

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

NANOBEBE US INC.,
Petitioner,

v.

MAYBORN (UK) LIMITED,
Patent Owner.

IPR2023-00467
Patent 10,952,930 B2

Before ULRIKE W. JENKS, MICHAEL L. WOODS, and
CYNTHIA M. HARDMAN, *Administrative Patent Judges*.

WOODS, *Administrative Patent Judge*.

DECISION
Granting Institution of *Inter Partes* Review
35 U.S.C. § 314

I. INTRODUCTION

Nanobebe US Inc. (“Petitioner” or “Nanobebe”) filed a Petition (Paper 2, “Pet.”) for *inter partes* review of claims 14, 16, 17, and 19 (the “Challenged Claims”) of U.S. Patent No. 10,952,930 B2 (Ex. 1001, “the ’930 patent”). Pet. 1. Mayborn (UK) Limited (“Patent Owner”) filed a Preliminary Response (Paper 6, “Prelim. Resp.”).

We also *sua sponte* authorized the parties to submit additional briefing to address an argument raised by Patent Owner. Paper 7. Petitioner filed a Reply (Paper 8, “Reply”) and Patent Owner filed a Sur-reply (“Paper 10, “Sur-reply”).

Under 35 U.S.C. § 314 and 37 C.F.R. § 42.4(a), we have authority to institute an *inter partes* review if “the information presented in the petition . . . and any response . . . shows that there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition.” 35 U.S.C. § 314(a). After considering the Petition, the Preliminary Response, the Reply, the Sur-reply, and the evidence of record, we determine the information presented shows a reasonable likelihood that Petitioner would prevail in establishing the unpatentability of at least one of the Challenged Claims of the ’930 patent. Accordingly, we institute an *inter partes* review of claims 14, 16, 17, and 19 of the ’930 patent on the grounds asserted in the Petition.

II. BACKGROUND

A. Real Parties-in-Interest

Petitioner identifies Nanobebe US Inc. and Nutrits Ltd. as the real parties-in-interest. Pet. 1. Patent Owner identifies Mayborn (UK) Limited,

Mayborn USA, Inc., and Mayborn Group Limited as real parties-in-interest.
Paper 4, 2.

B. Related Matters

The parties identify the following court proceedings relating to the '930 patent: *Nanobebe US Inc. v. Mayborn (UK) Limited et al.*, Case No. 1:21-cv-08444 (S.D.N.Y.) (the "Related Litigation"); and *Mayborn (UK) Limited, et al. v. Comotomo Inc., et al.*, Case No. 1:22-cv-00694 (S.D.N.Y.). *See* Pet. 2; *see also* Paper 4, 2.

The parties also identify the following *inter partes* reviews: IPR2022-01325 (challenging the '930 patent) and IPR2022-01326 (challenging U.S. Patent No. 11,207,244 B2 ("the '244 patent")). Pet. 1–2; Paper 4, 2. We also identify *inter partes* review IPR2023-00465, which challenges the '244 patent.

C. Overview of the '930 Patent

The '930 patent is titled "Baby Bottle with Flexible Nipple Regions." Ex. 1001, code (54). The '930 patent purports to describe "a drinking vessel with a nipple, in particular a baby bottle having a nipple of increased flexibility and functionality." *Id.* at 1:21–23. The '930 patent discusses improving air ingress into the bottle during baby feeding to reduce vacuum formation within the bottle, thereby reducing the likelihood of baby colic. *See id.* at 1:47–51. To illustrate an embodiment of the described baby bottle, we reproduce Figure 4 of the '930 patent, below:

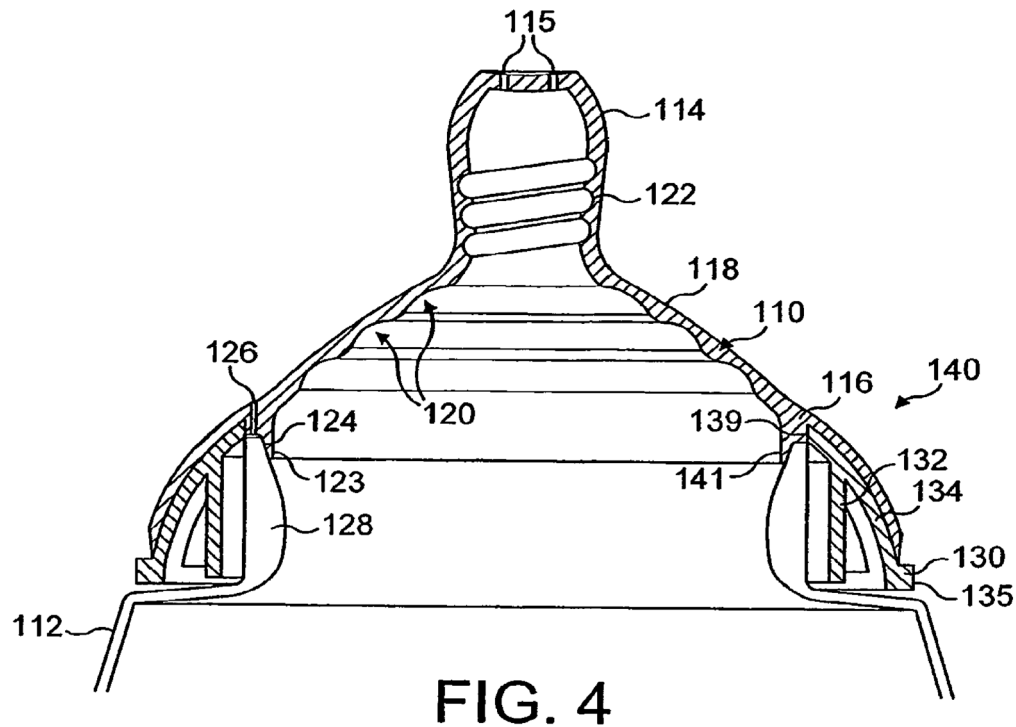


Figure 4 “is a cross-sectional side view of a teat and vessel according to” an aspect of the ’930 patent. *Id.* at 2:37–38. In particular, Figure 4 depicts teat assembly 140 mounted on infant drinking vessel 112. *Id.* at 3:57–59. Teat assembly 140 includes teat 110 with areola region 118 and teat portion 114 forming a nipple having drink apertures 115 at its upper end. *Id.* at 3:59–62. Base portion 116 is mountable on drinking vessel 112. *Id.* at 3:61–62. Teat 110 is formed from an elastomer with walls of decreasing thickness from base portion 116 to teat 114, thereby “providing a more realistic flexing characteristic.” *Id.* at 4:13. Areola portion 118 further includes undulating grooves 120 forming, in cross-section, a wavy profile on the inner surface of areola portion 118 and extending circumferentially. *Id.* at 4:15–18. A tight-pitch helical groove 112 is formed around the inner cylindrical vertical surface of teat portion 114 “to form a flow passage even when the teat portion is collapsed.” *Id.* at 4:36–38. The figure further depicts vent passage 126. *Id.* at 6:14. When an infant drinks from the vessel, the

resulting pressure differential pulls lip valve 123 away from the inner face of neck 128, and vent passage 126 permits venting to reduce the risk that the infant encounters colic, or distress. *See id.* at 6:10–15. The '930 patent explains, “Because of the provision of the lip valve[,] there is no requirement for providing slits and a natural, robust and resilient valve assembly is provided.” *Id.* at 6:15–18.

D. Challenged Claims

Petitioner challenges 14, 16, 17, and 19 of the '930 patent. Pet. 1. Claim 14 is independent with claims 16, 17, and 19 depending directly from the independent claim. Ex. 1001, 8:29–9:4. We reproduce the Challenged Claims, below:

14. A feeding bottle comprising:
 - a) a vessel having an open top;
 - b) a collar having an upper rim and a lower rim comprising:
 - an internally threaded inner surface;
 - an outermost surface having a sloping portion that extends outwardly and downwardly relative to said upper rim, and
 - wherein said sloping portion comprises a majority of the collar's outermost surface,
 - c) a nipple having:
 - a teat portion having a variable wall thickness including an aperture,
 - a base portion having a domed configuration,
 - an areola portion between the teat portion and the base portion,

a flange depending from the base portion,

a one-way air inlet valve (i) extending through said base, (ii) projecting downwardly from the base portion, (iii) having a length that does not extend past the collar's lower rim, and (iv) disposed at least partially inwardly from the collar,

the flange being arranged to seal with the vessel;

d) the nipple being secured to the collar by sealingly capturing an inner edge of the collar between the base portion and the flange; and,

e) the nipple being secured to the vessel by capturing the flange of the nipple between the collar and the open top of the vessel.

...

16. The feeding bottle of claim 14 wherein the open top of the vessel comprises an outwardly threaded vessel neck.

17. The feeding bottle of claim 14 wherein the air inlet valve comprises a slit opening.

...

19. The feeding bottle of claim 14 wherein the vessel comprises an upper body having a first internal diameter and a portion below the upper body having a second, different internal diameter.

Id. at 8:29–9:4.

E. Asserted Grounds of Unpatentability

Petitioner asserts that the Challenged Claims are unpatentable based on the following grounds (Pet. 5–6):

Claims Challenged	35 U.S.C. § ¹	References
14, 16, 17, 19	103	Meyers ² , Sepehr ³
14, 16, 17, 19	103	Meyers, Sepehr, Ishimaru ⁴
14, 16, 17, 19	103	Kurkjian ⁵ , Sepehr, Ishimaru

Petitioner also relies on the Declaration of Mr. Brian H. Silver (Ex. 1005). *See, e.g.*, Pet. iv (referencing the declaration of Mr. Silver).

III. ANALYSIS

A. Discretionary Denial Based on General Plastic

As a preliminary matter, Patent Owner argues that the Board should deny institution because the Petition is an unfair serial attack on the '930 patent based on an earlier, now terminated, petition filed by Comotomo Inc. and Comotomo Corp. (collectively, “Comotomo”). *See* Prelim. Resp. 7 (citing *General Plastic Industrial Co., Ltd. v. Canon Kabushiki Kaisha*, IPR2016-01357, Paper 19 at 18 (PTAB Sept. 6, 2017) (precedential) (“*General Plastic*”). As mentioned above, we *sua sponte* authorized the

¹ The pre-AIA version of 35 U.S.C. applies to this proceeding. *See* Pet. 3 (confirming the same); *see also* Ex. 1001, code (63).

² U.S. Patent No. 6,032,810, issued Mar. 7, 2000 (Ex. 1006, “Meyers”).

³ U.K. Patent App. No. GB 2,250,017A, issued May 27, 1992 (Ex. 1007, “Sepehr”).

⁴ JP 3,209,271, published Sept. 17, 2001 (Ex. 1008, “Ishimaru”). This exhibit includes an English-language translation.

⁵ U.S. Patent No. 2,093,730, issued Sept. 21, 1937 (Ex. 1009, “Kurkjian”).

parties to file additional briefing to address this issue. *See Reply; see also* Sur-reply.

1. Governing Law

Institution of *inter partes* review is discretionary. *See* 35 U.S.C. § 314(a).

Under *General Plastic*, we consider the following seven factors (“Factors 1–7”) in deciding whether to exercise our discretion to deny institution based on a second follow-on petition:

1. Whether the same petitioner previously filed a petition directed to the same claims of the same patent.
2. Whether at the time of filing of the first petition the petitioner knew of the prior art asserted in the second petition or should have known of it.
3. Whether at the time of filing of the second petition the petitioner already received the patent owner’s preliminary response to the first petition or received the Board’s decision on whether to institute review in the first petition.
4. The length of time that elapsed between the time the petitioner learned of the prior art asserted in the second petition and the filing of the second petition.
5. Whether the petitioner provides adequate explanation for the time elapsed between the filings of multiple petitions directed to the same claims of the same patent.
6. The finite resources of the Board.
7. The requirement under 35 U.S.C. § 316(a)(11) to issue a final determination not later than 1 year after the date on which the Director notices institution of review.

General Plastic at 15–16.

In *Valve Corporation*, the Board applied *General Plastic* in a situation in which a subsequent petition was filed by a different petitioner. *Valve Corp. v. Elec. Scripting Prods., Inc.*, IPR2019-00062, Paper 11 (PTAB Apr. 2, 2019) (precedential) (hereinafter “*Valve Corporation*” or “*Valve Corp.*”).

2. Analysis

Patent Owner cites to an earlier petition filed by a *different party*, Comotomo, which challenged claims 1–20 of the ’930 patent. *See* Prelim. Resp. 7, 10. Patent Owner characterizes Nanobebe, the Petitioner here, as “similarly-situated” as Comotomo (*id.* at 12) because, apparently, “Comotomo and Petitioner lodged overlapping challenges and share common circumstances on infringement” in related district court litigation (*id.* at 14).

