

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

EIS GMBH,
Petitioner,

v.

NOVOLUTO GMBH,
Patent Owner.

Case IPR2020-00007
Patent 9,849,061 B2

Before SUSAN L. C. MITCHELL, SCOTT C. MOORE, and
JOHN E. SCHNEIDER, *Administrative Patent Judges*.

MITCHELL, *Administrative Patent Judge*.

JUDGMENT
Final Written Decision
Determining Challenged Claims Not Unpatentable
35 U.S.C. § 318(a)
Granting Patent Owner's Motion to Seal and for Entry of a Protective Order
37 C.F.R. §§ 42.14, 42.54
Granting Patent Owner's Unopposed Motion to
Submit Supplemental Information
37 C.F.R. § 42.123(b)
Denying Petitioner's Motion to Exclude
37 C.F.R. § 42.64

I. INTRODUCTION

A. Background and Summary

On October 2, 2019, EIS GmbH (“Petitioner”) filed a Petition (Paper 1, “Pet.”) requesting an *inter partes* review of claims 1–3, 5, 7, 8, 11, 14, 15, 17–19, and 20–26 (the “challenged claims”) of U.S. Patent No. 9,849,061 B2 (Ex. 1001, “the ’061 patent”). See 35 U.S.C. §§ 311–319. On January 8, 2020, Novoluto GmbH (“Patent Owner”) filed a Preliminary Response to the Petition. Paper 6 (“Prelim. Resp.”). On April 6, 2020, we denied institution of an *inter partes* review. See Paper 8, 2, 30 (“Dec.”).

Petitioner filed a Request for Rehearing of the Decision Denying Institution of *Inter Partes* Review of the challenged claims of the ’061 patent. Paper 9, “Req. Reh’g.”¹ Upon reconsideration of the arguments and evidence of record at the time, we found that at least a fact question exists concerning whether Taylor or Hovland teaches or suggests positive and negative pressures with respect to a reference pressure, an issue of fact that we resolved in favor of Petitioner at institution, and instituted *inter partes* review on all grounds presented in the Petition. Paper 15, 16–20 (“Reh’g Dec.” or “Rehearing Decision”); see 37 C.F.R. § 42.108(c) (2020).² We also

¹ Petitioner also sought review of the Decision by the Precedential Opinion Panel. Ex. 3001. That request was denied on June 16, 2020. Paper 11. Following denial by the Precedential Opinion Panel, on June 25, 2020, Petitioner brought an action in the United States District Court for the Eastern District of Virginia seeking review of denial by the Precedential Opinion Panel under the Administrative Procedure Act. Paper 12, 1–2. The district court action was dismissed following our granting Petitioner’s Request for Rehearing. Paper 19, 4–5; Paper 21, 2.

² This Rule has since been amended to delete the requirement that an issue of fact created by testimonial evidence at the institution stage be viewed in

vacated the portion of our previous Decision on Institution regarding construction of “reference pressure” and invited further briefing by the parties. *Id.* at 20–21.

Patent Owner filed a Response on December 18, 2020. Papers 23, 24 (“Resp.”). Petitioner filed a Reply on March 12, 2021. Paper 25 (“Reply”). Patent Owner filed its Sur-Reply on April 23, 2021. Paper 35 (“Sur-Reply”). On May 14, 2021, the parties jointly informed the Board that no oral hearing was necessary in this case. Paper 37.

This is a Final Written Decision under 35 U.S.C. § 318(a) as to the patentability of the challenged claims on which we instituted trial. Based on the complete record before us, we determine that Petitioner has not shown, by a preponderance of the evidence, that claims 1–3, 5, 7, 8, 11, 14, 15, 17–19, and 20–26 are unpatentable. In addition, for the reasons set forth below, we grant Patent Owner’s Combined Motion to Seal and Motion for a Protective Order, and we deny Petitioner’s Motion to Exclude Evidence. *See* Papers 25, 38.

B. Real Parties in Interest

Petitioner identifies EIS GmbH, EIS Inc., Triple A Import GmbH, Triple A Marketing GmbH, Triple A Sales GmbH, Triple A Finance GmbH & Co. KG, and Triple A Internetshops GmbH (formerly known as “Internetsupport Bielefeld”), as the real parties in interest. Pet. 1; Paper 7, 1; Paper 12, 1; Paper 21, 1; Paper 31, 1. Patent Owner identifies itself as the owner of the ’061 patent and WOW Tech International GmbH, Patent

the light most favorable to the petitioner. *See* 85 Fed. Reg. 79,120, 79,122, 79,129 (Dec. 9, 2020).

Owner's corporate parent, which later changed to IntiHealth Ger GmbH, as the real parties in interest. Paper 4, 2; Paper 13, 2; Paper 14, 2; Paper 19, 2; Paper 27, 2; Paper 33, 2 (identifying IntiHealth Ger GmbH as the corporate parent); Paper 36, 2 (same).

C. Related Proceedings

The parties identify two ongoing court proceedings involving the '061 patent: *EIS, Inc. v. IntiHealth Ger GmbH*, No. 19-1227 (LPS) (D. Del.) and *Novoluto, GmbH v. Uccellini LLC d/b/a Lora DiCarlo*, C.A. No. DOR-6-20-cv-02284-MTK (D. Ore.). Pet. 1; Paper 4, 3; Paper 36, 2–3. The parties also identify U.S. Patent No. 9,937,097 (“the '097 patent”) that issued from a continuation application of the '061 patent, which has been challenged in IPR2019-01302. Pet. 1; Paper 4, 3. An *inter partes* review in IPR2019-01302 has been conducted, and all claims were found not unpatentable. *See EIS GmbH v. Novoluto GmbH*, IPR2019-01302, Paper 50, 73 (PTAB June 14, 2021).

The parties also identify U.S. Patent No. 9,763,851 B2 (“the '851 patent”) that they assert discloses related subject matter that has been challenged by Petitioner in IPR2019-01444. *See* Pet. 2; Paper 4, 3. An *inter partes* review in IPR2019-01444 has been conducted, and all claims were found not unpatentable. *See EIS GmbH v. Novoluto, GmbH*, IPR2019-01444, Paper 45, 52 (PTAB Aug. 5, 2021).

Patent Owner also identifies several patent applications pending before the Office that are related to either the '097 or '851 patents. Paper 4, 2–4.

D. The '061 Patent

The '061 patent, titled “Stimulation Device Having an Appendage,” generally relates to a device having a pressure field generating arrangement with a first chamber connected to a second chamber with an opening for placing on a body part, and a drive unit that varies the volume of the first chamber such that a pressure field that serves for stimulation is generated in the second chamber. Ex. 1001, Abst. The pressure field generating arrangement is more specifically described as follows.

This embodiment according to the invention, of chambers in fluidic communication via at least one connection element, allows simple generation of a pressure field in the second chamber by changing the volume in the first chamber, this pressure field being temporarily directed at the area of skin to be stimulated.

A pressure field, in the context of the invention, is a field of medium pressures that is variable over time and has temporary positive pressures and temporary negative pressures, a negative pressure being a pressure of medium that is below the reference pressure and a positive pressure being a pressure of medium that is above the reference pressure. As a result, the medium flows back and forth in the pressure field according to the invention. Thus, preferably a (largely) intermittent exchange of said medium can occur.

Id. at 3:11–25.

The described reference pressure “is usually the atmospheric pressure acting on the stimulation device that prevails when application begins (i.e. prior to placing the stimulation device on the area of skin to be stimulated).” *Id.* at 3:38–41. In the preferred embodiment that uses air as the medium, the reference pressure “is the currently prevailing air pressure or normal pressure.” *Id.* at 3:41–43.

The pressure field generating arrangement is described further by reference to Figures 4 through 6 reproduced below.

Fig. 4

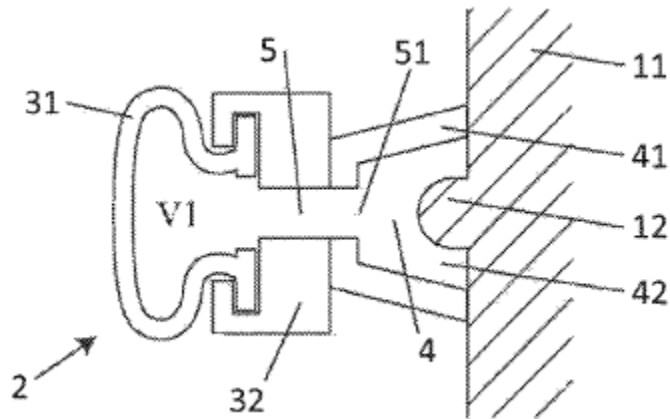


Figure 4 depicted above shows:

[T]he pressure field generating arrangement 2 in a first state, with the second chamber 4 placed on the area of skin or body part 11 to be stimulated. The first state of the pressure field generating arrangement 2 is characterized by a neutral deflection of the first chamber 3, i.e. no external force acts on the first chamber 3, for example from the drive unit. Here, the volume V1 of the first chamber is the standard volume of this chamber 3.

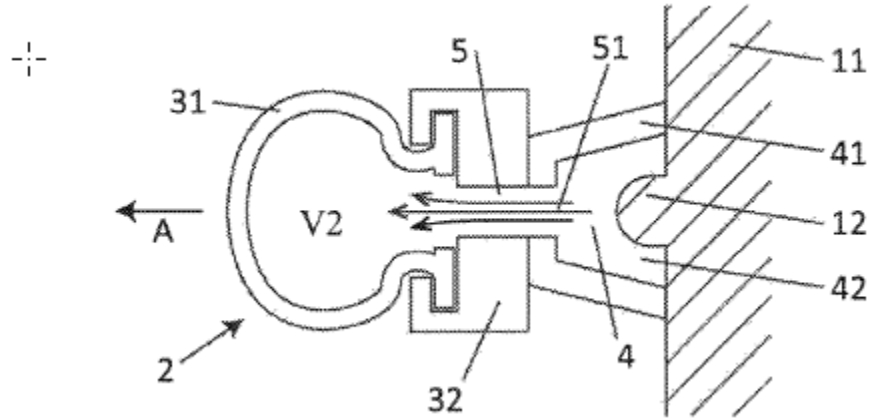
....

Because it is placed on the body part 11 to be stimulated, the second chamber 4 forms a chamber that is largely or completely closed off from the exterior of the pressure field generating arrangement 2 and whereof the only remaining connection to the second chamber is via the connection element 5, wherein the edges of chamber 4 ideally form an airtight enclosure with the surface of the body part II. Two communicating chamber 3 and 4 are created in this way, wherein a corresponding pressure equalization between the chambers 3 and 4 via the connection element 5 occurs in the event of a change in volume in one of the chambers 3 or 4.

Id. at 10:1–8, 18–28.

Figure 5 depicted below shows the pressure field generating arrangement in a second state.

Fig. 5



The second state of the pressure field generating arrangement shown in Figure 5 above is

[C]haracterized in that a force A acting on the first chamber 3 causes the chamber 3 to expand. To be precise, in this exemplary embodiment the force A draws the wall 31 of the first chamber 3 in a direction away from the second chamber 4.

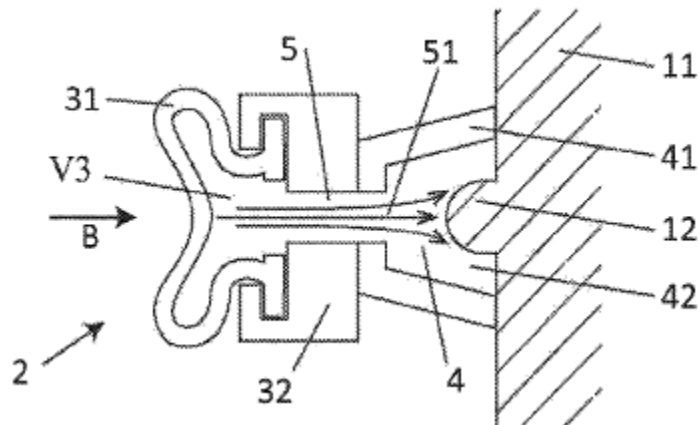
This increases the volume V2 in the chamber 3, i.e. $V2 > V1$. To equalize the difference in pressure created between the chambers 3 and 4, the medium or air now flows from the second chamber 4 into the first chamber 3.

Assuming that in the first state the pressure in the chambers 3 and 4 corresponds to the currently prevailing external reference pressure (air pressure for example), the overall pressure that is present in the second state will be lower than the external reference pressure. This negative pressure is set such that it is preferably lower than the usual systolic blood pressure in the blood vessels of the body part 11.

Id. at 10:52–67.

Figure 6 depicted below shows the pressure field generating arrangement in a third state.

Fig. 6



The third state of the pressure field generating arrangement shown in Figure 6 above is

[C]haracterized in that a force B acting on the first chamber 3 causes a volume reduction or compression in the chamber 3. To be precise, the direction of the force B is opposed to the direction of the force A and deforms the wall 31 of the first chamber such that the resulting volume V3 of the chamber is smaller than the volume V1. The compression of the chamber 3 causes a positive pressure in the chamber 3, which is equalized by the medium or air flow through the connection element 5 in the direction of the second chamber 4.

Id. at 11:3–15.

This oscillation between positive and negatives pressures in relation to a reference pressure is touted as superior to previous devices that utilized a vacuum or negative pressure alone. *See id.* at 1:53–2:63. The '061 patent lists several disadvantages of using negative pressure alone for stimulation. One disadvantage entails habituation effects that may occur with long-term continuous use of negative pressures. Negative pressure also has to be limited by a control valve, and injury may be caused by improper use of the device or by malfunction where a valve for releasing the negative pressure does not work properly to release the device from the skin. *Id.* at 2:51–63.

E. Challenged Claims

Petitioner challenges claims 1–3, 5, 7, 11, 14, 15, 17–19, and 20–26 of the '061 patent. Claims 1, 20, and 21 are the only challenged independent claims. Challenged claims 2, 3, 5, 7, 11, 14, 15, and 17–19 depend directly from claim 1, and challenged claims 22 through 26 depend directly from claim 21. Claim 1 is illustrative and recites with emphasis on the claim limitation at issue:

1. A stimulation device for erogenous zones, comprising:
 - at least one pressure field generating arrangement with:
 - at least one first chamber;
 - at least one second chamber having at least one opening for placing on a body part; and
 - at least one connection element that connects the at least one first chamber to the at least one second chamber;
 - a drive unit that varies the volume of the at least one first chamber such that a stimulating pressure field is generated via the at least one connection element in the at least one second chamber;
 - a control device that activates the drive unit; and
 - an appendage;
 - wherein the stimulating pressure field generated in the at least one second chamber comprises *a pattern of negative and positive pressures, modulated []³ with respect to a reference pressure*;
 - wherein the at least one first chamber is connected to the at least one second chamber solely by the at least one connection element, and

³ Petitioner explains that the word “onto” represented by the empty brackets in claim 1 was deleted during prosecution, but erroneously included in the '061 patent. Pet. 37 (citing Ex. 1003, 172). Patent Owner has since received a Certificate of Correction deleting the word “onto” that was erroneously included in the claim. *See* Ex. 2073. Throughout this proceeding, the parties have treated claim 1 as not including the word “onto.” *See, e.g.* Papers 1, 6, 24, 31.

wherein the appendage is a dildo configured to be inserted into a vagina.

Ex. 1001, 16:23–45.

F. Prior Art and Asserted Grounds of Unpatentability

Petitioner argues that claims 1–3, 5, 7, 11, 14, 15, 17–19, and 20–26 would have been unpatentable based on the following grounds:

Claim(s) Challenged	35 U.S.C. §	References
1–3, 5, 7, 11, 14, 15, 17–19, 21, 23–26	102(a)(1)	Taylor ⁴
1–3, 5, 7, 8, 11, 14, 15, 17–19, 21–26	103	Taylor, Hovland ⁵
20	103	Taylor, Zipper ⁶
20	103	Taylor, Zipper, Hovland

Petitioner submits the Declarations of Michael R. Prisco, P.E., Ph.D. and Richard P. Meyst in support of its positions. *See* Ex. 1002; 1018, 1020. Patent Owner submits the Declarations of Morten Olgaard Jensen, Ph.D., Dr. Med, and Debra Herbenick, Ph.D. *See* Exs. 2001, 2004, 2034, 2035.

