

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

NANOBEBE US INC.,
Petitioner

v.

MAYBORN (UK) LIMITED,
Patent Owner

Case IPR2023-00467
Patent 10,952,930

PATENT OWNER'S RESPONSE

TABLE OF CONTENTS

I.	INTRODUCTION	1
II.	THE '930 PATENT	2
III.	PETITIONER'S GROUNDS PROVE NO CLAIM UNPATENTABLE	3
A.	Ground 1: The Meyers-Sepehr Combination Lacks Multiple Claim Limitations and Falls Short on' Motivation to Combine	3
1.	Meyers-Sepehr does not provide the '930 Patent's one-way valve limitations	4
2.	Petitioner's alleged motivation for replacing Meyers's vent with Sepehr's valve is underdeveloped and factually flawed	15
3.	The base of Meyers's nipple is curved but not "domed"	35
B.	Ground 2: Ishimaru Does Not Remedy the Deficiencies of Sepehr-Meyers	47
C.	Ground 3: The Kurkjian-Sepehr-Ishimaru Combination's Flaws Are Even More Severe Than Those of Sepehr-Meyers	48
1.	Petitioner's analysis on the "sloping" collar limitation lacks evidentiary support and is steeped in impermissible hindsight	49
2.	The valve of Petitioner's combination does not project downwardly, as claimed	56
3.	Petitioner largely duplicates its flawed motivation analysis regarding Sepehr's valve	57
4.	Even narrower than Meyers's nipple, the base portion of Kurkjian's nipple also lacks a "domed configuration"	60
IV.	CONCLUSION	63

EXHIBITS

EX2001	U.S. Patent No. 6,645,228
EX2002	U.S. Patent No. 6,745,912
EX2003	GROWTH IS FED BY INNOVATION FOR MAKER OF BABY PRODUCTS, <i>Simon Whiteside</i> , The Journal, Manufacturers' League (Thursday, February 19, 2015)
EX2004	Reserved
EX2005	Petitioner's '930 Patent Invalidation Contentions, <i>Nanobebe US Inc. v. Mayborn (UK) Limited et al.</i> , Case No. 1:21-cv-08444 (S.D.N.Y.)
EX2006	Reserved
EX2007	Complaint, <i>Mayborn (UK) Limited, et al. v. Comotomo Inc. et al.</i> , Case No. 1:22-cv-00694 (S.D.N.Y.)
EX2008	Markman Order, <i>Nanobebe US Inc. v. Mayborn (UK) Limited et al.</i> , Case No. 1:21-cv-08444 (S.D.N.Y.)
EX2009	First Amended Case Management Plan and Scheduling Order, <i>Nanobebe US Inc. v. Mayborn (UK) Limited et al.</i> , Case No. 1:21-cv-08444 (S.D.N.Y.)
EX2011	Declaration of John S. Goetz
EX2012	Letter Motion to Withdraw as Counsel, <i>Nanobebe US Inc. v. Mayborn (UK) Limited et al.</i> , Case No. 1:21-cv-08444 (S.D.N.Y.)
EX2013	Initial Conference, <i>Nanobebe US Inc. v. Mayborn (UK) Limited et al.</i> , Case No. 1:21-cv-08444 (S.D.N.Y.)
EX2014 through EX2018	Reserved
EX2019	U.S. Patent No. 5,474,193 (Silver I)
EX2020	U.S. Patent No. 7,712,617 (Silver II)
EX2021	Reserved
EX2022	GB 0502599.4 (foreign priority document)

EX2023	GB 0414560.3 (foreign priority document)
EX2024	U.S. Patent No. 6,161,710 (Dieringer)
EX2025 through EX2028	Reserved
EX2029	Oxford Dictionary of English, Second Edition, Revised (2005) (excerpt)
EX2030	Reserved
EX2031	Nipple confusion: Toward a formal definition, Marianne Neifert, MD, et al. (1995) (excerpt)
EX2032	Reserved
EX2033	Transcript of Brian Silver Deposition Taken October 12, 2023 (filed under protective order)
EX2034	U.S. Patent No. 5,784,999 (Larson)
EX2035	U.S. Patent No. 8,708,174 (Itzek)
EX2036	U.S. Patent No. 1,510,571 (Ware II)
EX2037	U.S. Patent No. 2,688,326 (Ware I)
EX2038	U.S. Patent No. 6,742,665 (Lombardo)
EX2039	U.S. Patent No. 2,372,281 (Jordan)
EX2040	U.S. Patent No. 5,779,071 (Brown)
EX2041	Examination of the Effect of Dr. Brown's Natural Flow Baby Bottles on Infant Colic, Marsha L. Cirgin Ellett, et. al. (2005)
EX2042	Reserved
EX2043	Markman Hearing Transcript, <i>Nanobebe US Inc. v. Mayborn (UK) Limited et al.</i> , Case No. 1:21-cv-08444 (S.D.N.Y.)
EX2044	Declaration of Tim Fletcher ('930 Patent)

I. INTRODUCTION

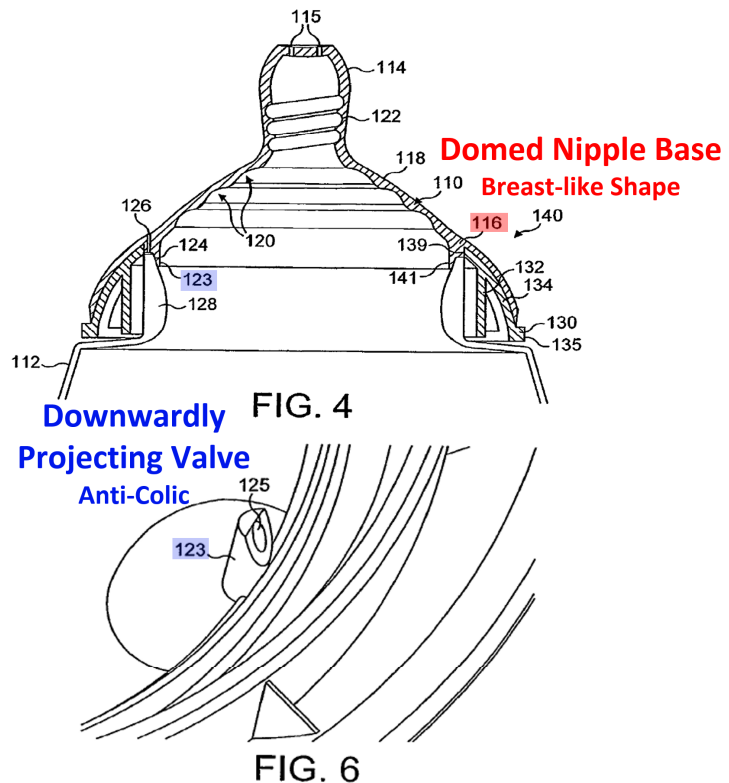
The Board’s preliminary finding that Petitioner’s Ground 3 does not meet even the “reasonable likelihood” standard to justify institution was correct, and those same flaws preclude Ground 3 from reaching the higher “preponderance” threshold for Petitioner to prevail. *See infra*, §III.C. The Board also correctly deemed Ground 2 moot because it depends on a claim construction position that was not adopted. While the Board took a favorable view of Petitioner’s Ground 1, that preliminary decision was made on an undeveloped record. Much has changed since then.

For one, Patent Owner exposed multiple new deficiencies in Petitioner’s prior art regarding the ’930 Patent’s “one-way air valve” limitations. The claims require the valve to extend through the nipple base, but Petitioner’s prior art combination places the valve in the nipple’s areola. *Infra*, §III.A.1.i. The claims also require the valve to project “downwardly,” while the valve in Petitioner’s combination projects inwardly. *Infra*, §III.A.1.ii. Next, Patent Owner exposed a fundamental design flaw in Petitioner’s proposed valve. *Infra*, §III.A.2. A skilled artisan would have recognized that it heightens the risk of infantile colic, a troublesome condition that such valves are meant to prevent. Finally, Patent Owner augmented the record with new evidence showing that the “wide” aspect of the District Court’s “domed configuration” construction distinguishes Petitioner’s prior art. *Infra*, §III.A.3. For all these reasons, the Board should uphold the validity of the ’930 Patent.

II. THE '930 PATENT

The '930 Patent's inventors sought to improve upon breast-like baby bottle designs in multiple innovative ways. *See, e.g.*, EX1001 ('930 Pat.), 1:25-2:25. Relevant to this proceeding, the invention of the '930 Patent's independent claim 14 provides a nipple having a “base portion” in a “domed configuration” with a “one-way air inlet valve” extending through and projecting downwardly from the domed base. *See id.*, 4:1-43, 5:15-35, 6:7-24, Figures 4 and 6.

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;
 - 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.



The domed configuration of the nipple base more closely matches the anatomical shape of a human breast than conventional baby bottle designs, while the downwardly projecting one-way valve allows air into the bottle to reduce vacuum

pressure and mitigate the risk of colic.¹ *Id.* In combination, these features create a drinking product that mimics the human breast and creates a more natural feeding experience for infants. *See id.*, 4:1-11.

III. PETITIONER’S GROUNDS PROVE NO CLAIM UNPATENTABLE

A. Ground 1: The Meyers-Sepehr Combination Lacks Multiple Claim Limitations and Falls Short on Motivation to Combine

Petitioner’s Meyers-Sepehr combination lacks at least the following three limitations relating to the nipple of the ’930 Patent’s independent claim 14:

- (1) “a one-way air inlet valve (i) extending through said base”;
- (2) “a one-way air inlet valve . . . (ii) projecting downwardly from the base portion”; and
- (3) “a base portion having a domed configuration.”

Instead of acknowledging and addressing these deficiencies, Petitioner and its expert, Mr. Silver, gloss over them with cursory analysis that the record in this case does not support. The absence of elements in Petitioner’s combination that satisfy these limitations provides multiple independent reasons to uphold the ’930 Patent.

¹ “Colic” is a condition characterized by frequent and persistent crying and restless in an otherwise healthy and well-fed infant. *See* EX2044 (Fletcher Dec.), ¶57.

The '930 Patent also should be upheld because Petitioner fails to provide a credible motivation analysis that supports the Meyers-Sepehr combination. The problem with Petitioner's combination stems from Sepehr. Sepehr's one-way air valve, which the combination purports to substitute in place of Meyers's air vent, has a critical design flaw that heightens the risk of air ingestion by the infant during feeding and promotes colic. A skilled artisan would have recognized that Sepehr's colic-causing valve is not a viable option. Preoccupied with reaching the '930 Patent's "valve" limitations (albeit unsuccessfully), Petitioner and Mr. Silver failed to consider how Sepehr's valve actually works and the implications of its design; something a skilled artisan simply would not do. These and other problems with replacing Meyers's vent with Sepehr's valve outweigh Petitioner's alleged airflow, reliability, and cleaning improvements, none of which are substantiated in any event.

1. Meyers-Sepehr does not provide the '930 Patent's one-way valve limitations

Claim 14 of the '930 Patent recites specific limitations associated with the "one-way air inlet valve." EX1001 ('930 Pat.), 8:46-50. These limitations dictate the position and orientation of the valve with respect to the nipple. *Id.* For example, the valve must "extend through [the] base" of the nipple and "project[] downwardly from the base." *Id.* The valve in Petitioner's Meyers-Sepehr combination does not satisfy either requirement. Petitioner's valve extends through the areola, not the

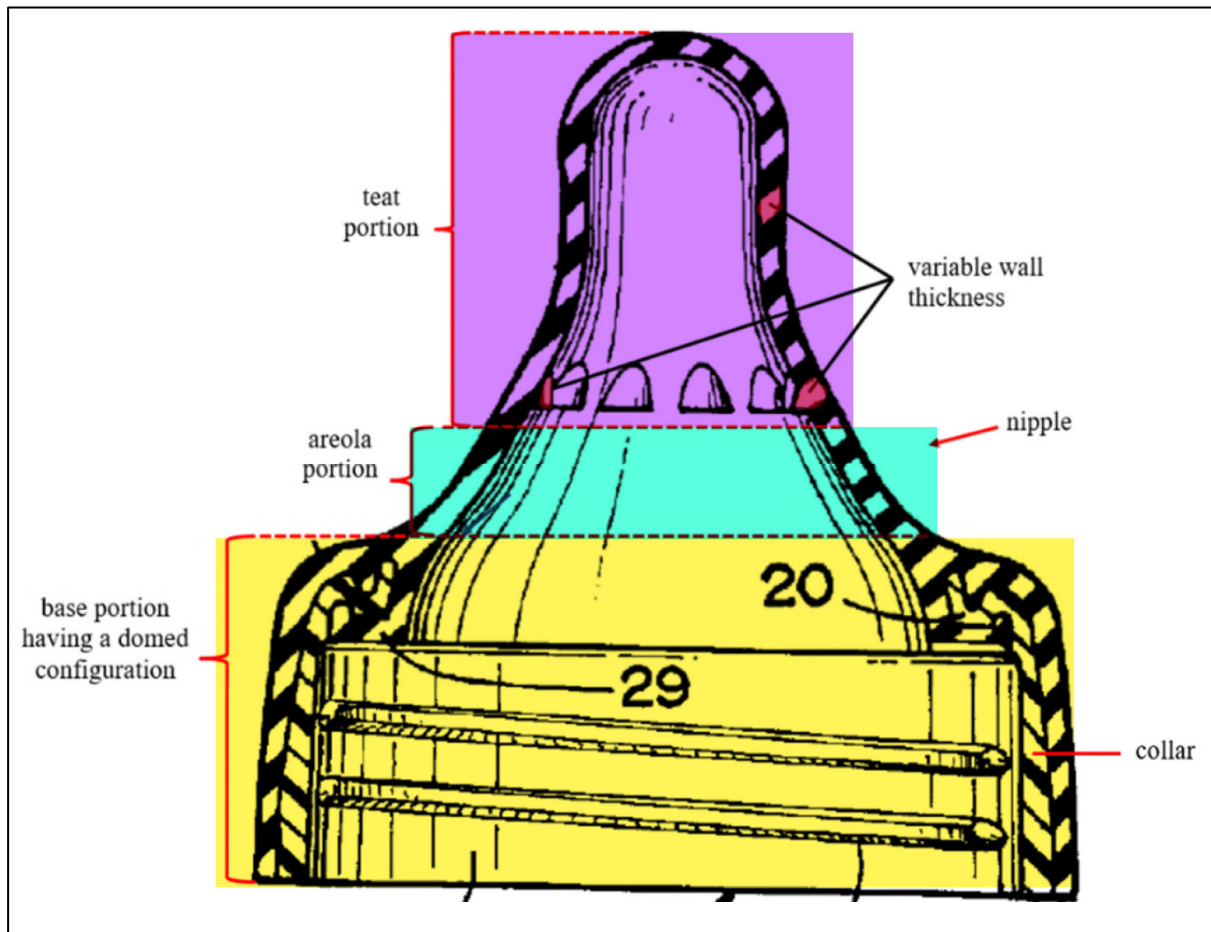
base, and projects inwardly rather than downwardly. These distinctions doom the Petition's Ground 1. *See generally* EX2044 (Fletcher Dec.), ¶¶38-53.

i. The valve in Meyers-Sepehr does not extend through the base

As discussed, the claimed “one-way air inlet valve” must “extend[] through **said base**” of the nipple. EX1001 ('930 Pat.), 8:46-48. “[S]aid base” refers back to claim 14's prior recitation of “a **base portion** having a **domed configuration**.” *Id.*; *see also* EX2044 (Fletcher Dec.), ¶38 (“[T]he valve must extend through the domed base.”). “[B]ase portion” means “the lowest portion of the nipple below the areola portion, excluding the flange,” and “domed configuration” means “wide circular bottom with an arc-shaped cross-sectional profile.” Inst. Dec. at 13-15 (citing EX2008 (*Markman* Order) at 10-15). The '930 Patent's claimed “one-way air inlet valve” must therefore extend through the arc-shaped lowest portion of the nipple below the areola portion, excluding the flange. But Petitioner's valve in the Meyers-Sepehr combination does not do so. Petitioner's valve instead extends through the nipple portion that Petitioner itself identified as the areola in Meyers, which is concave, not arc-shaped. *See* EX2044 (Fletcher Dec.), ¶¶39-46.