Petitioner submits that Petitioner and Comotomo are not “similarly situated.” Reply 1. Petitioner argues that there is no “significant relationship” between Comotomo and Petitioner. *See id.* at 1–3; *see also id.* at 4 (“Here, there is no such relationship . . .”). Petitioner explains that “Petitioner and Comotomo are not co-defendants in the same case” (*id.* at 1) and “Petitioner and Comotomo were each accused of infringement based on their own unique products, which necessitates the pursuit of different invalidity theories” (*id.* at 2).

In *Valve Corporation*, the Board considered the “significant relationship” between the two different parties filing the petitions. *Valve Corp.* 2, 10. The Board explained, “when different petitioners challenge the same patent, [the Board] consider[s] any relationship between those petitioners when weighing the *General Plastic* factors.” *Id.* at 2.

On this record, and absent a “significant relationship” between Petitioner and Comotomo, the *General Plastic* factors are of “little probative value.” *Cf. Samsung Elecs. Co. v. Scramoge Tech. Ltd.*, IPR2022-00284, Paper 12 at 12 (PTAB Jun. 22, 2022) (finding Factor 2 “of little probative value” where “there is no significant relationship” between petitioners).

Furthermore, “[a]ny ‘implicit’ relationship created merely by challenging the same claims of the same patent with similar allegations of unpatentability is not the sort of ‘significant relationship’ contemplated by *Valve [Corporation]*.” *See Ebates Performance Mktg., Inc. v. IBM*, IPR2022-00646, Paper 10 at 9 (PTAB Oct. 25, 2022).

In *Valve Corporation*, the two petitioners had a licensing relationship and were accused of infringing based on the same product. *Valve Corp.* 9–10.

Here, the record does not support a finding that Comotomo and Nanobebe have any relationship, let alone a “significant” one. We credit the testimony of Petitioner’s co-founder and executive chairman, Mr. Lanternari, that Petitioner “was not involved in the preparation and/or filing of the Comotomo IPR petitions, nor was Comotomo involved in the preparation and/or filing of [Petitioner’s] petitions.” Ex. 1023 ¶¶ 1, 14.

Additionally, Patent Owner accused Petitioner and Comotomo of patent infringement based on *different products*. *See id.* ¶ 14. This difference further distinguishes the facts from *Valve Corporation*. *See Valve Corp.* 9–10.

In any event, the majority of the *General Plastic* Factors nevertheless weigh against exercising our discretion to deny institution.

Because Petitioner and Comotomo are different parties without a significant relationship, Factor 1 weighs against exercising our discretion to deny institution. *See Valve Corp.* 2, 9–10 (addressing Factor 1).

We further find Factors 2–4 inapposite, given that Petitioner and Comotomo are unrelated, challenge different claims, and raise different prior art and arguments. *Cf. Samsung*, IPR2022-00284, Paper 12 at 12. Patent Owner does not point us to any persuasive evidence of record that Petitioner “use[d] Comotomo’s petition as a ‘test case’,” or that Petitioner used the prior petition to gain “tactical advantages.” *See* Sur-reply 14–15, 16.

As to Factor 5, we find persuasive Mr. Lanternari’s testimony that Petitioner “has been (and remains) resource constrained” and “it was financially challenging to file petitions for *inter partes* review prior to January 2023 while simultaneously continuing the district court litigation.” Ex. 1023 ¶ 13.

As to Factors 6 and 7, we do not find this proceeding to strain the Board’s resources and we currently do not anticipate any difficulty in issuing a final written decision before the statutory due date.

3. *General Plastic Summary*

Because there is no “significant relationship” between Comotomo and Nanobebe, and because the majority of the *General Plastic* Factors weigh against denying institution, we decline to exercise our discretion to deny institution under *General Plastic*.

B. Level of Ordinary Skill in the Art

Petitioner contends that a person of ordinary skill in the art at the time of the invention (“POSITA” or “POSA”) “would have a B.S. in mechanical

engineering, industrial design, or similar technical field, and with 2 or more years of practical experience related to the design of infant feeding products or comparable industry.” Pet. 15–16 (citing Ex. 1005 ¶ 47). Petitioner further submits that “[a]dditional education could compensate for less practical experience and vice versa.” *Id.* at 16 (citing Ex. 1005 ¶ 47).

Patent Owner does not dispute Petitioner’s definition of a POSITA. *See generally* Prelim. Resp.

For purposes of this Decision, we adopt Petitioner’s assessment of the level of ordinary skill in the art as it appears consistent with the ’930 patent and the asserted prior art. *See Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir. 2001).

C. Claim Construction

In this *inter partes* review, we apply the same claim construction standard that would be used in a civil action under 35 U.S.C. § 282(b). 37 C.F.R. § 42.100(b). In applying this standard, we generally give claim terms their ordinary and customary meaning as would be understood by a person of ordinary skill in the art at the time of the invention and in the context of the entire patent disclosure. *See id.*; *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312–14 (Fed. Cir. 2005) (en banc).

Petitioner proposes construction for several terms, including a “domed configuration,” “teat portion,” “a teat portion having a variable wall thickness,” a “base portion,” and “an areola portion.” *See* Pet. 16–18. We further note that the District Court in the Related Litigation issued a *Markman* Order (Ex. 2008, hereinafter, “*Markman* Order”) in which it construed these terms.

In rendering our Decision, we construe the terms raised by Petitioner.

1. “*domed configuration*”

“Petitioner construes this term to mean ‘having a rounded shape in profile.’” Pet. 17 (citing Ex. 1018, 17); *see also* Ex. 2008, 12 (“Nanobebe relies on dictionary definitions of ‘dome’ that refer to half of a sphere, or hemispheres, to support its construction of ‘having a rounded shape in profile.’” (citation omitted)).

Patent Owner acknowledges that the “parties presented competing constructions of the term ‘domed configuration’ to the District Court.” Prelim. Resp. 22. In the District Court, the Patent Owner proposed that “domed configuration” should be interpreted to mean “wide circular base with an arc-shaped cross-sectional profile.” Ex. 1018, 17; *see also* Ex. 2008, 12 (“Mayborn proposes a ‘wide circular base with an arc-shaped cross-sectional profile[,]’ relying on Figure 4 and the following specification language: ‘the base portion 116 being shaped like a breast and having a wide, domed configuration.’” (citation omitted)).

In the *Markman* Order, the District Court concluded that “domed configuration” shall mean “wide circular bottom with an arc-shaped cross-sectional profile.” *See* Ex. 2008, 15.

Our Rules provide that

In an *inter partes* review proceeding, a claim of a patent . . . shall be construed using the same claim construction standard that would be used to construe the claim in a civil action under 35 U.S.C. 282(b), including construing the claim in accordance with the ordinary and customary meaning of such claim as understood by one of ordinary skill in the art and the prosecution history pertaining to the patent. Any prior claim construction determination concerning a term of the claim in a civil action . . . that is timely made of record in the *inter partes* review proceeding *will be considered*.

37 C.F.R. § 42.100(b) (third emphasis added).

The *Markman* Order provided a thorough and reasoned explanation of the construction, citing evidence and argument submitted by both parties. *See* Ex. 2008, 12–15. For purposes of this Decision, we adopt the District Court’s construction, and conclude that “domed configuration” shall mean “wide circular bottom with an arc-shaped cross-sectional profile.” *Id.* at 15.

If either party disagrees with this construction, that party shall explain why the construction is in error in its next substantive brief.

2. “teat portion”

In the *Markman* Order, the District Court adopted the parties agreed-upon construction that “teat portion” shall mean “the entire part projecting generally perpendicular to the mouth of the vessel and disposed above the areola portion.” Ex. 2008, 5 (citing transcript from *Markman* hearing).

For purposes of this Decision, we adopt the District Court’s construction. 37 C.F.R. § 42.100(b). If either party disagrees with this construction, that party shall explain why the construction is in error in its next substantive brief.

3. “a teat portion having a variable wall thickness”

Petitioner construes this term to mean “a teat portion having a *helical groove*.” Pet. 17 (citing Ex. 1018, 19) (emphasis added). Patent Owner disagrees that the term requires a “helical groove,” instead proposing that the term should be construed by its plain meaning. *See* Ex. 1018, 19.

In the *Markman* Order, the District Court explains, and we agree, that Petitioner’s “proposed replacement of ‘variable wall thickness’ with ‘helical groove’ is inconsistent with several rules of claim construction.” Ex. 2008,

6. The District Court provided a detailed analysis of Petitioner’s proposed construction explaining why it was not supportable. *See id.* at 6–9. The District Court agreed with Patent Owner that the term “a teat portion having a variable wall thickness” should be construed according to its plain meaning. *Id.* at 9.

For purposes of this Decision, we adopt the District Court’s construction. 37 C.F.R. § 42.100(b). If either party disagrees with this construction, that party shall explain why the construction is in error in its next substantive brief.

4. “*base portion*”

Petitioner submits that “base portion” should mean “the lowest portion of the nipple, beginning where the nipple meets the top rim of the vessel, that is mountable to the vessel.” Pet. 17 (citing Ex. 1018, 16).

In the Related Litigation, Patent Owner construes this term to mean “part below the areola portion.” Ex. 1018, 17.

In the *Markman* Order, the District Court determines that the “parties’ competing constructions of ‘base portion’ vary significantly.” Ex. 2008, 10. The District Court provides another detailed analysis of the term, before concluding that the term “base portion” means “the lowest portion of the nipple below the areola portion, excluding the flange.” *Id.* at 12.

For purposes of this Decision, we adopt the District Court’s construction. 37 C.F.R. § 42.100(b). If either party disagrees with this construction, that party shall explain why the construction is in error in its next substantive brief.

5. “*an areola portion*”

Petitioner submits that “an areola portion” means “a surface area, that includes a different characteristic and functionality than the rest of the nipple, surrounding and extending beyond the bottom of the teat portion.” Pet. 17 (citing Ex. 1018, 13).

In the Related Litigation, Patent Owner construes “an areola portion” to mean “part extending beyond the bottom of the teat portion.” Ex. 2008, 16; *see also* Pet. 17 (explaining the same).

In its *Markman* Order, the District Court provides a detailed explanation, addressing arguments and evidence submitted by both parties, and interprets the term “an areola portion” to mean “the part extending beyond the bottom of the teat portion, bounded by the base.” Ex. 2008, 16–19.

For purposes of this Decision, we adopt the District Court’s construction. 37 C.F.R. § 42.100(b). If either party disagrees with this construction, that party shall explain why the construction is in error in its next substantive brief.

6. *Other claim terms*

For purposes of this Decision, we need not and do not formally construe any other claim term. *See Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co.*, 868 F.3d 1013, 1017 (Fed. Cir. 2017) (stating that “we need only construe terms ‘that are in controversy, and only to the extent necessary to resolve the controversy’” (quoting *Vivid Techs., Inc. v. Am. Sci. & Eng’g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999))).

D. Principles of Law

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

35 U.S.C. § 103(a). The question of obviousness is resolved on the basis of underlying factual determinations, including (1) the scope and content of the prior art; (2) any differences between the claimed subject matter and the prior art; (3) the level of ordinary skill in the art; and (4) when in evidence, objective indicia of non-obviousness. *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966).

E. Ground I: Meyers and Sepehr

Petitioner submits that claims 14, 16, 17, and 19 are unpatentable as obvious over Meyers in view of Sepehr. Pet. 27.

1. Meyers (Ex. 1006)

Meyers is a U.S. Patent titled “One-Piece Nipple/Collar for Nursers and the Like.” Ex. 1006, code (54). Meyers discloses a “one-piece nipple/collar includ[ing] a rigid collar having an exterior surface and an interior surface with a fastener thereon for detachably connecting the same with a nurser bottle or the like.” *Id.* at code (57). To illustrate an embodiment of Meyer’s nipple/collar, we reproduce Figure 5, below:

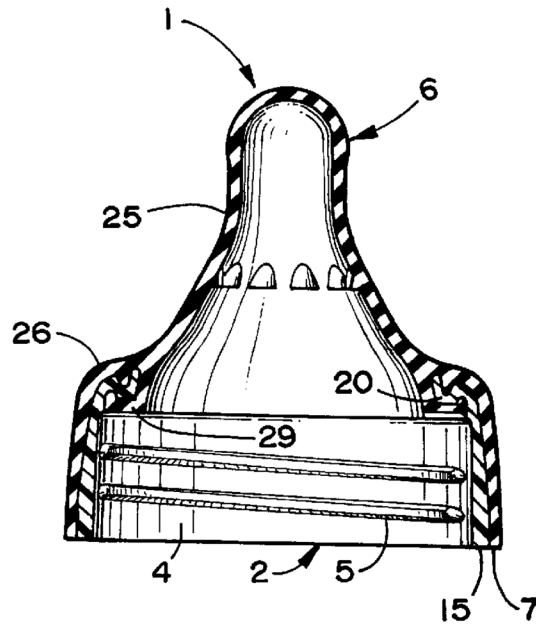


Fig. 5

Figure 5 is a “longitudinal cross-sectional view of [Meyers’s] nipple/collar.” *Id.* at 2:23–24. In particular, Figure 5 depicts one-piece nipple collar 1 including flexible nipple 6 and collar 2, which collar 2 has an exterior surface and interior surface 4 with fastener 5 thereon for connecting with an associated bottle. *Id.* at 3:1–7. Nipple 6 is molded over the exterior surface of collar 2 to form an integral, one-piece unit. *Id.* at 3:7–9.