II. ANALYSIS

A. Principles of Law

1. Burden

In an *inter partes* review, the burden of proof is on the Petitioner to show that the challenged claims are unpatentable, and that burden never

⁴ Taylor, U.S. Patent No. 5,725,473, issued Mar. 10, 1998 (Ex. 1004, “Taylor”).

⁵ Hovland et al., U.S. Patent No. 6,964,643 B2, issued Nov. 15, 2005 (Ex. 1006, “Hovland”).

⁶ Zipper, US 2013/0261385 A1, published Oct. 3, 2013 (Ex. 1007, “Zipper”).

shifts to the patentee. *See* 35 U.S.C. § 316(e); *in re Magnum Oil Tools Int’l, Ltd.*, 829 F.3d 1364, 1375 (Fed. Cir. 2016) (citing *Dynamic Drinkware, LLC v. Nat’l Graphics, Inc.*, 800 F.3d 1375, 1378 (Fed. Cir. 2015)).

2. Anticipation

To establish anticipation, each and every element in a claim, arranged as recited in the claim, must be found in a single prior art reference. *Net MoneyIN, Inc. v. VeriSign, Inc.*, 545 F.3d 1359, 1369 (Fed. Cir. 2008); *Karsten Mfg. Corp. v. Cleveland Golf Co.*, 242 F.3d 1376, 1383 (Fed. Cir. 2001). “A reference anticipates a claim if it discloses the claimed invention ‘such that a skilled artisan could take its teachings in combination with his own knowledge of the particular art and be in possession of the invention.’” *In re Graves*, 69 F.3d 1147, 1152 (Fed. Cir. 1995) (internal citation and emphasis omitted). Moreover, “it is proper to take into account not only specific teachings of the reference but also the inferences which one skilled in the art would reasonably be expected to draw therefrom.” *In re Preda*, 401 F.2d 825, 826 (CCPA 1968); *see Eli Lilly and Co. v. Los Angeles Biomedical Res. Inst. at Harbor-UCLA Medical Center*, 849 F.3d 1073, 1074–75 (Fed. Cir. 2017). “A single prior art reference may anticipate without disclosing a feature of the claimed invention if such feature is necessarily present, or inherent, in that reference.” *Allergan, Inc. v. Apotex Inc.*, 754 F.3d 952, 958 (Fed. Cir. 2014) (citing *Schering Corp. v. Geneva Pharm.*, 339 F.3d 1373, 1377 (Fed. Cir. 2003)). “A reference may anticipate inherently if a claim limitation that is not expressly disclosed ‘is necessarily present, or inherent, in the single anticipating reference.’ The inherent result must inevitably result from the disclosed steps; ‘[i]nherency . . . may not be

established by probabilities or possibilities.”” *In re Montgomery*, 677 F.3d 1375, 1379–80 (Fed. Cir. 2012) (citations omitted, alterations in original).

3. *Obviousness*

A patent claim is unpatentable under 35 U.S.C. § 103 if the differences between the claimed subject matter and the prior art are such that the claimed invention as a whole would have been obvious before the effective filing date of the claimed invention to a person having ordinary skill in the art to which said subject matter pertains (“POSITA”). *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007). 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) objective evidence of nonobviousness. *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966). In determining obviousness when all elements of a claim are found in various pieces of prior art, “the factfinder must further consider the factual questions of whether a person of ordinary skill in the art would be motivated to combine those references, and whether in making that combination, a person of ordinary skill would have had a reasonable expectation of success.” *Dome Patent L.P. v. Lee*, 799 F.3d 1372, 1380 (Fed. Cir. 2015); *see also WMS Gaming, Inc. v. Int’l Game Tech.*, 184 F.3d 1339, 1355 (Fed. Cir. 1999) (“When an obviousness determination relies on the combination of two or more references, there must be some suggestion or motivation to combine the references.”). “Both the suggestion and the expectation of success must be founded in the prior art, not in the applicant’s disclosure.” *In re Dow Chemical Co.*, 837 F.2d 469, 473 (Fed. Cir. 1988).

An obviousness analysis “need not seek out precise teachings directed to the specific subject matter of the challenged claim, for a court can take account of the inferences and creative steps that a person of ordinary skill in the art would employ.” *KSR*, 550 U.S. at 418; *see In re Translogic Tech, Inc.*, 504 F.3d 1249, 1259 (Fed. Cir. 2007). In *KSR*, the Supreme Court also stated that an invention may be found obvious if trying a course of conduct would have been obvious to a POSITA:

When there is a design need or market pressure to solve a problem and there are a finite number of identified, predictable solutions, a person of ordinary skill has good reason to pursue the known options within his or her technical grasp. If this leads to the anticipated success, it is likely the product not of innovation but of ordinary skill and common sense. In that instance the fact that a combination was obvious to try might show that it was obvious under § 103.

550 U.S. at 421. “*KSR* affirmed the logical inverse of this statement by stating that § 103 bars patentability unless ‘the improvement is more than the predictable use of prior art elements according to their established functions.’” *In re Kubin*, 561 F.3d 1351, 1359–60 (Fed. Cir. 2009) (citing *KSR*, 550 U.S. at 417).

“[O]bjective evidence of nonobviousness includes copying, long felt but unsolved need, failure of others, commercial success, unexpected results created by the claimed invention, unexpected properties of the claimed invention, licenses showing industry respect for the invention, and skepticism of skilled artisans before the invention.” *In re Rouffet*, 149 F.3d 1350, 1355 (Fed. Cir. 1998) (internal citations omitted). “For objective [evidence of secondary considerations] to be accorded substantial weight, its proponent must establish a nexus between the evidence and the merits of the *claimed invention*.” *Wyers v. Master Lock Co.*, 616 F.3d 1231, 1246 (Fed.

Cir. 2010) (alterations in original) (quoting *In re GPAC Inc.*, 57 F.3d 1573, 1580 (Fed. Cir. 1995)).

We analyze the asserted grounds of unpatentability in accordance with the above-stated principles. In making such an analysis, we find that Petitioner has failed to show by a preponderance of the evidence that any challenged claims is unpatentable, because for each challenge, Petitioner has failed to show that all of the limitations of any challenged claim are taught or suggested by the asserted art. We also found Patent Owner's evidence of secondary consideration of non-obviousness persuasive.

B. Level of Ordinary Skill in the Art

We consider the asserted grounds of unpatentability in view of the understanding of a person of ordinary skill in the art. *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 399 (2007) (stating that obviousness is determined against the backdrop of the scope and content of the prior art, the differences between the prior art and the claims at issue, and the level of ordinary skill in the art). Factual indicators of the level of ordinary skill in the art include “the various prior art approaches employed, the types of problems encountered in the art, the rapidity with which innovations are made, the sophistication of the technology involved, and the educational background of those actively working in the field.” *Jacobson Bros., Inc. v. U.S.*, 512 F.2d 1065, 1071 (Ct. Cl. 1975); *see also Orthopedic Equip. Co. v. U.S.*, 702 F.2d 1005, 1011 (Fed. Cir. 1983) (quoting with approval *Jacobson Bros.*).

In our Decision on Institution, we applied Petitioner's proposed definition of one skilled in the art as an individual with “a bachelor's degree in mechanical engineering, biomechanical engineering, or the equivalent,

and three or more years of experience in fluid mechanics and pump-based medical or personal use devices,” and that “practical experience could qualify one not having the aforementioned education as a [person of ordinary skill in the art], while a higher level of education could offset lesser experience.” Dec. 10–11.

Patent Owner renews its argument that in addition to the education level recited above, a person of ordinary skill in the art would also have “at least three years’ experience in research, development, or design of devices that interact with and sexually stimulate the human female vulva,” with more experience offsetting the requisite amount of education and *vice versa*. Resp. 3. Patent Owner concludes that “Petitioner’s proposed POSITA fails to consider the necessary relevant experience related to female sexual stimulation.” *Id.* (citing Ex. 2034 ¶¶ 68–69; Ex. 2035 ¶ 28).

Patent Owner supports this contention by citing to the Technical Field discussion in the Specification of the ’061 patent where it states that field relates to “a stimulation device . . . *for erogenous zones, in particular for the clitoris.*” *Id.* (citing Ex. 1001, 1:16–19). Patent Owner also contends that the language recited in the claims supports this definition. *Id.*

We have considered Patent Owner’s argument and are not persuaded that our original definition of a person of ordinary skill in the art was in error. We do not agree that one of ordinary skill in the art requires such specific expertise for the subject matter set forth in the field of invention or the claims of the ’061 patent. As Petitioner points out and Patent owner acknowledges in its discussion of the hypothetical person or ordinary skill in the art, the claims are not limited to stimulating the human female vulva, but more generally to “a body part.” *See* Reply 2; Resp. 3 (citing claims 1–20).

Thus, Patent Owner's definition of one of ordinary skill in the art appears to be too narrow based on the claim language of the '061 patent. *See also* Ex. 1001, 10:9–17 (stating the body part to be stimulated includes “all body parts or erogenous zones (such as the inside of the thighs, lumbar region, nape of the neck, nipples, etc.) which can be stimulated by means of medium- or air-pressure massage and/or negative pressure”).

A “hypothetical ‘person having ordinary skill in the art’ to which the claimed subject matter pertains would, of necessity have the capability of understanding the scientific and engineering principles applicable to the pertinent art.” *Ex parte Hiyamizu*, 10 USPQ2d 1393, 1394 (BPAI 1988). Although the device disclosed in the '061 patent is a stimulation device for erogenous zones, the scientific and engineering principles applicable to the claimed device and method involve mechanical engineering and fluid flow that are not necessarily specific to the application of the device, especially the more narrow focus of Patent Owner's definition of sexual stimulation of the human female vulva.

As we previously noted in our Decision on Institution:

Although the invention generally relates to a device for stimulating female erogenous zones, as seen from the discussion below, the design and operation of the device largely relates to issues of mechanical engineering and fluid flow. Thus, we conclude that experience in developing devices that interact with the female body [and specifically the human female vulva] is not needed to define a person of ordinary skill in the art.

Dec. 11.

Based on the forgoing, we continue to apply the same definition of a person of ordinary skill in the art we used in our Decision Denying Institution.

C. Claim Construction

We construe claims 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). 37 C.F.R. § 42.100 (2019). Therefore, we construe the challenged claims under the framework set forth in *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312–19 (Fed. Cir. 2005) (en banc). Under this framework, claim terms are given their ordinary and customary meaning, as would be understood by a person of ordinary skill in the art (“POSITA”), at the time of the invention, in light of the language of the claims, the specification, and the prosecution history of record. *Id.* Only those terms that are in controversy need be construed and only to the extent necessary to resolve the controversy. *See Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co. Matal*, 868 F.3d 1013, 1017 (Fed. Cir. 2017) (citing *Vivid Techs., Inc. v. Am. Sci. & Eng’g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999)).

At this stage of the proceeding, we find that it is only necessary to construe expressly the term “reference pressure.” Although the parties have also presented arguments concerning the term “pressure field generating arrangement,” *see* Pet. 18–20; Resp. 19–22, we determine that it is not necessary to construe that term to determine the patentability of the challenged claims in light of the asserted grounds.⁷

⁷ Petitioner presents argument that the term “pressure field generator” should be construed as a means-plus-function term limited to the following structure: at least one first chamber, at least one second chamber, and at least one connection element. Reply 25–26. As we find that it is not necessary to construe this term to resolve the issues before us, we do not address these arguments presented by Petitioner.

Reference Pressure

In our Decision Denying Institution, we construed the term “reference pressure” to mean “a prevailing pressure within the device prior to placing the stimulation device on the area of the skin to be stimulated.” Dec. 14. In our Decision on Rehearing, we vacated this construction because we found on rehearing that at least a fact question exists concerning whether Taylor teaches positive and negative pressures with respect to a reference pressure, which we resolved in favor of Petitioner at the institution stage. Reh’g Dec. 20–21. We invited the parties to provide further briefing concerning how “reference pressure” should be construed. *Id.* at 21.

Although Patent Owner agrees with this construction with a slight modification of “the prevailing pressure ‘acting on’ the device, rather than ‘within’ the device,” *see* Resp. 22–26, Petitioner contends that we improperly limited the construction to one example in the Specification, *see* Reply 3–4.

In the Petition, Petitioner originally asserted that the “reference pressure” is “atmospheric pressure.” *See* Dec. 12–13; Pet. 7, 35, 64, 69; Ex. 1002 ¶¶ 64, 87. Petitioner presented an alternative construction—“reference pressure” should mean “given pressure”—for the first time in its Rehearing Request. *See* Req. Reh’g 4. In its Request for Rehearing, Petitioner states that “the plain meaning of ‘reference pressure’ is a ‘given pressure’ around which higher and lower pressures are generated.” *Id.*

Petitioner reiterates this position in its Reply stating again that “reference pressure” should be given its plain meaning, “which is a ‘given’ pressure around which higher and lower pressures are generated for stimulating the body, which may be determined prior to application or after

application of the device to the target body part.” Reply 4 (citing Ex. 1018 ¶ 18; Ex. 1020 ¶ 51, Ex. 1001, 3:38–41. In support of this construction, Petitioner points to the discussion in the Specification involving pressures above and below systolic pressure. Reply 3–4. Petitioner asserts that the statement in the Specification of the ’061 patent that “negative pressure is set such that it is *preferably* lower than the usual systolic blood pressure” would encompass embodiments where the negative pressure is above systolic blood pressure, which one of skill in the art would understand is always above ambient pressure, leading to the conclusion that any reference pressure in such a scenario would be above ambient pressure. See Reply 3–4 (quoting Ex. 1001, 10:61–67 (emphasis added) (citing Ex. 1018 ¶¶ 12–18; Ex. 1020 ¶¶ 43–51; Ex. 1034 ¶ 88; Ex. 1040)); *see also* Ex. 1001, 3:26–37 (discussing use of the claimed devices with liquid media such as water or lubricants); Ex. 1018 ¶ 17.

Patent Owner responds that Petitioner is inappropriately presenting a new argument that was nowhere raised in the Petition or Dr. Prisco’s Declaration (Ex. 1002). Sur-Reply 5–6. Patent Owner also asserts that Petitioner’s argument addresses an incorrect construction—that “reference pressure” is limited to atmospheric pressure. *Id.* at 5. Patent Owner asserts that it

has never taken the position that “reference pressure” must be limited to atmospheric pressure, nor would it, as doing so would ignore the plain language of the ’061 Patent. The patent explains the device may be used in various environments, meaning the prevailing pressure acting on the device prior to operation (the reference pressure) would have a different value depending on the environment (*e.g.*, in a bathtub versus on a bed). Ex. 1001, 3:26–49. But always, the reference pressure is that prevailing pressure acting on the device prior to placing the

device on the area of skin to be stimulated. *Id.* Petitioner’s argument that Novoluto’s proffered construction would limit the term to a single embodiment (Reply 3–4) is baseless and misleading.

Sur-Reply 6. Patent Owner also notes that the reference pressure is not an absolute value because the measure for ambient pressure would change based on location. *Id.* at 4 (citing Ex. 1001, 3:26–49). Patent Owner points out that Petitioner’s new argument concerning systolic blood pressure does not take this into account. *Id.* at 6.

We have considered the arguments advanced by the parties and the evidence of record, and conclude that our original construction set forth in our Decision Denying Institution was proper. Contrary to Petitioner’s contention, the construction is not limited to a single example, but is consistent with the overall teachings of the Specification. *See, e.g.*, Ex. 1001, 3:26–49, 14:49–54, Figure 14. For instance, the Specification of the ’061 patent sets forth that “[t]he reference pressure is usually the atmospheric pressure acting on the stimulation device that prevails when application begins (i.e. prior to placing the stimulation device on the area of skin to be stimulated).” Ex. 1001, 3:38–41.

