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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

EUNSUNG GLOBAL CORP.,

Petitioner,

v.

HYDRAFACIAL LLC

Patent Owner.

Case No. IPR2024-01491

U.S. Patent No. 11,865,287

PATENT OWNER PRELIMINARY RESPONSE

[REDACTED]

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35 U.S.C. § 325	<i>passim</i>
37 C.F.R. § 42.6	71
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EXHIBIT LIST

Exhibit No.	Description
2001	Declaration of Karl R. Leinsing, MSME, PE
2002	<i>Curriculum Vitae</i> of Karl R, Leinsing
2003	Expert Declaration of Elliot Duboys, MD, FACS
2004	<i>Curriculum Vitae</i> of Elliot Duboys, MD, FACS
2005	2016-05-09 Order Granting Plaintiff's Motion for Summary Judgment, <i>Edge Systems LLC v. Aguila</i> , Case No. 14-cv-24517, D.I. 225 (S.D. Fla. May 09, 2016)
2006	2014-12-19 Motions Hearing Transcript, <i>Edge Systems LLC v. Aguila</i> , Case No. 14-cv-24517, D.I. 55 (S.D. Fla. Dec. 19, 2014)
2007	2015-01-29 Report and Recommendations on Plaintiff's Application for Preliminary Junction, <i>Edge Systems LLC v. Aguila</i> , Case No. 14-cv-24517, D.I. 81 (S.D. Fla. Jan. 29, 2015)
2008	2015-02-24 Order Adopting D.I. 81 Report and Recommendation, <i>Edge Systems LLC v. Aguila</i> , Case No. 14-cv-24517, D.I. 89 (S.D. Fla. Feb. 24, 2015)
2009	Declaration of Vipul Savsani [SEALED]
2010	HydraFacial Equipment Sales Report, 2005 - Q2 2024 [SEALED]
2011	U.S. Publication No. 2001/004951 ("Coleman")
2012	Loesch, et al., Skin Resurfacing Procedures: New and Emerging Options, Clinical Cosmetic, and Investigational Dermatology, 2014:7, 231-241

Exhibit No.	Description
2013	Kempiak, et al. Superficial Chemical Peels and Microdermabrasion for Acne Vulgaris, <i>Senin Cutan Med Surg</i> , 27:212-220 (2008)
2014	U.S. Patent No. 6,582,442 (“Simon”)
2015	Printout of webpage: https://www.celluma.com/products/celluma-pod
2016	Press Release for 2023 DERMASCOPE Awards, found at: https://www.beautyhealth.com/news-releases/news-release-details/beautyhealths-hydrafacial-wins-two-2023-aestheticians-choice
2017	2022 NewBeauty Award - Best Hydrating Facial
2018	2023 NewBeauty Award - Best Hydrating Facial
2019	2024 NewBeauty Award - Best Hydrating Facial
2020	2020 NewBeauty Award - Best Facial
2021	2016 NewBeauty Award - Best Facial
2022	Haught Beauty - Green Article
2023	NewBeauty - Shridharani Article
2024	Proposed Protective Order
2025	Redline Proposed Protective Order
2026 – 2029	[RESERVED]
2030	Hydrafacial Syndeo™ Instruction for Use (IFU), revised May 1, 2023

Exhibit No.	Description
2031	HydraFacial MD™ Elite™ User Guide, revised November 1, 2023
2032	HydraFacial™ Allegro MD Instructions for Use (IFU), revised November 06, 2023
2033	HydraFacial MD™ System Owner's Manual (Tower Owner's Manual) (2005)
2034	HydraFacial™ Handpiece User Guide, Revised February 19, 2020
2035	HydraFacial Nectre® System Owner's Manual, Revised May 14, 2008
2036	HydraFacial™ Nectre® System User Manual, Revised January 27, 2009
2037	HydraFacial™ Nectre® System Service Manual, Revised June 12, 2009
2038	Introducing . . . HydraFacial MD™ by Edge Systems Advertisement
2039	HydraFacial™ Rejuvenate Your "Microderm" Business! Advertisement (January/February 2006)
2040	HydraFacial™ Whole New Skin Advertisement
2041	My Life. My Time. My Skin HydraFacial MD™ Advertisement, Dated May 11, 2015
2042	Unique Patented HydraFacial MD® TECHNOLOGY Advertisement (2013)
2043	HYDRAFACIAL™ TOWER SYSTEM Advertisement (2020)
2044	The Elite™ is the Latest HydraFacial System with Advancements to Ensure Your Practice's Success Advertisement (2020)

Exhibit No.	Description
2045	EXPECT EVERYTHING: Introducing the Brand-New HydraFacial Elite Advertisement (2020)
2046	Expect Everything with the New HydraFacial Elite
2047	The Allegro™ System Advertisement (2020)

I. INTRODUCTION

Eunsung's Petition offers an education in how hindsight bias infects an obviousness argument. Petitioner's motivation to combine analysis uses HydraFacial's patent as a template to pick and choose features from the prior art without any known motivation to combine. The genius of HydraFacial's invention was in the combination of its elements, which created a new industry—hydrodermabrasion. HydraFacial's patented products became an overnight success and resulted in astronomical sales [REDACTED]. After HydraFacial's release of its patented products, there has also been significant industry praise and blatant copying. As the Federal Circuit has held, these objective indicia can be the most probative evidence of non-obviousness in the record and enable the tribunal to avoid the trap of hindsight. The Federal Circuit has established that secondary considerations of non-obviousness guard against falling victim to the insidious exercise, like Eunsung, of decisional hindsight.

Eunsung's Petition for *inter partes* review is deficient and should not be instituted for multiple independent reasons.

First, in all grounds Eunsung has failed to present evidence that the prior art discloses all claim limitations of the independent claims. In Grounds 1A and 1B, the prior art is missing a handpiece connected to the console, as required by all

claims. In Ground 2A and 2B, the prior art is missing the claimed treatment fluids, treatment materials, and fluids that are recited in the independent claims.

Second, in Grounds 1A and 1B, there would have been no motivation to combine a dental jet pulse irrigation system with a microdermabrasion system. Eunsung primarily relies on unsupported “general knowledge” to gap fill where a POSITA clearly would have found no motivation to splice together these disparate technologies.

Third, for all grounds, the objective indicia independently establish, and further support, the nonobviousness of the claims. This includes: (1) tremendous commercial success of [REDACTED] in revenue, which is particularly impactful when compared against HydraFacial’s own product that lacks the patented features; (2) copying of the patented commercial products, described by a federal judge as a “Bootleg. Clone. Copycat. Imitation. Knock-off. Palm-Off.”; and (3) praise by others that includes awards indicative of the patented features.

Fourth, all grounds rely heavily on prior art that was previously presented to the Office. Specifically, the Examiner considered both primary references that Eunsung relies on, Karasiuk in Grounds 1A and 1B and Greenberg in Grounds 2A and 2B. Moreover, Eunsung’s secondary references—Palmer for Grounds 1A and 1B and Trueba for Grounds 1B and 2B—do not disclose anything materially different than the prior art considered by the Examiner. Finally, Eunsung does not

argue, let alone show, that the Office materially erred in allowing the claims. Therefore, the Board should deny the Petition under 35 U.S.C. § 325(d).