As shown below, Petitioner initially identified the “base portion having a domed configuration” as the lowest convex section of Meyers's nipple (highlighted yellow). *See* Pet., 38-40. Above the labeled base portion, there is a concave section

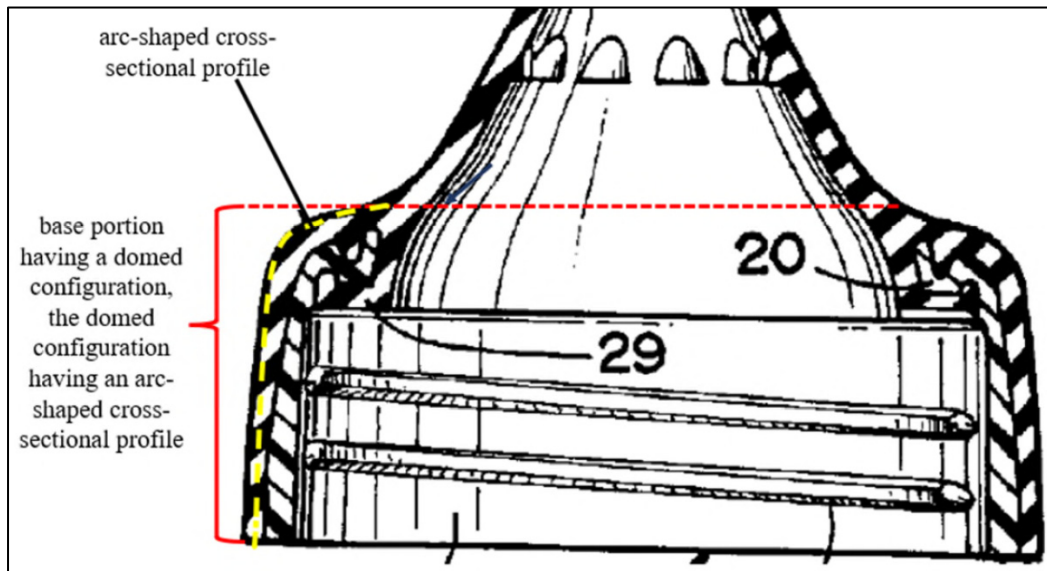
of the nipple, which Petitioner identified as the “areola portion” (highlighted turquoise).



Pet., 38 (Petitioner’s annotations to Meyers’s Figure 5 with Patent Owner’s highlighting).

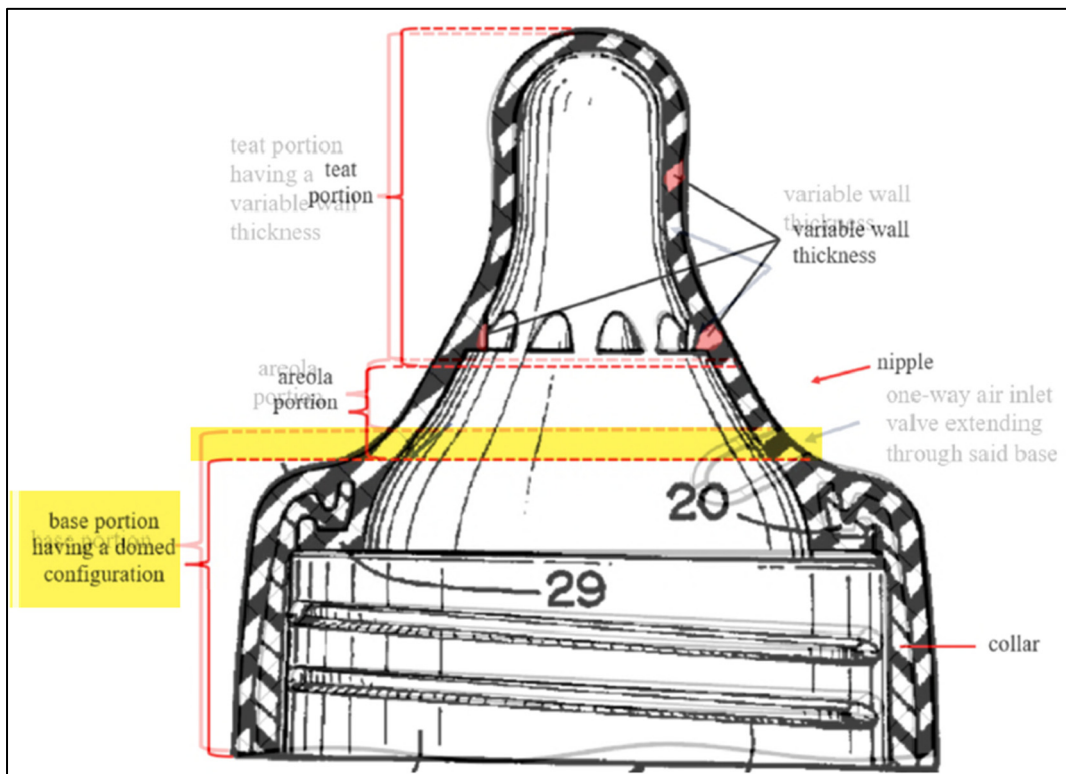
Petitioner designated the lowest *convex* section as the base portion to satisfy the “*arc-shaped* cross-section profile” aspect of Mayborn’s “domed configuration” construction, which the District Court and the Board adopted. *See* Pet., 41-42 (annotated figure below); EX2008, (*Markman* Order) at 14 (recognizing that an arc is necessarily convex, i.e., curves outward). This is why Petitioner’s annotations

place the transition from “areola portion” to “base portion” at the point where the nipple contour flips from concave to convex. *See* EX2044 (Fletcher Dec.), ¶41.

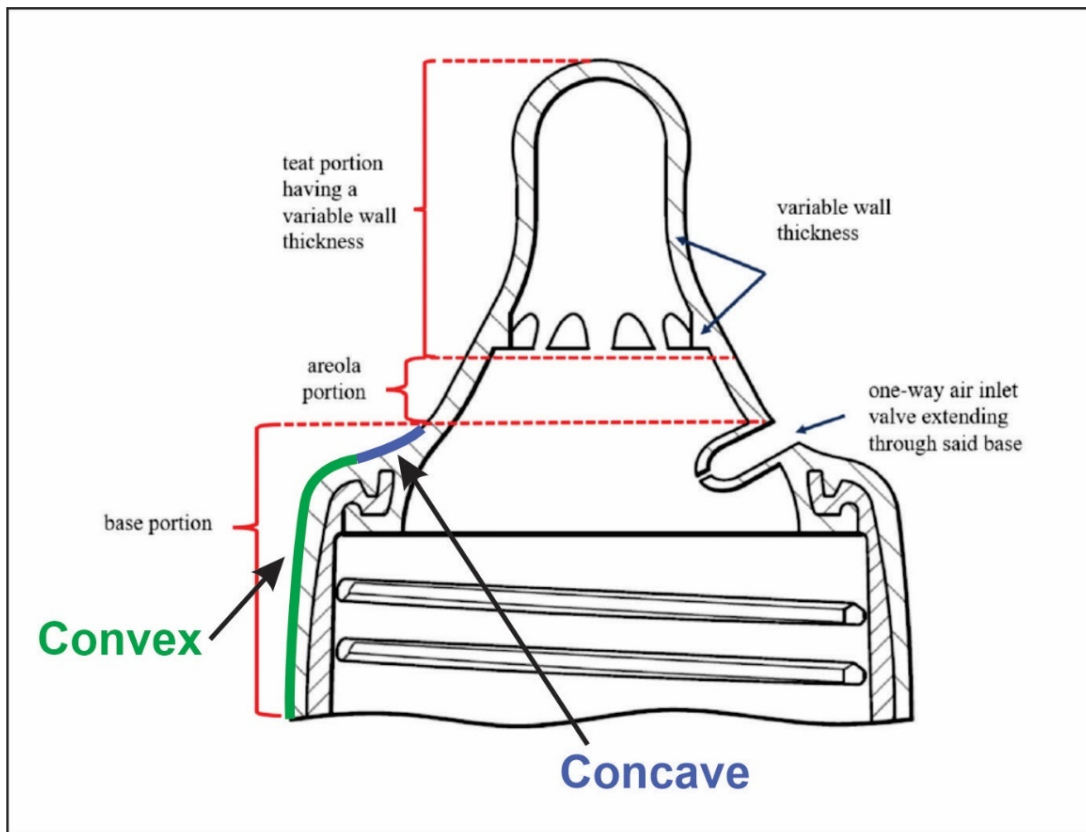


Pet., 42 (excerpt from Petitioner’s annotated version of Meyers’s Figure 5).

Later in its analysis, however, when applying the Meyers-Sepehr combination to the ’930 Patent’s “valve” limitations, Petitioner abandoned its original position on the “base portion” and the “areola portion.” *Compare* Pet., 38, *with* Pet., 46. Instead of maintaining the transition between these portions at the concave-to-convex inflection point of the nipple’s contour, Petitioner created a new dotted-line annotation on the Meyers-Sepehr combination drawing that *moves the starting point of the base higher up on the nipple to accommodate the added valve*. The visual aid below highlights Petitioner’s vacillating position (yellow) by overlaying the annotated combination drawing at Page 46 of the Petition on the annotated version of Meyers’s Figure 5 at Page 38 of the Petition. *See* EX2044 (Fletcher Dec.), ¶43.

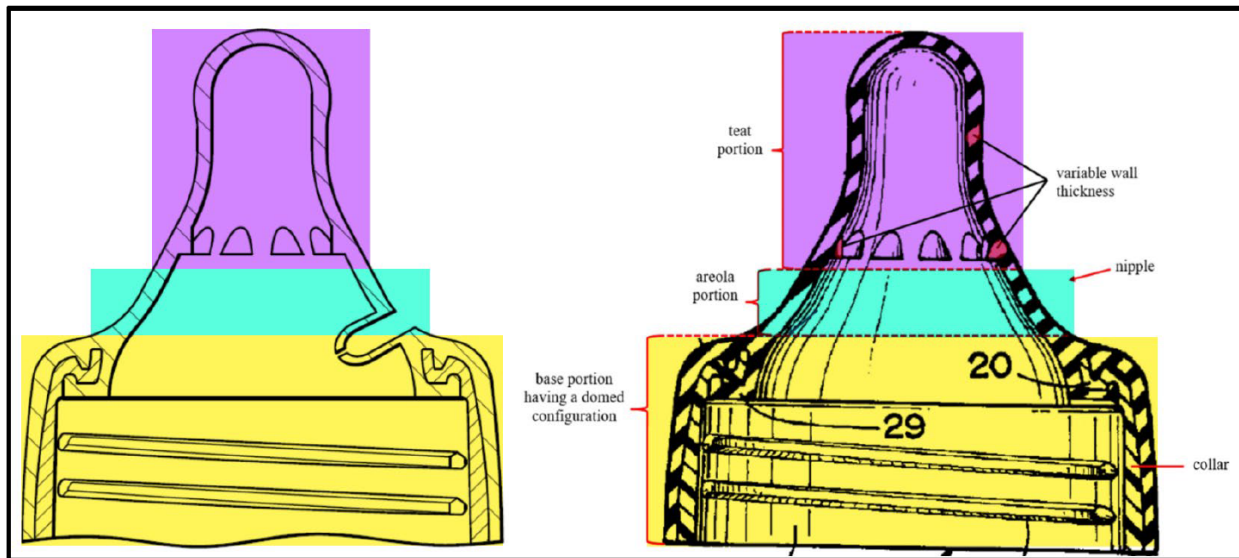


Petitioner’s combination drawing (annotated below) does not place the valve at the lowest, convex portion of nipple—i.e., the “base portion,” per the construed claim language and Petitioner’s original position. Instead, the valve is above the inflection point and extends through the concave portion Petitioner earlier called the “areola.” See EX2044 (Fletcher Dec.), ¶44. The profile of the section wrongly identified as the base in Petitioner’s combination drawing has a profile with both convex and concave curves that is in no way arc-shaped. *Id.*



Pet., 46 (Petitioner’s combination drawing with added “Convex” and “Concave” annotations).

Had Petitioner faithfully maintained its original position—as it must to address the “arc-shaped” aspect of the “domed configuration” construction—there would have been no question that the Meyers-Sepehr combination drawing fails to satisfy the ’930 Patent’s “valve” limitations. *See* EX2044 (Fletcher Dec.), ¶45. This much is clear from comparing Petitioner’s annotated version of Meyers’s Figure 5 (right) against the Meyers-Sepehr combination drawing (left). *Id.* Petitioner’s valve extends through the nipple’s “areola portion” (highlighted turquoise), not the “base portion” (highlighted yellow), as the claims require. *Id.*



Pet, 33 (with added coloring)

Pet., 38 (with added coloring)

Petitioner was caught between a rock and a hard place, and it shows. On the one hand, Petitioner could not have placed the valve in the actual base portion of Meyers's nipple because that configuration is not possible without removing the collar that Petitioner relies on elsewhere in its analysis. *See* EX2044 (Fletcher Dec.), ¶46. On the other hand, Petitioner could not afford to concede openly that the added valve is actually in the nipple's areola rather than its base. So, Petitioner tried to change its definition of the base. But the claims simply do not allow it.

ii. The valve in Meyers-Sepehr does not project downwardly

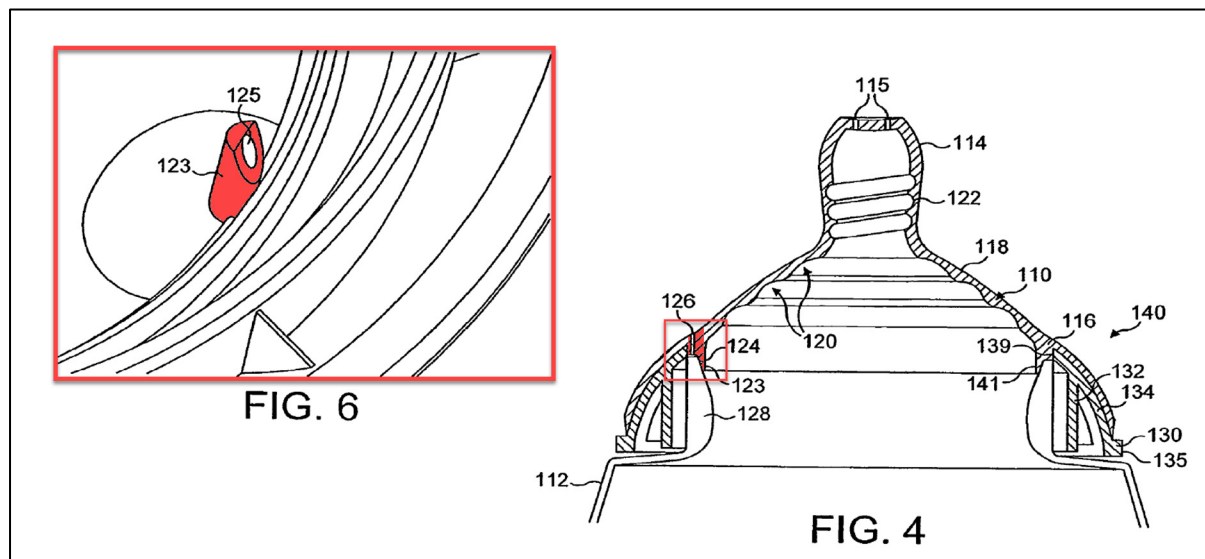
Claim 14 also calls for a one-way air inlet valve “projecting downwardly from the base portion.” EX1001 ('930 Pat.), 8:46-48. This plain language is straightforward and unambiguous. By modifying the gerund verb “projecting,” the adverb “downwardly” indicates the direction in which the valve projects. Simply

put, the valve projects in the downward direction. *See* EX2044 (Fletcher Dec.), ¶¶47-48 (“The meaning of the claim language is clear on its face: the valve projects in the downward direction.”).