The construction we adopted is not limited to atmospheric pressure (as originally proposed in the Petition), but refers generally to the prevailing pressure in the device before it is applied to the body as described in the Specification of the ’061 patent. This refers to the prevailing pressure within the device regardless of the environment in which it is used. For instance, the Specification of the ’061 patent lists additional environments to include “a liquid medium, such as water or commercially available lubricant.” *Id.* at 3:26–28. This is also consistent with the position advanced by Patent Owner

during prosecution stating that the claimed pattern of negative and positive pressures was not taught by a device that “purely acts with negative pressure (i.e., as a vacuum) on the skin.” Ex. 1003, 183.

Even if we consider Petitioner’s shifting claim construction argument, Petitioner’s argument regarding systolic pressure is unconvincing. The entire paragraph regarding systolic pressure reads

Assuming that in the first state the pressure in the chambers 3 and 4 corresponds to the currently prevailing external reference pressure (air pressure for example), the overall pressure that is present in the second state will be lower than the external reference pressure. This negative pressure is set such that it is preferably lower than the usual systolic blood pressure in the blood vessels of the body part 11. The blood circulation in this area thus increases, and the clitoris 12 is better supplied with blood in the second state.

Ex. 1001, 10:61–11:2. Petitioner’s reading of this description to include a negative pressure that is set *higher* than systolic blood pressure is too strained a reading to support Petitioner’s conclusions. When read in context, the reference pressure referred to in this paragraph is the prevailing pressure in the device *before* the device is applied to the body part, which is consistent with our original construction.

Based on this analysis, we conclude that the construction of the term “reference pressure” should be “a prevailing pressure acting on the device prior to placing the stimulation device on the area of skin to be stimulated.”⁸

⁸ We agree with Patent Owner that “acting on” as opposed to “within” is more consistent with what is described in the Specification of the ’061 patent. See Ex. 1001, 3:38–41.

D. Anticipation by Taylor

Petitioner asserts that claims 1–3, 5, 7, 11, 14, 15, 17–19, 21, and 23–26 are anticipated by Taylor. Pet. 3. Petitioner provides an analysis of how each claim limitation is taught by Taylor. Pet. 20–66. Petitioner relies on the declaration of Dr. Prisco in support of its positions. *See generally* Ex. 1002. We focus our analysis on claims 1 and 21 as they are the only independent claims at issue in this ground.

Patent Owner asserts that Taylor teaches a cyclical vacuum, and not modulated negative and positive pressures with respect to a reference pressure as required by the challenged claims. Resp. 32–49. Patent Owner relies on the declarations of Morten Olgaard Jensen, Ph.D., Dr. Med, and Debra Herbenick, Ph.D., in support of its positions. *See generally* Exs. 2001, 2003, respectively.

For the following reasons, we find that Petitioner has failed to show by a preponderance of the evidence that any of the challenged claims are anticipated by Taylor because we agree with Patent Owner that Petitioner has not sufficiently shown how Taylor teaches “a pattern of negative and positive pressures, modulated with respect to a reference pressure,” as required by claims 1–20, or modulating “the pressure field in a pattern of negative and positive pressures with respect to a reference pressure” as required by claims 21–26. We begin our analysis of Petitioner’s first challenge with a description of the pertinent teachings of Taylor.

1. Taylor (Ex. 1004)

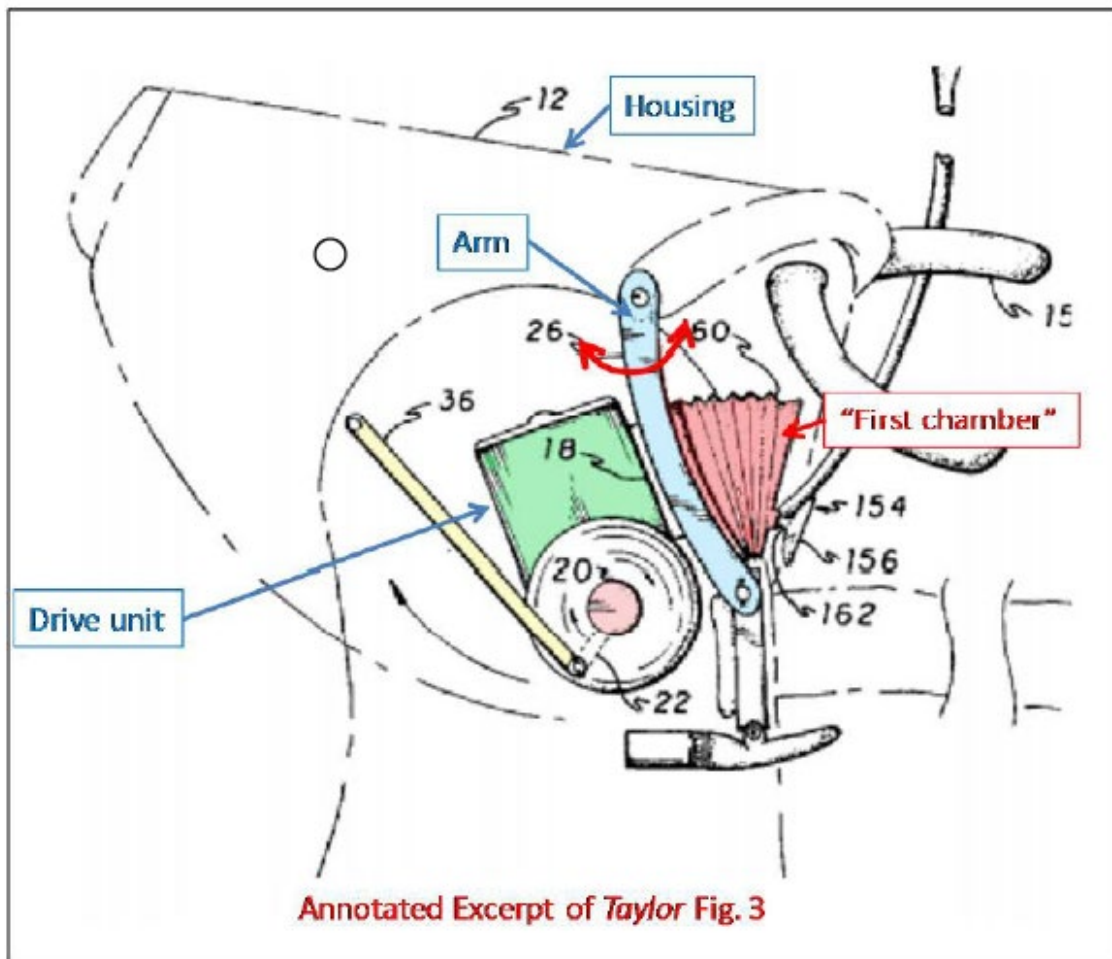
Taylor discloses a sexual aid that includes a means for introducing a vacuum to stimulate the clitoris. Ex. 1004, Abstr. In one embodiment, the device comprises a suction cup which engages the upper portion of the

vulva. *Id.* at 5:28–30. The suction cup is in fluid communication with a bellows which cyclically introduces a vacuum within the suction cup. *Id.* at 5:32–38. The cyclical vacuum stimulates the clitoris. *Id.* at ll. 40–41.

Taylor discloses:

Referring to FIG. 3, an alternative embodiment of the drive mechanism is shown with the motor 18 mounted on the arm 26. As in the original embodiment, the lever 22 mounted on the output shaft 20 of the motor 18 is pivotally mounted on the connecting rod 36. The connecting rod 36 is pivotally mounted on the housing 12. As the output shaft 20 rotates, the lever 22 urges the connecting rod 36 against the housing 12 oscillating the arm 26 along with the motor 18.

Ex. 1004, 4:52–59. Petitioner’s annotated version of an excerpt of Taylor Figure 3 is reproduced below. Pet. 14.



The annotated portion of Figure 3 of Taylor shown above describes a second embodiment of first stimulator 154 that introduces a vacuum to stimulate the clitoris using a drive unit, arm, and bellows.

Taylor states:

Referring only to FIG. 3, a second embodiment of the first stimulator 154 is shown. The first stimulator 154 includes a suction cup member 156 that conformingly and sealingly receives the upper portion of the vulva. The suction cup member 156 of the first stimulator 154 is more specifically directed at receiving the clitoris. The suction cup member 156 is in fluid communication with a bellows 160 or squeeze ball (not shown) via flexible conduit 162. As the arm 26 oscillates relative to the housing, the arm 26 compresses and expands the bellows 160 relative to the housing 12. The arm 26 and bellows

160 cyclically introduce a vacuum in the volume defined by the suction cup member 156 and the portion of the vulva received therein. The cyclical vacuum phenomenon stimulates the clitoris.

Ex. 1004, 5:28–41.

2. Analysis

Petitioner relies heavily on Taylor’s statement that the suction cup member 156 *sealingly* receives the upper portion of the vulva. Pet. 35. Petitioner asserts that when this seal is engaged, the cyclical vacuum oscillates between positive and negative pressures with respect to a reference pressure or atmospheric pressure. *Id.* at 35–36.

With reference to Taylor’s Figure 3 shown above, Petitioner explains this position as follows.

When suction cup member 156 is sealed against the vulva, and bellows 160 is not compressed or expanded, air within bellows 160 and suction cup member 156 is at atmospheric pressure (i.e., at a reference pressure). Ex. 1002 at ¶¶ 62–64, 75(vii). When arm 26 compresses bellows 160 . . . with suction cup member 156 “sealingly” engaged with the vulva, the volume within bellows 160 is reduced. *Id.* As a result, air within bellows 160 is pushed out of bellows 160, through flexible conduit 162, and into suction cup member 156. *Id.* And, since the volume within suction cup member 156 is fixed as a result of sealingly receiving the vulva, the pressure within suction cup member increases above atmospheric pressure (i.e., at a positive pressure with respect to the reference pressure). Ex. 1004 at 5:30–31, 36–37; Ex. 1002 at ¶75(vii). In contrast, when arm 26 expands bellows 160 . . . with suction cup member 156 “sealingly” engaged with the vulva, the volume within bellows 160 increases, and air from suction cup member 156 rushes out of suction cup member 156, through flexible conduit 162, and into bellows 160. Ex. 1002 at ¶75(vii). Consequently, the pressure within suction cup member 156 is reduced below atmospheric pressure (i.e., at a negative pressure with respect to the reference

pressure). *Id.* Thus, during time periods of “vacuum” in suction cup member 156, the pressure of the air in suction cup member 156 is negative with respect to a reference pressure, and during the time periods in between two successive vacuum time periods, the pressure of air in suction cup member 156 is above the reference pressure, or positive with respect to the pressure. Thus, the pressure field generated in suction cup member 156, by the compression and expansion of bellows 160, “comprises a pattern of negative and positive pressures, modulated with respect to a reference pressure.” *Id.*

Pet. 35–36 (emphases added).

Patent Owner asserts that Taylor discloses a suction-only system that applies only negative pressures to a body part, and does not teach positive pressure at all, much less the modulated pressures required by the challenged claims. *See* Resp. 31–34 (citing Ex. 2034 ¶¶ 102–104). Patent Owner explains that “[a]t most, Taylor discloses a suction cup with a vacuum feature based on negative pressure, *not* positive pressure.” *Id.* at 34 (citing Ex. 2034 ¶ 109).

Patent Owner also asserts that Taylor does not inherently disclose the modulation of negative and positive pressures with respect to a reference pressure because Taylor’s description does not support a teaching of a closed system as being necessarily present such that one of skill in the art would recognize this teaching, which is required for inherency. *Id.* at 34–48. Petitioner’s inherency argument, Patent Owner asserts, relies on a single sentence in Taylor that states a suction cup “conformingly and sealingly receives” the vulva. Resp. 34 (citing Pet. 35). Patent Owner asserts that Petitioner’s inherency argument assumes that the bellows in Taylor is a sealed container with only one opening. *Id.* at 35–36. Patent Owner also asserts that such a conclusion is counter to the ordinary and customary

meaning of “bellows” as a unidirectional device “that by alternate expansion and contraction draws in air through a valve or orifice and expels it through a tube.” *Id.* at 36 (citing Ex. 2003 (dictionary); Ex. 2034 ¶¶ 108–109).

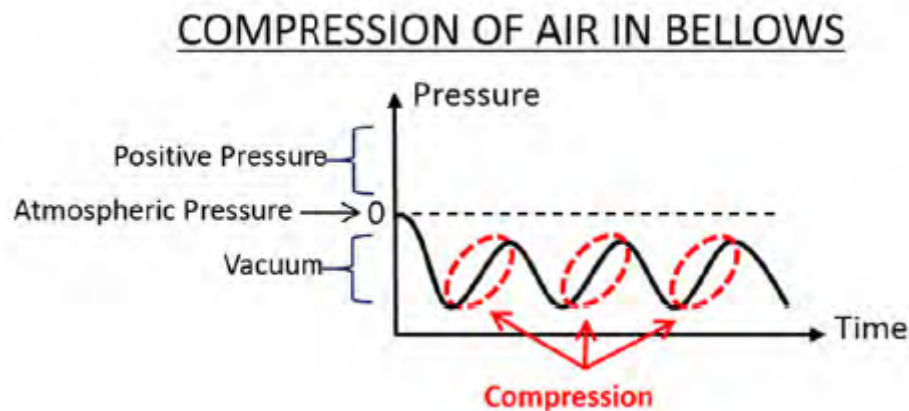
Based on this understanding of the meaning of “bellows,” Patent Owner asserts that one of skill in the art “would understand Taylor’s bellows to provide suction only at the *suction* cup,” and would not interpret Taylor as a closed system. *Id.*

In reviewing Petitioner’s explanation of how Taylor discloses negative and positive pressures modulated with respect to a reference pressure set forth above, Patent Owner asserts that such an argument requires that Taylor discloses: (1) the suction cup member being sealed against the vulva; (2) simultaneously with the bellows being in a state that is neither compressed nor expanded, and (3) that, also at the same time, the air within the bellows is at atmospheric pressure. *Id.* at 37. Patent Owner points out that Taylor does not teach that the bellows is ever in a state that it is not compressed or expanded, nor does it describe the suction cup being sealed against the vulva when the bellows are in such a state. *Id.* at 37, 48–49. “Rather, Taylor discloses that the suction cup ‘sealingly receives’ the vulva when Taylor’s bellows creates a vacuum within the suction cup. A POSITA would easily understand that when the vacuum releases, the seal and suction cup likely release as well.” *Id.* (citing Ex. 2034 ¶¶ 121–122).

Patent Owner explains that nothing in Taylor discloses Petitioner’s proposed arbitrary point when Taylor’s bellows are not compressed or expanded. *Id.* at 39–40 (citing Ex. 1004; Ex. 2034 ¶¶ 108–115).

Taylor discloses a bellows that cyclically introduces a vacuum to a suction cup sealed against the body. [Ex. 2034 ¶¶ 108–115.] Regardless of the starting point of the bellows, a

POSITA would understand that the pressure acting on Taylor's device does not change based on the initial position of the bellows. *Id.*, ¶ 110. As the bellows expands it creates a vacuum pulling air flow into the bellows—*i.e.*, creating negative pressure with respect to the reference Pressure. *Id.* As the bellows compresses, the vacuum releases and pressure in the bellows returns toward (and may or may not reach) the reference pressure, *i.e.*, the prevailing pressure of the sexual aid. *Id.* This cycle is illustrated below.



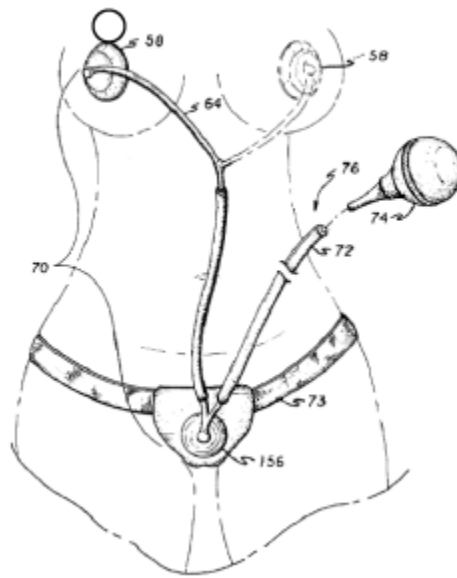
Id. ¶ 111. Whether or not negative pressure returns to atmospheric pressure, Taylor's cyclical vacuum would create negative pressure that would never pass atmospheric pressure to reach positive pressure with respect to atmospheric pressure, because Taylor discloses a suction-only system. Thus, although the pressure within the bellows during compression may increase in the negative pressure region, the pressure within the bellows is never positive *with respect to the reference pressure*, regardless of the starting point of the bellows. *Id.*

Resp. 39–40.