This POPR is supported by the expert declarations provided by Mr. Karl R. Leinsing, MSME, PE (EX2001) and Dr. Elliot Dubois, MD, FACS (EX2003). This POPR, and specifically the commercial success of HydraFacial's multi-container systems, is also supported by the declaration provided by Mr. Vipul Savsani, HydraFacial's Global Vice President of Financial Planning and Analysis (EX2009).

II. BACKGROUND AND PATENTED TECHNOLOGY

A. HydraFacial and Hydrodermabrasion

HydraFacial pioneered the field of hydrodermabrasion and is a worldwide leader in the design, development, manufacture and sale of high-quality hydrodermabrasion systems. These systems rejuvenate skin by applying different fluid solutions to the skin to cleanse and exfoliate the skin surface, extract debris from pores, and thoroughly hydrate and moisturize the skin. HydraFacial markets and sells these systems throughout the United States to end users such as dermatologists, plastic surgeons, cosmetic physicians, and aestheticians at medical spas. Below is HydraFacial's latest flagship product, the Syndeo, along with the three treatment solutions and the cleaning solution.

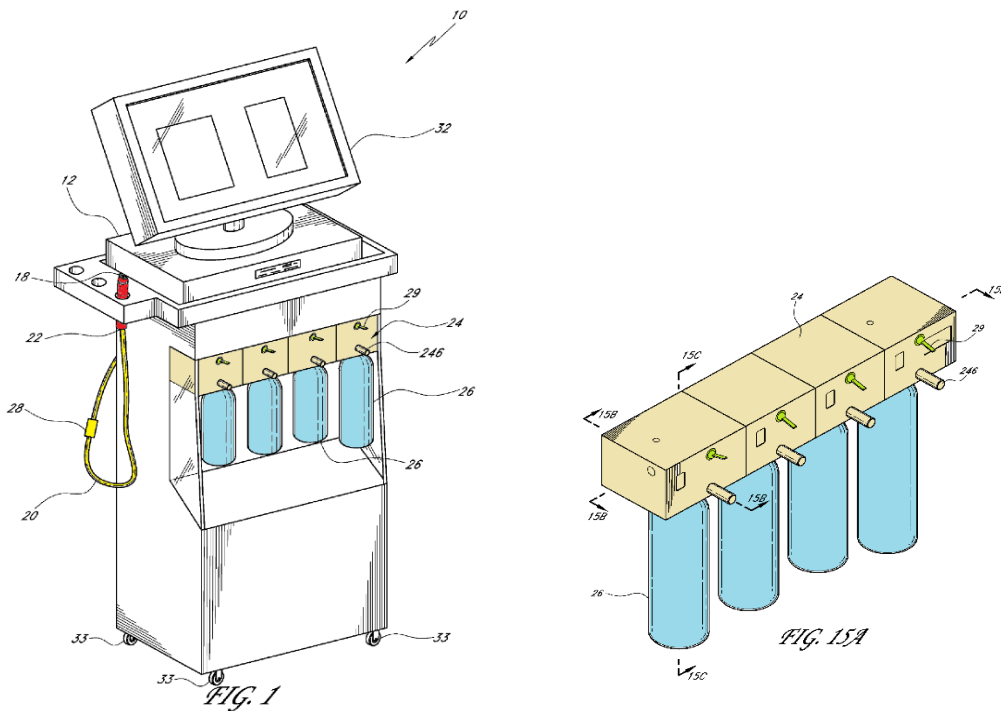


The hydrodermabrasion industry owes its origin to HydraFacial and its patented technology. HydraFacial's revolutionary hydrodermabrasion systems, including the Syndeo above, are protected by numerous United States patents, including the '287 patent. The disclosure of the '287 patent dates back to 2005 and is the original disclosure describing HydraFacial's hydrodermabrasion systems that created the industry.

B. The Patented Technology

The '287 patent discloses a skin treatment system that operates in one of two modes—a “wet” mode or a “dry” mode. EUNSUNG-1001, 6:27-37, 13:15-33. In the wet mode, the system applies treatment fluids from multiple containers sequentially or simultaneously to the patient’s skin. *Id.*, 6:27-30; *id.*, 13:21-22 (“During wet mode, fluid can be passed out of the tip onto the patient’s skin.”). By contrast, the dry mode operates without treatment fluids for non-hydrating procedures, relying on the handpiece alone for dry exfoliation. *Id.*, 13:15-18, 13:28-33, 6:32-35. The claims of the '287 patent are directed to skin treatment systems that operate in the wet mode, having multiple containers containing the treatment fluids to apply through the handpiece. *See, e.g.*, claim 1.

The treatment system applies treatment fluids to a person’s skin while simultaneously suctioning spent treatment fluid away from the skin and into a waste container. *Id.*, 5:63-6:2, 7:59-8:5. The user can select a desired treatment medium from multiple treatment-fluid containers (shown in blue below). *Id.*, 6:21-30, 15:61-63, 17:17-29.



EUNSUNG-1001, Figs. 1, 15A. The '287 patent describes the same treatment fluids used in the Syndeo and other HydraFacial commercial products: “active-4™” as a cleansing and exfoliating serum (*id.*, 15:61-16:6); “Beta-HD™” as a salicylic acid extraction serum (*id.*, 16:6-16:14); and “Antiox-6™” as an antioxidant hydration serum (*id.*, 16:14-23).

HydraFacial’s patented invention can also include a block (shown in beige above). The block can connect to the fluid containers of the system and, when there is at least one container connected to the system, the block is in fluid communication with the handpiece (shown in red above) through a supply conduit (shown in yellow above). *Id.*, 2:30-35, 3:57-59, 5:28-31, 6:22-24, 17:17-29; 18:6-18. The patented system also contains a vacuum source which, when the user places the handpiece tip

against the skin, creates an area of negative pressure inside the tip. *Id.*, 11:4-10. That negative pressure pulls the patient's skin against the handpiece tip. *Id.*, 11:4-13. The negative pressure also draws treatment fluid from the selected container while simultaneously suctioning waste into a waste container. *Id.*, 7:59-8:5, 11:4-17. The multiple treatment-fluid containers allow the physician or esthetician using the device to selectively draw treatment fluid from the containers and thereby provide a customized, multi-step treatment for each patient. *Id.*, 6:24-37, 16:34-59.

C. Prior-Art Microdermabrasion

The '287 patent expressly distinguishes prior-art microdermabrasion technology. It explains that microdermabrasion “refers generally to a procedure in which the surface of the skin is removed due to mechanical rubbing by a handpiece emitting a stream of sand or grit,” which may contain “crystals of aluminum oxide, sodium chloride, or sodium bicarbonate” to wear away “cell layers of the skin.” EUNSUNG-1001, 1:65-2:7. The patent further explains that the “momentum of the grit tends to wear away two to three cell layers of the skin with each pass of the handpiece.” *Id.*, 2:3-5. One problem with microdermabrasion is it “removes moisture from the skin.” *Id.*, 2:16. To mitigate this problem, “the procedure is always followed by the application of moisturizing creams.” *Id.*, 2:17-18. But “the moisturizing elements only work as deep as the active ingredients can passively migrate through the remaining epidermis.” *Id.*, 2:19-22. EX2003 ¶ 40.