Like the claim, the ’930 Patent’s specification describes a preferred embodiment featuring a valve that “projects down”:

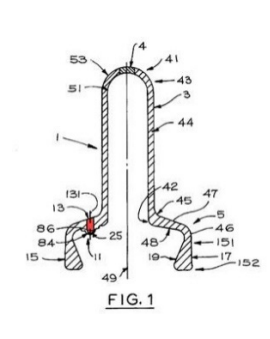
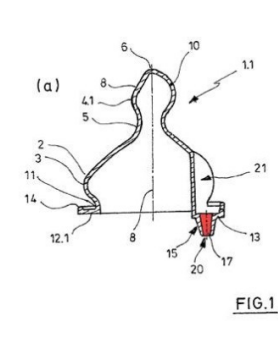
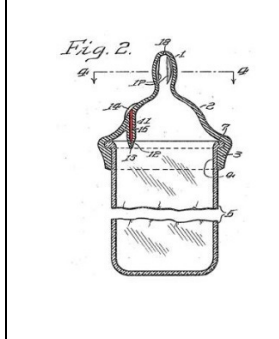
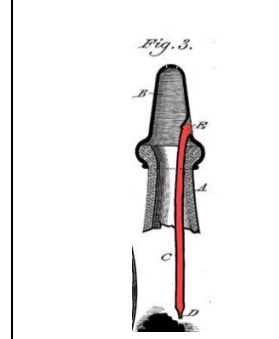
material and substantially at the periphery. A discontinuous flap or lip valve portion 123 projects down from the flange 141 in a portion of the periphery only in the vicinity of the vent passage 126.

EX1001 (’930 Pat.), 5:17-20. And that is exactly what the corresponding figures show—a valve (highlighted red) that projects down. *See id.*, Figures 4 and 6 (annotated below); *see also* EX2044 (Fletcher Dec.), ¶48.



Consistent with the plain claim language and the specification, the prosecution history shows that the Examiner understood the claim to require a valve projecting

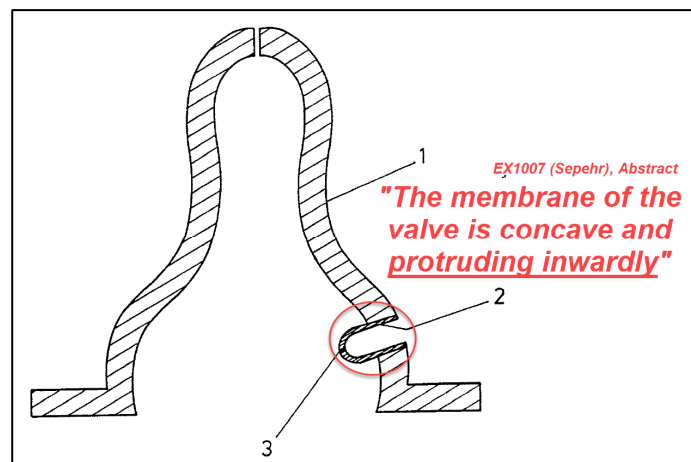
in the downward direction. As demonstrated below, the Examiner repeatedly cited and relied on prior art with downward projecting valves (highlighted red):

US Pat. 5,784,999 EX2034 (Larson)	US Pat. 8,708,174 EX2035 (Itzek)	US Pat. 1,510,571 EX2036 (Ware II)	US Pat. 380,835 EX2037 (Ware I)
			

See EX1002 ('930 Pat. Pros. History), pp. 98-99 (citing Larson), 164 (citing Itzek), 276 (citing Ware II), 369 (citing Ware I); *see also* EX2044 (Fletcher Dec.), ¶49. Not once, among numerous office actions, did the Examiner rely on prior art with a valve pointed anywhere but down.

Rather than a **downwardly** projecting valve, Petitioner's combination incorporates Sepehr's **inwardly** projecting valve. See EX2044 (Fletcher Dec.), ¶51. While Petitioner and its expert, Mr. Silver, characterize Sepehr's valve as "projecting downwardly," they do not even attempt to explain how or why a skilled artisan would reach such a conclusion. With no substantive analysis at all, the Petition consists of a single conclusory sentence that says "the combination of Meyers and Sepehr would result in the air inlet projecting downwardly" and includes text labels to this effect on Petitioner's fabricated combination drawings. See Pet.,

52. Mr. Silver is nearly as conclusory but at least provides pin citations to Sepehr's Abstract and Figure 1. EX1005 (Silver Dec.) ¶¶207-208. The only problem is, those citations do not support Petitioner and Mr. Silver's position. Sepehr's Figure 1 shows a valve that projects *inwardly*, and that is exactly what Sepehr's abstract says: "The membrane of the valve is concave and *protruding inwardly*[.]").

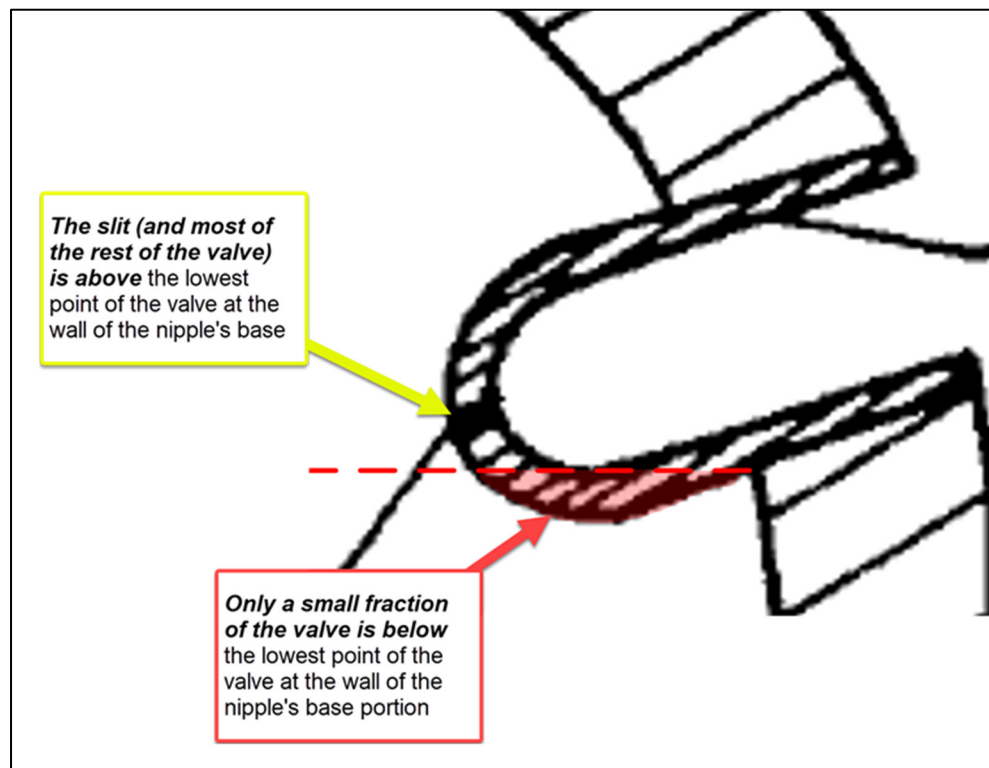


EX1007 (Sepehr), Figure 1 (annotated). Sepehr's description is consistent with how a skilled artisan would understand the orientation of the valve, even as it is shown in Petitioner's combination drawing. As Patent Owner's expert, Mr. Fletcher, explains:

51. I disagree with the Petition and Mr. Silver's declaration to the extent they characterize Sepehr's valve in their combination drawing as "projecting downwardly." The valve does not project downwardly; it projects *inwardly*. That's how a POSITA would understand the structure of the valve, and it is easy to see why. The valve starts at the peripheral wall of the nipple and ends much closer to the nipple's centerline. Thus, the valve projects *inwardly*, i.e., toward the centerline of the nipple.

EX2044 (Fletcher Dec.), ¶51.

Petitioner's failure to explain its position comes as no surprise. There simply is no plausible explanation for conflating inwardly with downwardly like the Petition does. The best Petitioner could say is that the valve of the combination has some degree of a descending slope. But that is not sufficient because Sepehr's valve, as depicted in Sepehr's Figure 1 and the Petition's combination drawing, is tilted only slightly, just a few degrees below the horizontal. EX2044 (Fletcher Dec.), ¶52. A skilled artisan would not call such a slight tilt "projecting downward" in the context of the '930 Patent. *Id.*



EX1007 (Sepehr), Figure 1 (excerpt with annotations); *see also* EX2044 (Fletcher Dec.), ¶52 ("This visual aid is an excerpt from Sepehr's Figure 1 . . . and it highlights how only a small fraction of the valve dips below the horizontal.").

The claims control this inquiry, and the claims say “downwardly,” not “*slightly* downwardly,” “*partially* downwardly,” or “*inwardly and* downwardly.”² See *In re Hiniker Co.*, 150 F.3d 1362, 1369 (Fed. Cir. 1998) (“the name of the game is the claim”). These modifiers appear elsewhere in the ’930 Patent, but not here. See, e.g., EX1001 (’930 Pat.), 5:1 (“extending inwardly slightly”), 8:49-50 (“disposed at least partially inwardly”). Here, “projecting downwardly” means just plain down, but that’s not what Petitioner’s prior art, or even its combination drawing, provides. See EX2044 (Fletcher Dec.), ¶53.

2. Petitioner’s alleged motivation for replacing Meyers’s vent with Sepehr’s valve is underdeveloped and factually flawed

Meyers discloses a vent formed as an aperture in the nipple flange that draws in air through the mated threads of the collar and the bottle. See EX1006 (Meyers), 4:22-29, Figures 13-14. Sepehr discloses a one-way slit valve that extends through the side wall of the nipple and projects inwardly towards the nipple’s centerline. EX1007 (Sepehr), Abstract, Figure 1. Petitioner’s proposed combination is to “modify the nipple design of Meyers such that the air valve is placed above the collar as taught by Sepehr.” Pet., 30. Given the context—baby bottle nipples—this combination may seem straightforward; but the record shows that it is not. See *McGinley v. Franklin Sports, Inc.*, 262 F.3d 1339, 1351 (Fed. Cir. 2001) (“When the

² See EX2033 (Silver Tr.), 165:15-22.

art in question is relatively simple, as is the case here, the opportunity to judge by hindsight is particularly tempting.”). On this record, not one of Petitioner’s proposed motivation rationales holds water. One by one, they are either exposed as unproven or flat out debunked.

To start, Meyers’s vent and Sepehr’s valve are not “analogous solutions” to the problem of relieving vacuum pressure from a baby bottle during feeding. *See* Pet., 27. Rather than adopting Sepehr’s valve design, a skilled artisan would have seen its critical flaw. As explained below, the valve is located relatively close to the nipple’s teat and projects inwardly toward the nipple’s centerline, which means incoming air would be introduced into the liquid very close to the infant’s mouth. Sepehr’s approach would cause the feeding infant to ingest air, which is a known cause of colic.

Petitioner’s alleged airflow, reliability, and cleaning improvements fare no better. *See* Pet., 30-31. Petitioner’s improved airflow theory rests on a fundamental misconception that Sepehr teaches a “one-way air vent communicating directly with the external environment,” which is not true. Pet., 30. Petitioner’s further suggestion that Meyers’s solution of pulling in air through the threads provides inferior airflow to Sepehr’s valve is equally dubious. *See id.* Meyers’s through-the-threads technique has been employed in longstanding commercial products, including one designed by Petitioner’s own expert. Petitioner leans on a single

uncorroborated sentence in Mr. Silver’s declaration for its reliability theory. Pet., 30 (citing EX1005 (Silver Dec.) ¶62). While this sentence suggests potential reliability issues, it fails to explain why any of them apply specifically to Meyers’s vent. Petitioner’s cleaning theory is even worse. See Pet., 31. It is completely backwards. Meyers’s vent is the easier-to-clean option, not Sepehr’s valve.

Finally, flawed and unsubstantiated as they are, Petitioner’s alleged improvement theories are outweighed by the fact that Sepehr’s valve promotes infantile colic, is failure prone because the valve can be blocked by the infant’s lips, and presents manufacturing difficulties that would increase production costs.

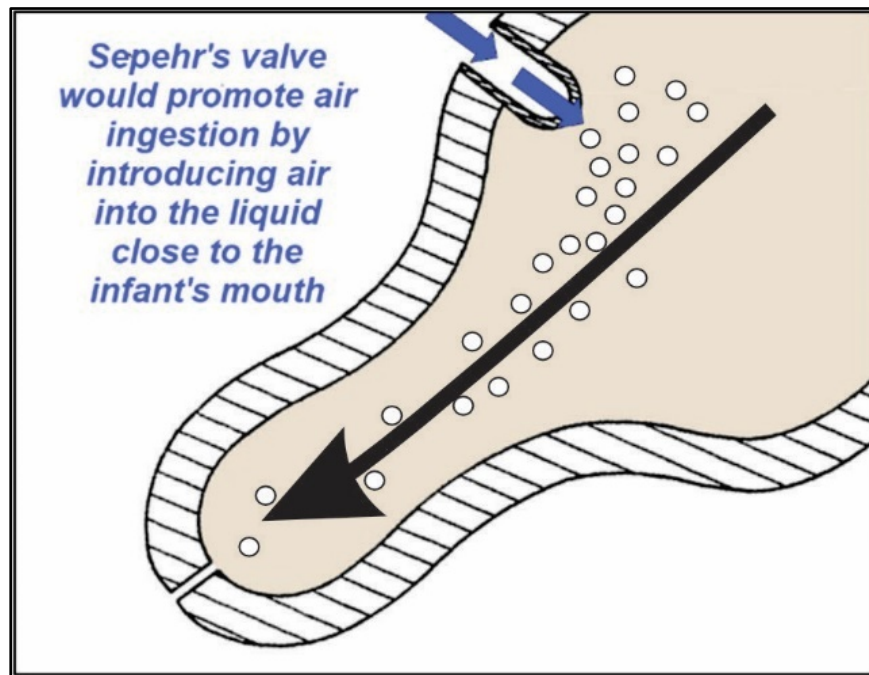
i. Sepehr’s valve is not a suitable solution to the pressure-relief problem

The root of Petitioner’s motivation rationale is its position that “Meyers and Sepehr . . . both teach *analogous solutions* for . . . reliev[ing] negative pressure in the nipple.” Pet., 27. To the extent Petitioner is trying to invoke the “known technique” rationale from *KSR* that the Federal Circuit recently discussed in *Intel Corp. v. PACT XPP Schweiz AG*, 61 F.4th 1373, 1379-81 (Fed. Cir. 2023), that argument fails. Unlike the references in the *PACT* case, a skilled artisan would not have viewed Meyers’s vent and Sepehr’s valve as interchangeable solutions. See EX2044 (Fletcher Dec.), ¶56 (“A POSITA evaluating these references objectively would have appreciated the stark differences between Sepehr’s valve and Meyers’s

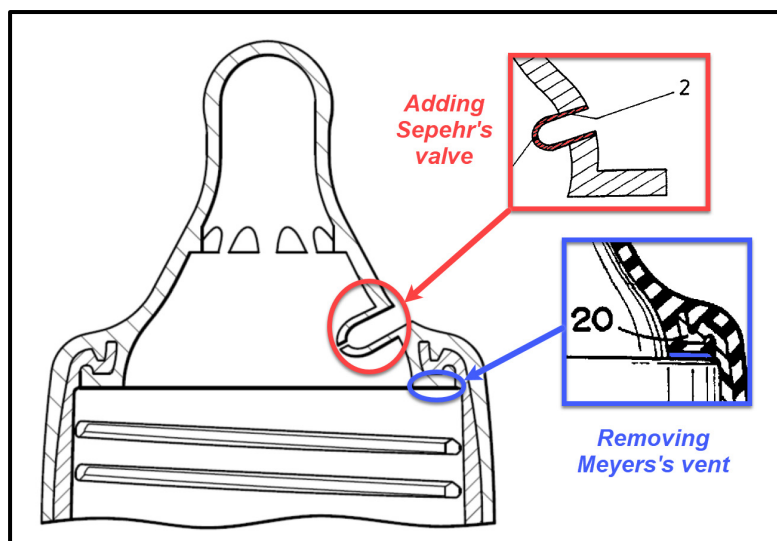
vent, understanding that only the latter is a suitable design option.”).