Patent Owner concludes that “[n]othing about Taylor’s bellows suggests that compressing the bellows would create a positive pressure, as Petitioner has argued, particularly because Taylor’s bellows operates to introduce cyclical vacuum to *suction* cups.” *Id.* at 40.

Patent Owner also asserts that Petitioner's inappropriately belated argument that a squeeze ball may be used adds support to its conclusion that Taylor teaches a closed system is incorrect.⁹ Patent Owner explains that "Taylor's only description of the squeeze ball's function is in the context of a non-dildo alternative 'secretable embodiment' that relies on suction cups applied to the user's vulva and nipples, illustrated in Fig. 4," set forth below.

FIG. 4



Resp. 44. Patent Owner explains that Taylor describes this embodiment as follows.

To begin, Taylor's Fig. 4 shows a squeeze ball resembling a nasal aspirator that is separate from the wearable embodiment, which consists of three suction cups connected by open-ended flexible conduits and straps. This is not a closed system. 2034, ¶ 127-129. Next, Taylor explains the squeeze ball is for introducing "cyclical vacuum" (*i.e.*, negative pressure) to the *suction* cups. Ex. 1004, 5:60-64. Cyclical vacuum is not modulating positive and negative pressures with respect to a

⁹ Patent Owner asserts that we should not consider this argument as it was not made in the Petition. Resp. 33, n.3.

reference pressure. To introduce a cyclical vacuum, which is Taylor's only stated purpose for the suction-cup embodiments, a user would need to squeeze the ball, connect it to the tube, release (to create *suction* in the *suction* cup), disconnect, and repeat the process. Exs. 1004, Fig. 4; 2034, ¶ 129; 2035, ¶ 102. That process would not result in modulation of positive and negative pressures relative to the reference pressure. Nor would squeezing the ball repeatedly while keeping it connected to the tube. That process would simply return the air sucked from the space within the sealed *suction* cup back into the *suction* cup, causing a *return to reference pressure*. *Id.* Significantly, and as in Taylor's other suction-cup embodiments, introducing positive pressure relative to the prevailing ambient pressure of the device, *i.e.*, the reference pressure, would stop the "cyclical vacuum," cause the suction cups to disengage or fall off, and thereby render the device inoperable. *Id.*

Resp. 45–46. Patent Owner also explains that one of skill in the art would be familiar with the use of squeeze balls and would not view Taylor's squeeze ball as "generating a pressure field in the *suction* cups with a pattern of positive and negative pressures modulated with respect to a reference pressure." *Id.* (citing Ex. 2034 ¶ 129; Ex. 2034 ¶ 102).

In its Reply, Petitioner refutes Patent Owner's position that one of skill in the art would assume bellows 160 contains a valve because there are many examples of bellows with a single opening such as lungs, squeeze balls, squeak toys, and pen fillers. Reply 5 (citing Ex. 1018 ¶¶ 24–32; Ex. 1020 PP 63–67; Ex. 1036, 6–7; Ex. 1017, 95:12–96:25). Petitioner states:

Flexible conduit 162 is the only opening shown in bellows 160. Ex. 1004, 5:28–41, Fig. 3; Ex. 1018 ¶¶ 29–32. There is no basis to conclude from *Taylor* that there must be another opening or that air in bellows 160 must flow unidirectionally, especially where the bellows 160 is interchangeable with squeeze ball 74. Ex. 1004, Fig. 4, 5:33–

35, 5:50–63; Ex. 1018 ¶¶ 29–32; Ex. 1020 ¶¶ 63–67. A POSITA would infer that bellows 160 has only one opening because squeeze ball 74 also has a single opening forming a closed system with bidirectional flow. Ex. 1018 ¶¶ 29–32.

Reply 5–6 (internal citations and footnotes omitted).

Petitioner then applies its construction for “reference pressure,” which we have rejected as set forth above in Section II.C., and contends that the reference pressure can be the pressure in the device shortly after it begins operation. Reply 7–10. Petitioner states:

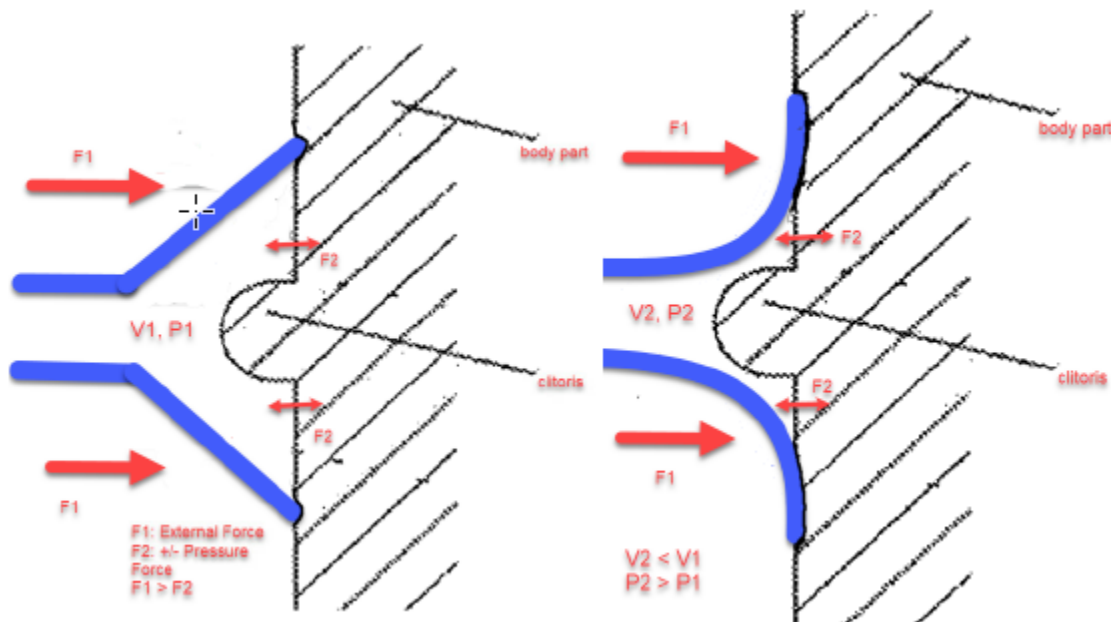
The claimed reference pressure could instead be a reference pressure prior to activating the device or after (*e.g.*, immediately after) applying the device [to] the vulva. *Taylor* discloses compressing and then expanding the bellows after applying member 156 to the vulva, resulting in a positive and negative pressure relative to the pressure in bellows 160 (*i.e.*, the reference pressure).

Reply 8 (citing Pet. 12–13; Ex. 1018 ¶ 46; Ex. 1002 ¶¶ 59–64). Petitioner contends that using this definition of reference pressure, the cyclic vacuum of Taylor meets the modulation of positive and negative pressures relative to a reference pressure limitation as the vacuum increases and decreases relative to the pressure shortly after activation. *Id.* at 8–14. For instance, Petitioner argues “*Taylor* discloses that arm 26 ‘compresses . . . and then expands bellows 160’ after member 156 ‘sealingly’ engages the vulva. That is, *Taylor* teaches to first compress bellows 160 to a smaller size, and then to expand to a larger size, after member 156 is placed on the vulva as shown in Fig. 3.” Reply 9 (internal citations omitted); *see also* Reply 14 (asserting Taylor has an air-tight seal). Petitioner also asserts that Taylor teaches the bellows start in a neutral position because in Figure 3 of Taylor “the depicted position of bellows 160 is an intermediate or neutral state, and not

its most compressed (or expanded) state.” *Id.* at 10 (citing Ex. 1018 ¶¶ 49–52).

Petitioner explains that even if Taylor’s device does not start in a neutral position, it would still create positive and negative pressures with respect to a reference pressure. *See* Reply 12–14. Petitioner explains:

A POSITA would have understood [as shown in the figures set forth below] that when member 156 (blue) is pressed into the body using force F_1 (e.g., by hand), an *above ambient* positive pressure is generated in member 156 due to the change in volume defined by member 156 resulting therefrom:



Ex. 1018 ¶ 52. Accordingly, because the volume of member 156 decreases after force is applied, a positive pressure is generated even if the bellows was fully compressed at the beginning of operation, resulting in positive and negative pressures modulated with respect to a reference pressure when the device is powered on. Ex. 1018 ¶ 52. Further, F_1 would be greater than the F_2 generated by positive/negative pressures inside member 156, which is why member 156 does not detach or become rendered inoperable when positive pressure is generated.

Reply 12–13.

In Sur-Reply, Patent Owner contends that Petitioner’s argument is based on the incorrect assumption that the “reference pressure” can be any arbitrary “given pressure.” Sur-Reply 12. Patent Owner contends that such a definition creates a moving target for the claimed “reference pressure,” which contravenes the ’061 patent’s definition of surrounding pressure acting on a device prior to operation that provides an understandable, consistent, and reliable baseline from which to judge whether positive and negative pressures are applied to a body part. *Id.*

Patent Owner also contends that Petitioner’s argument with respect to the pressure in the suction cup being a positive pressure is based on demonstrative drawings set forth for the first time in Petitioner’s Reply, which is nowhere found or taught by Taylor. *Id.* at 13. Patent Owner states:

Taylor discloses a suction-only system that, in one embodiment (the only embodiment Petitioner relies on in the Petition), uses a bellows to apply “cyclical vacuum phenomenon” to suction cups to stimulate the upper vulva and nipples. Ex. 1004, 5:29–49; Ex. 2034 ¶¶ 104–112. Regardless of what position the bellows begins operation, cyclical vacuum is repetitive negative, *not* modulation of positive and negative pressures.

Sur-Reply 14. Therefore, Patent Owner asserts, discussion of whether Taylor’s bellows have a valve or the use of a squeeze ball in place of the bellows does not alter the teaching of Taylor of creation of a “cyclical vacuum” through a suction cup. *Id.* at 15–17.

We have considered the arguments of the parties and the evidence of record and conclude that Petitioner has not demonstrated that Taylor discloses that the changing volume of the bellows results in modulation of positive and negative pressures with respect to a reference pressure.

First, Petitioner is basing its argument on a shifting and incorrect claim construction that “reference pressure” may include any “‘given’ pressure around which higher and lower pressures are generated for stimulating the body, which may be determined prior to application or after application of the device to the target body part.” *Compare* Reply 4, with Pet. 21–23 (stating “reference pressure” is “atmospheric pressure”). Based on such reliance on an incorrect claim construction alone, we find that Petitioner has failed to prove by a preponderance of the evidence that Taylor discloses the changing volume of the chamber resulting in modulated positive and negative pressures with respect to a reference pressure.

We also find that Petitioner’s explanation of what Taylor teaches to support that application of its erroneous claim construction is also flawed. We find Petitioner’s substantive arguments concerning the teachings of Taylor are not supported by Taylor’s disclosure.

For instance, Taylor expressly and consistently teaches applying a cyclical vacuum or negative pressure using suction cups. *See* Ex. 1004, 5:35–48; *see* Ex. 2034 ¶¶ 104–106. As Dr. Jensen states, “Taylor provides a device that introduces a vacuum, and releases the vacuum.” Ex. 2034 ¶ 106. Petitioner’s attempt to assert that Taylor teaches positive, as well as negative pressures, that are modulated with respect to a reference pressure is unconvincing and not supported by the express disclosure of Taylor.

Petitioner relies almost exclusively on Taylor’s statement that the suction cup member 156 *sealingly* receives the upper portion of the vulva to attempt to prove that Taylor teaches modulation of positive and negative pressures with respect to a reference pressure because such a sealing to the body part creates a closed system. Pet. 35; *see* Ex. 1002 ¶ 64; Resp. 35. As

Patent Owner notes, however, Taylor does not disclose such a closed system either expressly or inherently.

We agree with Dr. Jensen that when read in context, Taylor's disclosure of a suction cup "sealingly" receiving the vulva occurs when the vacuum is applied, not before. *See* Ex. 2034 ¶ 121. We disagree with Petitioner's conclusion that "*Taylor* discloses that arm 26 'compresses . . . and then expands bellows 160' after member 156 'sealingly' engages the vulva." Reply 9. The single statement in Taylor on which Petitioner relies states, with reference to Figure 3 set forth above in Section II.D.1, "[t]he first stimulator 154 includes a suction cup member 156 that conformingly and sealingly receives the upper portion of the vulva." Ex. 1004, 5:29–31. We agree with Dr. Jensen that this does not support Petitioner's conclusion that a seal is achieved before the vacuum is applied, and credit Dr. Jensen's testimony that reads as follows as consistent with Taylor's disclosure.

Petitioner alleges Taylor discloses a positive pressure with respect to the reference pressure in the bellows, because Taylor states that "suction cup member 156 ... conformingly and sealingly receives" the vulva. Petition at 34-35. Specifically, Petitioner appears to argue that because there is a seal, there must be modulated positive and negative pressure. Petitioner's logic is clearly flawed. As an initial matter, Taylor's disclosure of a suction cup "sealingly" receiving the vulva is in the context of when the vacuum is applied. Based on Taylor's disclosure, the suction cup member of Taylor would not stay sealingly engaged if a positive pressure is applied. Again, Taylor discloses a cyclical vacuum, which most likely returns to atmospheric pressure every time the bellows is compressed, resulting in the suction cup releasing from the vulva. Regardless, Petitioner's argument is also flawed because providing a seal does not mean a positive pressure with respect to the reference pressure is applied to the suction cup. Taylor only

discloses a vacuum is applied. The fact that the suction cup “sealingly” receives the vulva is not itself evidence of both a negative pressure and a positive pressure. Rather, a *suction* cup that *sealingly* receives a vulva while a vacuum or negative pressure is applied is further evidence that Taylor provides only a negative pressure, **not** a positive pressure.

If Taylor were to provide a positive pressure, the “suction” cup would not “sealingly receive” the vulva as Taylor describes. A POSITA would understand that a positive pressure would unseal suction cup member 156 from the vulva. Moreover, the additional suction cup members 58 for receiving a user’s nipples and areolae that are in fluid communication with the bellows would also be nonfunctional if a positive pressure with respect to the reference pressure resulted from a varied volume of the chamber, as the cups would detach and fall off the nipple area in response to the positive pressure. Once the suction cups disengage from the body, the cyclical vacuum can no longer be applied to the body, and, therefore, there can be no pattern of negative and positive pressures modulated with respect to the reference pressure, as alleged by Petitioner. Thus, Petitioner’s modulated pressure scenario relies on modifications to the Taylor system – introduction of a positive pressure and modulation of negative and positive pressures – that are entirely inconsistent with Taylor’s disclosure and render Taylor’s system inoperable. Because Taylor discloses a vacuum-only system, further evidenced by the inclusion of sealed suction cups, a POSITA would not find that Taylor necessarily provides a positive pressure as alleged by Petitioner. Therefore, Taylor does not inherently disclose modulated positive and negative pressures.

Ex. 2034 ¶¶ 121–122; *see* Ex. 1022, 202:22–205:6.