In contrast to microdermabrasion's stream of sand or grit, the '287 patent invention discloses a system for treating skin that "deliver[s] **fluid** from at least one of the **plurality of fluid sources** to the handpiece assembly." *Id.*, 2:34-35.¹ Consistent with this distinction, the claims of the '287 patent do not cover prior-art microdermabrasion treatments that solely use dry particles. Rather, every claim of the '287 patent recites at least two containers of **fluids** for treating the skin. The '287 patent also describes and claims a novel and non-obvious system that allows a clinician to select from multiple different treatment fluids to connect to the handpiece for application to the patient's skin during treatment. EX2003 ¶ 41

D. Level of Ordinary Skill in the Art

As explained by Mr. Leinsing and Dr. Duboys, a POSITA for the '287 patent would have a degree in science or engineering plus a minimum of three years of experience in the medical device industry. EX2001 ¶ 22; EX2003, ¶¶ 24-25. Alternatively, a product designer could have an additional two years of experience in the industry in lieu of a formal science or engineering degree. *Id.* The POSITA would also consult with a physician as needed to understand the medical implications of the disclosed device, including the effect of the device on the skin. *Id.* This definition of a POSITA appropriately takes into consideration both

¹ Emphasis throughout has been added by HydraFacial unless otherwise noted.

engineering knowledge important for understanding mechanical aspects of a skin treatment device and the medical implications of the device. Eunsung's definition of a POSITA is flawed because it ignores the medical implications that would have been important to a POSITA. Eunsung's expert, Mr. Simon, appears to have some experience with old-style microdermabrasion machines (*see* EUNSUNG-1003 ¶ 9; EX2014), but he lacks any medical training himself, and Eunsung's definition of a POSITA does not provide for access to a physician to understand the medical implications.

This flaw in Eunsung's definition of a POSITA carries through to Eunsung's and Mr. Simon's analysis of the claims in view of the prior art. When the differences between the prior art and the claimed invention are assessed in purely mechanical terms, as Mr. Simon seems to have done, it can lead to hindsight bias. For example, Mr. Simon fails to appreciate the differences between HydraFacial's patented technology and the old-style microdermabrasion technology he holds a patent on. *See* EX2014 (Simon patent directed to dry-particle microdermabrasion). As explained below, this hindsight bias has led Mr. Simon to apply Greenberg's dry-particle microdermabrasion system against the challenged claims of the '287 patent, which require treatment fluids from multiple different containers. The hindsight bias also invades Mr. Simon's combination of a dental irrigation system disclosed in Palmer with the single-reservoir microdermabrasion system disclosed in Karasiuk.

Nevertheless, despite these important differences in the definition of a POSITA, HydraFacial's experts have assessed obviousness under both HydraFacial's and Eunsung's definitions and determined the claims would not have been obvious under either definition. EX2001 ¶ 26; EX2003 ¶ 28.

III. CLAIM CONSTRUCTION

HydraFacial agrees with Eunsung that “[n]o formal claim constructions are necessary.” *See* Pet., 2. Claim terms are generally given their plain and ordinary meaning in view of the patent specification. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1313 (Fed. Cir. 2005). Yet, Eunsung has taken a position in its Petition that the claim terms “treatment fluid,” “treatment material,” and “fluid” have meanings different than their ordinary meanings. *See, e.g.*, Pet., 69 (characterizing dry abrasive particles as within the scope of the term “fluid.”).

Thus, although no express construction is needed, to resolve this dispute, the Board should determine that, as explained below, the plain and ordinary meaning of “treatment fluid,” “treatment material,” and “fluid” excludes dry abrasive particles. As Eunsung notes, “claim terms need only be construed to the extent necessary to resolve the controversy.” Pet., 2 (citing *Wellman, Inc. v. Eastman Chem. Co.*, 642 F.3d 1355, 1361 (Fed. Cir. 2011)).

A. “treatment fluid” (claims 1 and 37)

Claims 1 and 37 of the ’287 recite a system for treating skin that includes at least two containers that each contain a “treatment fluid.” Eunsung does not propose any construction for “treatment fluid.” Pet., 2. However, Eunsung interprets the following specification paragraph as somehow broadening the scope of “fluid” to cover a collection of dry “abrasive particles.”

As used herein, the term “treatment material” is a broad term and includes, but is not limited to, medicament, a substance tending to flow or conform to the outline of its container such as fluid, gas, liquid (e.g., serums, water, saline, etc.), gel, fluidized material, additives, and/or a plurality of fine solids. The general term “fluid” is used throughout synonymously with the term “treatment material” and is to be given the same broad definition.

EUNSUNG-1001, 5:47-54 (cited by Pet., 69). Citing this passage, Eunsung argues that a collection of “abrasive particles” is a fluid because it is “a plurality of fine solids.” Pet., 69. EX2003 ¶¶ 53-54.

The Board should reject Eunsung’s suggestion that a collection of dry solid particles can be a “treatment fluid.” A POSITA would have understood that a collection of dry solid particles standing alone is not a “treatment fluid” under the plain and ordinary meaning of that term in view of the specification and prosecution history. More specifically, Eunsung’s interpretation is incorrect for at least four reasons. EX2003 ¶ 55.

First, Eunsung’s interpretation is inconsistent with the well-understood meanings of the two common words “treatment” and “fluid.” The ’287 patent does not define the composed term “treatment fluid.” However, a POSITA would have readily understood the meaning of “treatment fluid” because it is composed of two common, ordinary words with straightforward meanings. The term “fluid” does not refer to a solid. And the term “treatment” is an adjective indicating, in the context of the ’287 patent, that the “fluid” is used for a skin treatment. Therefore, the Board should reject Eunsung’s suggestion that a collection of dry solid particles can be a “treatment fluid.” EX2003 ¶ 56.

Second, the claim language, specification, and prosecution history show that a “treatment fluid” is not a collection of dry solid particles. Both claims 1 and 37 recite a “system for treating skin,” indicating that the claimed *treatment* fluids are used for a skin treatment. Moreover, both claimed systems include components in “fluid communication” with each other such that the treatment fluids can flow freely between components. A POSITA would have understood that fluids can flow freely between components but solids cannot. EX2003 ¶ 57.

The specification also contradicts Eunsung’s position. As explained above, the specification expressly distinguishes prior-art microdermabrasion using dry particles such as sand or grit to wear away skin from embodiments of the invention, which “deliver *fluid* from at least one of the *plurality of fluid sources* to the

handpiece assembly.” EUNSUNG-1001, 2:34-35. A POSITA would have understood that the inventors claimed the use of treatment **fluids** to distinguish the invention from prior-art microdermabrasion treatments that solely used dry particles such as sand and grit. Indeed, the specification distinguishes “wet” and “dry” modes of operation on the basis that the “wet” mode applies treatment materials to the skin, but the “dry” mode applies little or no treatment fluid:

During some skin treatment procedures, treatment materials from multiple containers 26 are sequentially or simultaneously applied to the patient’s skin during a “wet” mode of operation. ... In some embodiments, the console 12 can be used for a “dry” mode of operation. That is, the console 12 can be used to exfoliate skin, for example, without [sic: while] delivering little or substantially no treatment fluid.