2. *Sepehr* (Ex. 1007)

Sepehr is a UK patent application titled “Child Feeding Bottle” and discloses a feeding bottle with a “one-way air inlet valve.” Ex. 1007, codes (54), (57). We reproduce Figure 1 of *Sepehr*, below:

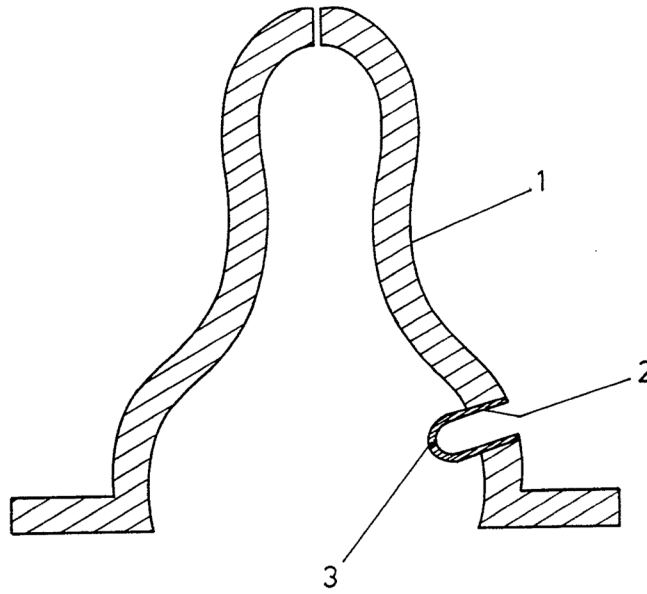


FIG. 1

Figure 1 “is a cross section of the baby feeding teat and the valve.” *Id.* at 2:32–33. In particular, “Figure 1 represents a teat 1 for a child feeding bottle, together with an automatic valve 2 produced as an integral part of teat 1 which has a slit 3 across the valve 2 in order to allow the air to enter the bottle when a vacuum is formed.” *Id.* at 3:8–12.

We further reproduce Figure 3, below:

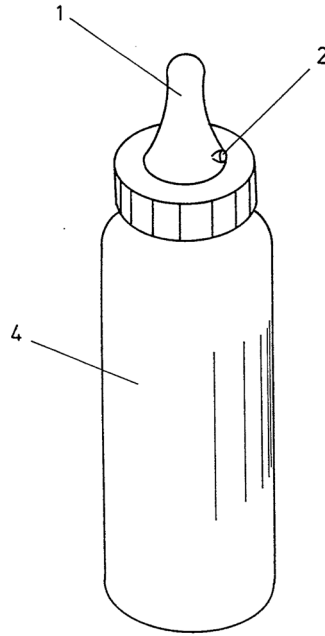


FIG. 3

Figure 3 “is a perspective view of a bottle and the valve shown in Figure 1, produced as an integral part of the teat.” *Id.* at 3:2–4.

3. Independent Claim 14

We address each of the limitations of claim 14 as partitioned by Petitioner. *See* Pet. 34–57.

a. [PRE] “A feeding bottle comprising”

Petitioner submits that Meyers teaches the limitation recited in the preamble, citing Meyers’s disclosure of a “[o]ne piece nipple/collar 1 includ[ing] a collar 2 having . . . a fastener 5 thereon for detachably connecting the same with an associated nurser bottle 10.” Pet. 34 (quoting Ex. 1006, 3:1–7 (emphasis omitted and typographical error corrected)).

At this stage of the proceeding, and without determining whether the preamble is limiting, Petitioner has shown a reasonable likelihood that Meyers teaches a “feeding bottle.”

b. [A] “a vessel having an open top”

Petitioner submits that Meyers teaches the limitation, quoting Meyers’s disclosure of “conventional bottles, reusable and/or disposable nursers, and other similar drinking vessels.” Pet. 35 (quoting Ex. 1006, 3:1–22; citing *also* Ex. 1006, Fig. 14). Petitioner submits that a skilled artisan would have understood that “disposable nursers” and “drinking vessels” have an open top. *Id.* (citing Ex. 1005 ¶ 172).

At this stage of the proceeding, Petitioner has shown a reasonable likelihood that Meyers teaches a “vessel having an open top.”

c. [B] “a collar having an upper rim and a lower rim comprising: an internally threaded inner surface”

Petitioner submits that Meyers teaches this limitation, providing an annotated version of Meyers’s Figure 2 (Pet. 35), a copy of which we reproduce, below:

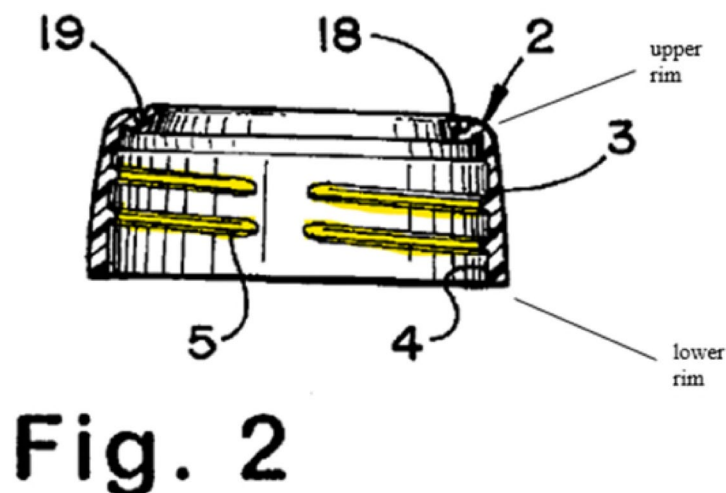


Figure 2 “is a longitudinal cross-sectional view of a collar portion of the nipple/collar.” Ex. 1006, 2:16–17. As shown by Petitioner’s annotations (Pet. 35), annotated Figure 2 shows “threads” in yellow, which are “conventional threads disposed on the interior surface 4 of collar 2.” Pet. 35 (quoting Ex. 1006, 3:24–31).

At this stage of the proceeding, Petitioner has shown a reasonable likelihood that Meyers teaches a “collar having an upper rim and a lower rim comprising: an internally threaded inner surface.”

d. [C] “an outermost surface having a sloping portion that extends outwardly and downwardly relative to said upper rim, and wherein said sloping portion comprises a majority of the collar’s outermost surface”

Petitioner submits that Meyers teaches these limitations, submitting an annotated version of Meyers’s Figure 9. See Pet. 36. We reproduce that annotated figure, below:

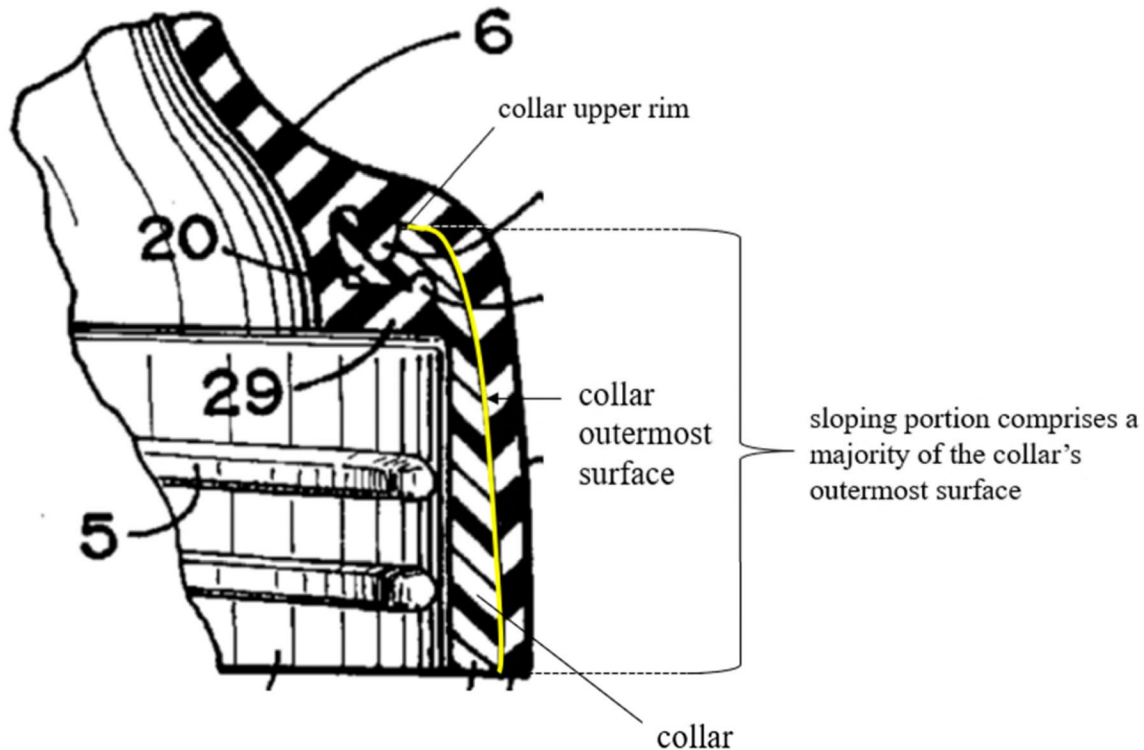


FIG. 9 of Meyers

Figure 9 “is a fragmentary, enlarged, longitudinal cross-sectional view of the nipple/collar.” Ex. 1006, 2:33–34. As shown by Petitioner’s annotations, annotated Figure 9 depicts an “outermost surface,” colored in yellow, with the surface having a “sloping portion that extends outwardly and downwardly relative to the upper rim and comprises a majority of the collar’s outermost surface.” Pet. 36 (citing Ex. 1006, Figs. 6, 9, 14; Ex. 1005 ¶¶ 178–180).

At this stage of the proceeding, Petitioner has shown a reasonable likelihood that Meyers teaches “an outermost surface having a sloping portion that extends outwardly and downwardly relative to said upper rim, and wherein said sloping portion comprises a majority of the collar’s outermost surface.”

e. [D] “a nipple having: a teat portion having a variable wall thickness including an aperture”

As construed above, the term “teat portion” shall mean “the entire part projecting generally perpendicular to the mouth of the vessel and disposed above the areola portion.” *Supra* § III.C.2.

As also construed above, the term “a teat portion having a variable wall thickness” shall be construed by its plain meaning. *Supra* § III.C.3.