A skilled artisan would have understood that the version of Sepehr’s valve depicted in Figure 1 was **not** a suitable option for addressing the known problem of preventing vacuum pressure in a baby bottle when an infant sucks milk or formula through the teat of the nipple. *See* EX2044 (Fletcher Dec.), ¶¶56-60. Vacuum pressure is associated with two difficulties in infant bottle feeding. *Id.*, ¶57. One issue is that vacuum pressure makes it difficult for the infant to successfully suckle liquid milk/formula from the bottle and could collapse the nipple. *Id.* (explaining nipple collapse). The other issue is that vacuum pressure can cause infants to ingest an excessive amount of air while feeding. *Id.* (explaining air ingestion). Air ingestion is a suspected cause for a condition called “colic,” which is characterized by frequent and persistent crying and restless in an otherwise healthy and well-fed infant. *Id.*

A fundamental design flaw with Sepehr’s valve is that it projects inwardly toward the centerline of the nipple. *See* EX2044 (Fletcher Dec.), ¶58. As a result, the valve directs incoming air toward the flowpath of liquid that leads to the opening in the nipple teat and the infant’s mouth, as shown in the visual aid below. *Id.*



A skilled artisan would have expected Sepehr's inwardly projecting valve design to *increase* air ingestion and colic versus Meyers's vent. *Id.* This is because Sepehr's valve is closer to the teat than Meyers's vent and directs the air toward the centerline of the nipple close to the infant's mouth, which Meyers's vent does not. *Id.*



Pet., 33 (Petitioner's combination drawing with added annotations).

Where Patent Owner's expert, Mr. Fletcher performed a reasoned, evidence-backed analysis of Sepehr's valve, Petitioner's expert, Mr. Silver, was cursory and conclusory. *Compare* EX2044 (Fletcher Dec.), ¶¶56-59 ("My explanation of Sepehr's flawed design is supported by the prior art patent literature . . ." (citing EX2038, 1:35-42; EX2039, 1:22-30)), *with* EX1005 (Silver Dec.), ¶¶159-160. Mr. Silver never considered whether Sepehr's valve is a viable design option for relieving vacuum pressure. Clearly it is not.

The fact that Sepehr's valve would promote infantile colic undercuts Petitioner's "known technique" rationale. A POSITA would not have deemed a colic-causing valve suitable for relieving vacuum pressure from a baby bottle. After all, the goal of relieving vacuum pressure is to prevent colic. This complication outweighs the purported reliability, airflow, and cleaning benefits that Petitioner and Mr. Silver raised. *See* EX2044 (Fletcher Dec.), ¶60. If Sepehr's valve would not function to serve the primary goal of preventing colic, then ancillary benefits would not matter. *See id.*; ("[F]rom a POSITA's perspective, benefits like increased reliability, improved airflow, and easier-to-clean would not matter if they came at a cost of worsening air ingestion and colic."); *see also Henny Penny Corp. v. Frymaster LLC*, 938 F.3d 1324, 1332 (Fed. Cir. 2019) ("[T]he benefits, both lost and gained, should be weighed against one another.") (quoting *Winner Int'l Royalty Corp. v. Wang*, 202 F.3d 1340, 1349 n.8 (Fed. Cir. 2000)).

ii. No credible evidence supports Petitioner's alleged airflow, reliability, and cleaning improvements

The Board should not credit Mr. Silver's testimony on improved reliability, increased airflow, and ease of cleaning. As an initial matter, Mr. Silver's analysis is conclusory. He makes broad conclusions "without providing any factual basis for [those] assertion[s]." *TQ Delta, LLC v. Cisco Sys.*, 942 F.3d 1352, 1360 (Fed. Cir. 2019); *see also id.* at 1359 ("This court's opinions have repeatedly recognized that conclusory expert testimony is inadequate to support an obviousness determination on substantial evidence review."). For example, Mr. Silver provides no technical analysis at all for his conclusion that Sepehr's valve (allegedly) "communicat[es] directly with the external environment" and would be "more effective at pulling air into the bottle" than Meyers's vent "pulling in air through the threads." EX1005 (Silver Dec.) ¶162. Mr. Silver does not explain how either Sepehr's valve or Meyers's vent works. Nor does he identify, much less apply, the engineering or scientific principles underlying his assertion that Sepehr's valve would perform better than Meyers's vent from an airflow perspective.

Mr. Silver's unsupported and conclusory opinions are entitled to little or no weight. Consolidated Trial Practice Guide at 40 ("Opinions expressed without disclosing the underlying facts or data may be given little or no weight."). *See also* 37 C.F.R. § 42.65(a) ("Expert testimony that does not disclose the underlying facts

or data on which the opinion is based is entitled to little or no weight.”); *Xerox Corp. v. Bytemark, Inc.*, IPR2022-00624, Paper 9 at 15 (PTAB Aug. 24, 2022) (precedential) (“Dr. Jones does not cite to any additional supporting evidence or provide any technical reasoning to support his statement. Thus, the cited declaration testimony is conclusory and unsupported, adds little to the conclusory assertion for which it is offered to support, and is entitled to little weight.”).

Petitioner’s unproven “airflow” theory

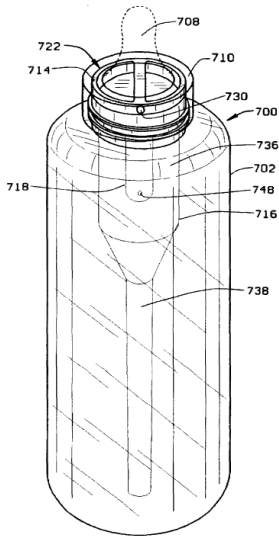
Because Mr. Silver was not thorough, it comes as no surprise that his analysis is replete with critical defects. Mr. Silver’s theory that “[t]he one-way air vent communicating directly with the external environment in Sepehr is more effective at pulling air into the bottle than an air vent through the flange covered by the collar pulling in air through the threads as in Meyers,” (EX1005 ¶162), is unproven and contradicted by record evidence. *See* EX2044 (Fletcher Dec.), ¶¶62-66. Sepehr says nothing at all about its valve providing improved or even particularly good airflow. To the extent he attempts to describe the venting mechanism of Sepehr, Mr. Silver does so incorrectly. *Id.*, ¶¶62-63. Sepehr’s mechanism is not just a vent—it is a vent integrated with a one-way **valve**, and the lips of the valve must be deformed by a sufficient pressure differential between the inside of the bottle and the surrounding environment. *Id.* (citing EX1007 (Sepehr), 3:8-19); *see also* EX2033 (Silver Tr.), 183:12-15 (“I agree that Sepehr contains a valve.”). The valve-regulated vent

passage in Sepehr does not communicate “directly” with the external environment, as Mr. Silver suggests. *See* EX2044 (Fletcher Dec.), ¶¶62-63.

Mr. Silver’s careless analysis seems to have caused some confusion in the Board’s Institution Decision. The Board cited Mr. Silver as supporting the notion 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.” Inst. Dec. at 35. But Petitioner’s combination involves more than just moving Meyers’s vent. *See* EX2044 (Fletcher Dec.), ¶54 (“[S]imply moving Meyers’s vent is *not* what Petitioner and Mr. Silver’s Meyers-Sepehr combination drawing shows.”). Petitioner’s wants to replace Meyers’s vent altogether with Sepehr’s valve. *Id.* And what Mr. Silver failed to explain is that Meyers’s vent is not regulated by a valve, so there is no material deformation or flexure. *See id.*, ¶64 (citing EX1006 (Meyers), 4:29-30 for the proposition that “Meyers does not employ a valve like Sepehr does”), ¶73 (“Meyers’s vent is just a depression in the nipple’s flange that does not have any moving parts.”); EX2033 (Silver Tr.), 143:11-13 (agreeing that Meyers “has a vent”), 161:16-18 (agreeing that a valve and a vent “are not the same”). Incorporating Sepehr’s teachings could not improve anything about a valve in the context of Meyers because Meyers does not have a valve. This fact undercuts Mr. Silver’s improved airflow theory.

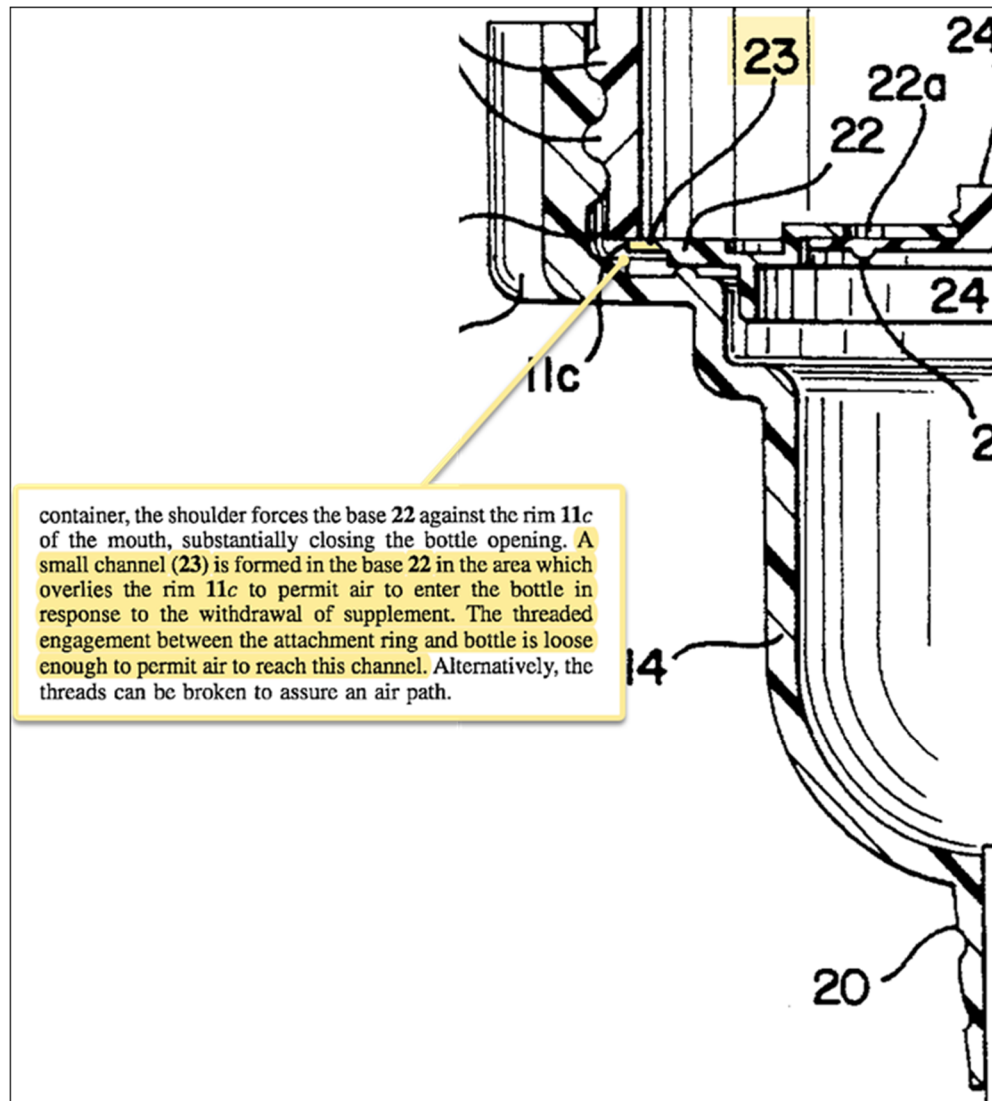
Mr. Silver gives no reason at all for why he thinks it is less effective to pull in air through the threads, as taught by Meyers, compared to pulling in air through Sepehr's one-way valve. *See* EX1005 (Silver Dec.) ¶162. But a skilled artisan would not have jumped to this conclusion unthinkingly like Mr. Silver did. Rather, the skilled artisan would have realized that the direct flowpath Mr. Silver associated with improved airflow actually exists in Meyers, not Sepehr. *See* EX2044 (Fletcher Dec.), ¶64. Unlike Sepehr, Meyers uses a vent without a valve, so there is a direct air flowpath between the vent and the external environment that runs through the threads. *Id.*

Notably, pulling in air through the threads was (and remains) a technique that has been described in the patent literature and employed in longstanding commercial products. *See* EX2044 (Fletcher Dec.), ¶65 (citing EX2040, 5:24-31; EX2041, p.1). For example, the patented Dr. Brown's Natural Flow Baby Bottle (below) employs an air-through-the-threads approach. *See id.*

Dr. Brown's Natural Flow Baby Bottle	U.S. Patent No. 5,779,071 (EX2040)
 The advertisement shows a cross-section of the bottle's internal vent system with text: "Internal vent system benefits: Better preserves nutrients in breastmilk and formula." and "options+ Anti-colic". Below is a full view of the bottle with the "Dr. Brown's" logo and "by Handicraft" text. https://youtu.be/R3pv05CY9Wc	“As the liquid is sucked from the inside of the container, it is replaced with air that passes between the threaded collar 710 and the threads on the neck 706, through the openings 730 into the air conduit 728, and from there through the opening 734 into the vent tube 718 through the opening 734 into the vent tube 718 through the opening 748 in the end of the vent tube, and through the reservoir tube 716 to the air space above the liquid in the inverted bottle. This prevents the formation of a vacuum in the bottle.” 5:24-31  FIG. 6 is a cross-sectional diagram of the bottle's internal vent system. It shows a threaded collar (710) on the neck (706) with openings (730). An air conduit (728) leads from these openings through a vent tube (718) which has an opening (748) at its end. The vent tube is connected to a reservoir tube (716) that leads to an air space above the liquid in the inverted bottle. Other components labeled include 722, 714, 708, 736, 702, 748, 716, and 738. FIG. 6

Like the Dr. Brown's product, Mr. Silver's prior work also discredits his current improved airflow rationale. *See* EX2044 (Fletcher Dec.), ¶66. Tasked here with invalidating the '930 Patent, Mr. Silver criticizes the approach of pulling in air

through the threads, suggesting it has less than optimal airflow properties. But before, when evaluating design options objectively in practice, Mr. Silver touted a through-the-threads approach like Meyers's in his patented breastfeeding assistance device. EX2019 (U.S. Patent No. 5,779,071), 4:2-8.