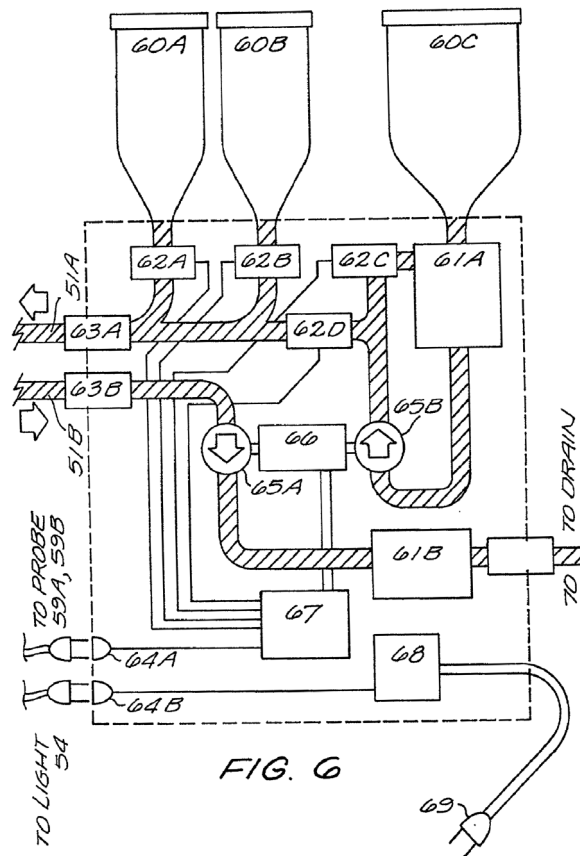
EUNSUNG-1001, 6:27-35. That the inventors described the mode using treatment materials as “wet” and the one using little or substantially no treatment fluid as “dry” demonstrates that the treatment fluids are not dry solid particles. EX2003 ¶ 58.

Further demonstrating that the treatment fluids are not dry solid particles, the specification explains that wet mode promotes **hydration** (EUNSUNG-1001, 13:21-23), while dry mode “can be used for **non-hydration** procedures and may require less post-procedure clean up” (*Id.*, 13:31-33 (emphasis added)). The specification also explains:

Fluid traveling down the longer pathway is in contact with the person's skin 80 for a longer period of time. Thus, tighter spirals lead to increased contact time between the fluid and the skin 80. These longer contact times can increase the effectiveness of the fluid because the skin can ***absorb an adequate amount of active ingredients*** of the treatment material. Fluid retention time on the patient's skin can be increased to ***increase hydration, serum retention, and the like***.

EUNSUNG-1001, 10:9-17 (emphases added). Thus, the identified functions of longer fluid contact times—absorption of ingredients, hydration, and serum retention—are not functions performed by solids. Finally, the specification lists numerous examples of fluids—including serums, hydration agents and additives, acids, extracts, and other substances—that are undoubtedly liquids, not solids. *Id.*, 15:61-16:33. EX2003 ¶ 59.

The prosecution history also contradicts Eunsung's position. In an October 11, 2023 Office Action, the Examiner applied the Coleman reference (EX2011) to the then-pending claims. EUNSUNG-1002, 196-204. The Examiner relied on Coleman Figure 6:



EX2011, Fig. 6 (cited by EUNSUNG-1002, 197). Coleman calls each of elements 60A, 60B, and 60C a “reservoir” containing a different substance:

Reservoir 60A is used to contain a benign abrasive; reservoir 60B is used to contain a chosen medicinal component or combination of medicines; and reservoir 60C is used to contain the sterile water.

EX2011, [0058]. Coleman gives three examples of benign abrasives: “rock salt, ice, and hardened starch.” *Id.*, [0015]. Thus, a POSITA would have understood the “benign abrasive” contained in reservoir 60A to be a collection of solid particles.

EX2003 ¶ 60.

The Examiner found reservoirs 60B and 60C are containers containing two different treatment fluids. EUNSUNG-1002, 197. However, with respect to a dependent claim requiring *three* containers containing treatment fluid, the Examiner found “Coleman fails to disclose that all three containers contain fluid.” *Id.*, 203. The Examiner explained container 60A “contains abrasive material.” *Id.* Thus, the Examiner found Coleman’s “abrasive material”—solid particles such as rock salt, ice, or hardened starch—is not a treatment fluid. Based in part on that finding, the Examiner found the dependent claim allowable if rewritten in independent form. EUNSUNG-1002, 201-204. Thus, the prosecution history confirms that dry abrasive particles are not a fluid or a treatment material. *See* EUNSUNG-1001, 5:52-54 (equating treatment material and fluid). EX2003 ¶ 61.

Eunsung’s argument that a “treatment fluid” can be a collection of dry solid particles relies entirely on a single, isolated reference in the specification to “fine solids” but otherwise ignores the intrinsic evidence. Further, Eunsung provides no evidence or explanation what “fine solids” means. It cites nothing but conclusory testimony of Eunsung’s expert, Mr. Simon, that “a POSITA would have readily recognized Greenberg’s particles to be examples of the ‘fine solids’ of the ’287 patent.” *Id.* (citing EUNSUNG-1003, [321]). But neither Eunsung nor Simon cite any evidence establishing what substances constitute “fine solids” as used in the ’287

patent or corroborating Simon’s conclusion that Greenberg’s particles are such substances. EX2003 ¶ 62.

Third, Eunsung ignores context from the specification showing that “fine solids” are not dry particles standing alone. Eunsung’s cited paragraph lists “fine solids” among several examples—such as serums, water, saline, gel, fluidized material, and additives—that may be included in fluids, which tend “to flow or conform to the outline of its container.” Nothing in the specification suggests the term “fine solids” refers to a stand-alone collection of dry particles. A POSITA would have understood that “fluidized material,” as referenced in the cited paragraph, may include fine solid particles that are not fluid in their dry form but can be dissolved in a fluid. In the context of the ’287 patent—including its disclosure that *wet* operations use fluid but *dry* operations do not—a POSITA would have understood that fluids may include “fine solids” dissolved in fluid but that dry particles alone are not fluids. EX2003 ¶ 63.

Fourth, neither the cited paragraph nor anything else in the specification defines “treatment fluid” as recited by claims 1 and 37. The cited paragraph refers to “treatment material,” and, thus, provides no guidance as to the meaning of “treatment fluid,” much less broaden its ordinary meaning to include solids. Moreover, the reference to “treatment material” is not a definition. It merely lists examples of substances that may be included in “treatment material” in certain

contexts but not in other contexts. A POSITA would not have considered the list of example substances as a definition in the specific context of the claimed invention, in which treatment fluid flows from containers to a fluidically connected handpiece for application to the skin. The list in the specification is overinclusive to encompass both the claimed context and a different context in which a solid treatment material is contained in the tip of the handpiece and can be released and applied to the skin when it engages treatment fluid:

In alternative embodiments, the tips can carry deployable material. The structure 151 can be in the form of a cavity or pocket that contain and carry material that is released when it engages the treatment fluid. The material in the cavities can be any of the treatment materials disclosed herein, and can be in a solid form. For example, the cavities can hold lubricant or soap that is released when the tip is applied to skin.