Petitioner submits that Meyers teaches this limitation, addressing alternative constructions provided by the parties. *See* Pet. 37–40. Consistent with our construction and Patent Owner’s construction, Petitioner submits an annotated version of Meyers’s Figure 5. *Id.* at 38; *see also supra* §§ III.C.2, 3. We reproduce Petitioner’s annotated version of Meyer’s Figure 5, below:

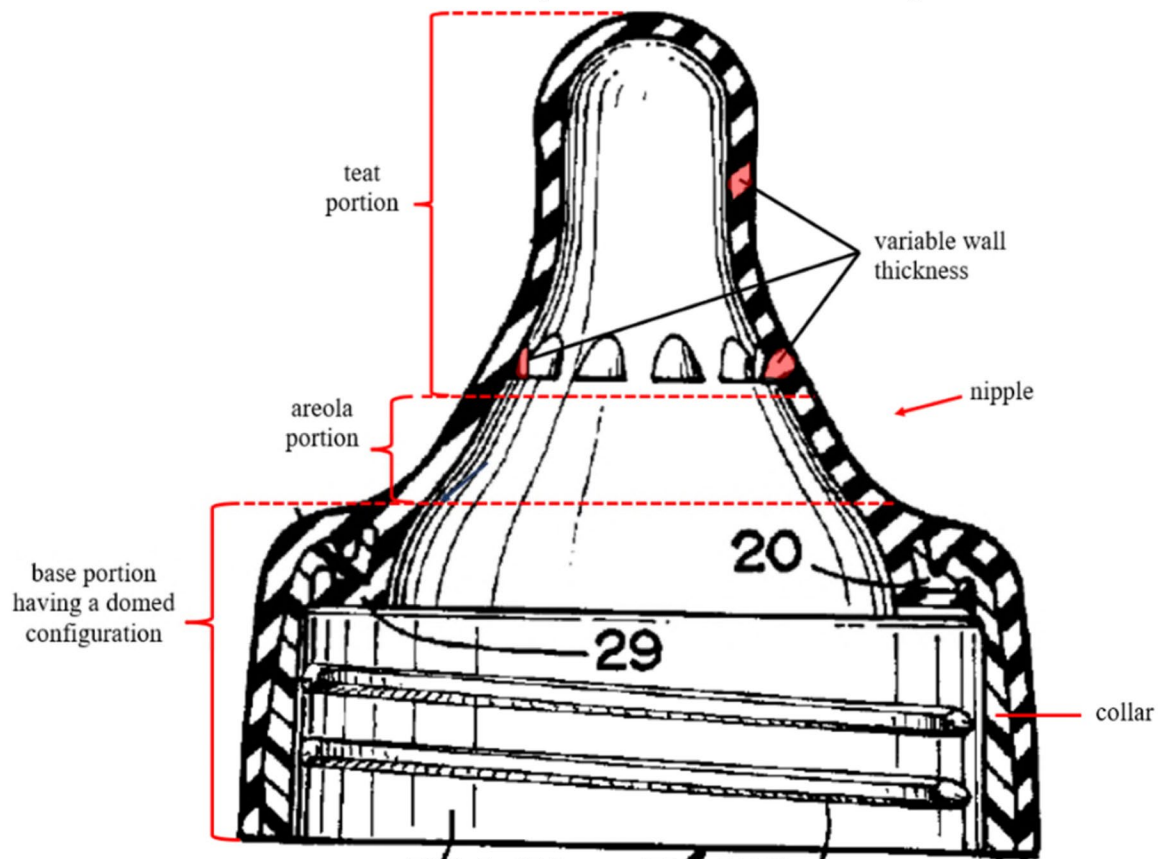


**FIG. 5 of Meyers (FIG. 5-PO)
Patent Owner's Construction**

Figure 5 “is a longitudinal cross-sectional view of the nipple/collar.”

Ex. 1006, 2:22–23. As shown by Petitioner’s annotations, Figure 5 depicts Meyers’s “teat portion” and “having a “variable wall thickness,” which is shown in red. *See* Pet. 38. Petitioner explains that “the teat portion has different levels of wall thickness when comparing portions of the teat wall to other portions of the teat wall within the teat portion.” *Id.*

As to the recited “aperture,” Petitioner cites to Meyers’s disclosure that the nipple has “at least one orifice” in the upper portion of the nipple. Pet. 39 (citing Ex. 1006, 5:8–12, 5:27, Fig. 1 (element 50), Claim 9) (emphasis omitted).

At this stage of the proceeding, and based on the definitions of “teat portion” and “teat portion having a variable wall thickness” adopted in this

Decision (*see supra* §§ III.C.2, 3), Petitioner has shown a reasonable likelihood that Meyers teaches “a nipple having: a teat portion having a variable wall thickness including an aperture.”

f. [E] “a base portion having a domed configuration”

As explained above, we construe the term “base portion” to mean “the lowest portion of the nipple below the areola portion, excluding the flange.”

Supra § III.C.4.

As also explained above, we construe the term “domed configuration” to mean “wide circular bottom with an arc-shaped cross-sectional profile.”

Supra § III.C.1.

Petitioner submits that Meyers teaches these limitations, submitting another annotated version of Meyers’s Figure 5 (*see* Pet. 41–42). We reproduce Petitioner’s annotated version of Meyers’s Figure 5, below:

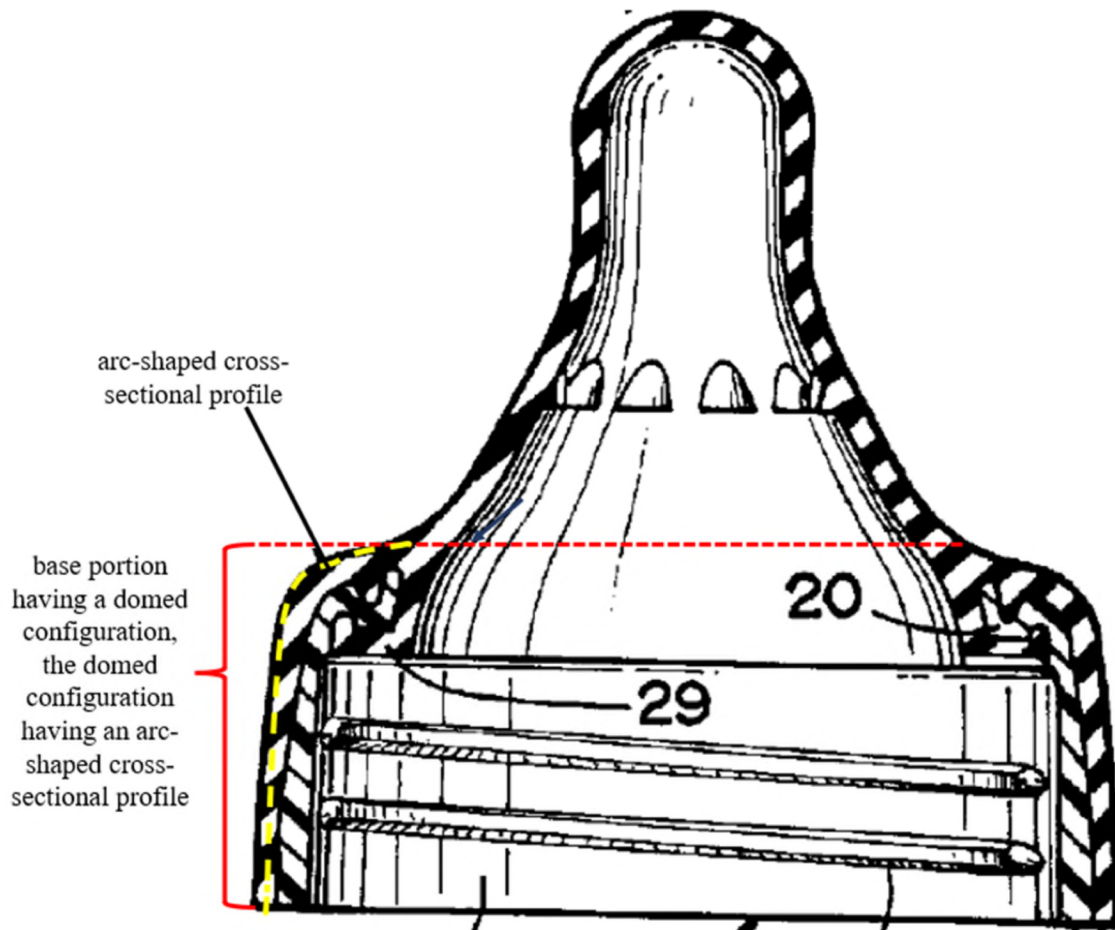


FIG. 5-PO.A
Patent Owner's Construction

As explained previously, Figure 5 depicts “a longitudinal cross-sectional view of [Meyers’s] nipple/collar.” Ex. 1006, 2:23–24. As shown by Petitioner’s annotations, annotated Figure 5 depicts Meyers’s “base portion having a domed configuration,” in which “the domed configuration ha[s] an arc-shaped cross-sectional profile.” Pet. 41. Petitioner explains that Meyers’s “domed configuration . . . includes an arc-shaped cross-sectional profile as shown in yellow dashed line.” *Id.*

Patent Owner disputes Petitioner’s assertion that Meyers teaches the recited “domed configuration.” See Prelim. Resp. 24–29. Patent Owner explains that the “Petition falls short because the prior art lacks any

semblance of a ‘domed’ nipple.” *Id.* at 22 (referencing all of Petitioner’s challenges). Patent Owner submits that the “District Court rejected Petitioner’s construction” and instead “agreed with Patent Owner’s reliance on the ’930 Patent’s description of a nipple with a ‘wide’ base portion that is ‘shaped like a breast’ and its illustration of an arc-shaped profile.” *Id.* at 23–24 (citing Ex. 2008, 13–15).

Patent Owner acknowledges that the District Court construes the term “domed configuration” to mean “wide circular bottom with an arc-shaped cross-sectional profile” (*id.* at 24 (citing Ex. 2008, 15)), but contends that “Petitioner fails to allege [that Meyers’s] shoulder is ‘wide’ in the manner of a human breast” (*id.* at 24–25).

Patent Owner further explains that the construction “requires the ‘domed configuration’ to be both wide and circular” (*id.* at 25). Patent Owner cites to Figure 5 of Meyers and Figure 4 of the ’930 patent, contending that Meyers’s nipple has a narrow base compared to the base in Figure 4 of the ’930 patent. *See id.* at 26.

On this record, Patent Owner’s arguments are unavailing.

We first point out that our claim construction does not require the “domed configuration” to be “‘wide’ in the manner of a *human breast*,” as Patent Owner argues. Prelim. Resp. 24–25 (emphasis added). Rather, the claim simply requires the “domed configuration” to have a “wide circular bottom with an arc-shaped cross-sectional profile.” *See supra* § III.C.1.

Furthermore, and *even if* the base shown in Figure 4 of the ’930 patent is “wider” than that disclosed in Figure 5 of Meyers, this bears little relevance to the claim language. Patent Owner’s argument that Meyers’s nipple is too “narrow” to be “wide” (*see* Prelim. Resp. 26, emphasis omitted) ignores the fact that Meyers’s base is wider at the bottom than the top. *See*

Ex. 1006, Fig. 5. On this record, Petitioner's position that Figure 5 of Meyers's depicts a domed configuration with a "wide" base is reasonable. *See* Pet. 41 (referencing Ex. 1006, Figs. 1, 5, 6, 10). Furthermore, Petitioner's position that the base is "circular" is also supported by Petitioner's reference to Meyers's Figures 11–13, which depict the "base" as "circular" when viewed from above. *See* Pet. 42 (citing Ex. 1006, Figs. 1, 11–13).

At this stage of the proceeding, and based on the definition of "base portion" to mean "the lowest portion of the nipple below the areola portion, excluding the flange" and "domed configuration" to mean "wide circular bottom with an arc-shaped cross-sectional profile" (*see supra* §§ III.C.1, 4), Petitioner has shown a reasonable likelihood that Meyers teaches "a base portion having a domed configuration."

g. [F] "an areola portion between the teat portion and the base portion"

We construe the term "an areola portion" to mean "the part extending beyond the bottom of the teat portion, bounded by the base." *Supra* § III.C.5.

Petitioner submits that "the areola portion in Meyers is the part extending beyond the bottom of the teat portion as illustrated" in annotated Figure 5. *See* Pet. 45 (citations omitted). Petitioner's expert, Mr. Silver, testifies that "a POSA would understand that Meyers discloses that the areola portion is disposed just below the teat portion and extends from it." Ex. 1005 ¶ 196 (emphasis omitted).

Petitioner also provides an alternative position, which is based on Petitioner's construction that "areola portion" means "a surface area, that

includes a different characteristic and functionality than the rest of the nipple, surrounding and extending beyond the bottom of the teat portion.”
See Pet. 45–47.

Because Petitioner’s alternative challenge is based upon a claim construction that we do not adopt, we do not consider it here.

At this stage of the proceeding, however, Petitioner has shown a reasonable likelihood that based on the interpretation of “areola portion” as “the part extending beyond the bottom of the teat portion, bounded by the base” (*supra* § III.C.5), Meyers teaches this structure (*see* Pet. 45).

h. [G] “a flange depending from the base portion”

Petitioner submits that Meyers teaches this limitation, submitting an annotated version of Meyers’s Figure 9. Pet. 48. We reproduce that figure, below:

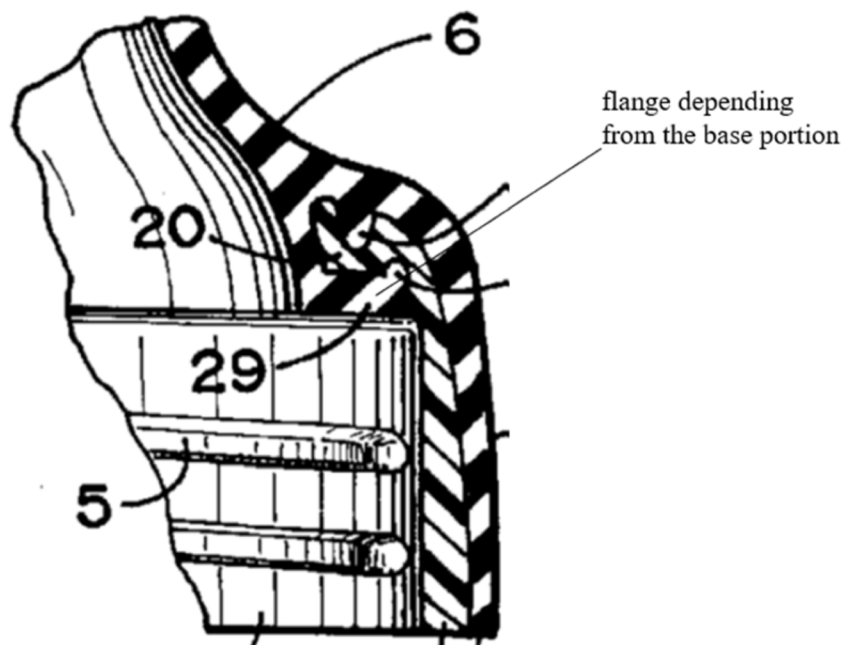


Figure 9 depicts “a fragmentary, enlarged, longitudinal cross-sectional view of [Meyers’] nipple/collar.” Ex. 1006, 2:32–33. According to Petitioner,

and as shown by the annotation, “the flange extends specifically from the base portion of the nipple.” Pet. 48.