Petitioner’s contentions with respect to this limitation are also based on the erroneous premise that the bellows in Taylor must necessarily start in a position that is neither fully expanded nor fully compressed. Pet. 35 (stating “[w]hen bellows 160 is neither compressed nor expanded, the air

within bellows 160 is at atmospheric pressure (i.e., the reference pressure)”) (citing Ex. 1002 ¶¶ 62–64, 75(vii)). Taylor, however is silent as to the starting position of the bellows. *See* Ex. 1004, 5:27–49; Ex. 2034 ¶ 110. Petitioner’s declarant, Mr. Meyst, confirms this silence by drawing a negative inference from such silence. Such a negative inference, however, does not meet the inherency test as it must because there is no such express disclosure. In particular, Mr. Meyst testifies:

It is my opinion that pressures above and below the initial pressure would be generated by *Taylor*. This is at least because *there is no reason to assume* that an initially generated positive pressure in suction cup member 156 immediately after it is applied to the vulva would somehow be contrary to the operation of *Taylor*, and because there is no teaching that the device must begin operation with the bellows at its smallest volume.

Ex. 1020 ¶ 61 (emphasis added).

Thus, we agree with Patent Owner that Petitioner appears to argue that the starting position would inherently be neither fully compressed nor fully expanded, *see* Resp. 36–41, which is simply not supported by Taylor or the testimony of Petitioner’s declarants.

We discern nothing in Taylor, the testimony of Dr. Prisco, or the testimony of Mr. Meyst to support the conclusion that the device in Taylor starts with the bellows in a position that is neither expanded nor compressed. *See* Ex. 1004, 5:27–49; Ex. 1002 ¶¶ 62–64; Ex. 1020 ¶ 61. In fact, given that Taylor explicitly teaches that the bellows acts to create a cyclic vacuum, one skilled in the art is just as likely to conclude that the bellows starts in the fully compressed position creating a stronger vacuum as the bellows is expanded. *See* Ex. 1004, 5: 27–49; Ex. 2034 ¶ 109 (stating “Taylor describes a bellows for cyclically introducing only a **vacuum** . . . [a] POSITA would

understand a bellows selected for purposes of creating a vacuum to provide unidirectional fluid flow”).

For instance, as Dr. Jensen, Patent Owner’s declarant, explains:

According to Petitioner, Taylor’s bellows creates both negative and positive pressures with respect to a reference pressure because Taylor’s bellows begins in a state of being neither compressed nor expanded. *See* Pet., 35. It is unclear what Petitioner actually means by this point. However, the starting point of Taylor’s bellows is irrelevant. Taylor describes a bellows system for creating a vacuum-only system, and a POSITA would therefore understand that the bellows is designed such that it creates a vacuum, regardless of the position of the bellows when it starts. Further, Taylor does not disclose anything that would tell a POSITA that the bellows begins in a state of being neither compressed nor expanded, which to me, as a POSITA, is further evidence that the bellows included in the Taylor system is an ordinary vacuum bellows. Moreover, regardless of the “starting point” of the bellows, a POSITA would understand that atmospheric pressure would be the “reference pressure” as understood in the context of the ’061 Patent, because it is the prevailing pressure acting on the stimulation device prior to operation. ’061 Patent, 3:38-41. The pressure acting on Taylor’s device does not change based on the initial position of the bellows. Even if the starting position did matter, following Petitioner’s logic, then it doesn’t make sense for the starting position of the bellows to be in a neither compressed nor expanded position. Rather, the logical starting position of the bellows would be a fully compressed position to maximize Taylor’s vacuum feature. Ultimately, a POSITA would recognize that if the bellows is designed to introduce a vacuum as Taylor describes, the bellows will introduce a vacuum regardless of where the bellows starts. A POSITA would understand Taylor’s bellows to work as follows, regardless of its starting position: As the bellows is expanded, a vacuum (negative pressure with respect to the reference pressure) is created. As the bellows is compressed and the

vacuum is released, the pressure in the bellows returns toward the starting pressure, *i.e.*, the prevailing pressure of the sexual aid (reference pressure). While the pressure within the bellows may increase relative to the negative pressure as the bellows is being compressed, **the pressure within the bellows remains negative with respect to the reference pressure at all times and is never positive with respect to the reference pressure** as claimed.

Ex. 2034 ¶ 110 (emphasis in original). As we find that Dr. Jensen’s analysis of the operation of Taylor’s device is more consistent with Taylor’s disclosure, we conclude that the evidence does not support Dr. Prisco’s contention that the bellows in Taylor must necessarily start in a position that is neither fully expanded nor fully compressed.

For all the reasons expressed above, we find that Petitioner has failed to show that Taylor discloses “a pattern of negative and positive pressures, modulated with respect to a reference pressure” or “a pattern of negative and positive pressures, modulated with respect to a reference pressure.”

3. Conclusion

Based on the foregoing analysis, we conclude that Petitioner has failed to show by a preponderance of the evidence that the challenged claims are anticipated by Taylor.

E. Obviousness Grounds

Petitioner asserts that claims 1–3, 5, 7, 8, 11, 14, 15, 17–19, and 21–26 are unpatentable under 35 U.S.C. § 103 as obvious over Taylor and Hovland. Pet. 3, 66–78. Again, we focus on independent claims 1 and 21 at issue in this challenge. We find that Petitioner has not shown sufficiently that the combination of the teachings of Taylor and Hovland teach or suggest “a pattern of negative and positive pressures, modulated with respect

to a reference pressure” of claim 1 or the similar limitation “a pattern of negative and positive pressures, modulated with respect to a reference pressure” of claim 21. We also address Patent Owner’s objective evidence of non-obviousness, which supports our view that the challenged claims are not unpatentable on the record before us. Prelim. Resp. 35–53; Ex. 2003.

1. Hovland (Ex. 1006)

Hovland discloses a stimulation device wherein suction or a vacuum is applied to the clitoris to promote engorgement of the clitoris with blood. Ex. 1006, Abstr. An alternative embodiment of Hovland teaches the use of super-atmospheric pressure to massage the clitoris. *Id.* at 4:22–24.

2. Analysis

Petitioner contends that if Taylor does not teach modulated positive and negative pressures with respect to a reference pressure, “it would have been obvious to a POSITA to modify *Taylor’s* stimulation device with the teachings of *Hovland* to apply modulated super-atmospheric pressure along with *Taylor’s* ‘cyclical vacuum’ (i.e., sub-atmospheric pressure) to achieve the benefits described by *Hovland*.” Pet. 66–67 (citing Ex. 1002 ¶¶ 91–96). Petitioner points to statements in Hovland discussing embodiments that increase blood flow to the clitoris “by creating a vacuum around **and/or using increasing pressure** to produce percussion and/or massage of e.g., the clitoris.” Pet. 67 (citing Ex. 1006, 8:49–52). With particular reference to Figure 15, Petitioner points to a statement that the pump/motor assembly of the embodiment can provide “pneumatic and/or hydraulic actuation to create e.g. vibration, percussion, **subatmospheric pressure and/or super-atmospheric pressure**, or **modulation of these effects**.” Pet. 68 (citing Ex. 1006, 13:20–24 (emphasis in original), 15:23–24).

From these statements, Petitioner concludes:

Based on *Hovland's* disclosure, a POSITA would have readily recognized that *Hovland's* reference to “subatmospheric pressure,” “suction,” and “vacuum” is intended to encompass “pressure levels lower than atmospheric or ambient.” [Ex. 1006,] 21:47–50. A POSITA also would have understood that *Hovland's* reference to super-atmospheric pressure for providing “percussion or massage” is intended to encompass “pressures higher than ambient or atmospheric.” *Id.* at 21:50–52; Ex. 1002 at ¶¶ 93–96.

[I]t would have been obvious to a POSITA to modify *Taylor's* stimulation device with the teachings of *Hovland* to apply both modulated sub-atmospheric **and** super-atmospheric pressures to clitoris, to take advantage of percussion and/or massage of the clitoris, in order to achieve improved and quicker clitoral engorgement and tumescence known to result from a pressure differential in the clitoris and/or surrounding areas. *Id.* at 4:19–28 (emphasis added). Moreover, modification of *Taylor* with the teachings of *Hovland* would have amounted to nothing more than the use of a known technique to improve a similar device, and the results of the modification would have been predictable. *See KSR Int'l. Co. v. Teleflex, Inc.*, 550 U.S. 398, 417 (2007). This is because at the time of the invention, a POSITA would have had the requisite skill level to readily modify the device disclosed by *Taylor* to implement the teachings of *Hovland* without any problem.

Pet. 68–69.

Patent Owner contends that neither *Hovland* nor *Taylor* teach or suggest modulated positive and negative pressures with respect to a reference pressure. Resp. 49. *Hovland* teaches: “According to other embodiments, pump/motor assembly 300 provides pneumatic and/or hydraulic actuation to create e.g. vibration, percussion, subatmospheric pressure and/or superatmospheric pressure, or modulation of these effects.” Ex. 1006, 13:20–24. Patent Owner contends that this passage in *Hovland*

teaches the modulation of either a vacuum or super atmospheric pressure, but not modulating between them. Resp. 50–52. Patent Owner contends that while Hovland uses the term “and/or” with respect to certain embodiments, one skilled in the art would not have considered the term to refer to modulating between positive and negative pressures in the teachings of the ’061 patent. *Id.* Patent Owner contends that the use of the term and/or refers to a choice of effects and not modulating between them. *Id.* at 51–53. Patent Owner also argues that Hovland does not disclose any structure or means for modulating between positive and negative pressures. *Id.* at 51–52. Patent Owner concludes that “[o]ther than having seemingly searched for isolated statements or phrases (*e.g.*, “and/or”) in Hovland based exclusively on knowledge gleaned from the ’061 Patent, Petitioner presents no evidence that Hovland actually discloses this missing limitation.” *Id.* at 51 (citing Ex. 2034 ¶¶ 135–137).

Patent Owner also contends that one skilled in the art would not have been motivated to combine the teachings of Taylor and Hovland. Resp. 54–57. Patent Owner argues that Petitioner has not adequately explained or supported its contention that it would have been obvious to modify Taylor with the teachings of Hovland to achieve the results stated in Hovland. *Id.*

Petitioner responds that the plain meaning of “and/or” supports its interpretation that Hovland teaches modulation between positive and negative pressures. Reply 16–18. Petitioner argues that Hovland specifically teaches modulation between various effects, including between positive and negative pressures. *Id.* Petitioner also contends that combining Taylor with Hovland is nothing more than modifying Taylor with a known method to produce a predictable result. *Id.* at 18–19.

In its Sur-Reply, Patent Owner contends that, when read in context, the term “and/or” as it appears in Hovland refers to a series of alternative modes, but not alternating between these modes to achieve modulation of positive and negative pressures with respect to a reference pressure. Sur-Reply 17–18. Patent Owner also contend that Petitioner misconstrues the teachings of Hovland with respect to using different pressures to stimulate the clitoris. *Id.* at 19–22.

As discussed above, we find that Taylor does not teach the limitations calling for modulated positive and negative pressure with respect to a reference pressure that are required by all challenged claims. We now turn to the questions of whether those elements are taught by Hovland; whether Petitioner has shown that one skilled in the art would have been motivated to combine the teachings of Taylor and Hovland; and whether Patent Owner has offered sufficient evidence of objective indicia of patentability to overcome Petitioner’s arguments that the subject matter of the challenged claims would have been obvious.

a. Modulated Positive and Negative Pressure

Petitioner contends that, to the extent the elements of modulated positive and negative pressure are not taught by Taylor, those elements are taught by Hovland. Pet. 66–71.

Hovland teaches that in one embodiment, the device disclosed therein has a “pump/motor assembly [which] provides pneumatic and/or hydraulic actuation to create e.g. vibration, percussion, subatmospheric pressure and/or superatmospheric pressure, or modulation of these effects.” Ex. 1006, 13:21–24. Petitioner construes this passage as teaching that the device in Hovland can modulate both positive and negative pressures as required by

claim 1. Reply 15–19. Petitioner contends that the use of the term “and/or” would lead one skilled in the art to understand that the device of Hovland can modulate between subatmospheric and superatmospheric pressures. *Id.*

Patent Owner contends that although Hovland may teach a device that can produce positive (superatmospheric) or negative (subatmospheric) pressures, it does not teach modulating between those pressures. Resp. 49–54. Patent Owner contends that the recited paragraph only indicates that the individual effects can be modulated, but not that the device can modulate between the effects. *Id.*

We have considered the arguments advanced by the parties and the evidence of record and conclude that Patent Owner has the better argument. Although we agree with Petitioner that Hovland teaches a device capable of producing positive and negative pressures individually, we do not find that Hovland discloses modulating between those effects. We agree with Patent Owner that, when read in context, the cited passage refers to modulation of the individual effects recited in the sentence, but not modulation between the effects. *See* Resp. 49–54. As Patent Owner points out, this interpretation is consistent with the overall teachings of Hovland, in which “[e]ach instance of ‘modulate’ or ‘modulated’ or ‘modulator’ refers to varying or adjusting the level of a particular effect, *e.g.*, the vacuum effect.” Resp. 51 (citing Ex. 2034 ¶ 135 (citing various examples in Hovland)).

For example, Hovland teaches the use of a vacuum modulator to vary the suction pressure applied by the device, in a manner similar to Taylor’s device. Ex. 1006, 12:42–59. Hovland also teaches that the vacuum modulator can be used to pulsate the vacuum level of the device. *Id.* at 14:21–22. Hovland further teaches:

When applied to the clitoris, the vacuum applied by device 200 will cause the clitoris to become engorged, i.e. filled with blood. Vacuum level and modulation can be adjusted by either the patient or her partner, as needed, to maintain engorgement. Thus, embodiments of the invention provide the ability both to rapidly *modulate vacuum pressure* with modulator 290, in a manner akin to the modulation of alternating current, for example, and simultaneously to more evenly hold underlying vacuum pressure at a substantially constant level or gradually change it, e.g. with wheel 280, in a manner akin to direct current. This dual functionality provides substantial advantages over the prior art.

Id. at 14:27–39 (emphasis added). Thus when read in the context of the entire disclosure of Hovland, we find that the reference in Hovland to modulation refers to modulation of one specific effect, not modulation between two or more effects.

Petitioner disagrees with Patent Owner’s interpretation of Hovland as disclosing a device that produces only a vacuum. Reply 15–16. Petitioner contends that this ignores the use of the term “and/or” as it appears in Hovland, which calls for the device to create both effects. *Id.*; Ex. 1018 ¶¶ 44–45; Ex. 1020 ¶¶ 69–70.

Although we agree with Petitioner that the term “and/or” may be read as a device that can create both positive and negative pressures, as discussed above, we do not read Hovland as teaching modulating between effects, as required for the challenged claims. This is confirmed by the plain language of Hovland, which refers to “modulation of these effects” rather than “modulation between effects.” Ex. 1006, 13:20–24. Moreover, when the cited paragraph is read in the context of the other disclosures in Hovland discussed above, we find that the overall teachings of Hovland are focused on modulation of the individual effects, not modulating between the effects.

Ex. 1006, 12:21–24; Ex. 2034 ¶¶ 132–138. Although Hovland teaches a device that can produce positive and negative pressures, we discern nothing in Hovland that teaches modulating between these effects.

Therefore, we conclude that neither Taylor nor Hovland teach the feature of modulating positive and negative pressures with respect to a reference pressure in a sexual stimulation device.

b. Motivation to Combine

As noted above, a determination of obviousness requires more than showing that all of the elements are present in the prior art. There must be a motivation to combine those elements to produce the claimed invention. *See WMS Gaming*, 184 F.3d at 1355. Because we have found that neither Taylor nor Hovland teach modulating between positive and negative pressures with respect to a reference pressure, we need not analyze whether Petitioner has established by a preponderance of the evidence that the combination of Taylor and Hovland renders obvious the challenged claims of the '061 patent. Nonetheless, even assuming that the Hovland teaches this requirement based on the single phrase in its disclosure of “subatmospheric pressure and/or superatmospheric pressure, or modulation of these effects,” we also find that Petitioner has failed to show a rationale as to why one of ordinary skill in the art would have combined the teachings of Taylor and Hovland to arrive at the claimed subject matter of the challenged claims.

In the present case, Petitioner contends that the motivation to combine the teachings of Taylor and Hovland arises from the teachings in Hovland that percussion and/or massage of the clitoris achieves improved and faster clitoral engorgement. Pet. 68–69 (citing Ex. 1006, 4:19–28; Ex. 1002

¶¶ 93–96). Petitioner also contends that the combination of references is nothing more than using a known technique to improve a similar device. *Id.* at 69.