EUNSUNG-1001, 11:43-50. The specification further explains:

The protruding member 124 can optionally contain treatment material. For example, the protruding members 124 can be generally cylindrical members having a passageway or chamber 127 that holds treatment material. Thus, fluid can be used in combination with treatment material coupled to the tip 34.

Id., 12:14-19. One example of a solid treatment material used in this manner is a medicament that is a “hardened grit that can be imbedded on the surface of the tip 34” of the handpiece. EUNSUNG-1001, 13:63-65. The specification states: “***If*** a

fluid is used, the fluid can facilitate the release of the medicament from the tip 34.”

Id., 13:65-67. EX2003 ¶ 64.

Thus, the specification refers broadly to “treatment material” to encompass both the claimed context in which treatment fluid flows from containers to the handpiece for application to skin and the described but unclaimed context in which the tip of the handpiece contains a solid treatment material that may be released when it engages treatment fluid. Nothing in the claim language, specification, or prosecution history suggests that the ’287 patent’s reference to “fine solids” broadens the term “treatment fluid” to cover a stand-alone collection of dry particles. At most, the reference to “fine solids” suggests solid particles dissolved in fluid. EX2003 ¶ 65.

In view of the intrinsic record, the Board should reject Eunsung’s attempt to broaden “treatment fluid” to encompass a collection of dry solid particles. EX2003 ¶ 66. If the Board determines a formal claim construction is necessary, the Board should expressly find that “treatment fluid” has its plain and ordinary meaning and that such meaning does not encompass a collection of dry solid particles. Such a construction is sufficient to resolve the parties’ sole dispute whether “treatment fluid” encompasses a collection of dry solid particles.

B. “treatment material” (claims 11 and 22)

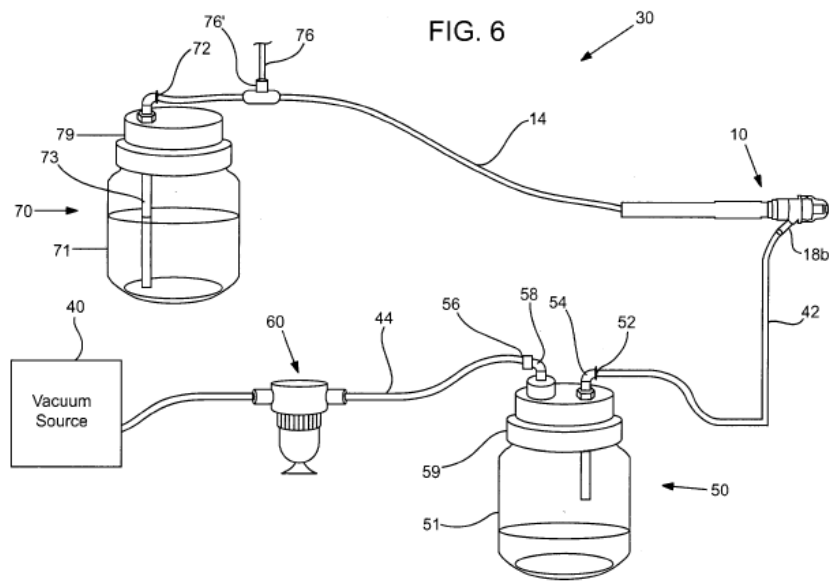
Claims 11 and 22 of the '287 patent use the term “treatment material” instead of “treatment fluid.” Although the term “treatment material” is facially broader than “treatment fluid”—appearing to encompass *not just* fluid, but *any* material used for a skin treatment—the surrounding language of claims 11 and 22 restrict the treatment material actually usable with the apparatus of claim 11 or system of claim 22 to treatment material that can flow from containers to a handpiece in fluid communication with the containers. Claim 11 recites a fluid control member “in fluid communication” with both first and second containers and a handpiece so that “the skin treatment apparatus is configured to selectively draw treatment material from the first container or the second container to the handpiece.” Similarly, claim 22 recites that “the working end of the handpiece is configured to be placed in fluid communication with the first container or the at least one additional container through the collection lumen.” While the specification does not define the phrase “in fluid communication with,” it is a common, well-understood phrase describing a connection between objects that allows fluid to flow between the objects. Thus, for practical purposes, the treatment material of claims 11 and 22, like the treatment fluid of claims 1 and 37, excludes a collection of dry solid particles. EX2003 ¶ 67.

C. “fluid” (claim 26)

The term “fluid” in claim 26 should be interpreted like “treatment material” in claims 11 and 22. *See* EUNSUNG-1001, 5:52-54. As with claims 11 and 22, the surrounding language of claim 26 restricts the fluid usable with the system of claim 26 to fluid that can flow from containers to a handpiece in fluid communication with the containers. Claim 26 recites a system with a handpiece “in fluid communication with” a vacuum source and a block that receives fluid from three containers, such that the system sequentially delivers fluid from the containers to the handpiece. Thus, for practical purposes, the fluid of claim 26, like the treatment fluid of claims 1 and 37, excludes a collection of dry solid particles. EX2003 ¶ 68.

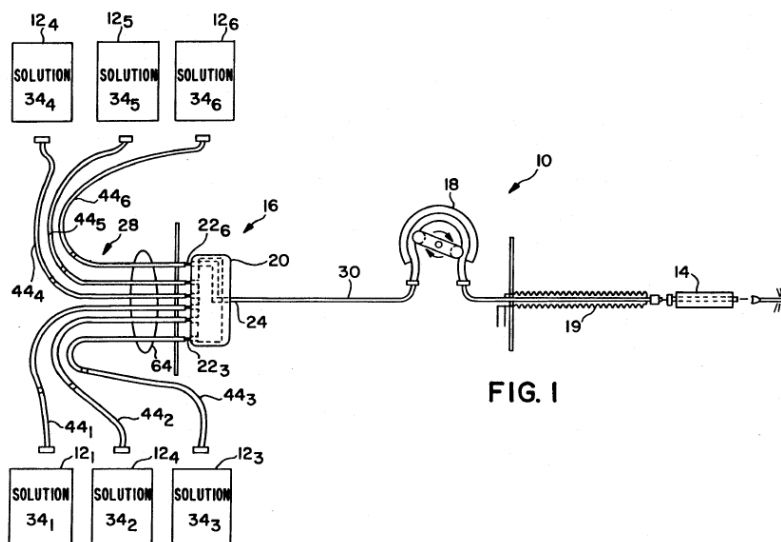
IV. PATENTABILITY OVER THE KARASIUK GROUNDS

In Ground 1A, Eunsung combines Karasiuk with Palmer to allege that all independent claims and some dependent claims would have been obvious. *Pet.*, 1. As shown in Figure 6 below, Karasiuk is a microdermabrasion device that draws liquid from just one container during a microdermabrasion treatment.



