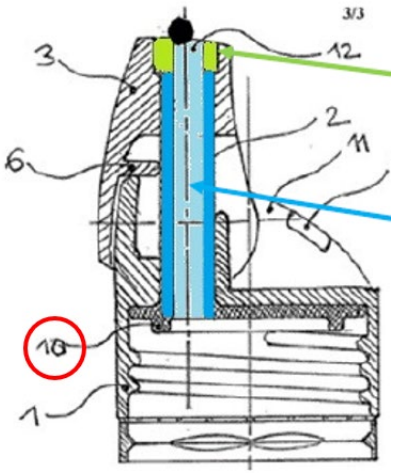
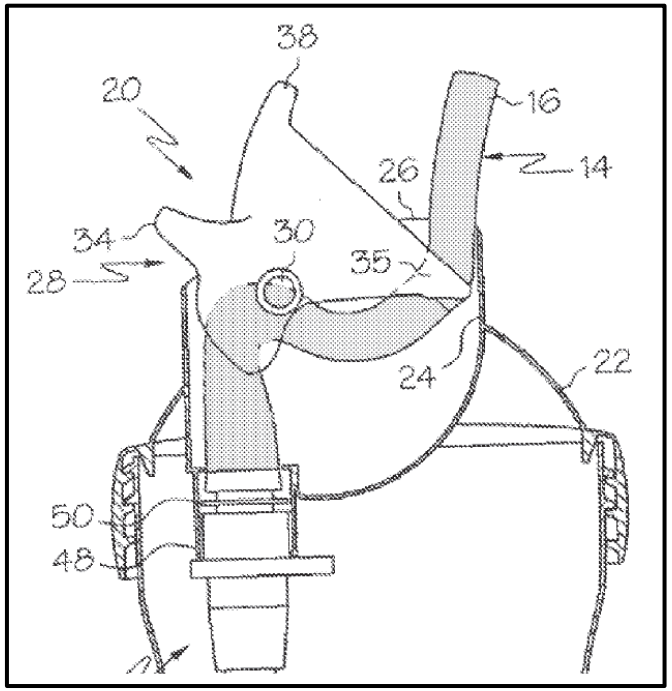


Fig. 3



Ribarits fails to disclose a resilient mouthpiece that is "coupled to a pivotal mount"

Reexam History:



Additionally, as shown above, the straw 14 in McDonough passes through the straw positioning mechanism 20, but it is not coupled or removably coupled to the straw positioning mechanism 20. Furthermore, the *end* of the straw 16 (mapped to the resilient mouthpiece) is also not coupled or removably coupled to the straw positioning mechanism 20.

Trove Brands, LLC,
Petitioner,
v.
CamelBak Products, LLC,
Patent Owner

IPR2024-01137 (Patent 10,676,255)

Patent Owner CamelBak Products, LLC's Demonstratives

Oral Argument – November 14, 2025