EX2019, Figure 2 (excerpt with added annotations).

During deposition, Mr. Silver explained how the vent in his feeding device works and confirmed its similarity to Meyers's vent. See EX2033 (Silver Tr.), 55:8-

57:10 (explaining that “air comes up through the threaded area and goes into the channel”), 144:11-21 (affirming that Meyers’s vent is “similar to the vent in the design of [Mr. Silver’s patented] supplemental feeder”). Mr. Silver went on to explain that his own patented design—including the through-the-threads vent—worked so well that it was implemented in a successful commercial product. *See id.*, 57:11-61:4 (“Q: How would you—would you say it’s a successful product? A: Yes.”). Mr. Silver cannot credibly hold the opinion that Meyers’s vent provides less than adequate airflow when he previously employed a substantially similar approach to great effect in the marketplace.

Petitioner’s unproven “reliability” theory

Without further detail or discussion, the Petition suggests that employing Sepehr’s valve instead of Meyers’s vent would “further improve reliability of the nipple to equalize the pressure.” Pet., 30. To the extent Mr. Silver expounds on this subject, he does so in one long, confused, and conclusory run-on sentence.

First, Mr. Silver states that moving the vent from below the collar to above the collar improves “the functionality and reliability of the nipple to equalize the pressure by improving the flow of air that can vary in the collar region due to the compressive force applied to the vent passage from connection to the bottle.” *See* EX1005 (Silver Dec.), ¶162. Assuming this unexplained “compressive force” is based on the collar forcing the flange against the neck of the bottle, the user would

have to severely over-torque the collar to impact Meyers's vent. *See* EX2044 (Fletcher Dec.), ¶¶68-70 (discussing Meyers's vent design). This type of misuse scenario would not control a skilled artisan's analysis, and it would be outweighed by the tendency of Sepehr's valve to promote air-ingestion, even when the product is used as-directed. *Id.*

To the extent Meyers's design "rel[ies] on the correct amount of screw pressure being applied by the user on fixing the teat which can give rise to varied levels of valving between uses," (EX1001, 2:1-5), that revelation is sourced from the '930 Patent, not the prior art. *See, e.g., W.L. Gore & Assocs. v. Garlock, Inc.*, 721 F.2d 1540, 1553 (Fed. Cir. 1983) ("To imbue one of ordinary skill in the art with knowledge of the invention in suit, when no prior art reference or references of record convey or suggest that knowledge, is to fall victim to the insidious effect of a hindsight syndrome wherein that which only the inventor taught is used against its teacher."); *In re Sponnoble*, 56 C.C.P.A. 823, 832, 405 F.2d 578, 585 (C.C.P.A. 1969) ("[A] patentable invention may lie in the discovery of the source of a problem even though the remedy may be obvious once the source of the problem is identified.").

Notably, Mr. Silver gives no indication or explanation whatsoever in his declaration as to how or why a POSITA would have had this screw-pressure motivation without reading it from the '930 Patent. At best, Mr. Silver could have

written what he said during deposition—that he “personally knew it” from “actually testing product and building our own product.” EX2033 (Silver Tr.), 187:1-12. Even if this were true, it is irrelevant. Mr. Silver’s level of skill gained from many years of testing and building products is far beyond the ordinary skill level he proposed for this proceeding, which includes as few as two years of “practical experience related to the design of infant feeding products.” EX2005 (Silver Dec.) ¶47; *see also id.*, ¶¶7-10 (detailing decades of experience and design work).

Mr. Silver also states that in Meyers’s design “the flow of air that can vary in the collar region . . . due to changes to the shape or size or integrity of the vent passage caused by the bottle lip as the parts are secured together.” EX1005 (Silver Dec.), ¶162. This argument is hopelessly unclear. *See* EX2044 (Fletcher Dec.), ¶71 (“It is impossible for me to determine with any reasonable degree of certainty what . . . Mr. Silver is referring to[.]”). It is also unfounded speculation, as evidenced by Mr. Silver’s disjunctive recitation of “changes to the shape *or* size *or* integrity of the vent passage.” Mr. Silver’s kitchen sink approach is simply not credible, particularly in view of his patent that touts a design that uses a vent similar to that used in Meyers. Mr. Silver knows very well that a vent like Meyers’s can readily interface with the lip of a bottle without incident. Such speculation without support is entitled to little to no weight. 37 C.F.R. § 42.65(a); *Bytemark, Inc.*, IPR2022-00624, Paper 9 at 15.

Next, Mr. Silver baldly states that “changes in the material over time . . . would impede the reliability of the valve [*sic*: vent] to relieve negative pressure in the nipple without leaking.” EX1005 (Silver Dec.), ¶162. But he fails to explain how or why Sepehr’s valve would not suffer the same reliability issue as Meyers’s vent regarding “changes in the material over time.” *See* EX2044 (Fletcher Dec.), ¶¶72-74. Sepehr does not disclose a new and improved material. *Id.* Nor is there any reason why Sepehr’s valve and Meyers’s vent could not be made from the same material. *Id.* To the extent the material of the nipple poses a problem for Meyers’s vent (which Mr. Silver has not actually established), it poses the same problem (or worse) for Sepehr’s valve and, thus, offers no motivation to employ one or the other. *See* EX2044 (Fletcher Dec.), ¶74. Again, Mr. Silver’s testimony is entitled to little or no weight.

Setting aside the specific problems with the assertions in Mr. Silver’s conclusory run-on sentence about reliability, he should not be credited on this issue because his analysis is incomplete. Mr. Silver did not disclose to the Board what he knows to be true: Slit valves like the one Sepehr discloses have a variety of known reliability concerns. *See* EX2033 (Silver Tr.), 161:19-163:17 (noting, among other issues, that “[t]he two sides [of the slit valve] could potentially stick together”); EX2044 (Fletcher Dec.), ¶74 (explaining that “material changes could prevent Sepehr’s valve from opening or closing,” which was “a known issue with slit valves

formed in silicone nipples”). Tellingly, though, Mr. Silver performed no substantive analysis in this proceeding comparing the reliability of slit valves to the type of under-the-collar vent in Meyers.

Finally, the Petition raises an additional aspect of the “reliability” theory that finds no support in Mr. Silver’s declaration. According to the Petition, using Sepehr’s above-the-collar valve would “avoid debris that may be trapped in the collar region.” Pet., 31. As a threshold matter, the Board should reject argument because it is pure attorney argument that lacks evidentiary support. Attorney argument is not evidence at all, much less substantial evidence. *See Icon Health & Fitness, Inc. v. Strava, Inc.*, 849 F.3d 1034, 1043 (Fed. Cir. 2017) (reiterating that “[a]ttorney argument is not evidence” and vacating the Board’s decision for relying on the same). The Board should also reject this argument on the merits because Sepehr’s valve is positioned higher up on the nipple where it is equally exposed to debris—if not more so—than the vent in the collar region on Meyers’s nipple. EX2044 (Fletcher Dec.), ¶75.

Petitioner’s unproven “cleaning” theory

The Petition says “[a] POSA would be further motivated and find it obvious, to the extent not disclosed by Meyers, to modify the nipple design of Meyers such that the air valve is placed above the collar as taught by Sepehr in order to improve cleaning and maintenance of the nipple.” Pet., 31; *see also* EX1005 (Silver Dec.)

¶163 (same, verbatim). Specifically, the Petition claims that “locat[ing] the vent above the collar” would make it more “easily boiled and hygienically cleaned.” Pet., 31 (quoting EX1007 (Sepehr), 2:20-26, 3:21-24); *see also* EX1005 (Silver Dec.)

¶163 (same, verbatim). Here, as before, the Petition’s analysis does not add up. Whether above or below the collar on Meyers’s nipple, the vent or valve is easily reached and cleaned by boiling water or by hand when the nipple is taken off of the bottle. EX2044 (Fletcher Dec.), ¶76. What’s more, a skilled artisan would have known that the deep cylindrical recession of the Sepehr valve is much more difficult to access and properly clean (e.g., with a bottle brush) than Meyers’s vent. *Id.* Sepehr offers no improvement to Meyers in this regard.

*iii. The performance and manufacturing problems with
Sepehr’s valve outweigh Petitioner’s alleged benefits*

As discussed, Petitioner’s alleged airflow, reliability, and cleaning improvement theories are outweighed by the fact that Sepehr’s valve promotes colic and is therefore not a suitable option for relieving vacuum pressure. And there are even more reasons why a skilled artisan would not have been prompted to use Sepehr’s flawed valve design in conjunction with Meyers’s nipple.

Setting aside the fact that it would likely *increase* the type of air ingestion that causes colic, Sepehr’s valve would not function reliably in Petitioner’s proposed combination. *See* EX2044 (Fletcher Dec.), ¶¶78-79. As shown below, with many

conventional nipple shapes like Meyers's the infant often puts all or nearly all of the portion of the nipple above the collar in his/her mouth. *Id.*, ¶78.



<https://norani.com/blogs/blog/when-to-switch-nipple-sizes-on-babys-bottle-a-full-guide>



<https://www.drbrownsbaby.com/product/dr-browns-options-plus-baby-bottle-narrow/>

Accordingly, in Petitioner's Meyers-Sepehr combination—which puts the valve well above the collar on a conventional nipple shape—the valve would be completely or partially covered up by the infant's lips, preventing the valve from serving its intended function of allowing airflow into the bottle. *Id.*, ¶79.



It is important to note that if Petitioner had repositioned the valve of Sepehr from extending inwardly to extending downwardly in the nipple of Meyers, the vent passage would be forced even farther up the nipple of Petitioner's combination to clear the internal structure of the nipple near the top of the collar. This would defeat the purpose of the vent as the infant's lips would almost certainly cover the vent passage during feeding. And this would also move the vent even further from the base portion required by the claim.

Yet another problem with Sepehr's valve is that it creates manufacturing difficulties that would increase costs. Because the valve protrudes inwardly instead of downwardly, special mold slides would be required during manufacturing. *See*

EX2044 (Fletcher Dec.), ¶¶80-81 (explaining manufacturing difficulties). These additional components would drive up tooling costs and slow down the molding process, both of which go against Meyers’s goal of producing a nipple that is “economical to manufacture,” (EX1006, 2:3-6). *See* EX2044 (Fletcher Dec.), ¶82.

3. The base of Meyers’s nipple is curved but not “domed”

In addition to the missing “valve” limitations, Petitioner’s prior art also lacks “a base portion having a *domed configuration*.” EX1001 (’930 Pat.), 8:43. The Board’s Institution Decision adopts the District Court’s construction of “domed configuration” as “wide circular bottom with an arc-shaped cross-sectional profile.” *See* Inst. Dec. at 13-14 (citing EX2008 (*Markman* Order) at 15). As the Board aptly observed, the District Court’s “*Markman* Order provided a thorough and reasoned explanation of the construction, citing evidence and argument submitted by both parties.” *Id.* Patent Owner agrees and requests that the Board again adopt the District Court’s construction in the upcoming Final Written Decision. Petitioner was aware of this construction but glossed over it in the Petition. Specifically, Petitioner failed to adequately address the “*wide* circular bottom” aspect of the construction, which is entitled to patentable weight and distinguishes prior art like Meyers. *See generally* EX2044 (Fletcher Dec.), ¶¶83-98.

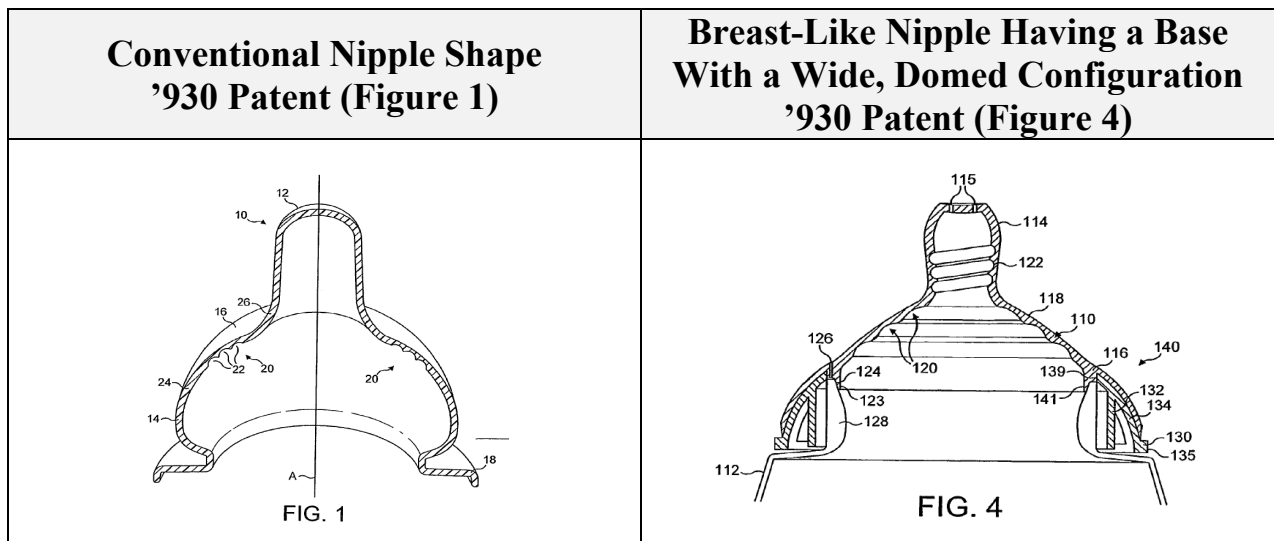
i. The word “wide” in the adopted “domed” construction distinguishes conventional nipple shapes

The District Court’s claim construction analysis is drawn from the ’930 Patent’s specification, which describes the base portion of the nipple as “being shaped like a breast and having a **wide**, domed configuration.” EX1001 (’930 Pat.), 4:1-3. Thus, “the specification supports the use of ‘wide’” in the construction of “domed configuration.” EX2008 (*Markman* Order) at 13. The specification also shows that “wide” carries an important meaning that distinguishes the ’930 Patent’s “domed configuration” from conventional nipple shapes. *See* EX2044 (Fletcher Dec.), ¶85.

In common parlance, “wide” means having a greater than typical lateral extent or width. EX2029, p.3 (defining “wide” as “of great or more than average width”). And that’s how the term is used in the specification. By describing the nipple shown in the ’930 Patent’s Figure 4 as having a domed base that is “wide,” the specification is saying that the wide base has a larger diameter than a typical baby bottle nipple, one that more closely replicates the characteristic anatomical shape of a human breast. *See* EX1001 (’930 Pat.), 4:1-3 (“shaped like a breast”); EX2044 (Fletcher Dec.), ¶¶86-87 (explaining that a breast-like shape in this context refers to a shape that approximates the anatomy of a typical human breast). A skilled artisan familiar with the landscape of pre-existing nipples would have appreciated that the Figure 4

embodiment matches this description and understanding of “wide.” *See* EX2044 (Fletcher Dec.), ¶86.