EUNSUNG-1001, Fig. 6, [0020]. Karasiuk indisputably lacks a block for selectably connecting one of multiple skin-treatment containers to a handpiece. Nothing in Karasiuk suggests separately storing and applying different treatment fluids in a single microdermabrasion treatment. At most, Karasiuk lists different solutions, suspensions, or compounds that can be contained “alone or in combination” in Karasiuk’s single reservoir 70. *Id.*, [0061]. EX2001 ¶¶ 28-29; EX2003 ¶ 69.

Palmer is an irrigation system used in periodontal procedures. EUNSUNG-1005, 1:10-15. As such, Palmer delivers a “pulsed jet” of treatment solution at constant pressure and substantially constant volumetric flow rate to the treatment area in the patient’s mouth. *Id.*, 2:52-56, 11:17-23 (pressure of 25 psi and flow rate of 22-25 mL/minute). Palmer employs a peristaltic pump 18 located upstream of handpiece 14 to generate the pulsed jet of solution, as shown in Fig. 1.



Id., Fig. 1. The handpiece sprays the pulsed jet directly at a treatment site in the patient's mouth to irrigate it with the needed solution. *Id.*, 3:15-26. Unlike a microdermabrasion system, Palmer is a one-way irrigation system that lacks any mechanism to vacuum the spent solution from the patient's mouth and back through the handpiece. Indeed, Palmer uses the peristaltic pump “as a natural check valve since it cannot aspirate solution back into the cannula” of the handpiece. *Id.*, 3:30-33. EX2001 ¶¶ 30-31; EX2003 ¶ 70.

Eunsung adds Trueba in Ground 1B for dependent claims having computing device limitations, and for a single limitation in claim 1 already addressed in Ground 1A. Pet., 53-56. Trueba involves a jet dispenser that combines Hewlett-Packard's inkjet technology with pharmaceutical administration. EUNSUNG-1008, 1:7-12. EX2001 ¶ 32; EX2003 ¶ 71.

As set forth herein, Patent Owner need only address the Karasiuk-Palmer combination to show that Eunsung has failed to establish there is a reasonable likelihood it would prevail on Ground 1A or Ground 1B with respect to any claim of the '287 patent.

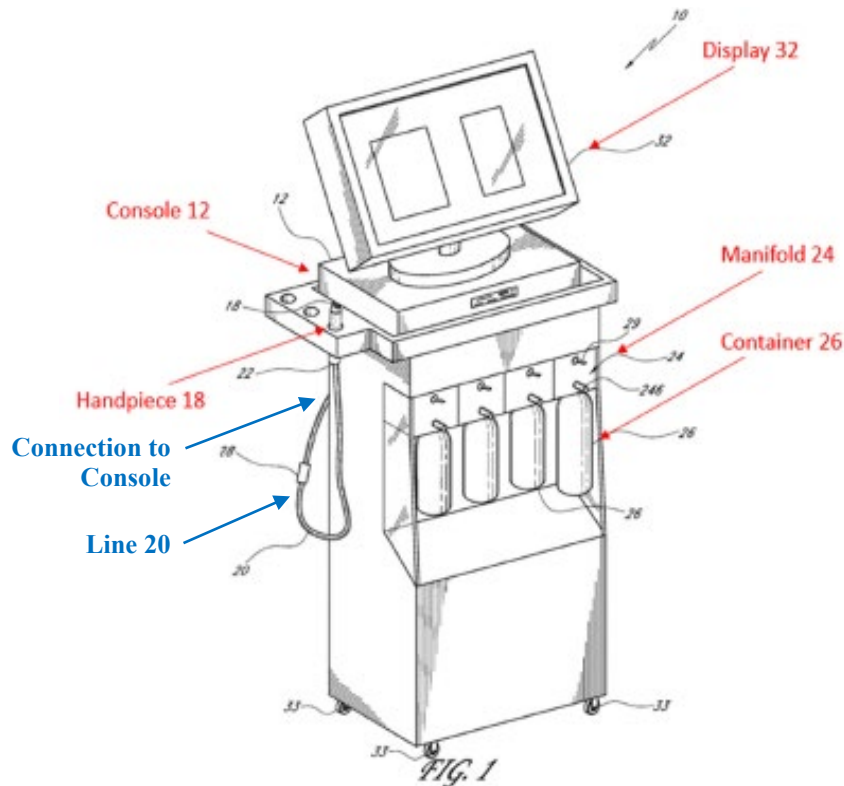
A. Neither Karasiuk nor Palmer Discloses a Handpiece Connected to a Console

Every claim of the '287 patent requires a handpiece (or handpiece assembly) connected to the console during operation. *See* Limitations 1.3, 11.3, 22.4, 26.5, and 37.5. For example, Limitation 1.3 recites:

wherein the block is: ... configured to be in fluid communication with the handpiece through a first conduit *when the handpiece is connected to the console.*"

EUNSUNG-1001, 21:30-39. EX2001 ¶ 33.

Referring to Fig. 1, the '287 patent explains that the "treatment system 10 includes a console 12 and *a handpiece assembly 18 connected to the console 12 via a line 20.*" *Id.*, 5:26-28. Eunsung's annotated Fig. 1 shows this configuration:

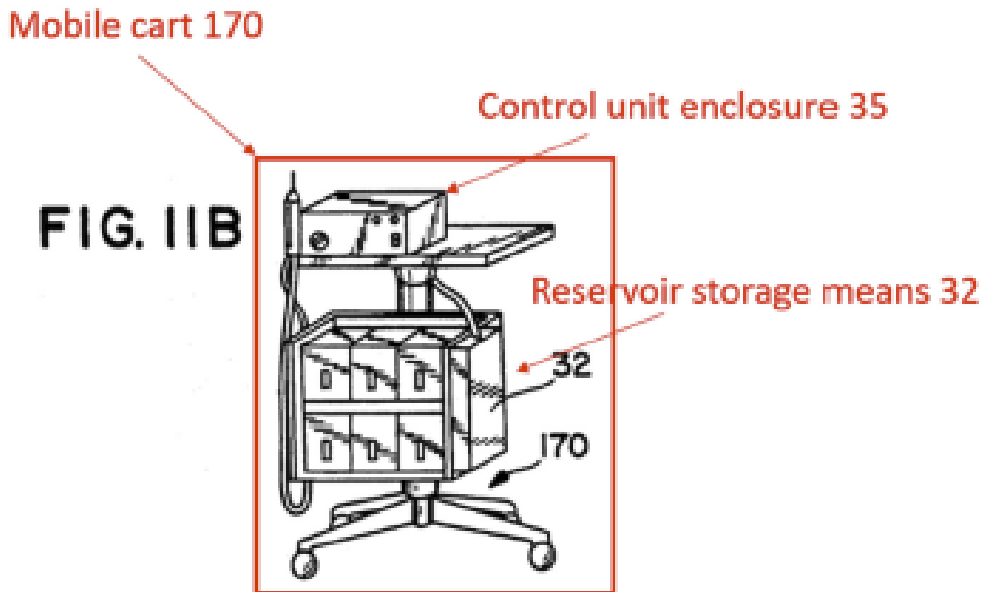


Pet., 3 ('287 patent, Fig. 1)². The specification explains that “[t]he line 20 can comprise one or more conduits *extending between the console 12 and the handpiece assembly 18.*” EUNSUNG-1001, 5:65-67. EX2001 ¶ 34.