Patent Owner contends that Petitioner’s argument is factually unsupported in that Petitioner does not explain how one skilled in the art would have modified the references or how the references teach modulation between positive and negative pressures. Resp. 54–57.

We have considered the arguments presented by the parties and the evidence of record and find that Petitioner has not adequately explained why one skilled in the art would have been motivated to combine the teachings of Taylor and Hovland to produce a stimulation device that modulates between positive and negative pressure with respect to a reference pressure.

The paragraph from Hovland relied upon by Petitioner for establishing such a rationale reads:

A vacuum created over the clitoris, or suction applied to the clitoris, for example, creates a negative pressure in the clitoris that is or is likely to be lower than the systolic blood pressure. *Alternatively*, super-atmospheric pressure may be provided to produce massage or percussion of the clitoris and/or the surrounding area. *In either case*, the pressure differential tends to promote engorgement of the clitoris with blood and/or otherwise stimulate blood flow, providing the benefits described above while increasing the likelihood of short-term pleasurable effect and beneficial longer-term usage. Embodiments of the invention thus may encourage more regular and active compliance with a treatment program for urinary and/or fecal incontinence, while at the same time treating female sexual dysfunction if needed. Embodiments of the invention also are non-invasive, non-pharmacological, relatively inexpensive and easy to use.

Ex. 1006, 4:18–34 (emphasis added). It is clear from reading this paragraph that Hovland is talking about the benefits of using *either* negative or positive pressure, but not alternating between both. Thus, insofar as Hovland does not teach such modulation, Hovland does not provide the motivation to modify Taylor to modulate between positive and negative pressure.

Based on the foregoing we find that Petitioner has failed to establish a motivation to combine the teachings of Taylor with those of Hovland.

c. Objective Indicia

Although the above conclusions would be enough for us to find that Petitioner has failed to show by a preponderance of the evidence that the challenged claims are unpatentable based on Taylor and Hovland, we also find that the objective indicia of non-obviousness supports our conclusion that these challenged claims are not unpatentable on the record before us. Objective indicia of non-obviousness, or “secondary considerations,” guard against hindsight reasoning in an obviousness analysis, and are often “the most probative and cogent evidence in the record.” *WBIP, LLC v. Kohler Co.*, 829 F.3d 1317, 1328 (Fed. Cir. 2016) (citations omitted).

The secondary considerations evidence we must consider, if presented, include “copying, long felt but unsolved need, failure of others, commercial success, unexpected results created by the claimed invention, unexpected properties of the claimed invention, licenses showing industry respect for the invention, and skepticism of skilled artisans before the invention.” *Rouffet*, 149 F.3d at 1355. We must also determine if Patent Owner has shown a nexus between the evidence and the merits of the claimed invention. *Wyers*, 616 F.3d at 1246.

(1) *Nexus*

There must be a “nexus” between the merits of the claimed invention and the evidence of secondary considerations for such evidence to be accorded substantial weight. *In re Kao*, 639 F.3d 1057, 1068 (Fed. Cir. 2011). Nexus is presumed if a marketed product embodies the claimed features and is coextensive with them. *Teva Pharms. USA, Inc. v. Sandoz, Inc.*, 723 F.3d 1363, 1372 (Fed. Cir. 2013). A patent owner is entitled to a presumption of a nexus if it shows that “the asserted objective evidence is tied to a specific product and that product ‘is the invention disclosed and claimed in the patent.’” *WBIP*, 829 F.3d at 1335.

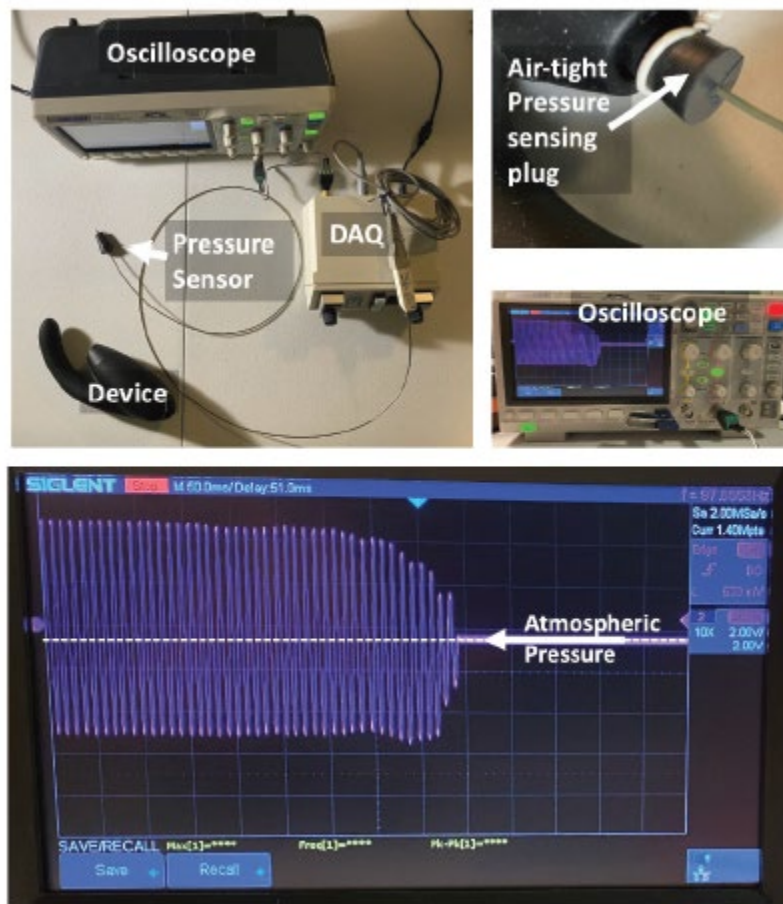
Patent Owner contends that two of its commercial products, the Womanizer® InsideOut and Womanizer® Duo, “embody and are coextensive with” the claims of the ’061 patent. Resp. 62. In support of this contention Patent Owner relies on the testimony of its experts Drs. Jensen and Herbenick. Resp. 62 (citing Exs. 2037, 2034 ¶¶ 46–54, 2035 ¶¶ 48–64).¹⁰

Both Dr. Herbenick and Dr. Jensen reviewed the Womanizer® InsideOut and concluded that the device was coextensive with at least the challenged independent claims of the ’061 patent. Ex. 2034 ¶ 47; Ex. 2035 ¶ 49. Dr. Herbenick prepared a detailed claim chart tracking each element of the independent claims to specific components of the Womanizer® InsideOut, concluding that the device contained each of the structural

¹⁰ As both Dr. Herbenick and Jensen have testified, the Womanizer® InsideOut and Womanizer® Duo differ only in style features with the structure and mechanics of the two devices being the same. Ex. 2034 ¶ 46; Ex. 2035 ¶ 48. For this reason, Dr. Herbenick and Jensen focused their analyses on the Womanizer® InsideOut. Ex. 2034 ¶ 46; Ex. 2035 ¶ 48.

elements recited in the independent claims. Ex. 2035 ¶¶ 49–64; Ex. 2037. Dr. Jensen reviewed the device and Dr. Herbenick’s claim charts and also concluded that all of the structural elements were present in the device. Ex. 2034 ¶ 47.

Dr. Jensen also conducted an experiment to determine whether the Womanizer® InsideOut produced modulated positive and negative pressures with respect to a reference pressure. Ex. 2034 ¶¶ 50–54. The following images from Dr. Jensen’s declaration show the equipment used to test the pressure of the InsideOut, as well as the pressure graph generated as a result of the tests:



Ex. 2034 ¶ 52. As shown in the top images above, Dr. Jensen’s testing set-up included an oscilloscope, data acquisition equipment (“DAQ”), and a pressure sensor with an air-tight pressure sensing plug connected to the device. *Id.* In the pressure graph shown above, the y-axis indicates pressure (as a voltage measurement) relative to ambient or atmospheric pressure (zero line) and the x-axis indicates time (milliseconds). *Id.* Based on the results of that experiment and the product literature relating to the Womanizer® InsideOut, Dr. Jensen concluded that the commercial devices meet the limitations calling for modulated positive and negative pressures with respect to a reference pressure. Ex. 2034 ¶¶ 50–54.

Petitioner contends that Patent Owner has failed to establish a nexus between the commercial products and the challenged claims. Reply 20–22. Petitioner contends that Patent Owner’s arguments are largely based on the testimony of Dr. Herbenick, who Petitioner contends is not qualified to render such opinions. *Id.*

Petitioner contends that Patent Owner is not entitled to a presumption that the commercial devices embody the claimed invention as they include beneficial features not recited in the claims. *Id.* at 20–21. Petitioner also argues that Dr. Jensen’s testing of the alleged commercial embodiment is unsound and does not establish a nexus between the device and the claims. *Id.* at 22.

We have considered the arguments presented by the parties and the evidence of record and find that Patent Owner has established a nexus between the claims of the ’061 patent and its commercial products. The testimony of both Dr. Herbenick and Dr. Jensen demonstrate that the elements of the claims are present in the Womanizer® InsideOut and

Womanizer® Duo products and that the products are essentially the claimed invention. *See* Ex. 2034 ¶¶ 50–54; Ex. 2035 ¶¶ 45–64.

Petitioner contends that the presence of additional, unclaimed features precludes a presumption of a nexus between the commercial embodiments and the claims of the '061 patent. Reply 20–22. In support of this contention Petitioner cites to *Fox Factory, Inc. v. SRAM, LLC*, 944 F.3d 1366 (Fed. Cir. 2019). Petitioner's reliance on *Fox Factory* is misplaced. As the court in *Fox Factory* stated:

To be sure, we have never held that the existence of one or more unclaimed features, standing alone, means nexus may not be presumed. Indeed, there is rarely a *perfect correspondence* between the claimed invention and the product. As we explained, the purpose of the coextensiveness requirement is to ensure that nexus is only presumed when the product tied to the evidence of secondary considerations “*is the invention disclosed and claimed.*” Thus, if the unclaimed features amount to nothing more than additional insignificant features, presuming nexus may nevertheless be appropriate.

Id. at 1375. The court went on to state: “Although we do not require the patentee to prove perfect correspondence to meet the coextensiveness requirement, what we do require is that the patentee demonstrate that the product is essentially the claimed invention.” *Id.*

In *Fox Factory*, the alleged commercial embodiment included unclaimed features that the patentee described as critical to the products' performance. *Id.* at 1374–1375. It was the presence of these critical, unclaimed features that lead the court to hold: “A patent claim is not coextensive with a product that includes a ‘critical’ unclaimed feature that is claimed by a different patent and that materially impacts the product's functionality.” *Id.*

The case before us is factually distinct from *Fox Factory*. Although Petitioner has identified several features of the Womanizer® products that are not recited in the claims, Petitioner has not pointed to nor do we discern any evidence to suggest that these unclaimed features are critical to the products and impact the products' functionality. *See* Reply 21. Although Dr. Herbenick testified that additional features were present in the Womanizer® devices, Petitioner has not pointed to any testimony by Dr. Herbenick or other evidence to support the contention that these additional features significantly affect the functionality of the devices. *See* Reply 21; Ex. 1023, 115–116.

Petitioner also contends that Patent Owner's evidence that the commercial products are coextensive with the claims of the patent is unreliable. Reply 21–22. Petitioner contends that Dr. Herbenick did not perform a technical analysis of the devices herself and lacks the technical expertise to perform such an analysis. *Id.* at 21. With respect to Dr. Jensen's testimony, Petitioner contends that Dr. Jensen's testing technique is unsound and should not be relied upon. *Id.* at 22. We find both of these argument unpersuasive.

Although we agree with Petitioner that Dr. Herbenick does not have a technical degree that would enable her to opine about the operation of various components in the commercial embodiments, we note that she has studied and tested various sexual stimulation devices. Ex. 2035 ¶¶ 12–13. Based on her experience with such devices we find that Dr. Herbenick is qualified to identify the various components of the commercial embodiments as she did in her declaration and claim chart. Ex. 2037; Ex. 2035 ¶¶ 49–60. Moreover, Dr. Jensen, who has a background in medical devices, examined

the commercial embodiments and Dr. Herbenick's analysis and claim charts and concurred in Dr. Herbenick's findings. Ex. 2034 ¶¶ 46, 47, 157.

We are similarly unpersuaded by Petitioner's critique of Dr. Jensen's testing methodology. In particular, Petitioner and Dr. Prisco point to Dr. Jensen's deposition testimony indicating that he used a rubber plug or bottle stopper with the pressure sensor for his testing, which Dr. Prisco asserts would modify the size of the mouth of the device. Ex. 1018 ¶¶ 66–67; Ex. 2022, 61:2–20. Dr. Prisco testifies that such use of a stopper could affect the pressures generated, but offers insufficient explanation as to why this might be so or that it actually occurred when Dr. Jensen conducted his experiments. For this reason, we give little weight to Dr. Prisco's critique of Dr. Jensen's methodology. *Ebit Sys. Am., LLC v. Thales Visionix, Inc.*, 881 F.3d 1354, 1358 (Fed. Cir. 2018) (“The PTAB [i]s entitled to weigh the credibility of the witnesses”) (internal citation omitted).

Dr. Prisco also testified that the data produced by Dr. Jensen shows that the pressure in the device modulated at a pressure greater than atmospheric pressure. Ex. 1018 ¶¶ 71–73. Petitioner contends that this further supports the conclusion that Dr. Jensen's test results are unreliable. *See* Reply 22. Again, we are not persuaded by this argument. Even if we were to accept Petitioner's argument that the reference pressure in Dr. Jensen's test was something other than atmospheric pressure, our construction of reference pressure does not limit the term to atmospheric pressure, but only the pressure in the device before it is placed in operation. Petitioner does not dispute that the data produced by Dr. Jensen show modulation of positive and negative pressure with respect to a reference

pressure regardless of whether it is atmospheric pressure. *See id.*; Ex. 1018 ¶¶ 71–73.

Based on the foregoing we conclude that Patent Owner has established a nexus between the Womanizer® InsideOut and Womanizer® Duo products and the claims of the '061 patent.

(2) *Commercial Success*

The commercial response to an invention is significant to determinations of obviousness and is entitled to fair weight. *Demaco Corp. v. F.von Langsdorff Licensing Ltd.*, 851 F.2d 1387, 1391 (Fed. Cir. 1988).

Patent Owner contends that the Womanizer® products are “stand-out successes.” Resp. 63. In support of this contention, Patent Owner points to various consumer testimonials as well as Dr. Herbenick’s testimony regarding the sales of Womanizer® products and an exhibit detailing sales revenues. *Id.* (citing Exs. 2017–2019; 2035 ¶ 66; 2056).

Petitioner contends that raw sales data without sufficient context does not establish commercial success. Reply 22–23. Petitioner asserts “[t]here is no evidence of market share, sales expectations, or anything showing comparative success of the Embodiments in relation to other products on the market. And, anonymous online reviews are not relevant to commercial success.” *Id.* at 23.

We have considered the arguments presented by the parties and the testimony of Dr. Herbenick and evidence of record and find that Patent Owner has not shown that the Womanizer® products are commercially successful.

Commercial success in the context of secondary considerations is typically established by evidence of sales of the product embodying the

claimed invention and relevant market share.¹¹ *In re Applied Materials, Inc.*, 692 F.3d 1289, 1299 (Fed Cir. 2012). In the present case Patent Owner has offered the testimony of Dr. Herbenick that the relevant products have achieved significant sales volumes, that sales continue to increase, and raw sales data. Resp. 63 (citing Ex. 2035 ¶ 66; Ex. 2056). Dr. Herbenick, however, did not offer any testimony regarding any market context for the raw sales data. *See* Ex. 2035 ¶ 66. Petitioner offered one estimate of the total market size of the sex toy market as \$29 billion, which adds some context for the sales data offered by Patent Owner. *See* Reply 23, n.14 (citing Ex. 1024). Patent Owner did not comment on this estimate. *See generally* Sur-Reply.