At this stage of the proceeding, Petitioner has shown a reasonable likelihood that Meyers teaches a “flange depending from the base portion.”

i. [H] “a one-way air inlet valve (i) extending through said base”

To satisfy this limitation, Petitioner relies on a *combination* of Meyers and Sepehr. See Pet. 48–52. In particular, Petitioner submits that “a POSA would have been motivated to modify Meyers based on the teachings of Sepehr, such that the one-way air vent extends through the base just outside the collar.” *Id.* at 48–49 (emphasis omitted).

Petitioner submits that Meyers teaches an air vent in the base portion of a nipple, providing an annotated version of Meyers’s Figure 13 (see Pet. 49), a copy of which we reproduce, below:

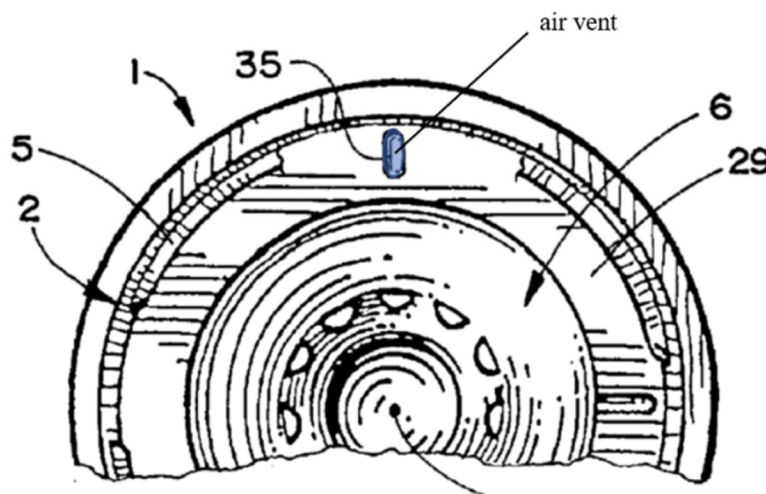


FIG. 13 of Meyers

Figure 13 “is an enlarged, fragmentary, bottom plan view of the nipple/collar, with a portion thereof broken away to show a vent.” Ex. 1006, 2:40–42. Petitioner submits that “Meyers teaches a ‘vent 35 may be

provided on the interior of the nipple/collar 1 to permit air to be sucked back into the nurser after dispensing.” Pet. 49 (quoting Ex. 1006, 4:22–24).

Petitioner submits that Meyers’s vent is a one-way air inlet valve and extends through the base portion of Meyers’s nipple. *Id.* (citing Ex. 1005 ¶ 203).

Petitioner also relies on Sepehr’s teaching of “automatic air valve 2 produced as an integral part of teat 1” in order “to allow the air to enter the bottle when a vacuum is formed.” *Id.* at 50 (citing Ex. 1008, Abstr., 3:8–14, Figs. 1–4, Claims 3–7).

Petitioner reasons that a skilled artisan would have combined the teachings of Meyers and Sepehr to arrive at the following nipple (Pet. 52), as shown in Petitioner’s FIG. B:

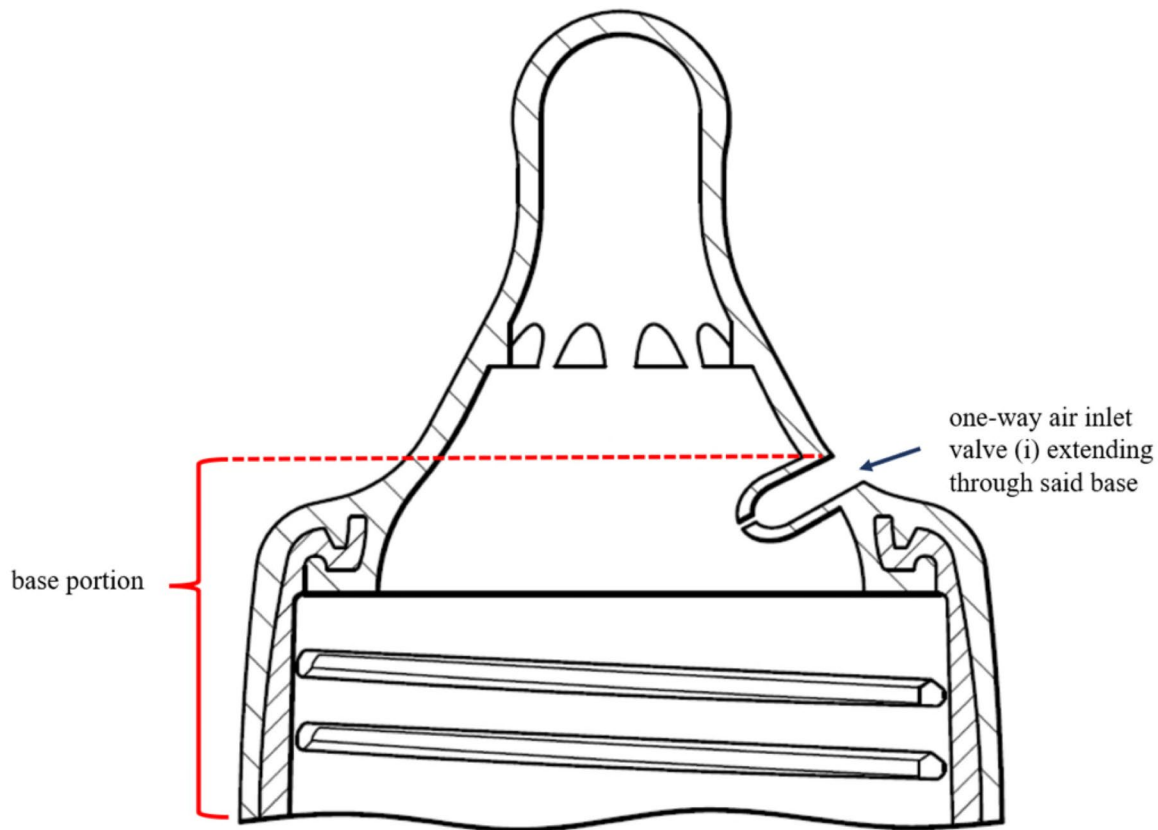


FIG. B
Combined device of Meyers - Sepehr

According to Petitioner, the figure reproduced above, FIG. B, illustrates the proposed modification, which involves relocating Meyers's one-way air inlet valve. *See id.* Petitioner submits that the modified nipple would have “a one-way air inlet valve [] extending through said base,” as recited in the claim. *See id.* at 48–49. Petitioner reasons that the proposed modification would have improved airflow, reliability, and made the nipple easier to maintain and clean. *See id.* at 30–32.

Patent Owner argues that “Petitioner fails to establish a valid reason why a POSITA would have been motivated to make Petitioner's proffered combination[] with Sepehr.” Prelim. Resp. 32–33 (emphasis omitted).

Patent Owner's argues that Petitioner's "alleged improvements . . . are not sufficiently supported." *Id.* at 36.

We disagree with Patent Owner.

At this stage of the proceeding, Petitioner provides multiple reasons for combining Meyers and Sepehr while citing the teachings of both references. *See* Pet. 30–32. In addition to citing teachings from Meyers and Sepehr, Petitioner submits the testimony of Mr. Silver (Ex. 1005). *See* Pet. 30–32.

In support of Petitioner's proposed modification, Petitioner proffers the following reasons:

- (1) "A one-way air vent communicating directly with the external environment as in Sepehr is more effective than pulling air through the threads as in Meyers." Pet. 30 (citing Ex. 1005 ¶ 162, Ex. 1006, 4:24–29) (emphasis omitted).
- (2) The modification would "avoid debris that may be trapped in the collar region that would impede the reliability of the valve to maintain constant pressure in the nipple." Pet. 31 (citing Ex. 1005 ¶¶ 162–163).
- (3) The modification would "improve cleaning and improve maintenance of the nipple." Pet. 31 (citing in part Ex. 1005 ¶ 163, Ex. 1007, 3:21–24).
- (4) The modification "would allow for 'low cost of production and can easily be cleaned together with the teat following each use.'" Pet. 31 (quoting Ex. 1005 ¶ 163; citing Ex. 1007, 2:20–26).
- (5) The modification "would provide a more reliable and more hygienic solution to equalize the pressure in the bottle." Pet. 32 (citing Ex. 1005 ¶ 165).

We find reasonable Mr. Silver's testimony that

a POSA reviewing *Sepehr* would be motivated to move the location of the vent above the collar as taught in *Sepehr* to

improve *Meyers*’ air flow. The one-way air vent communicating directly with the external environment in *Sepehr* is more effective at pulling air into the bottle, than an air vent through the flange covered by the collar pulling in air through the threads as in *Meyers*.

Ex. 1005 ¶ 162. At this stage, it appears that the proposed relocation of the valve, as shown on page 52 of the Petition, would be more effective than *Meyers*’s air vent (shown in Figure 9) at relieving vacuum pressure within the bottle. *See id.*; *see also* Pet. 30. Mr. Silver’s testimony seems reasonable, as we agree that moving the air vent away from *Meyers*’s flange and threads would permit the valve material to more easily deform, thereby improving operation of the valve, which we understand to operate by flexure of the nipple material. *See* Ex. 1005 ¶ 162.

At this stage of the proceeding, Petitioner has shown a reasonable likelihood that *Meyers*, as modified based on the teachings of *Sepehr*, would satisfy the recited “one-way air inlet valve [] extending through said base.”

j. [I] “one-way air inlet valve . . . (ii) projecting downwardly from the base portion”

Petitioner submits that the proposed combination of *Meyers* and *Sepehr* satisfies a “one-way air inlet valve . . . projecting downwardly from the base portion.” Pet. 53. To support this assertion, Petitioner submits the following figure, FIG. D (*id.*):

Combined device of Meyers - Sepehr

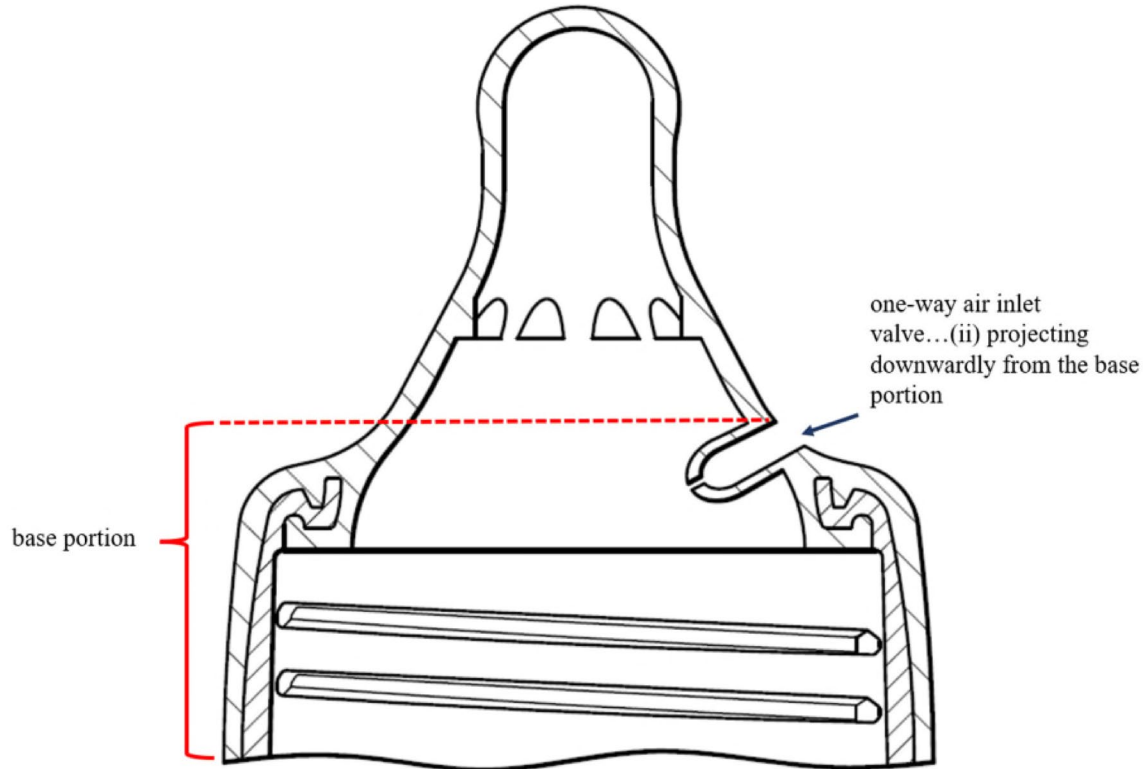


FIG. D

According to Petitioner, and as shown in FIG. D, the proposed combination would result in a “one-way air inlet valve . . . projecting downwardly from the base portion.” *See* Pet. 53.