As explained below and supported by Mr. Leinsing’s detailed analysis and underlying evidence, Eunsung fails to show that either Karasiuk’s or Palmer’s handpiece is ever connected to a console. EX2001 ¶¶ 28-42.

Eunsung relies on Palmer’s mobile cart 170, illustrated below, for the console.

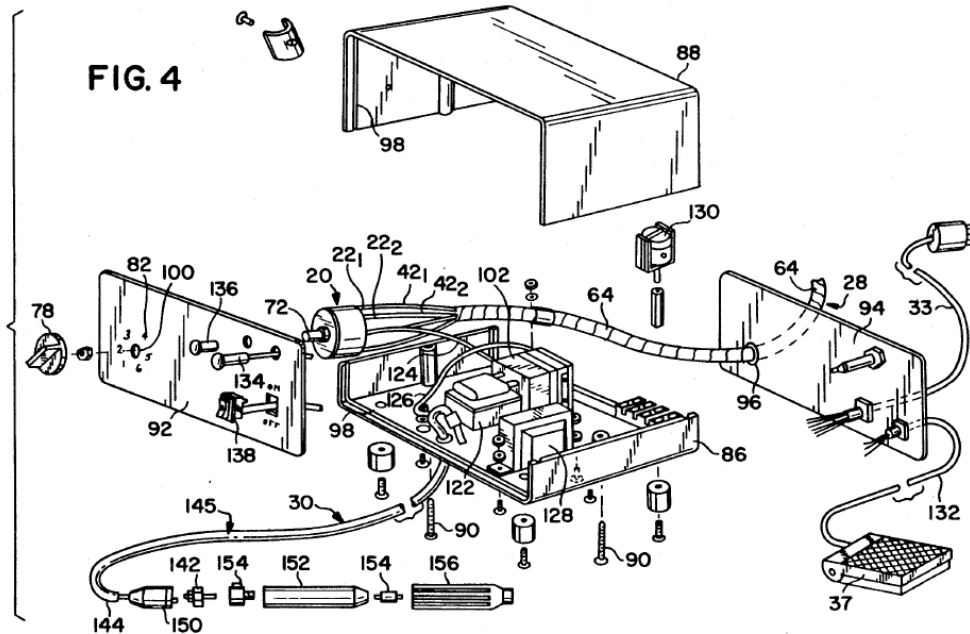
² Annotations in blue throughout have been added by PO; red annotations were added by Petitioner.



Palmer, FIG. 11B

Petition 7, 13 (“The Karasiuk-Palmer system includes a *console* in the form of, for example, ‘mobile cart 170’”) (emphasis by Eunsung). EX2001 ¶ 35.

But Palmer’s handpiece is not connected to Palmer’s mobile cart 170. Indeed, Eunsung does not—and cannot—contend that it is. Rather, Palmer’s handpiece is connected to “control unit enclosure 35” by tubing. EUNSUNG-1005, 5:16-20. Control unit enclosure 35 is a modular component in Palmer’s system. *Id.*, 3:9-14. Fig. 4, shown below, is an exploded fragmentary view of control unit enclosure.



EUNSUNG-1005, Fig. 4; EUNSUNG-1005, 4:19-21. Palmer explains that “[s]econd tubing means 30 *couples the handpiece means 14 to the output of the pump within enclosure 35.*” *Id.*, 5:16-18. EX2001 ¶ 36.

Fig. 7 shows the connection of the handpiece means to the bottom portion of control unit enclosure 35 in more detail:

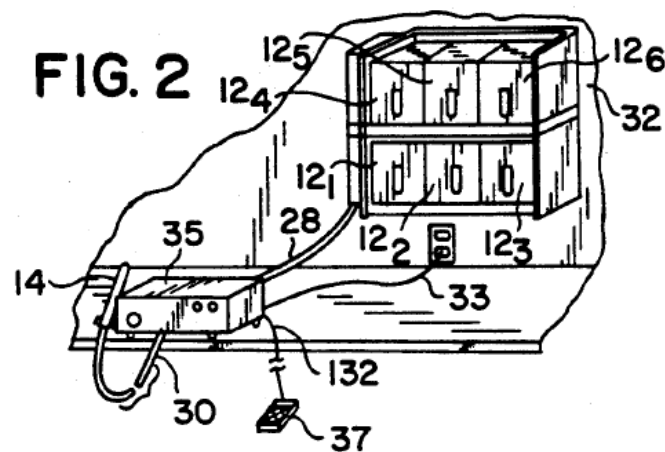


Palmer's control unit enclosure 35 and reservoir storage means 32 are modular components in Palmer's system. Palmer explains that the "modular means for storing solution reservoirs" and providing "substantial flexibility in setting up the system" are "the present invention." EUNSUNG-1005, 3:9-14. The system's modular configuration is an "advantage[]" in the installation of the system." *Id.*, 9:58-10:2. To that end, Palmer describes placing the control unit enclosure 35 and

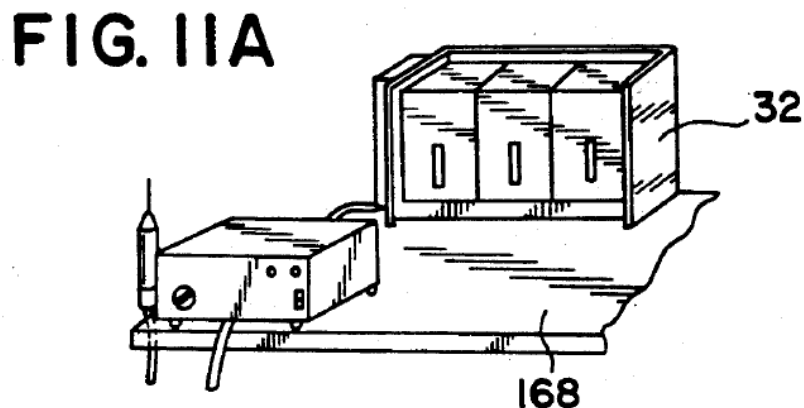
reservoir storage means 32 in separate locations around the dental office. In each instance, handpiece means 14 is connected only to control unit enclosure 35.

EX2001 ¶ 38.

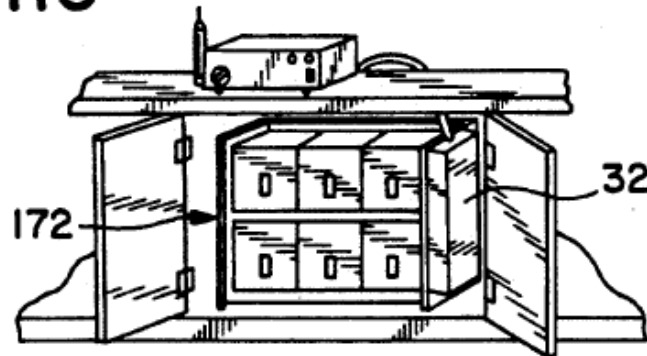
Fig. 2 shows control unit enclosure 35 on a countertop with handpiece 14 attached, and reservoir storage means 32 hanging on the wall.