The ’930 Patent further solidifies the skilled artisan’s understanding of “wide” by juxtaposing a conventional nipple shape in Figure 1 (and also Figures 2a-2b) against a domed configuration in Figure 4. Only the Figure 4 embodiment is described as “domed” and “wide.” EX1001 (’930 Pat.), 4:1-3. The Figure 1 embodiment, by contrast, carries no such description because the nipple shown there has a conventional shape that resembles popular products on the market before the ’930 Patent. *See* EX2044 (Fletcher Dec.), ¶¶88-89 (“[T]he Figure 1 nipple looks quite similar to known products on the market made by major manufacturers, such as the AVENT Classic baby bottle nipple[.]”).

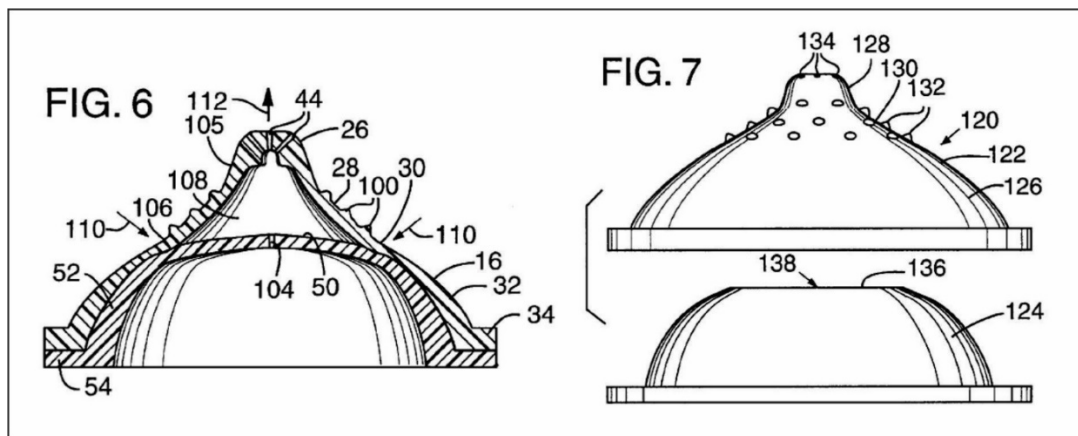


Just as a skilled artisan would have appreciated the distinction between Figure 1’s conventional nipple shape and the wide, domed shape and configuration

of Figure 4, so too did Petitioner’s counsel. During the District Court’s *Markman* hearing, Petitioner’s counsel emphasized that Figure 4 is “the breast-shaped wide embodiment” while “the other embodiment, this figure 1 embodiment,” has “a different type of shape.” EX2043 (*Markman* Tr.), 80:15-81:5; *see also id.*, 142:3-15 (“So, figure 4 is what we’re talking about here, because that’s what discloses the specific [domed] structure that’s claimed here. That’s what’s relevant.”); *Qualcomm Inc. v. Apple Inc.*, 24 F.4th 1367, 1376 (Fed. Cir. 2022) (“party admissions . . . are permissible evidence in an *inter partes* review”); *Hanson v. Waller*, 888 F.2d 806, 814 (11th Cir. 1989) (affirming that litigation-related admissions by a party’s counsel were admissible evidence).

The distinction between the conventional nipple shape of Figure 1 and the “wide,” “domed” nipple shape of Figure 4 is no coincidence. They are two different embodiments. *See* EX1001 (’930 Pat.), 2:29-30 (“FIG. 1 is a cross-sectional side view of a teat according to the present invention[.]”), 2:37-38 (“FIG. 4 is a cross-sectional side view of a teat and vessel according to ***another aspect*** of the present invention[.]”). And these different embodiments were disclosed in different priority applications. The Figure 1 embodiment traces back to GB 0414560.3 filed June 29, 2004, while the Figure 4 embodiment traces back to GB 0502599.4 filed February 8, 2005. *Compare* EX2022, *with* EX2023.

Prior art cited on the face of the '930 Patent provides even further intrinsic evidence³ that the meaning of “wide” in the “domed configuration” construction connotes a base or lower portion of the nipple that is wider than a conventional nipple design. See EX2044 (Fletcher Dec.), ¶¶90-94. For example, U.S. Pat. No. 6,161,710, which issued on December 19, 2000 to Dieringer, et al. and bears the title “Natural Nipple Baby Feeding Apparatus,” touts the superiority of a “wide” nipple design—e.g., one “having a width approximately double that of the height of the nipple apparatus.” EX2024, 1:10-17, 5:38-50 (“[D]ue to the *wide diameter*, color, texture pliancy, stretchability and shape of the outer membrane, an infant will recognize and be comfortable with the nipple apparatus of the present invention.”), Figures 6-7 (below); see also EX1001 ('930 Pat.), [56] (listing Dieringer Patent”).



³ *V-Formation, Inc. v. Benetton Grp. SpA*, 401 F.3d 1307, 1311 (Fed. Cir. 2005) (“[P]rior art . . . cited in the prosecution history . . . constitutes intrinsic evidence.”).

By contrast, older nipples like those pictured below “do not look or feel like a natural breast” because they have “a width much narrower than a natural breast.” EX2024, 2:28-41; *see also* EX2044 (Fletcher Dec.), ¶94 (“[N]one of these nipples has a wide base with a domed configuration that resembles the anatomical shape of a human breast like the ’930 Patent’s Figure 4 or the nipples in the Dieringer Patent.”). Unlike a “wide” breast-like nipple, “once the infant is comfortable with bottle feeding [using these older, narrower nipples] the infant will often encounter ‘nipple confusion’ upon returning to breastfeeding.” EX2024, 2:28-41; *see also* EX2031 (discussing “nipple confusion”).



Accordingly, the intrinsic and extrinsic evidence not only supports inclusion of “wide” in the construction of “domed configuration,” just as the District Court concluded and the Board affirmed, but the evidence also supports an understanding of “wide” as requiring a diameter larger than that of a conventional baby bottle nipple, such that the nipple approximates the anatomical shape of the part of a typical human breast with which the infant interacts during feeding.

ii. *The word “wide” in the adopted “domed configuration” construction deserves patentable weight*

In a co-pending proceeding involving a related patent having a common specification with the '930 Patent the Board discussed the word “wide” from the “domed configuration” construction. *See Nanobebe US Inc. v. Mayborn (UK) Limited*, IPR2023-00465, Paper 11 (Inst. Dec.) at 25 (PTAB Jun. 16, 2023) (discussing the equivalent claim term “domed shape”). As part of that discussion, Board cited *In re Rose*, 220 F.2d 459, 463 (C.C.P.A. 1955), for the proposition that “[c]hanges in the size and proportion do not render a product patentable unless it performs differently.” *Id.* That case involved claims to “a lumber package,” and the Court rejected the patent applicant’s attempt to overcome prior art disclosing lumber packages that “can be lifted by hand” based on the claims’ requirement “that the package is of appreciable size and weight so as to require handling by a lift truck.” 220 F.2d at 460, 463. The present case before the Board is distinguishable from *In re Rose* in multiple important respects.

First, “wide” in this case is distinguishable from “the size of the article” in *In re Rose*. 220 F.2d at 463. Instead of a mere change in *size*, the word “wide” in the adopted construction is used to describe the “domed configuration” (or, equivalently, “domed *shape*”) of a baby bottle nipple—i.e., a shape comprised of a “wide circular bottom with an arc-shaped cross-section profile.”

Second, in the context of defining the '930 Patent's nipple shape, "wide" is a performance-enhancing feature. See EX2044 (Fletcher Dec.), ¶87. As the specification explains, a nipple with a base portion "having a wide, domed configuration" is "shaped [more] like a breast" than conventional designs. EX1001 ('930 Pat.), 4:1-3; compare *id.*, Figure 4, with Figure 1. Accordingly, "the experience of the infant is as similar as possible to the natural experience of breast feeding." *Id.*, 4:9-10. This similarity between the baby bottle nipple and the anatomy of a human breast encourages a natural latch and prevents nipple confusion when switching between bottle and breast. See EX2044 (Fletcher Dec.), ¶87.

Notably, Petitioner's expert, Mr. Silver, obtained a United States patent that critiqued the "specific shape" of a "conventional artificial nipple" and sought an improved design "that more closely mimics that of a natural breast." EX2020, 1:52-2:5. Accordingly, when asked whether "it [is] fair to say that the nipple shape can be important to how a nipple functions," Mr. Silver answered unequivocally, "Yes." EX2033 (Silver Tr.), 72:13-16.

Finally, *In re Rose* was an appeal from a decision by the Board to uphold an examiner's rejection during *ex parte* prosecution. The posture of this case is different. This case is an adversarial *inter partes* review proceeding, where the petitioner owns the burden of proof. See 35 U.S.C. § 316(e) ("the petitioner shall have the burden of proving a proposition of unpatentability by a preponderance of

the evidence”). To the extent Petitioner relies on a theory that the construed “domed configuration” limitation—specifically, the word “wide”—deserves no patentable weight due to a lack of performance utility, it is Petitioner who must prove the lack-of-utility premise; Patent Owner is not burdened with disproving it. *See In re Magnum Oil Tools Int’l, Ltd.*, 829 F.3d 1364, 1376 (Fed. Cir. 2016) (“[I]t is inappropriate to shift the burden to the patentee after institution to prove that the patent is patentable.”); *Gardner v. TEC Sys.*, 725 F.2d 1338, 1345 (Fed. Cir. 1984) (en banc) (explaining that whether the limitations have “no effect on [] performance” is “of course, a fact which [the patent challenger] had the burden of proving”).

Petitioner was well acquainted with Patent Owner’s proposed, and now adopted, “domed configuration” construction when it filed its Petition. Indeed, the Petition acknowledges and cites Patent Owner’s claim construction briefs, which emphasize the word “wide”. *See* Pet., 16-17; EX1017 (Mayborn’s Claim Construction Brief), 8-9; EX1019 (Mayborn’s Claim Construction Reply). Despite its knowledge of the construction and statutory burden of proof, Petitioner did not argue in the Petition that “wide” in the “domed configuration” construction lacks patentable weight. Instead, the Petition states “whether the terms of the ’930 Patent are afforded Patent Owner’s or Petitioner’s construction, the grounds render the claims obvious,” (Pet., 16), and argues “Meyers discloses” the “domed configuration” limitation,” (*id.*, 41).

It is now too late for Petitioner to raise and support a new theory that the “wide” aspect of the adopted “domed configuration” construction lacks patentable weight due to a lack of utility. *See, e.g., Intelligent Bio-Systems, Inc. v. Illumina Cambridge, Ltd.*, 821 F.3d 1359, 1369-1370 (affirming the Board’s refusal to consider a new obviousness theory “raised for the first time in [the petitioner’s] reply brief and expert declaration”); *GN Hearing A/S v. Oticon A/S*, IPR2017-01926, Paper 39 at 37 (PTAB Mar. 4, 2019) (“We observe that Petitioner has argued in its Reply for the first time that language recited in claim 7 amounts only to aspirational intended use entitled to no patentable weight. This construction was not argued in the Petition. Petitioner cannot introduce a new argument in a reply.” (cites omitted)).

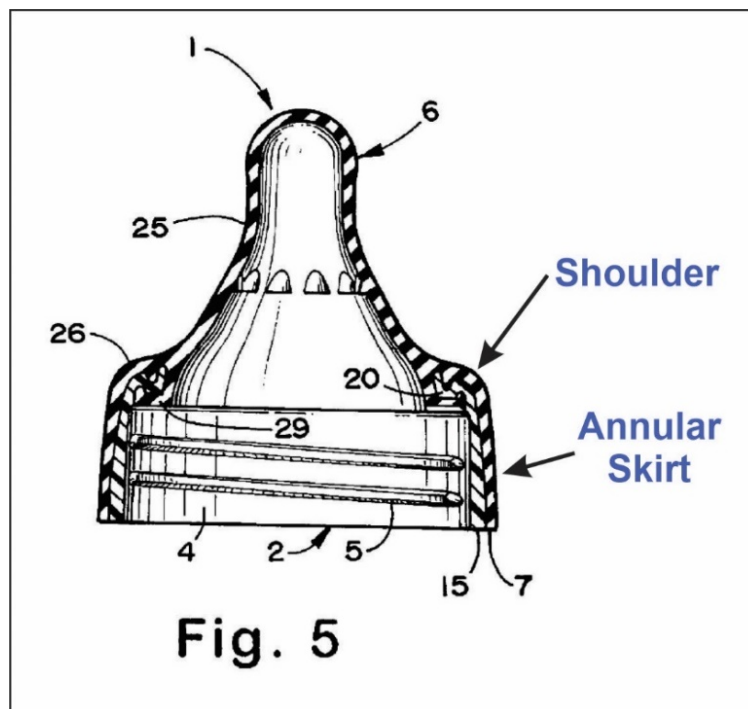
Given the substance and posture of this case, the word “wide” in the adopted “domed configuration” construction deserves patentable weight.

iii. Meyers’s nipple cannot be “domed” because it is even narrower than the conventional nipple in the ’930 Patent

The Petition gives no substantive consideration to the word “wide” in the now-adopted construction of “domed configuration.” All the Petition says is that “the base portion 26 [of Meyers’s nipple] as viewed from above and below in Figs. 11-13 is circular.” Pet., 42. But circular is not enough. A “domed configuration” requires a “**wide** circular bottom,” which Meyers does not disclose and the Petition does not address. *See* EX2044 (Fletcher Dec.), ¶96. It stands to reason that if

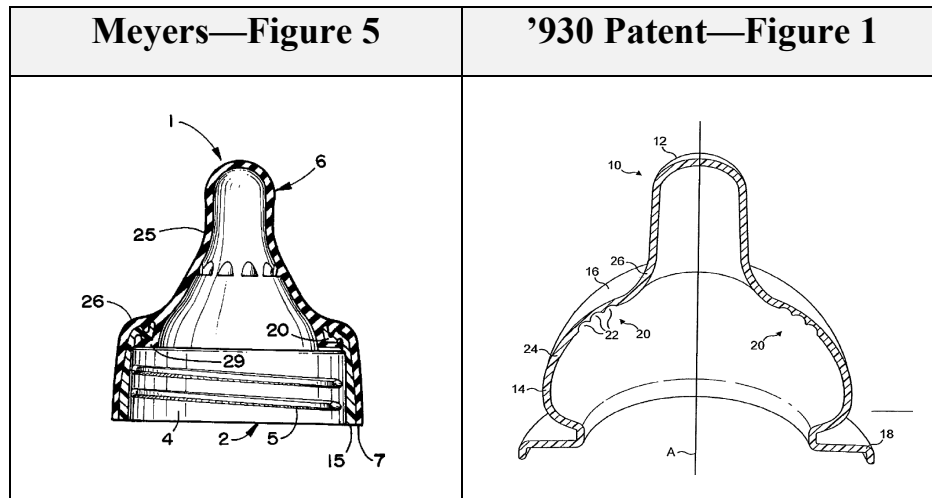
Meyers meant to disclose a domed nipple base, he would have said so. But there is no such description in Meyers. The nipple base in Meyers is “uniquely shaped” (EX1006 (Meyers), 3:66-4:1), but in a different way. Instead of a “domed configuration,” Meyers’s nipple base is uniquely “molded over [the] collar.” *Id.*

As a result, the base of the nipple features a curved shoulder and an annular skirt that follow the contour of the collar. *See* EX2044 (Fletcher Dec.), ¶96. The shoulder and skirt only slightly increase the width of the nipple’s base because the collar is nearly vertical in cross-section and does not project radially outward to a significant degree. *Id.* The shoulder and skirt of Meyers’s nipple base do not transform an otherwise conventional nipple shape into a “domed configuration.”



EX1006 (Meyers), Figure 5 (annotated).