Petitioner offers some context for the raw sales data proffered by Patent Owner that tends to show Patent Owner's products may not have enjoyed such a level of sales that would indicate commercial success. Without more context for the raw sales data, we cannot determine if the relevant products enjoyed commercial success sufficient to support a finding of non-obviousness. *Applied Materials*, 692 F.3d at 1299.

(3) *Long-Felt Need*

“Existence of a long felt but unsolved need that is met by the claimed invention is further evidence of non-obviousness.” *Millennium Pharms., Inc. v. Sandoz Inc.*, 862 F.3d 1356, 1369 (Fed. Cir. 2017). Evidence of a long felt but unresolved need tends to show non-obviousness because it is

¹¹ The analysis also requires a showing of a nexus between the claimed features and the sales of the relevant product. *Applied Materials*. 692 F.3d at 1299.

reasonable to infer that the need would have not persisted had the solution been obvious. *WBIP*, 829 F.3d at 1332.

Patent Owner contends that there was a long-felt but unmet need for a sexual stimulation device that provided sexual pleasure while minimizing potential side effects. Resp. 63 (citing Ex. 2035 ¶¶ 67–68; Ex. 2058). Patent Owner contends that the use of prior art stimulation devices could cause numbness or damage to genitalia creating a need for a device which avoided these effects. Resp. 64. Citing the testimony of Dr. Herbenick, Patent Owner contends that the Womanizer® products satisfied this need. *Id.* at 64–65 (citing Ex. 2035 ¶¶ 69–71).

In its Reply, Petitioner contends that indirect stimulation devices such as the claimed device were known in the art before the invention of the claimed device and that such devices would have avoided the side effects recited by Dr. Herbenick. Reply 24. Petitioner also contends that Patent Owner has not presented any empirical data to show that the commercial embodiments filled the long-felt need. *Id.*

In its Sur-Reply, Patent Owner contends that the testimony of Dr. Herbenick is sufficient to support a finding that the Womanizer® products satisfied a long-felt need. Sur-Reply 26–27.

We have considered the arguments presented by the parties and the evidence of record and conclude that Patent Owner has shown that there was a long-felt need that was satisfied by the Womanizer® products.

Dr. Herbenick testified that she led a study of women who used vibrators and found that 28.5% of women who used vibrators experienced one or more side effects including genital numbness, pain, irritation, inflammation/swelling, tears or cuts. Ex. 2035 ¶ 68 (citing Ex. 2008, 1861–

1863, Table 5). Dr. Herbenick testified that these injuries resulted in the need for a sexual stimulation device “that was effective at facilitating sexual pleasure and/or orgasm while minimizing the potential for side effects.” *Id.* Dr. Herbenick testified that the Womanizer® products satisfied this need by “providing alternating positive and negative pressures to the clitoris so as to provide indirect stimulation to the clitoris sufficient to facilitate female orgasm. This is important as my research, published in a 2009 issue of the Journal of Sexual Medicine, had found that the use of mechanical vibrators (i.e., those involving direct physical contact) had caused numbness, irritation, pain, or even tears or cuts in a subset of female vibrator users.” *Id.* ¶ 69. Dr. Herbenick also testified that the prior art devices, including the device disclosed in Taylor, failed to meet this need. *Id.* ¶ 70.

Petitioner contends that indirect stimulation devices were known in the art and that such devices do not meet a long felt need. Reply 24. We find this argument unpersuasive. Petitioner cites to the testimony of Dr. Herbenick to support this contention. *Id.* (citing Ex. 1023, 61:14–20, 62:20–63:21). A careful reading of the cited pages, however, reveals that Dr. Herbenick testified that, in the study she conducted, women were merely asked what type of vibrator was used but not whether the vibrator was used directly or indirectly. Ex. 1023, 61–62. We also note that Dr. Herbenick testified that at the time she conducted her study most of the vibrators available in the market would have been direct vibration without a lot of indirect possibilities. Ex. 1023, 62–63. While she testified that there were some devices in the market that provided indirect stimulation, they were suction-only devices that were less popular. *Id.* Dr. Herbenick testified that

these suction-only devices are not the same as the Womanizer® devices, which apply alternating positive and negative pressures. *Id.*

Petitioner also contends that Patent Owner has failed to present any empirical data to support show that the Womanizer® products fulfill the alleged long-felt need. Reply 24. Again we are unpersuaded by Petitioner’s argument. Petitioner has not stated what specific “empirical data” is needed to show that the Womanizer® products fulfill the need, nor has Petitioner cited any case law holding that such data is required. *Id.* Moreover, Petitioner has not presented any evidence to rebut Dr. Herbenick’s conclusion that the Womanizer® devices do fulfill the long-felt need.

In reaching our decision that the Womanizer® products fulfilled a long-felt need in the market for female sexual stimulation devices, we credit Dr. Herbenick’s extensive experience in studying sexual health and behavior, including vulvar and vaginal health, as well as the use of sexual enhancement products such as vibrators including her detailed studies reported in Exhibit 2008. Ex. 2035 ¶¶ 11–14, 67–71. Petitioner did not offer any expert with a similar background to rebut Dr. Herbenick’s testimony.

(4) *Failure of Others*

Evidence that others tried but failed to develop a claimed invention may carry significant weight in an obviousness inquiry. *In re Cyclobenzaprine Hydrochloride Extended-Release Capsule Patent Litig.*, 676 F.3d 1063, 1081 (Fed. Cir. 2012). This objective indicia factor is closely tied to the long-felt need factor discussed above. *Id.* at 1082 (“Longfelt need is closely related to the failure of others.”).

Patent Owner contends that prior to the development of the Womanizer® products, “experts in sexual health and behavior were well aware of the potential adverse side effects of using vibrators for sexual stimulation, yet no one had successfully designed a product that facilitated orgasm while physically contacting the clitoris without also having these potential side effects, despite numerous attempts.” Resp. 65 (citing Ex. 2035 ¶¶ 72–74; Exs. 2012–2016). In support of this contention, Patent Owner cites Dr. Herbenick’s testimony that although experts in the field were aware of the issues of clitoral discomfort and numbness that arose from direct clitoral contact, none of the prior art devices accomplished the goal of providing a stimulation device without discomfort or numbness. *Id.*; Ex. 2035 ¶¶ 72–74.

Petitioner does not address Patent Owner’s argument or evidence. *See* Reply 20–25.

We find that Patent Owner has persuasively shown that others in the field failed to develop a sexual stimulation device that avoided the issues of clitoral discomfort or numbness.

Dr. Herbenick testified based on her own experience in teaching the use of various stimulation devices and her work in developing such devices that no one had developed a product that achieved sexual stimulation in the same manner as the Womanizer® devices. Ex. 2035 ¶¶ 55–57.

Dr. Herbenick testified that each prior device of which she was aware was limited to “either direct contact (such as vibrator or flicking) or was limited to providing suction.” *Id.* ¶ 57. Neither of these approaches solved the issue of clitoral discomfort or numbness. *See id.*

(5) *Skepticism*

Evidence of industry skepticism about whether or how a problem could be solved, or the workability of the claimed solution, weighs in favor of nonobviousness of the claimed invention. *United States v. Adams*, 383 U.S. 39, 52 (1966); *WBIP*, 829 F.3d at 1335.

Patent Owner contends that “industry experts and participants were skeptical about the Womanizer product and, in particular, skeptical about how modulating between positive and negative air pressure might facilitate orgasm.” Resp. 66 (citing Ex. 2035 ¶¶ 75–81; Ex. 2059).

Petitioner contends that skepticism must be evaluated from the viewpoint of industry experts and that, with the exception of Dr. Herbenick, the evidence submitted by Patent Owner is limited to consumer reviews. Reply 24–25 (citing *WBIP*, 829 F.3d at 1335; *PharmaStem Therapeutics, Inc. v. ViaCell, Inc.*, 491 F.3d 1342, 1365 (Fed. Cir. 2007)).

We have considered the arguments presented by the parties and the evidence of record and find that Patent Owner has shown industry skepticism relating to the Womanizer® products. Although we agree with Petitioner that most of the reviews cited by Dr. Herbenick are consumer reviews and not experts in the field, the compilation of reviews cited by Dr. Herbenick includes reviews from experts who expressed skepticism about the products. For example, there is a review by Dr. Emily Morse, “a sexologist with a doctorate in human sexuality,” who expressed skepticism about the product in her review. Ex. 2018, 1–2. Another expert is Vanessa Marin, a licensed psychotherapist specializing in sex therapy, who reviewed the product and expressed skepticism about it. Ex. 2019, 124–130. These

reviews in addition to the testimony of Dr. Herbenick show industry skepticism about the Womanizer® products. Ex. 2035 ¶¶ 75–81.

(6) *Praise by Others*

Evidence of industry praise of the claimed invention weighs in favor of nonobviousness. *Apple Inc. v. Samsung Elecs. Co.*, 839 F.3d 1034, 1053 (Fed. Cir. 2016). Evidence of industry praise may include evidence of industry awards given to commercial embodiments of the claimed invention. *See Henny Penny Corp. v. Frymaster, LLC*, 938 F.3d 1324, 1333–1334 (Fed. Cir. 2019) (finding evidence of industry praise, including industry awards for the patented product).

Patent Owner contends that, notwithstanding the industry skepticism discussed above, the industry has also praised the Womanizer® products extensively. Resp. 66. Patent Owner contends that reviews of the Womanizer® products have described them as “innovative, unique, and [in] other similar terms.” *Id.* at 67 (citing Ex. 2035 ¶ 82). Patent Owner also contends that the Womanizer® products have received at least 18 industry awards including the Most Innovative Product award at the 2018 ADULTEX Awards. *Id.* at 68–69.

Petitioner has not presented any arguments in response to Patent Owner’s showing. *See* Reply 23–26.

We find that Patent Owner has presented evidence showing praise in the industry favoring a finding of non-obviousness. As Dr. Herbenick testified, the Womanizer® InsideOut was named the most innovative Product at the 2018 ADULTEX Awards. Ex. 2035 ¶ 88; Ex. 2060, 8. The Womanizer® Duo was recognized and the Luxury Product/Range of the Year at the 13th annual StorErotica Awards in 2019 and was named the Sex

Toy Product/Line of the Year – Powered (Vibrating) at the XBIZ Europa Awards. Ex. 2035 ¶ 88; Ex. 2060, 3, 61. Dr. Herbenick also testified that the Womanizer® Duo was praised by Cosmopolitan magazine as having pressure waves that “gently suck the clitoris to give you an entirely different orgasmic sensation.” Ex. 2035 ¶ 85; Ex. 2019, 64. In addition, the Womanizer® products have received praise by both sex toy retailers and consumers. Ex. 2035 ¶¶ 82–89.

(7) *Copying*

“Copying may indeed be another form of flattering praise for inventive features.” *Crocs, Inc. v. Int’l Trade Comm’n*, 598 F.3d 1294, 1311 (Fed. Cir. 2010).

Patent Owner contends that Petitioner and others have copied that Womanizer® products and that this supports a finding on non-obviousness. Resp. 69–75. To support this contention, Patent Owner points to descriptions of competitors’ devices which describe the devices as offering “pleasure air technology” or “touchless air technology,” which Dr. Herbenick contends describes modulated positive and negative pressures with respect to a reference pressure. *Id.* at 75; Ex. 2035 ¶ 92. Patent Owner also provides details about what Patent Owner asserts is Petitioner’s copying of the ’061 patent technology. Resp. 70–74.

Petitioner contends that Patent Owner has not shown sufficient evidence of copying to support a finding of non-obviousness. Reply 23–24. Petitioner contends that Dr. Herbenick did not review tests of the competitors’ devices, nor could she describe how the products worked. *Id.*

In reply, Patent Owner contends that Petitioner mischaracterizes Dr. Herbenick's testimony and fails to rebut the evidence of copying. Sur-Reply 26.

Copying in the context of objective indicia of non-obviousness can be demonstrated either through internal documents, direct evidence such as disassembling a patented prototype, photographing its features, and using the photograph as a blueprint to build a virtually identical replica, or access to, and substantial similarity to, the patented product (as opposed to the patent). *Iron Grip Barbell Co., Inc. v. USA Sports, Inc.*, 392 F.3d 1317, 1325 (Fed. Cir. 2004). Marketing materials may also be used to show copying. *See Kinetic Concepts, Inc. v. Smith & Nephew, Inc.*, 688 F.3d 1342, 1368 (Fed. Cir. 2012).

We have considered the arguments presented by the parties and the evidence of record and find that Patent Owner has presented sufficient evidence of copying to support to finding of non-obviousness. Although Dr. Herbenick did not physically examine the competitors' devices, she did review various product descriptions which either compared the competitors' devices to the Womanizer® products or described the action of the products in a way that mirrored the actions of the Womanizer® products. Ex. 2035 ¶¶ 90–97. For example, the Satisfier website described the Satisfyer Pro G-Spot Rabbit as offering a “rapid change between suction and pressure.” Ex. 2021, 4.

Given this evidence of the similarity of the competitive products to the Womanizer® products, specifically Petitioner's products, and Petitioner's failure to offer any evidence in rebuttal, we find that Patent

Owner has presented persuasive evidence of copying to support a conclusion of non-obviousness.

(8) *Conclusion*

Based on the foregoing we conclude that Patent Owner has presented sufficient evidence relating to objective indicia to support a finding of non-obviousness. Although Patent Owner failed to present persuasive evidence relating to commercial success, Patent Owner has presented persuasive evidence relating to long-felt need, failure of others, praise by others, and copying. Patent Owner has also shown a nexus between its commercial products and the claimed invention. In sum, the objective indicia evidence in the record supports the non-obviousness of the challenged claims.

3. *Conclusion*

From the foregoing analysis we conclude that Petitioner has not demonstrated that the subject matter of claims 1–3, 5, 7, 8, 11, 14, 15, 17–19, or 21–26 would have been obvious to one of ordinary skill in the art over Taylor combined with Hovland.

III. OBVIOUSNESS OVER TAYLOR AND ZIPPER WITH OR WITHOUT HOVLAND

Petitioner asserts that claim 20 is unpatentable under 35 U.S.C. § 103 over Taylor and Zipper or Taylor, Zipper, and Hovland. Petitioner asserts that Zipper teaches a remote control device, but is not offered for teaching the limitations requiring modulation of positive and negative pressures with respect to a reference pressure. *See* Pet. 80, 85. Petitioner continues to assert either Taylor alone or Taylor in combination with Hovland teaches these limitations. Therefore, for the same reasons set forth above, we find that Petitioner has failed to show by a preponderance of the evidence that

claim 20 is unpatentable under 35 U.S.C. § 103 over Taylor and Zipper, or Taylor, Zipper, and Hovland.

IV. PATENT OWNER’S MOTION TO SEAL AND FOR ENTRY OF A PROTECTIVE ORDER

Patent Owner moves to seal Exhibit 2056 as containing highly confidential sales data relating to Patent Owner’s commercial embodiments. *See* Paper 25, 2. Patent Owner asserts that the sales data such as invoice information, sales units, and revenues that is disclosed in Exhibit 2056 is relevant to demonstrate commercial success. *Id.* at 3.

Patent Owner represents that there is good cause to seal Exhibit 2056 because access to such information by a competitor would be detrimental to Patent Owner’s business. *Id.* Patent Owner also represents that Petitioner agrees that the information in Exhibit 2056 is highly sensitive. *Id.*

We have considered Patent Owner’s argument to seal Exhibit 2056 and determine that it has demonstrated good cause for sealing the exhibit. Therefore, we grant Patent Owner’s Motion to Seal.

Patent Owner also moves for entry of a Modified Protective Order (Ex. 2070) that has been modified from the Default Protective Order to include an “ATTORNEYS EYES ONLY” category, sets forth a mechanism for a receiving party to challenge such designation, and sets forth who may access such information. *Id.* at 4–5. Patent Owner also represents that Petitioner is unopposed to the entry of this Modified Protective Order. *Id.* at 5.