At this stage of the proceeding, Petitioner has shown a reasonable likelihood that Meyers, as modified based on the teachings of Sepehr, would satisfy the recited “one-way air inlet valve [] projecting downwardly from the base portion.”

k. [J] “one-way air inlet valve . . . (iii) having a length that does not extend past the collar’s lower rim”

Petitioner refers to its drawings depicting the proposed combination of Meyers and Sepehr and submits that “the vent satisfies this limitation.” *See* Pet. 54. We reproduce Petitioner’s FIG. D (*id.* 53), below:

Combined device of Meyers - Sepehr

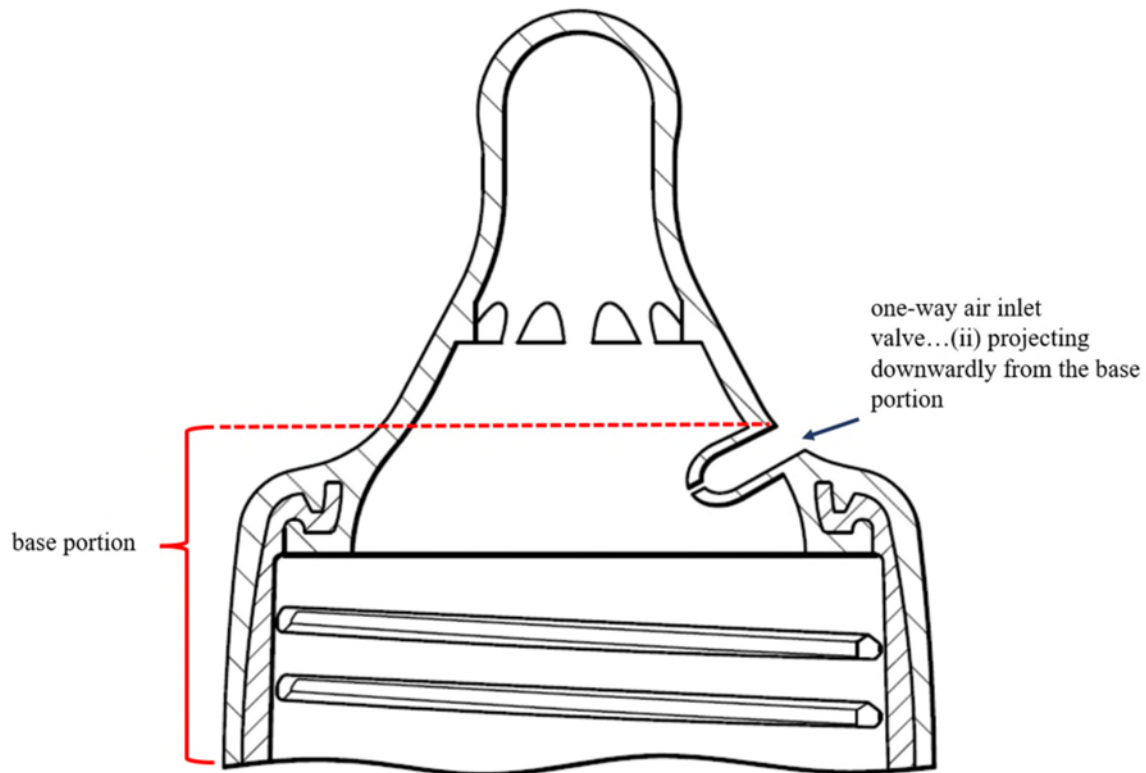


FIG. D

According to Petitioner, and as shown in FIG. D, relocating Meyers's air valve, as shown above, would have yielded a "one-way air inlet valve . . . having a length that does not extend past the collar's lower rim." *See* Pet. 54.

At this stage of the proceeding, Petitioner has shown a reasonable likelihood that Meyers, as modified based on the teachings of Sepehr, would satisfy the recited "one-way air inlet valve [] having a length that does not extend past the collar's lower rim."

- l. [K] “one-way air inlet valve . . . (iv) disposed at least partially inwardly from the collar; the flange being arranged to seal with the vessel”

Petitioner submits that the proposed combination of Meyers and Sepehr yields a nipple that satisfies these limitations. See Pet. 54. We reproduce Petitioner’s FIG. D (*id.* 53), below:

Combined device of Meyers - Sepehr

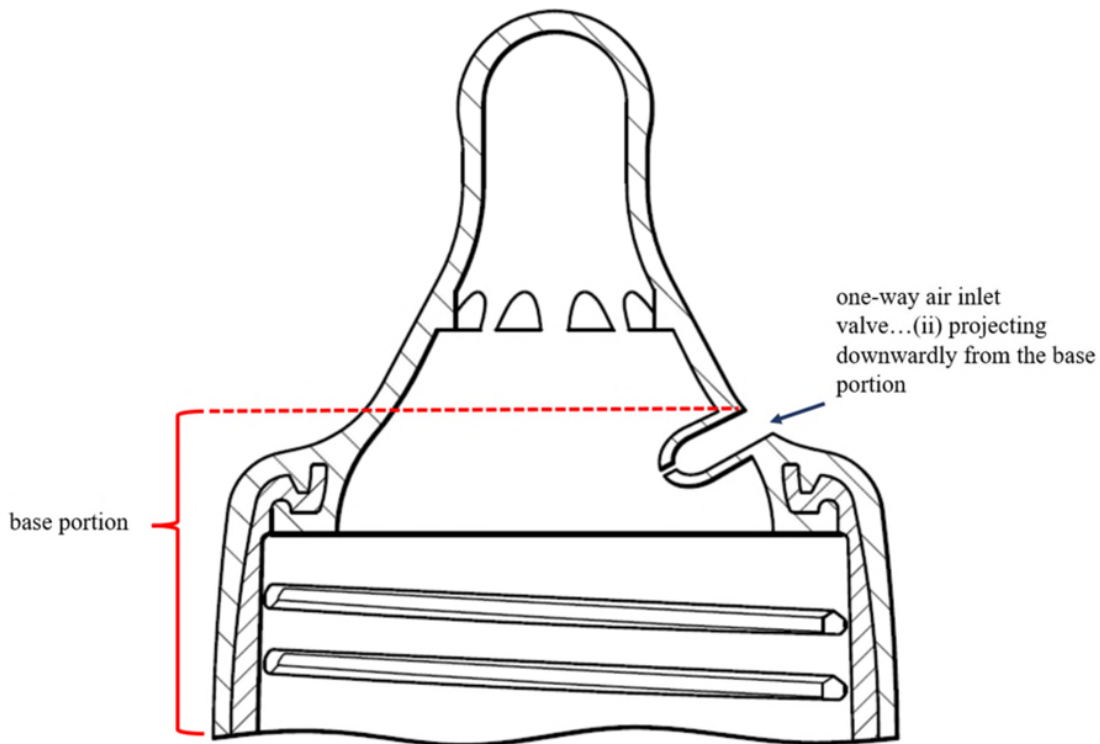


FIG. D

According to Petitioner, and as shown in FIG. D, relocating Meyers’s air valve, as shown above, would have yielded a “one-way air inlet valve . . . disposed at least partially inwardly from the collar.” See Pet. 54. Petitioner also submits that this figure depicts “the flange being arranged to seal with the vessel.” See *id.*

Petitioner points out that Meyers’s “nipple . . . includes a flange 29 to seal against the neck of the bottle 11 to form a tight liquid seal.” *Id.* at 27 (citing Ex. 1006, 4:6–10).

At this stage of the proceeding, Petitioner has shown a reasonable likelihood that Meyers, as modified based on the teachings of Sepehr, would satisfy the recited “one-way air inlet valve [] disposed at least partially inwardly from the collar” and “the flange being arranged to seal with the vessel.”

*m. [L] “the nipple being secured to the collar by
sealingly capturing an inner edge of the collar
between the base portion and the flange”*

Petitioner submits that the Meyers’s modified device satisfies these limitations. *See* Pet. 55–56. In support of this position, Petitioner submits the following figure, FIG. E (*id.* at 56), a copy of which we reproduce, below:

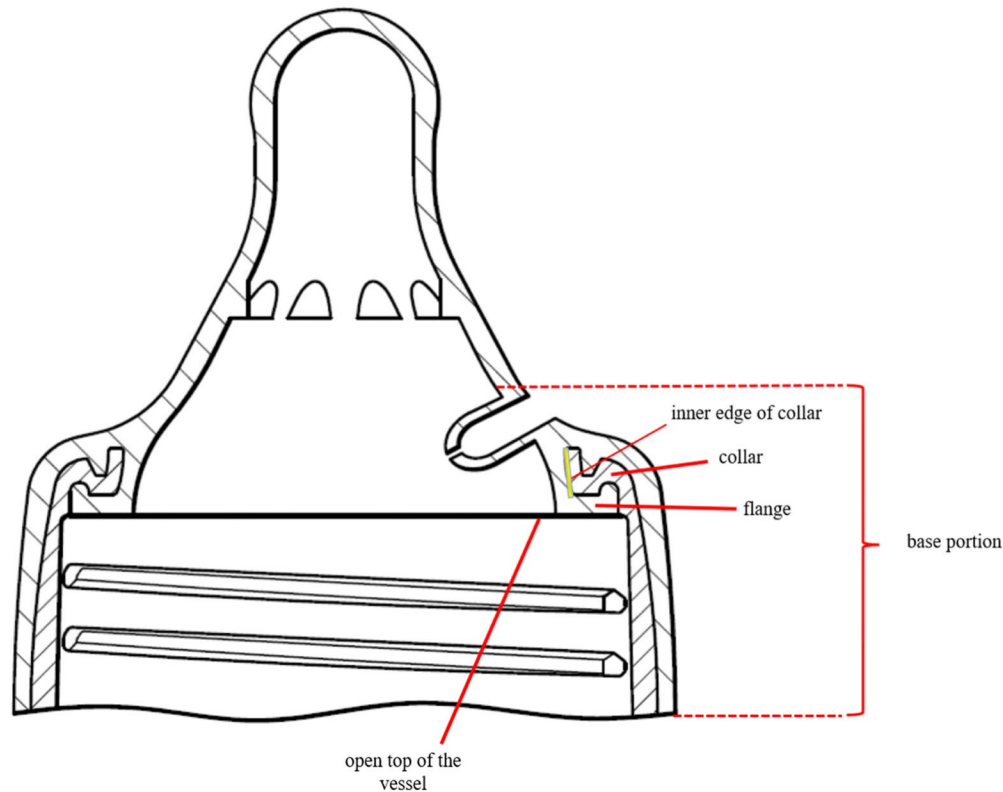


FIG. E
Combined device of Meyers - Sepehr

As shown above, and according to Petitioner, FIG E depicts the “open top of the vessel” and “base portion” including “inner edge of collar” in yellow, the “collar,” and the “flange.” *Id.*; *see also id.* at 55 (citing Ex. 1006, 3:61–65).

Meyers discloses that “nipple material is received into upper groove 19 and arcuate channel 23, so as to physically capture the nipple 6 on the collar 2 to ensure a secure interconnection therebetween.” Ex. 1006, 3:61–65.

At this stage of the proceeding, Petitioner has shown a reasonable likelihood that Meyers, as modified based on the teachings of Sepehr, satisfies the recited “nipple being secured to the collar by sealingly capturing an inner edge of the collar between the base portion and the flange.”

n. [M] “the nipple being secured to the vessel by capturing the flange of the nipple between the collar and the open top of the vessel”

Petitioner refers to limitation [L] and submits that “Meyers teaches the nipple and collar are secured to one another as shown in” the annotated Figure produced above in connection with limitation [L]. *See* Pet. 57.