Yet another indicator of Meyers’s shortcoming, its nipple base is even narrower than the conventional-shaped nipple depicted in the ’930 Patent’s Figure 1, which is *not* wide or domed. See EX2044 (Fletcher Dec.), ¶¶97; *supra*, §III.A.3.i.



Recognizing that Meyers’s nipple base is not “wide” in the sense of the ’930 Patent, Mr. Silver offers an alternative theory. He argues that the base area 26 of Meyers’s nipple “is wider than the portions of the nipple above it.” EX1005 (Silver Dec.) ¶191. Mr. Silver’s view is wrong for multiple reasons.

First, it relies on an interpretation of “wide”—i.e., wider than any other portion of the nipple—that finds no support in the specification and defies a skilled artisan’s understanding of the ’930 Patent. See EX2044 (Fletcher Dec.), ¶98.

Second, this analytical framework breaks down when put to the test. For example, Mr. Silver attempted to employ a wider-than-the-teat framework under cross-examination, and it led him to a dead-end. When asked “how much wider does the base need to be from the teat portion for it to be a nipple with a wide base,” Mr.

Silver said, “I don’t have an exact dimension.” EX2033 (Silver Tr.), 139:5-14. When asked more simply for “any sort of metric at all by which we could understand how to make that [wide] determination in your review,” Mr. Silver said, “I don’t have a definitive answer.” *Id.*, 139:15-21. When given yet another opportunity to provide “any other words . . . that would help someone understand how you make that [wide] determination,” Mr. Silver said, “Not at this time.” *Id.*, 140:3-7.

Third, if a nipple base with a “domed configuration” were simply wider than the teat/areola and nothing more, then the ’930 Patent’s Figure 1 would have been described as such, but it is not. In fact, virtually every 21st century nipple would be described as having a “wide,” “domed” shape, and those terms would carry no meaning at all. *See* EX2044 (Fletcher Dec.), ¶98. But words like “wide” and “domed” *do* carry meaning in the art, and skilled artisans use them selectively, just as Mr. Silver did in his own patent. *See* EX2020, 6:45-54 (describing the nipple of Figure 3 as having a “dome-shaped body”), 8:23-24 (describing the nipple of Figure 10 as having “a dome-like structure”), 5:11-6:30 (describing the nipple of Figure 1 with no mention of any “dome” or “domed” aspects).

B. Ground 2: Ishimaru Does Not Remedy the Deficiencies of Sepehr-Meyers

In Ground 2, Petitioner again relies on its Ground 1 arguments, but adds Ishimaru for the limited purpose of addressing a “variable wall thickness”

construction that was not adopted by the District Court or the Board. Thus, Petitioner's Ground 2 arguments fail for the same reasons discussed above regarding Petitioner's Ground 1. *See* EX2044 (Fletcher Dec.), ¶99. As in Ground 1, Petitioner's Meyers-Sepehr-Ishimaru combination lacks the '930 Patent's claim limitations requiring a valve extending through the base, a valve projecting downwardly from the base, and a base portion having a domed configuration. Plus, Petitioner's motivation to combine Meyers and Sepehr is speculative, unsupported, and factually flawed.

C. Ground 3: The Kurkjian-Sepehr-Ishimaru Combination's Flaws Are Even More Severe Than Those of Sepehr-Meyers

Petitioner's Ground 3 is substantially similar to Ground 1 in multiple material respects. As in Ground 1, Petitioner again relies on Sepehr's valve, which is deficient on the "projecting downwardly" limitation and has a colic-causing design flaw that outweighs Petitioner's unsupported motivation-to-combine rationales. Like Ground 1, Petitioner again fails to address the "domed configuration" limitation adequately. But here it's even worse because Kurkjian's nipple base is even narrower than Meyers's near conventional shape.

If that were not enough, Ground 3 has an additional problem. None of the prior art provides the claimed "collar" having a "sloping portion [that] comprises a majority of the collar's outermost surface." EX1001 ('930 Pat.), 8:31-38. With no

sufficient teachings in the prior art, Petitioner tried simply adding the “sloping” collar limitation to its fabricated drawings of the Kurkjian-Sepehr-Ishimaru combination. But the Board saw through that tactic in the Institution Decision, and it is no more valid now than it was then.

1. Petitioner’s analysis on the “sloping” collar limitation lacks evidentiary support and is steeped in impermissible hindsight
 - i. *Petitioner’s non-existent motivation analysis*

Petitioner provides no motivation-to-combine analysis at all regarding the “sloping” collar limitation. In the section of the Petition under the heading “14[C],” Petitioner attempts to address this limitation, but it does so with no hint of any discussion on motivation. *See* Pet., 83. No other section of the Petition remedies this deficiency. Under the heading “14[B],” for example, the Petition says:

A POSA would be 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 representing the combination of the two embodiments. Ex[1005], ¶¶299-303. This would be nothing more than an obvious design choice with the threads serving the same function as they do in Figure 1.

Pet., 84. But this discussion is about “an internally threaded surface,” which is a different claim limitation. It says nothing at all about why a skilled artisan would have combined disparate embodiments of Kurkjian to arrive at the “sloping” collar limitation. *See ActiveVideo Networks, Inc. v. Verizon Communs., Inc.*, 694 F.3d

1312, 1328 (Fed. Cir. 2012) (rejecting the notion of a viable obviousness analysis that “fails to explain why a person of ordinary skill in the art would have combined elements from specific references *in the way the claimed invention does*” (original emphasis)); *Belden Inc. v. Berk-Tek LLC*, 805 F.3d 1064, 1073 (Fed. Cir. 2015) (“[O]bviousness concerns whether a skilled artisan not only *could have made* but *would have been motivated to make* the combinations or modifications of prior art to arrive at the claimed invention.” (original emphasis)); *see also* EX2044 (Fletcher Dec.), ¶¶117-119.

Even if Petitioner’s motivation discussion addressed the right claim limitation (which it does not), that would not save the Petition. As the Board said, “we do not see a reason for making the proposed combination.” Inst. Dec. at 51. That is certainly true. The Board was also correct when it said that Petitioner failed to provide the necessary factual “rational underpinnings” for a “design choice” theory. Inst. Dec. at 52. The buzzword “design choice” does not relieve Petitioner of its burden to explain *why* a skilled artisan would have combined Kurkjian’s embodiments. *See Cutsforth, Inc. v. Motivepower, Inc.*, 636 F. App’x 575, 578 (Fed. Cir. 2016) (“The Board must offer a reason for why a person of ordinary skill in the art would have made the specific design choice[.]”).

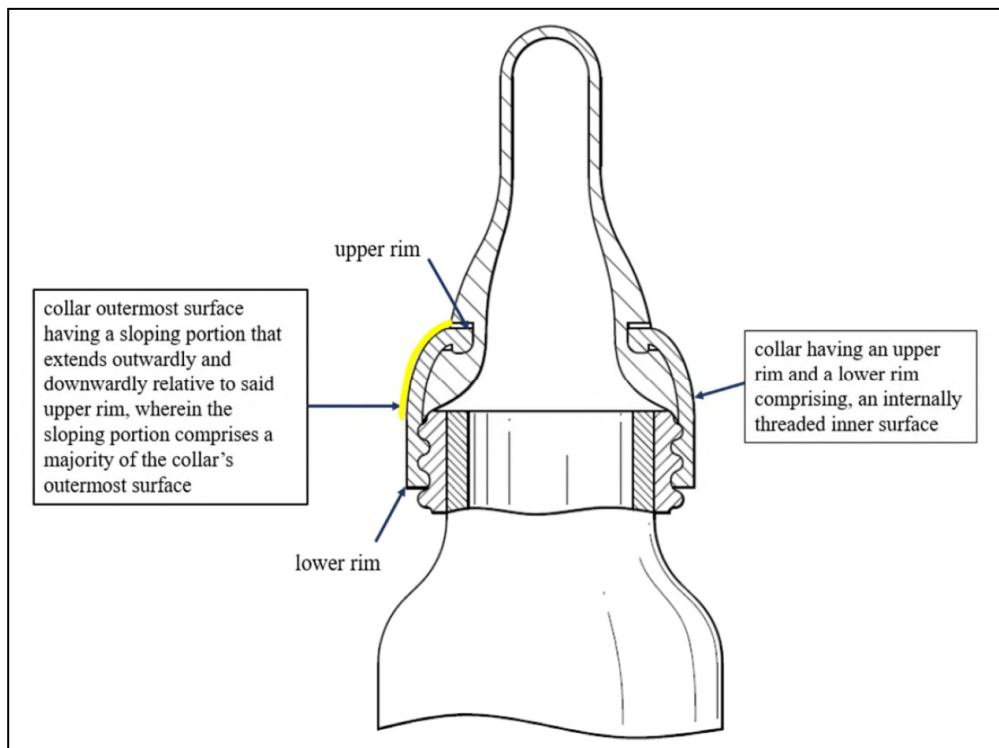
Finally, Mr. Silver’s declaration cannot save the Petition because his analysis is just as misguided as the Petition’s. Mr. Silver’s discussion of the “sloping” collar

limitation has no discussion on motivation-to-combine. *See* EX1005 (Silver Dec.), ¶¶304-306. Rather than advancing a combination of any kind, Mr. Silver says (without attempting to explain or prove) that Kurkjian’s Figure 1 provides the “sloping” collar limitation. *See id.*, ¶304. And elsewhere, when addressing the “internally threaded surface,” Mr. Silver focuses primarily on combining Kurkjian’s Figure 1 and **Figure 6**, as opposed to the Petition’s proposal to combine Kurkjian’s Figure 1 and **Figure 7**. *Compare* Pet., 84, with EX1005 (Silver Dec.), ¶¶301-302.

ii. Petitioner’s hindsight-laden attorney argument

Rather than citing to its expert on this “sloping” collar element, Petitioner presents bare attorney argument based on a misleading, self-created drawing that is not prior art. “Attorney argument is not evidence,” and without evidence, Petitioner cannot carry its burden of proof on obviousness. *Fitness, Inc.*, 849 F.3d at 1043 (vacating the Board’s decision for relying on attorney argument). For this reason alone, Ground 3 must fail.

In the Petition, Petitioner presents a “Figure F” (reproduced below) that purportedly “depict[s] the combination of Kurkjian’s embodiments.”



Pet., 85 (Petitioner’s “Figure F” combination drawing). Petitioner then further contends that its “Figure F” provides the claimed sloped collar with a “sloping portion [that] comprises a majority of the collar’s outermost surface as shown in yellow.” Pet., 85. One of multiple reasons the Board should reject Petitioner’s theory is that it attempts to extract more meaning from “Figure F” than the law permits.

For decades, the law has disfavored validity and patentability challenges that rely on measurements taken from patent figures that provide neither dimensions nor an intrinsic scale. *In re Wright*, 569 F.2d 1124, 1127 (C.C.P.A. 1977) (“Absent any written description . . . of quantitative values, arguments based

on measurement of a drawing are of little value.”); *accord Krippelz v. Ford Motor Co.*, 667 F.3d 1261, 1268 (Fed. Cir. 2012) (“This court has repeatedly cautioned against overreliance on drawings that are neither expressly to scale nor linked to quantitative values in the specification.”). Kurkjian gives no indication that its drawings are to scale, nor does Petitioner contend as much. For this reason alone the Board should reject Petitioner’s analysis. But that is not the only reason to reject Petitioner’s analysis.

What Petitioner has done here is even worse than what the law already condemns. Petitioner is not relying on drawings *from the prior art*. Instead, Petitioner is characterizing a fictitious drawing of its own creation that only partially reflects what Kurkjian actually discloses. This approach is “arguably misleading and not in an inconsequential way.” *See Digital Biometrics, Inc. v. Identix, Inc.*, 149 F.3d 1335, 1339 n.1 (Fed. Cir. 1998) (discussing figures made from “a hybrid combination of drawings from the patent”).

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, Mr. Silver. Mr. Silver’s analysis—which

Petitioner does not cite in the Petition⁴—focuses exclusively on Kurkjian’s figures, not Petitioner’s “Figure F.” *Compare* EX1005, ¶¶304-306, *with* Pet., 85. Petitioner’s “Figure F” was manufactured by attorneys with knowledge of the ’930 Patent and a goal of invalidating its claims in this proceeding.⁵ It is the epitome of hindsight and does not prove obviousness from the perspective of a skilled artisan at the time of the ’930 Patent. *See KSR*, 550 U.S. at 421 (warning against “the distortion caused by hindsight bias”).

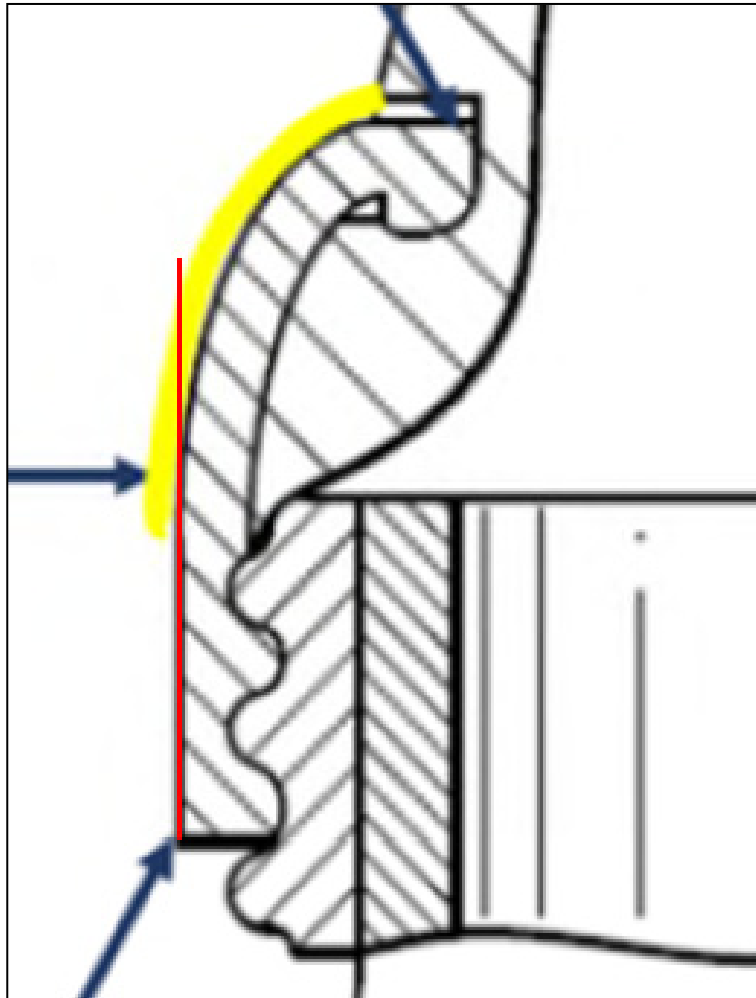
iii. Petitioner’s unsupported and misleading analysis regarding the “sloping portion comprises a majority of the collar’s outermost surface” language

On top of all that, the Petition contends that the sloped portion in Petitioner’s self-created drawing represents the “majority” of the collar’s outer surface without bothering to present supporting measurements or any substantive

⁴ Even if Mr. Silver’s declaration were cited and in sync with the Petition (which it is not), his analysis is conclusory, unsupported, and therefore entitled little to no weight. *See Bytemark, Inc.*, IPR2022-00624, Paper 9 at 15.

⁵ Mr. Silver conceded during deposition that drawings in his declaration with the same look and feel as “Figure F” were created by attorneys. EX2033 (Silver Tr.), 204:15-205:14. Mr. Silver could not say whose idea the drawings were. He merely “approved” them. *Id.* Here, with “Figure F,” he did not even do that much.