We grant Patent Owner’s request to enter the Modified Protective Order (Ex. 2070) because the parties have agreed on the modifications to the

Default Protective Order and the modifications appear necessary to protect Patent Owner's sensitive sales data.

V. PATENT OWNER'S UNOPPOSED MOTION TO SUBMIT
SUPPLEMENTAL INFORMATION PURSUANT
TO 37 C.F.R. § 123(b)

Patent Owner moves to submit a Certificate of Correction ("COC") as supplemental information because it corrects a clerical error by the Office of including the word "onto" in claim 1 of the '061 patent although the word was removed in amendments prior to issuance. Paper 34, 1–2. Patent Owner represents that Petitioner is not opposed to this request. *Id.*

Patent Owner asserts that its request meets all the requirements for submitting supplemental information set forth in 37 C.F.R. § 42.123(b) concerning the timing of presentation of the evidence. *Id.* at 1. Patent Owner concludes that "[t]o have the recent COC reflecting the correction to claim 1 of the '061 Patent as part of the record is in the interests-of-justice and supports the long-standing policy of having a complete record." *Id.* at 2 (citing *Liberty Mutual Inc. Vo. v. Progressive Casualty Ins. Co.*, No CBM2012-00002, Paper 66 at 60–61 (PTAB Jan. 23, 2014)).

We are persuaded that Patent Owner has met its burden because it satisfies the requirements of § 42.123(b). We agree that Patent Owner could not submit the supplemental information earlier (until the Office issued the COC), and that consideration of the supplemental information is in the interests-of-justice. In the Petition, Petitioner acknowledged the clerical error, and we and the parties have consistently treated claim 1 of the '061 patent as not containing the word "onto" that was removed from claim 1 in the COC. In other words, we have consistently analyzed claim 1 throughout this proceeding, with the agreement of the parties, as not containing the

word “onto” that was incorrectly included in the ’061 patent. Thus, acknowledgement and consideration of the COC does not affect our analysis of claim 1 here.

VI. PETITIONER’S MOTION TO EXCLUDE

Petitioner has moved to exclude Patent Owner’s expert declarations (Exhibits 2034 (Declaration of Dr. Jensen) and 2035 (Declaration of Dr. Herbenick)), as well as Exhibit 2061, which Patent Owner offers as evidence of copying. Paper 38 (“MTE”). For the reasons set forth below, Petitioner’s Motion is denied.

A. Exhibit 2035 — Declaration of Dr. Herbenick

Petitioner contends that we should either exclude the testimony of Dr. Herbenick or afford it little weight for several reasons. First, Petitioner contends that Patent Owner failed to comply with 37 C.F.R. § 42.65(b) in that Patent Owner failed to provide an affidavit explaining how certain tests that Dr. Herbenick relied upon were performed. MTE 1–6; Paper 40, 3–5 (“MTE Reply”). Second, Petitioner contends that Patent Owner failed to produce all documents relied upon by Dr. Herbenick in rendering her opinions in violation of 37 C.F.R. § 42.61(a). MTE 7–9; Paper 40, 5. Third, Petitioner contends that the testimony of Dr. Herbenick should be excluded because of allegedly improper speaking objections made by counsel for Patent Owner during Dr. Herbenick’s deposition. MTE 9–12; Paper 40, 1–3. Fourth, Petitioner contends that Dr. Herbenick is not qualified to testify as a technical expert. MTE 14–15. Finally, Petitioner contends that we should strike Dr. Herbenick’s testimony as she did not disclose her work as a witness in other proceedings. MTE 14–15; Paper 40, 5.

We address each of these arguments in turn.

*1. Failure to Comply with 37 C.F.R. § 42.65(b)*¹²

Petitioner contends that we should exclude or give little weight to all of Dr. Herbenick’s testimony because her declaration does not provide any information relating to the experiments that produced the graph discussed in paragraph 58 of her declaration depicting pressures generated by Patent Owner’s alleged commercial embodiments. MTE 2–6. Patent Owner responds that Dr. Herbenick “observed real-time pressure testing done by a WOW Tech employee to confirm what she had already directly observed [during a Zoom session]—that the commercial embodiments modulate positive and negative pressures with respect to a reference pressure.” Paper 39, 4 (“MTE Resp.”). Patent Owner also states that “[t]he graph in [Dr. Herbenick’s] declaration was provided as the underlying facts and data under 37 C.F.R. § 42.65(b).” *Id.* We need not resolve whether Dr. Herbenick needed to provide further data to support the graph in Paragraph 58 of her Declaration because we find this objection moot as we did not rely on that part of her testimony.

Petitioner also argues that we should exclude or give little weight to Dr. Herbenick’s testimony about the different components in the Womanizer® products that she observed over Zoom calls as Patent Owner did not provide an affidavit concerning the deconstruction and observation

¹² We note that failure to comply with 37 C.F.R. § 42.65(b) goes to the weight given the evidence, and does not necessarily call for the exclusion of that evidence. *Emerson Elec. Co. v. IPCO, LLC*, IPR2017-00213, Paper 42, 25–26 (PTAB May 11, 2018) (affording expert testimony no weight for failure to comply with 37 C.F.R. § 42.65(b)); *Altair Pharm., Inc. v. Paragon Biotech, Inc.*, Paper 48, 16–17 (PTAB Nov. 14, 2016) (“Without the necessary information prescribed in §42.65(b), we cannot determine whether the evidence . . . is credible.”).

of the devices. MTE 6. We do not find that this a sufficient reason to exclude or discount Dr. Herbenick's testimony. Rule 42.65(b) refers to "technical" tests or data. We find that dismantling a device and identifying the components of the device does not in this context of the graph presented in Paragraph 58 of Dr. Herbenick's Declaration constitute a "technical" test within the scope of the Rule. Dr. Herbenick represents that the graph depicted in Paragraph 58 is a "pressure graph [that] shows the pattern of negative and positive pressures, modulated with respect to a reference pressure." Ex. 2035 ¶ 58. Dismantling a device and identifying its components is not technical data or a technical test upon which Dr. Herbenick relied to create such a graph. We therefore decline to exclude or give little weight to that portion of her testimony.

2. Withheld Documents and Information

Petitioner contends that we should exclude or give little weight to the testimony of Dr. Herbenick because Patent Owner failed to provide all the relevant facts and data that support Dr. Herbenick's opinions. MTE 7–9. Specifically, Petitioner contends that Patent Owner failed to produce drafts of Dr. Jensen's declaration that Dr. Herbenick reviewed in connection with her declaration and user manuals for the Womanizer® InsideOut and Duo products. MTE 7–9. Petitioner also points to Dr. Herbenick's failure to disclose the fact that she has testified for Patent Owner in other matters as evidence that Patent Owner has withheld other information and documents. MTE 8–9. We address each of these issues in turn.¹³

¹³ We note that at no time during this proceeding did Petitioner seek assistance from the panel to obtain the documents it now says warrant excluding Dr. Herbenick's testimony.

a. Draft Declarations

We find that Petitioner’s objection to Dr. Herbenick’s declaration on the basis that Patent Owner did not produce drafts of Dr. Jensen’s declaration that Dr. Herbenick reviewed in connection with her declaration to be without merit. The declarations of other experts do not constitute “a technical test or data from such a test” as that phrase is used in 37 C.F.R. § 42.65(b). *See* MTE Resp. 5–6 (“MTE Reps.”).

b. Documents relating to Patent Owner’s Products

Petitioner contends that Patent Owner failed to produce user manuals for the Womanizer® InsideOut and Duo products that Dr. Herbenick considered in rendering an opinion. MTE 8. Patent Owner responds that these manuals are exhibits in this proceeding—Exhibits 2066 and 2068. MTE Resp. 5.

As the manuals are exhibits in this proceeding, we are not persuaded by Petitioner’s argument here.

c. Dr. Herbenick’s Alleged Bias

Petitioner contends that Dr. Herbenick failed to disclose that she had testified for Patent Owner in other proceedings, which demonstrates Dr. Herbenick’s bias and Patent Owner’s withholding of relevant information. MTE 14–15; MTE Reply 5. We are not persuaded that this warrants excluding Dr. Herbenick’s testimony. Although the testimony regarding Dr. Herbenick’s work for Patent Owner may be relevant, it goes to the issue of credibility, not admissibility. *See, e.g., NuVasive, Inc. v. Iancu*, 752 F. App’x 986, 996 (Fed. Cir. 2018) (“While the Board can and should weigh the credibility of any expert testimony, it should not outright

disregard expert testimony from a witness simply because that individual is compensated for his time and expense in testifying.”).

3. *Patent Owner’s Alleged Misconduct*

Petitioner contends that the testimony of Dr. Herbenick should be excluded because of alleged misconduct by Patent Owner’s counsel during the depositions Dr. Herbenick and Dr. Jensen. MTE 9–12. Petitioner contends that counsel for Patent Owner repeatedly made speaking objections which coached the witness and affected Petitioner’s ability to obtain discovery. *Id.*

Patent Owner contends that the objections were proper, only one such alleged objection was made during this proceeding, and such objection was merely a clarification of the record. MTE Resp. 10–13. Patent Owner also argues that even if the objections were improper, exclusion of the expert’s declarations is not the proper remedy. *Id.* at 13.

Petitioner responds that the speaking objections in depositions in proceedings related to this one—IPR2019-01302 and IPR2019-01444—should be considered here in any remedy we may apply especially because they relate to differences in the patent at issue in those proceedings and the ’061 patent at issue here. MTE Reply 1–2.

With respect to this proceeding, Petitioner has identified one possible instance of a speaking objection. We do not find this, even considering the examples provided from the two related proceedings, to be such egregious conduct as to warrant excluding Dr. Herbenick’s testimony.

4. *Dr. Herbenick’s Expertise*

Petitioner contends that Dr. Herbenick lacks the relevant technical expertise to testify about the patentability of the challenged claims of the

'061 patent or whether Patent Owner's commercial products embody the claims of the '061 patent. MTE 14–15. We do not find that Petitioner has stated sufficient grounds to exclude Dr. Herbenick's testimony.

Although Dr. Herbenick does not have a technical degree or an extensive technical background, her testimony was from the point of view of one with experience evaluating and designing sex toys. *See, e.g.*, Ex. 2035 ¶¶ 65–71 (evaluation of the commercial success and long-felt need in the industry). It is in this context that Dr. Herbenick's testimony has been offered and relied upon by us in reaching our decision.

On the issue of patentability, most of Dr. Herbenick's testimony has been with respect to objective indicia, an issue about which we find Dr. Herbenick well qualified to opine. *See* Ex. 2035 ¶¶ 65–97. The only “technical” testimony offered by Dr. Herbenick that we rely upon is her identification of the various components found in the Womanizer® devices. Ex. 2035 ¶¶ 45–64. We find that her experience in evaluating and designing sex toys gives her the relevant experience to identify the various components of the devices. *See* Ex. 2035 ¶¶ 4–17.

5. Conclusion

For the reasons set forth above, we deny the portion of Petitioner's Motion to Exclude with regard to Dr. Herbinick's testimony in Exhibit 2035.

B. Exhibit 2034 — Declaration of Dr. Jensen

Petitioner contends that the testimony of Dr. Jensen should be excluded or given no weight. MTE 1. As with Dr. Herbenick's testimony, Petitioner cites several reasons to exclude Dr. Jensen's testimony. First, Petitioner contends that Patent Owner violated 37 C.F.R. § 42.65(b) by not providing a proper affidavit describing Dr. Jensen's experiment. *Id.* at 4–5.

Second, Petitioner contends that Patent Owner did not produce all documents Dr. Jensen relied upon in reaching his opinions. *Id.* at 7–9. Finally, Petitioner contends that the improper conduct by Patent Owner’s counsel during the deposition of Dr. Jensen warrants exclusion of Dr. Jensen’s testimony. *Id.* at 9–12.

1. Failure to Comply with 37 C.F.R. § 42.65(b)

Although Petitioner contends that Dr. Jensen’s declaration does not comply with 37 C.F.R. § 42.65(b), Petitioner does not state how the declaration fails to comply with the Rule. *See* MTE 4–5. Petitioner’s arguments focus on alleged deficiencies in Dr. Jensen’s methodology, which would go to the weight to be afforded such testimony, and do not address any failure to comply with our Rules.¹⁴ *Id.*

Therefore we decline to exclude Dr. Jensen’s Declaration for failure to comply with 37 C.F.R. § 42.65(b).

2. Withheld Documents and Information

Petitioner’s arguments with respect to this issue are the same as for Dr. Herbenick’s declaration discussed above. MTE 7–9. For the same reasons given above, we decline to exclude Dr. Jensen’s Declaration.

¹⁴ Petitioner contends that Dr. Jensen’s procedure does not comply with the FDA’s guidance for good laboratory practices found at 21 C.F.R. § 58. That section of the regulations relates to product safety testing and is irrelevant to any issue before us. *See* 21 C.F.R. § 58.1(a). Moreover, Petitioner’s argument regarding compliance with the FDA rules as well as Petitioner’s argument that Dr. Jensen’s test is impossible to replicate is unsupported by any evidence. “Attorneys’ argument is no substitute for evidence.” *Johnston v. IVAC Corp.*, 885 F.2d 1574, 1581 (Fed. Cir. 1989).

3. Patent Owner's Alleged Misconduct

Petitioner's arguments with respect to this issue are the same as for Dr. Herbenick's declaration discussed above. MTE 9–12. For the same reasons given above, we decline to exclude Dr. Jensen's Declaration.

4. Conclusion

Based on the foregoing we deny Petitioner's Motion to Exclude as it relates to Exhibit 2034.

5. Exhibit 2061

Petitioner contends that Exhibit 2061 should be excluded on the grounds of hearsay and lack of authenticity. MTE 12–14.

In reaching our decision we did not rely on Exhibit 2061. Therefore, we therefore deny as moot Petitioner's motion with respect to Exhibit 2061.

C. Conclusion

For the reasons stated above, we deny Petitioner's Motion to Exclude in its entirety.

VII. CONCLUSION

Weighing the evidence of the disclosures of the references, the competing testimony, the reasoning to combine the references, and the evidence showing secondary indicia of non-obviousness, we determine that Petitioner has failed to show, by a preponderance of the evidence, that any of the challenged claims of the '061 patent is unpatentable.

We also grant Patent Owner's Motion to Seal and for Entry of a Protective Order, grant Patent Owner's Motion to Submit Supplemental Information, and deny Petitioner's Motion to Exclude.

VIII. ORDER

In consideration of the foregoing, it is hereby:

ORDERED that claims 1–3, 5, 7, 8, 11, 14, 15, 17–26 of the '061 patent are not determined to be unpatentable;

FURTHER ORDERED that Patent Owner's Motion to Seal and for Entry of a Protective Order is *granted*;

FURTHER ORDERED that Petitioner's Motion to Submit Supplemental Information under 37 C.F.R. § 42.123(b) is *granted*;

FURTHER ORDERED that Petitioner's Motion to Exclude is *denied*;

FURTHER ORDERED that the Modified Protective Order (Ex. 2070) is hereby entered and shall govern the conduct of this proceeding unless otherwise modified;

FURTHER ORDERED that Ex. 2056 shall be sealed as "Board Only," and will be kept under seal; and

FURTHER ORDERED that, because this is a final written decision, parties to this proceeding seeking judicial review of our decision must comply with the notice and service requirements of 37 C.F.R. § 90.2.

In summary:

Claims	35 U.S.C. §	Reference(s)/Basis	Claims Shown Unpatentable	Claims Not shown Unpatentable
1–3, 5, 7, 11, 14, 15, 17–19, 21, 23–26	102	Taylor		1–3, 5, 7, 11, 14, 15, 17–19, 21, 23–26
1–3, 5, 7, 8, 11, 14, 15, 17–19, 21– 26	103	Taylor, Hovland		1–3, 5, 7, 8, 11, 14, 15, 17–19, 21–26
20	103	Taylor, Zipper		20
20	103	Taylor, Hovland, Zipper		20
Overall Outcome				1–3, 5, 7, 8, 11, 14, 15, 17–26

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