At this stage of the proceeding, Petitioner has shown a reasonable likelihood that Meyers, as modified based on the teachings of Sepehr, satisfies the recited “nipple being secured to the vessel by capturing the flange of the nipple between the collar and the open top of the vessel.”

o. Summary of Claim 14

Upon review of the parties’ arguments and supporting evidence, we determine that Petitioner has shown a reasonable likelihood that claim 14 would have been obvious over Meyers in view of Sepehr.

4. Dependent Claim 16

Claim 16 depends from claim 14 and further recites, “wherein the open top of the vessel comprises an outwardly threaded vessel neck.” Ex. 1001, 8:61–62.

Petitioner submits an annotated version of Meyers’s Figure 14 to illustrate how the claim limitation is satisfied. *See* Pet. 57–58. We reproduce that annotated Figure 14, below:

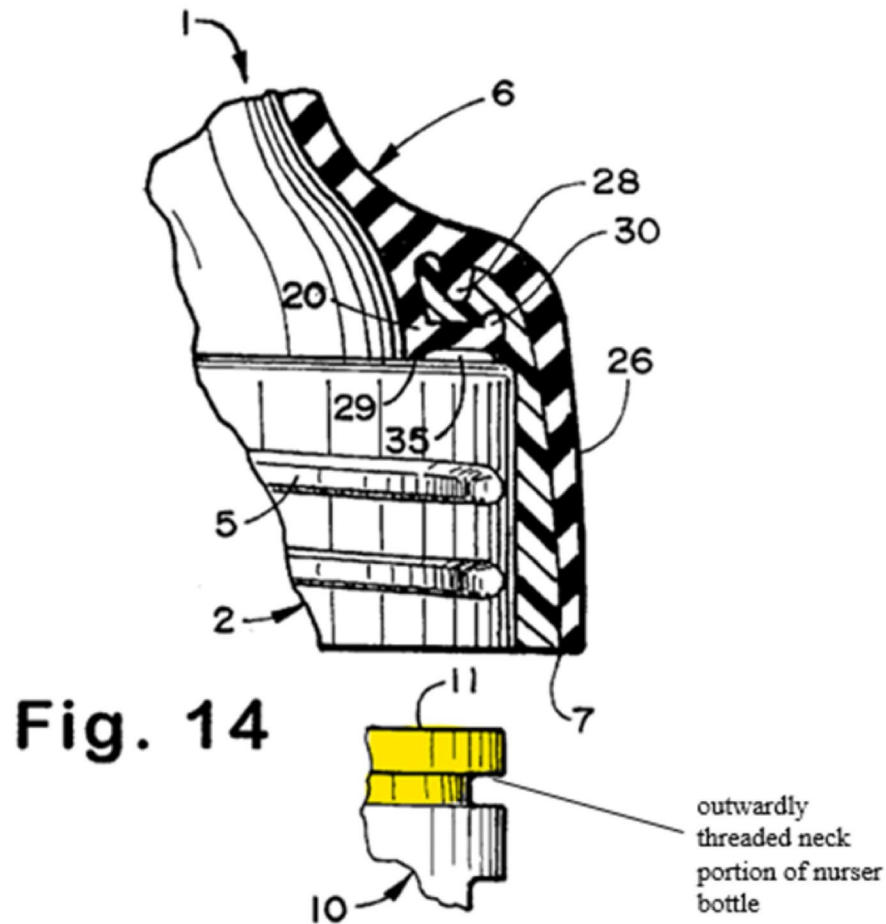


Figure 14 “is an enlarged, fragmentary, longitudinal cross-sectional view of the nipple/collar and an associated nurser bottle.” Ex. 1006, 2:44–46. Petitioner highlights the internal threads of the collar, explaining that a “POSA would understand that if the collar is internally threaded, then the outer neck portion of the nurser bottle must be externally threaded.” Pet. 57 (citing Ex. 1005 ¶ 226).

At this stage of the proceeding, Petitioner has shown a reasonable likelihood that Meyers, as modified based on the teachings of Sepehr, satisfies the limitations recited in dependent claim 16.

5. Dependent Claim 17

Claim 17 depends from claim 14 and further recites, “wherein the air inlet valve comprises a slit opening.” Ex. 1001, 8:63–64.

Petitioner submits that Meyers discloses an air vent, and a POSITA would have made this air vent “comprising a slit opening.” Pet. 58 (citing Ex. 1005 ¶¶ 228–29).

Mr. Silver testifies that “Sepehr consistently describes [its] valve as comprising a slit opening.” Ex. 1005 ¶ 230 (emphasis omitted). Sepehr discloses its “valve . . . [as being] composed of a concave elongate semi spherical shape with a slit at its dome.” Ex. 1007, 2:13–18.

We agree with Petitioner that Sepehr teaches a slit as an air vent and that a skilled artisan would have used a slit as the air vent in the proposed combination of Meyers and Sepehr. *See* Pet. 58–59; *see also id.* at 59 (depicting the slit within the air valve).

At this stage of the proceeding, Petitioner has shown a reasonable likelihood that Meyers, as modified based on the teachings of Sepehr, satisfies the limitations recited in dependent claim 17.

6. Dependent Claim 19

Claim 19 depends from claim 14 and further recites, “wherein the vessel comprises an upper body having a first internal diameter and a portion below the upper body having a second, different internal diameter.” Ex. 1001, 9:1–4.

Petitioner submits that both Meyers and Sepehr teaches bottles with portions having two different diameters. *See* Pet. 60–61 (citing in part Ex. 1006, Fig. 14; Ex. 1007, Figs. 3, 4; Ex. 1005 ¶¶ 233, 243). Mr. Silver testifies that a “POSA would understand that various types of bottles have

different portions with different internal diameters, and that on many bottles, the neck portion has a smaller internal diameter than the lower portion of the same bottle.”

Petitioner submits the following annotated Figure 3 of Sepehr to illustrate this teaching (Pet. 61):

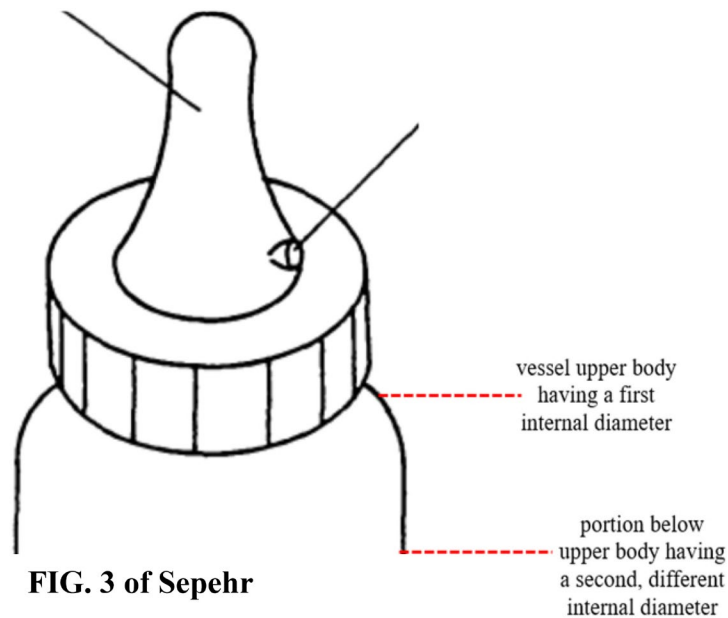


Figure 3 depicts “a perspective view of a bottle and [a] valve.” Ex. 1007, 3:2–3. Petitioner adds labels showing the claimed upper body having a first internal diameter and portion below the upper body having a second, different internal diameter.

At this stage of the proceeding, Petitioner has shown a reasonable likelihood that Meyers, as modified based on the teachings of Sepehr, satisfies the limitations recited in dependent claim 19.

7. *Summary of Ground I*

At this stage of the proceeding, Petitioner has shown a reasonable likelihood that Meyers, as modified based on the teachings of Sepehr, satisfies the limitations recited in claims 14, 16, 17, and 19.

F. Ground II: Meyers, Sepehr, and Ishimaru

Petitioner challenges claims 14, 16, 17, and 19 as obvious over Meyers, Sepehr, and Ishimaru. Pet. 61. Petitioner incorporates the Ground I analysis, which is based on Meyers and Sepehr, in its alternative challenge under Meyers, Sepehr, and Ishimaru. *Id.*

This challenge appears contingent on the Board adopting Petitioner’s construction of “variable wall thickness” to mean “a teat portion having a *helical groove*.” See Pet. 39 (emphasis added). Indeed, Petitioner acknowledges that “*Meyers* is silent as to the Petitioner’s construction of a teat portion with a ‘variable wall thickness,’ but this is addressed in a different ground below.” *Id.*

Petitioner submits that “*Ishimaru* discloses” “a teat portion with a variable wall thickness [as] ‘a teat portion having a helical groove.’” *Id.* at 68 (citing Ex. 1018, 19). Petitioner explains that “*Ishimaru* discloses an artificial nipple with thin-walled portions 122 which are ‘elongation portions with a thin wall, are formed in a groove-like pattern.’” *Id.* (quoting Ex. 1008 ¶¶ 41, 46, Figs. 1, 2).

Because we do not construe “variable wall thickness” as requiring a “helical groove” (*see supra* § III.C.3), we do not consider this alternative challenge in this Decision. As explained above, however (*see id.*), if either party disagrees with our construction of “variable wall thickness,” or if Patent Owner disagrees with our understanding that Meyers discloses a teat

with a “variable wall thickness” (*see supra* § III.E.3.e; *see also* Pet. 37–39), that party shall explain why our construction of “variable wall thickness” or our understanding of Meyers is in error in its next substantive brief.

F. Ground III: Kurkjian, Sepehr, and Ishimaru (Ex. 1008)

Petitioner submits that claims 14, 16, 17, and 19 are unpatentable over Kurkjian, Sepehr, and Ishimaru. Pet. 70.

1. Kurkjian (Ex. 1009)

Kurkjian is a U.S. Patent titled “Nursing Unit.” Ex. 1009, 1. Kurkjian purports to disclose “a resilient flanged nipple which is so constructed as to permit the nipple to be secured to the mouth of a bottle by means of a retaining cap, and permit the entrance of air into the interior of the bottle, and also prevent the nipple from collapsing inwardly of the retaining cap.” *Id.* at 1:3–8. We reproduce Figure 1 of Kurkjian, below:

Fig. 1.

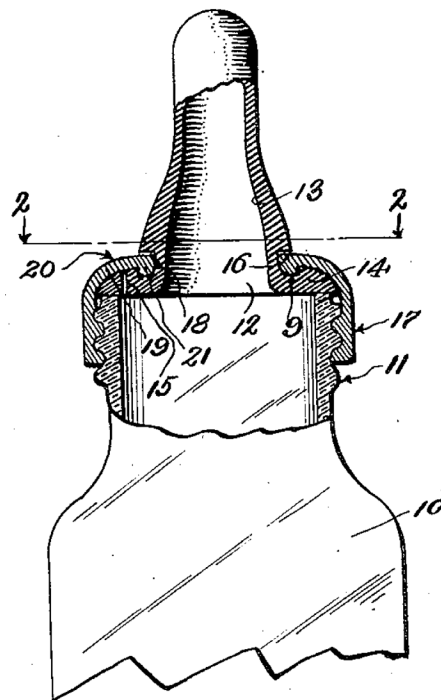


Figure 1 “is a side elevation of [Kurkjian’s] nursing unit.” *Id.* at 1:25–26. In particular, Figure 1 depicts nursing bottle 10 with threads formed near its top end. *Id.* at 1:41–43. Flexible nipple 12 fits over the open end of the bottle and includes neck 13 and annular flange 14. *Id.* at 1:45–49. Flange 14 is provided with venting aperture 15 and is integral with the body portion of the nipple. *Id.* at 1:49–52.