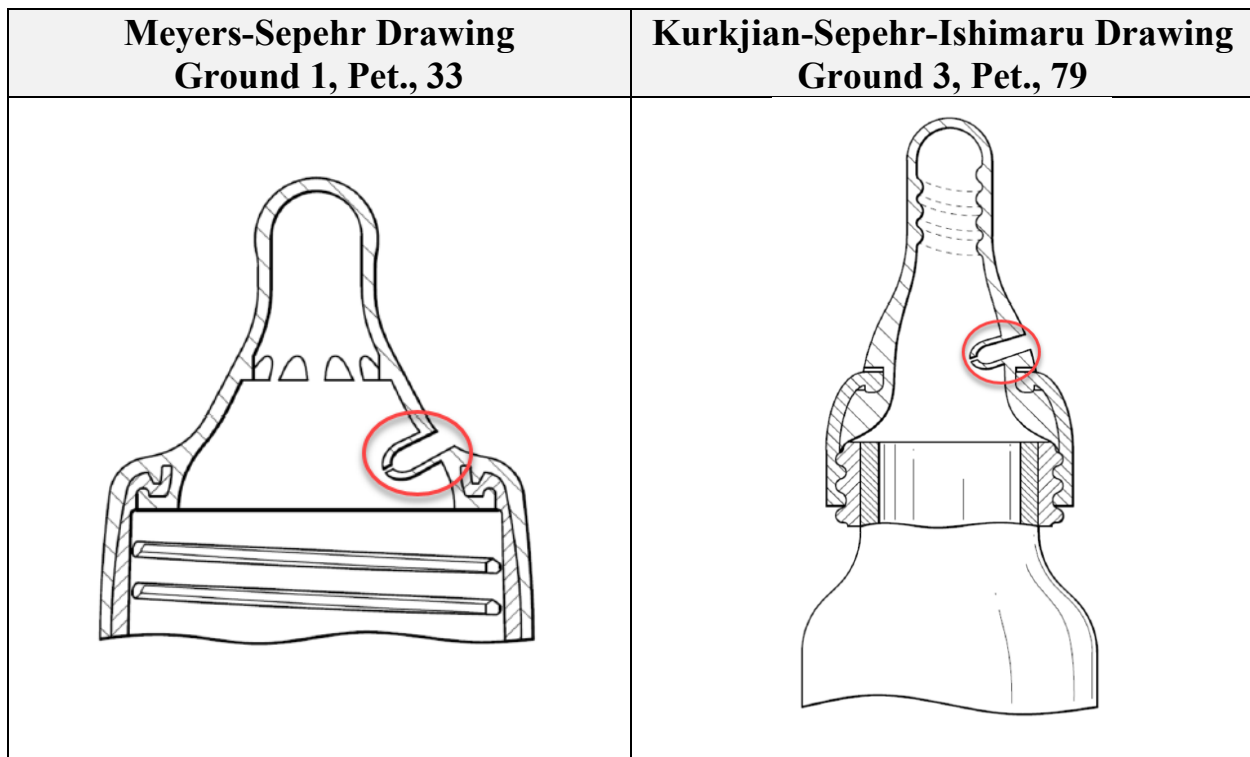
analysis at all. Even still, any such measurements or analysis based on Petitioner's annotated figure would not have been valid. *See* EX2044 (Fletcher Dec.), ¶120. The yellow highlighting that Petitioner says marks the sloping portion of the collar is drawn inaccurately. *Id.*, ¶121. As exposed below by Patent Owner's added vertical line in red, Petitioner's yellow highlighting extends much farther than where the sloping unquestionably stops. *Id.* Petitioner's manufactured, unsupported, and misleading assertions do not prove obviousness.



Pet., 84 (Petitioner's "Figure F," excerpt with added red line annotations).

2. The valve of Petitioner’s combination does not project downwardly, as claimed

Just like Ground 1, Ground 3’s Kurkjian-Sepehr-Ishimaru combination, relies on the same teaching from Sepehr—namely, Sepehr’s Figure 1—to address the ’930 Patent’s “projecting downwardly” valve limitation. *See* Pet., 102. The side-by-side comparison below shows that both of the Ground 1 and Ground 3 combinations incorporate Sepehr’s *inwardly* projecting valve in the same way. Accordingly, the analysis above at Section III.A.1.ii regarding Ground 1 applies equally here in Ground 3. *See* EX2044 (Fletcher Dec.), ¶100.



3. Petitioner largely duplicates its flawed motivation analysis regarding Sepehr's valve

As discussed, Petitioner's Kurkjian-Sepehr-Ishimaru combination in Ground 3 proposes to incorporate Sepehr's valve in substantially the same way as their Meyers-Kurkjian combination in Ground 1. Likewise, Petitioner's motivation-to-combine analysis for the "valve" limitations in Ground 3 combination resembles its prior Ground 1 analysis on the same subject. *Compare* Pet., 70-80, *with* id., 27-33. Accordingly, the discussion undercutting Ground 1 (*see supra*, §III.A.2) also applies here in Ground 3. Consistent with that prior analysis, incorporating Sepehr's valve in the manner Petitioner proposed would:

- Increase the likelihood of the infant ingesting air, which causes colic;
- Increase the likelihood of the nipple not fulfilling its intended purpose of relieving vacuum pressure from the bottle when the valve is obstructed by the infant's lips; and
- Increase costs by causing manufacturing difficulties.

See EX2044 (Fletcher Dec.), ¶¶101-102. All of these negative consequences outweigh the alleged airflow, reliability, and cleaning benefits that Petitioner alleges but fails to prove. *Id.* And just like in Ground 1, Petitioner's alleged improvements are easily debunked.

As in Ground 1, Petitioner makes the same error in Ground 3 of misunderstanding how Sepehr's valve works when making its case on the "airflow" improvement theory. The vent passageway in Sepehr does not "communicat[e] directly with the external environment," such that it would be "more effective at pulling air into the bottle." Pet., 75; *see also* EX1005 (Silver Dec.) ¶285. Instead, as discussed (*see supra*, §III.A.ii), Sepehr's nipple employs a slit valve that regulates communication between the bottle and the external environment based on the existence or absence of a pressure differential. Kurkjian employs a different kind of valve, one located on the nipple's flange that pulls in air around the collar when the nipple flexes inward due to vacuum pressure. *See* EX1009 (Kurkjian), 1:45-2:10, 2:34-3:17; *see also* EX2044 (Fletcher Dec.), ¶103. This is a well-known approach that has been commercially adopted in longstanding commercial products, such as in the Philips AVENT baby bottle pictured below. *Id.*



Petitioner provides no reasonable explanation for why Sepehr's valve would prove more effective than Kurkjian's. In fact, Petitioner and Mr. Silver mischaracterize Kurkjian, suggesting it pulls in air through the mating threads of the bottle and collar, which is not true. Pet., 75 ("pulling in air through the threads"); EX1005 (Silver Dec.) ¶285 (same); *see also* EX2044 (Fletcher Dec.), ¶104.

Additionally, Petitioner's "reliability" argument based on a "compressive force" is even less credible in Ground 3 than in Ground 1. *See* Pet., 75; EX1005 (Silver Dec.) ¶285. Here, Petitioner fails to consider that Kurkjian offers a solution to this compressive force by designing the collar so that it could not impact operation of the pressure relief mechanism. *See* EX1009 (Kurkjian), 2:34-40 ("This bead 21 [of the retaining cap/collar] will constitute an efficient means for engaging the flange adjacent the body portion 13 and inwardly of the vent opening 15 *so as to prevent spreading of the vent when an excessive pull is exerted upon the body portion 13 of the nipple.*"); *see also* EX2044 (Fletcher Dec.), ¶105.

Petitioner's "debris" argument also fails here in Ground 3 for the same reasons as Ground 1 (*see supra*, §III.A.ii). *See* Pet., 75. First, it lacks support from any record evidence—not even Mr. Silver's declaration. Second, it fails to recognize that, because Sepehr's valve is positioned higher up on the nipple than Kurkjian's under-the-collar vent, it would be equally exposed to debris—if not more so. *See* EX2044 (Fletcher Dec.), ¶106.

Finally, the theory that Sepehr's valve would be easier to clean fails here in Ground 3 for the same reason it failed in Ground 1 (*see supra*, §III.A.ii). *See* EX1005 (Silver Dec.) ¶286 (quoting EX1007 (Sepehr), 2:20-26, 3:21-24). As discussed, the easier-to-clean language on which Mr. Silver relies is based on the fact that the valve is integral to the nipple, which is equally true in Kurkjian. *See* EX2044 (Fletcher Dec.), ¶107.

4. Even narrower than Meyers's nipple, the base portion of Kurkjian's nipple also lacks a "domed configuration"

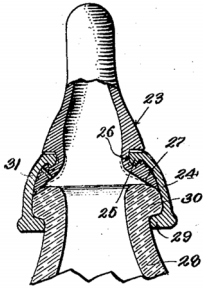
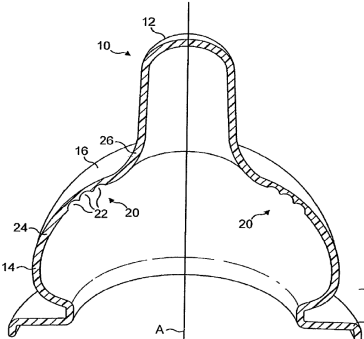
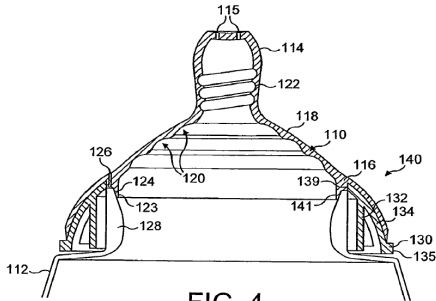
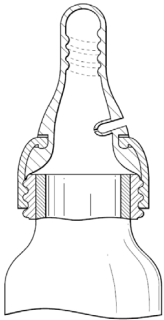
As discussed, the intrinsic and extrinsic evidence not only support inclusion of "wide" in the construction of "domed configuration," but also an understanding of "wide" as requiring a diameter larger than that of a conventional baby bottle nipple (such as shown in Figure 1 of the '930 Patent). *See supra*, §III.A.3.i and §III.A.3.ii. As a result of the '930 Patent's "domed configuration" limitation, the nipple shape is closer to the anatomical shape of an average human breast in the area adjacent to the nipple (such as shown in Figure 4 of the '930 Patent). *Id.* Thus, "wide" is entitled to patentable weight as the breast-like nipple enhances nipple performance by making the experience of the infant as similar as possible to the natural experience of breast feeding, which avoids nipple confusion when switching from bottle to breast. *Id.*

According to Petitioner, “*Kurkjian* discloses ‘a base portion having a domed configuration’ under [either] proposed construction.” Pet., 92. But nothing could be further from the truth. *Kurkjian*’s nipple, even as reflected in Petitioner’s fictitious combination drawing, is not “domed” in any sense of the word. *See* Pet., 93 (introducing the combination drawing); EX2044 (Fletcher Dec.), ¶¶109-111 (emphasizing odd annotations in the combination drawing). The base portion of *Kurkjian*’s nipple has the shape of a relatively narrow cone rather than a dome, which is why *Kurkjian* describes the collar matching the contour of the nipple as “conical.” EX1009 (*Kurkjian*), 3:29-37. To be clear, no skilled artisan could reasonably view *Kurkjian*’s nipple shape in the combination drawing as a “dome.” *See* EX2044 (Fletcher Dec.), ¶112 (“[A] POSITA would immediately see that the nipple in the Petition’s combination drawing—the shape of which ostensibly comes from *Kurkjian*’s figures—is not ‘domed[.]’”), ¶¶113-114 (explaining the context and history behind *Kurkjian*’s design).

Supposedly applying the District Court’s construction of “domed configuration,” the Petition states “*Kurkjian*’s domed configuration as shown in annotated Fig. 1 includes an arc-shaped cross sectional profile as shown in the yellow line.” Pet., 92. But the Petition’s analysis of *Kurkjian* gives no substantive consideration to the word “wide” in the now-adopted construction of “domed configuration.” Instead, the Petition simply states: “Regarding the ‘wide circular

base,’ the base portion of the nipple 12 is circular as viewed from the top or bottom.”

Id. But an examination of Kurkjian’s nipple quickly reveals that the base portion is not “wide.” It is, in fact, exceedingly narrow, far more so than (A) Meyers’s near conventional nipple shape; and (B) the conventional nipple shape depicted in the ’930 Patent’s Figure 1, which is **not** wide or domed. *See* EX2044 (Fletcher Dec.), ¶115. Kurkjian’s nipple from the 1930s fits the description of what the Dieringer Patent, probative intrinsic evidence cited on the face of the ’930 Patent, characterized as an older nipple that is “much narrower” than a “wide” design and likely to cause nipple confusion. EX2024, 2:28-41; *see* EX2044 (Fletcher Dec.), ¶¶113-114.

Kurkjian—Figure 6 Not Wide or Domed	'930 Patent—Figure 1 Not Wide or Domed	'930 Patent—Figure 1 Wide and Domed
	 FIG. 1	 FIG. 4
Petitioner's Combination Drawing Not Wide or Domed		
		

The best Petitioner might argue is that the Kurkjian's nipple-collar assembly is wider than the teat. But that view has already been dispelled. *See supra*, §III.A.3.iii; *see also* EX2044 (Fletcher Dec.), ¶116.

IV. CONCLUSION

For the foregoing reasons, the Board should confirm the patentability of the '930 Patent's claims.

Respectfully submitted,

Date: October 27, 2023

/Kenneth Wayne Darby Jr./

John S. Goetz, Reg. No. 54,867
Kenneth W. Darby, Reg. No. 65,068
Matthew A. Colvin, Reg. No. 66,843
Fish & Richardson P.C.
60 South Sixth Street, Suite 3200
Minneapolis, MN 55402
T: 202-783-5070
F: 877-769-7945

Customer Number 26191
Fish & Richardson P.C.
Telephone: (612) 337-2508
Facsimile: (612) 288-9696

CERTIFICATION UNDER 37 C.F.R. §42.24(d)

Under the provisions of 37 C.F.R. §42.24(d), the undersigned hereby certifies that the word count for the foregoing Patent Owner's Response to Petition totals 11,667, which is less than the 14,000 allowed under C.F.R. §42.24(b)(1).

Respectfully submitted,

Date: October 27, 2023

/Kenneth Wayne Darby Jr./
John S. Goetz, Reg. No. 54,867
Kenneth W. Darby, Reg. No. 65,068
Matthew A. Colvin, Reg. No. 66,843
Attorneys for Patent Owner

Customer Number 26191
Fish & Richardson P.C.
Telephone: (612) 337-2508
Facsimile: (612) 288-9696

CERTIFICATE OF SERVICE

Pursuant to 37 C.F.R. §§42.6(e), the undersigned certifies that on October 27, 2023, a complete and entire copy of this Patent Owner's Preliminary Response and its supporting exhibits were provided via email to Petitioners by serving the correspondence email address of record as follows:

Eliot D. Williams
Matthew A. Engel
Brianna L. Potter
BAKER BOTTS L.L.P.
700 K Street, N.W.
Washington, D.C., 20001-5692

Email:

Eliot.Williams@BakerBotts.com
Matthew.Engel@BakerBotts.com
Brianna.Potter@BakerBotts.com

/Kristyn Waldhauser/
Kristyn Waldhauser
Fish & Richardson P.C.
60 South Sixth Street, Suite
3200
Minneapolis, MN 55402
(612) 638-5731