2. *Ishimaru* (Ex. 1008)

Ishimaru is a Japanese patent application titled “Artificial Nipple.” Ex. 1008, code (54). *Ishimaru* purports to disclose “an artificial nipple which is more similar to mother’s nipple.” *Id.* at code (57). To illustrate an embodiment of this nipple, we reproduce *Ishimaru*’s Figure 1, below:

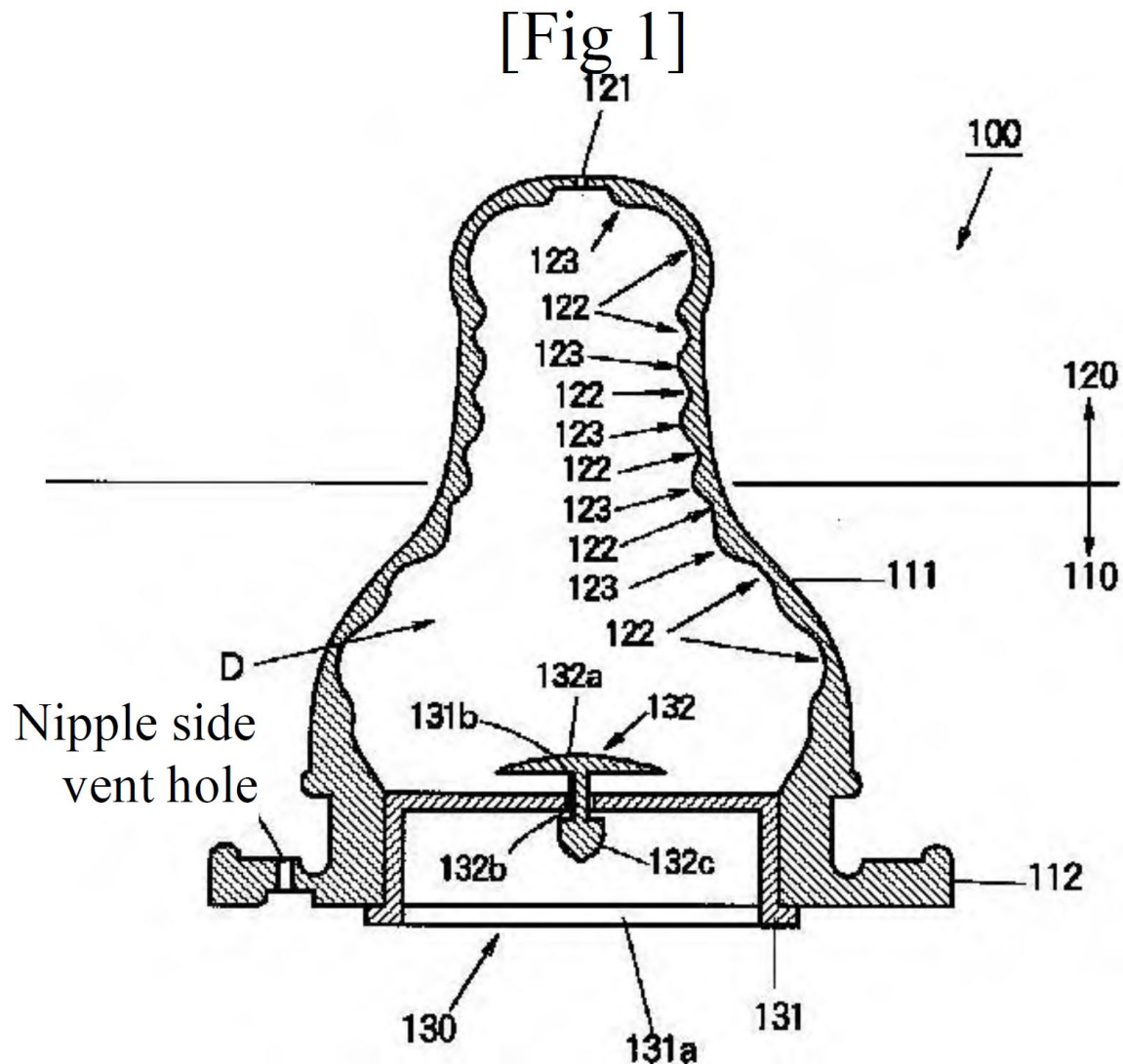


Figure 1, reproduced above, “is a schematic cross-sectional view of an artificial nipple according to the 1st embodiment.” *Id.* at 9. Specifically, Figure 1 depicts artificial nipple 100 including teat portion 120 and nipple trunk 110, which has elongation portion 122. *Id.* at code (57). An “internal pressure adjusting means” 130 is provided in the nipple to “adjust the internal pressure of” beverage space D. *Id.*

3. *Claims 14, 16, 17, and 19*

Patent Owner argues that the proposed combination does not satisfy the collar having a “sloping portion” recited in limitation C of independent claim 14. *See* Prelim. Resp. 41–42.

At this stage of the proceeding, we agree with Patent Owner.

Limitation [B] of claim 14 requires “a collar having an upper rim and a lower rim comprising: an *internally threaded inner surface*.” Pet. 81 (emphasis added).

Limitation [C] of claim 14 further requires the collar to have “an outermost surface having a *sloping portion that extends outwardly and downwardly* relative to said upper rim, and wherein said sloping portion comprises a majority of the collar’s outermost surface.” *Id.* at 85 (emphasis added).

To address these limitations, Petitioner submits that a skilled artisan would have been “motivated to incorporate the internal thread design of Kurkjian’s Figure 1 with the cap depicted in Kurkjian’s Figure 7 resulting in the combination as illustrated below in Fig. F.” *Id.* at 84 (citing Ex. 1005 ¶¶ 299–303) (emphasis omitted). Petitioner reasons that “[t]his would be nothing more than an obvious design choice with the threads serving the same function as they do in Figure 1.” *Id.* Petitioner submits the following annotated Figure F (*id.* at 84), which depicts the proposed combination:

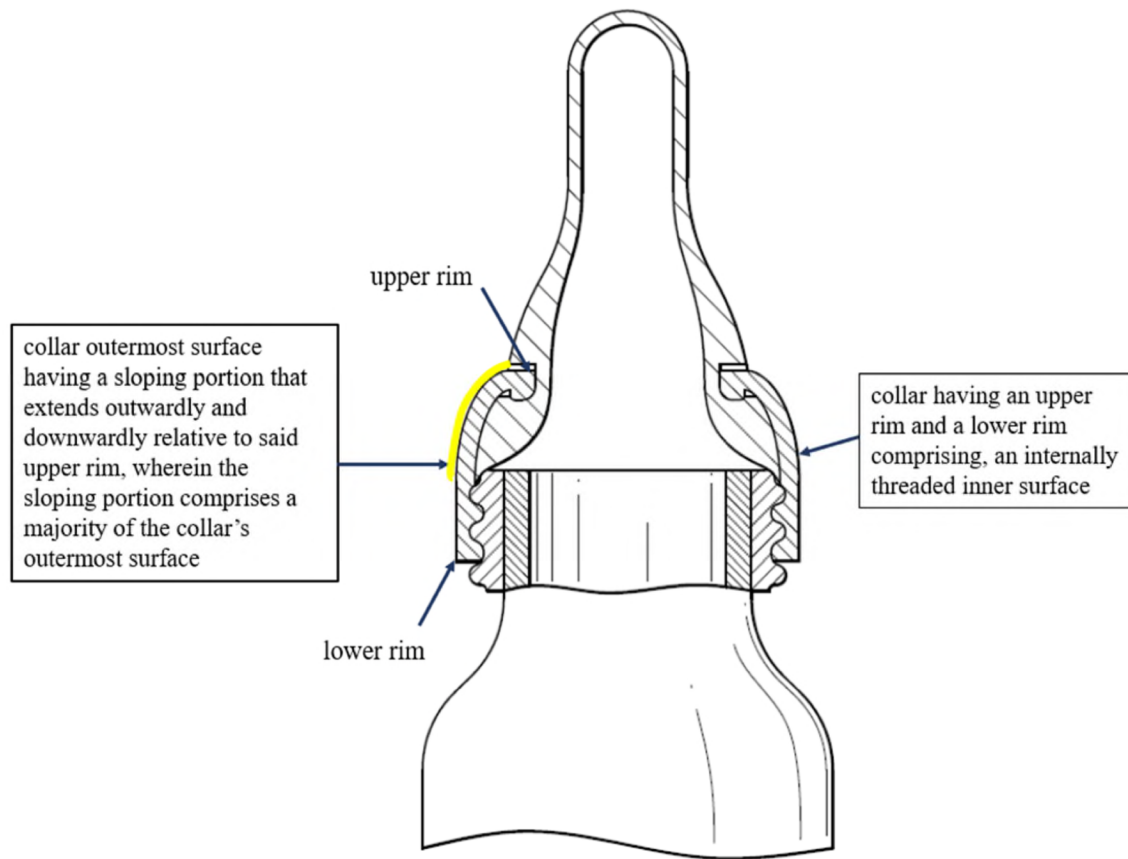


Fig. F
Combination of Kurkjian's First Embodiment and Second Embodiment

According to Petitioner, the proposed combination would have yielded a “collar having an upper rim and a lower rim comprising[] an internally threaded inner surface.” Pet. 84. Also, according to Petitioner, and as shown with yellow emphasis, the proposed combination would yield a collar with an “outermost surface having a sloping portion that extends outwardly and downwardly relative to said upper rim, wherein the sloping portion comprises a majority of the collar’s outermost surface.” *Id.*; *see also id.* at 85 (“As illustrated in Figure F above depicting the combination of *Kurkjian*’s embodiments, the outermost surface of the collar comprises a sloping portion that extends outwardly and downwardly relative to the upper

rim, and wherein said sloping portion comprises a majority of the collar's outermost surface as shown in yellow.”).

Patent Owner argues that “Petitioner is not relying on drawings from the prior art.” Prelim. Resp. 43. Patent Owner further argues that

It is bad enough that Petitioner is substituting its own drawing in place of the prior art, but it is even worse that the drawing represents nothing more than attorney argument. Petitioner's “Figure F” is not reproduced or endorsed in the declaration of Petitioner's expert. The analysis of Petitioner's expert—which Petitioner does not cite in the Petition—focuses on Kurkjian's Figures 6 and 7, not Petitioner's “Figure F.”

Id. at 44 (*comparing* Ex. 1005 ¶¶ 304–306, *with* Pet. 85).

Patent Owner's argument has merit. At this stage of the proceeding, we are skeptical that a skilled artisan would have combined the embodiments of Kurkjian's Figures 1 and 7 to arrive at what is shown in Petitioner's Figure F.

We agree that the embodiment depicted in Figure 1 of Kurkjian depicts a collar with an “internally threaded surface” as recited in limitation B. *See* Pet. 81 (relying on Figure 1 for teaching the same). We also agree that a different embodiment depicted in Figure 7 depicts a collar with “an outermost surface having a sloping portion that extends outwardly and downwardly” as recited in limitation C. *See id.* at 85. Although we understand why Petitioner desires to combine these embodiments—to fully address the claim limitations—it is not clear to us why a skilled artisan would have made the modification. Although Mr. Silver testifies that a “POSA would be motivated to incorporate the internal thread design of Figures 1 [sic] to the shape of the cap depicted in Figures 6 or 7” (Ex. 1005 ¶ 302), we do not see a reason for making the proposed combination.

Petitioner relies on “design choice” (Pet. 84), yet this reasoning does not appear to be supported by rational underpinnings. *See In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006), cited with approval in *KSR*, 550 U.S. at 418 (“[R]ejections on obvious grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.”).

We understand that the parties have not had the opportunity to fully brief this issue, and the parties should understand that our opinion on this matter is merely preliminary, and that we may change our position once briefing is complete.

At this stage of the proceeding, however, Petitioner has not shown a reasonable likelihood that Kurkjian teaches a collar having “an upper rim and a lower rim comprising: an internally threaded inner surface” while also having “an outermost surface having a sloping portion that extends outwardly and downwardly relative to said upper rim, and wherein said sloping portion comprises a majority of the collar’s outermost surface.”

Accordingly, Petitioner has not shown a reasonable likelihood that independent claim 14, and dependent claims 16, 17, and 19, would have been obvious over Kurkjian, Sepehr, and Ishimaru.

IV. CONCLUSION

After considering the evidence and arguments presented in the Petition and Preliminary Response, we determine that the information presented shows a reasonable likelihood that Petitioner would prevail in

establishing that claims 14, 16, 17, and 19 would have been obvious over Meyers and Sepehr.

Because we institute *inter partes* review of the Challenged Claims under Ground I, we also institute *inter partes* review of the Challenged Claims under Grounds II and III. Patent Trial and Appeal Board Consolidated Trial Practice Guide⁶ 5 (“In instituting a trial, the Board will either (1) institute as to all claims challenged in the petition and on all grounds in the petition, or (2) institute on no claims and deny institution.”).

V. ORDER

Accordingly, it is

ORDERED that, pursuant to 35 U.S.C. § 314(a), an *inter partes* review is instituted for claims 14, 16, 17, and 19 of the ’930 patent on the unpatentability grounds asserted in the Petition; and

FURTHER ORDERED that pursuant to 35 U.S.C. § 314(c) and 37 C.F.R. § 42.4, notice is hereby given of the institution of a trial, which commences on the entry date of this decision.

⁶ Available at <https://www.uspto.gov/TrialPracticeGuideConsolidated>.

IPR2023-00467
Patent 10,952,930 B2

PETITIONER:

Eliot D. Williams
Matthew A. Engel
Brianna L. Potter
BAKER BOTTS L.L.P.
eliot.williams@bakerbotts.com
matthew.engel@bakerbotts.com
brianna.potter@bakerbotts.com

PATENT OWNER:

John S. Goetz
Kenneth W. Darby
Matthew A. Colvin
FISH & RICHARDSON P.C.
goetz@fr.com
kdarby@fr.com
colvin@fr.com