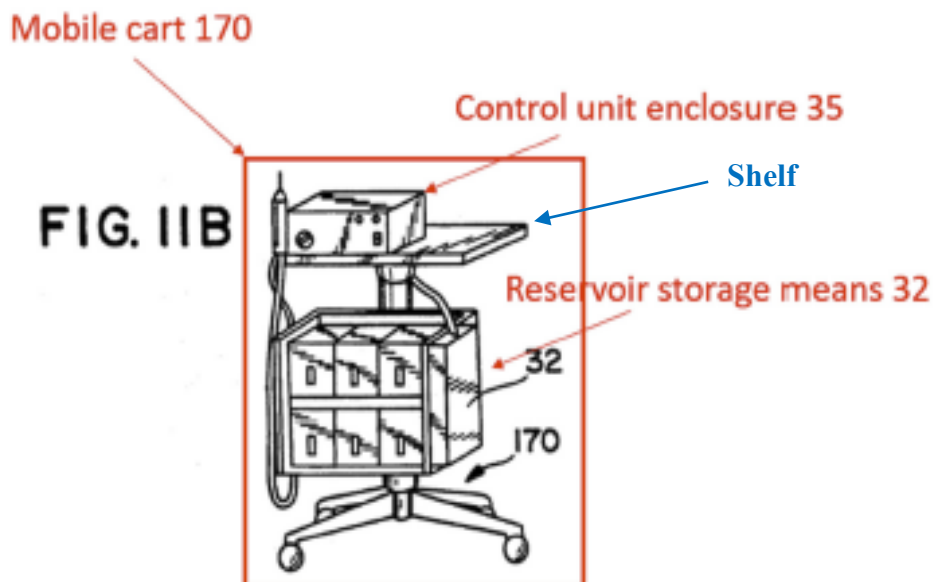
EUNSUNG-1005, Fig. 2, 5:10-13. Fig. 11A shows both control unit enclosure 35 and reservoir storage means 32 on countertop 168.



Id., Fig. 11A, 9:66-10:2. Fig. 11C shows reservoir storage means 32 “in a cabinet 172 underneath a counter,” with control unit enclosure 35 on top of the counter.

FIG. IIC

Id., Fig. 11C, 9:66-10:2. Similarly, Fig. 11B, cited by Eunsung, shows Palmer’s control unit enclosure 35 on a shelf on mobile cart 170 with the handpiece attached to control unit enclosure 35.



Palmer, FIG. 11B

Id., Fig. 11B, 9:66-10:2. EX2001 ¶ 40.

Eunsung contends “a POSITA would have found obvious that Karasiuk’s device 10 (handpiece) is connected to ‘mobile cart 170’ (console), as illustrated in Palmer.” Petition, 21. Yet, Palmer’s handpiece is never connected to Palmer’s mobile cart that Eunsung alleges is the console. And Eunsung never explains why or how a POSITA would have connected Karasiuk’s handpiece to Palmer’s mobile cart in light of Palmer’s disclosure to the contrary, promoting mobility of control unit enclosure 35 and reservoir storage means 32. Eunsung points to Palmer’s Fig. 11B, but, as discussed above, that figure actually confirms Palmer’s handpiece is not connected to the mobile cart. Pet., 21. Simon repeats Eunsung’s same argument nearly verbatim, without any additional evidence. EUNSUNG-1003, [113] (“a POSITA would have found it obvious that the handpiece (e.g., Karasiuk’s device 10) is connected to the ‘mobile cart 170’ (console).”). EX2001 ¶ 41.

Because Eunsung has failed to establish that its proposed combination of Karasiuk and Palmer satisfies the handpiece-connected-to-the-console limitations, all claims are patentable over Grounds 1A and 1B. EX2001 ¶ 42.

B. A POSITA Would Not Have Been Motivated to Modify Karasiuk

As supported by the detailed analysis and underlying evidence from Dr. Dubois, even if the Karasiuk-Palmer combination disclosed each limitation—which it does not—the combination would still fail to render the challenged claims

unpatentable because there was no motivation to combine Karasiuk and Palmer. EX2003 ¶ 73.

Eunsung alleges a POSITA would have been motivated to modify Karasiuk to use multiple types of skin treatments stored in separate containers during the same microdermabrasion treatment. Pet., 9. Eunsung alleges the motivation would have come from two sources: “Based on [1] general knowledge and [2] Karasiuk’s disclosure, a POSITA would have recognized the desirability of using multiple types of treatment solutions *during microdermabrasion*.” *Id.* EX2003 ¶ 73.

But neither “general knowledge” nor “Karasiuk’s disclosure” provides a motivation to use multiple types of treatment solutions *during microdermabrasion*, let alone to modify Karasiuk’s single-container system to add more containers and a “block,” “fluid control member,” or “collection lumen.” EX2003 ¶ 73.

1. “General Knowledge” Was Not a Motivation

The Petition includes no explanation of the “general knowledge” that would have supposedly motivated a POSITA to modify Karasiuk. Eunsung instead punts this task to Simon. Petition, 9 (citing EUNSUNG-1003, [78]-[79]). The Board should disregard this argument because Eunsung fails to provide a “full statement of the reasons for the relief requested, including a detailed explanation of the significance of the evidence.” 37 C.F.R. § 42.22(a)(2); *Fidelity Nat’l Info. Servs., Inc., v. DataTreasury Corp.*, IPR2014-00489, Paper 9 at 9 (PTAB Aug. 13, 2014)

(“We, therefore, decline to consider information presented in a supporting declaration, but not discussed sufficiently in a petition.”). EX2003 ¶ 74.

However, even considering Simon’s declaration, his understanding of “general knowledge” is fatally flawed for several reasons. Simon asserts that “multiple treatment solutions are desirable during microdermabrasion.” EUNSUNG-1003, 79 (citing Burgess (EUNSUNG-1013) and Lee (EUNSUNG-1003)). But Simon’s cited evidence contradicts his assertion that treatment solutions are desirable *during microdermabrasion*. EX2003 ¶ 74.

For example, the Burgess section cited by Simon states: “*When the treatment is completed*, residual crystals should be gently brushed off the skin,” then the skin can be “rinsed with tepid water and a moisturizer with adequate sunscreen applied.” EUNSUNG-1013, 86. This makes sense because, as Burgess explains, the traditional application of microdermabrasion involves the use of “fine, sharp crystals” to sandblast the skin. EUNSUNG-1013, 84. It would be antithetical to apply moisturizer during a microdermabrasion procedure that is blasting the skin with fine, sharp crystals. Simon himself agrees, in describing Burgess, that moisturizer is applied “when microdermabrasion *is completed*.” EUNSUNG-1003, [79]. Thus, no treatment solution is applied *during* microdermabrasion, let alone multiple treatment solutions, as Simon alleges. EX2003 ¶ 74.

Next, Simon cites to Lee as “general knowledge,” but Simon misapprehends the reference when he alleges “Lee discloses delivering vitamin C during microdermabrasion.” *Id.* (citing EUNSUNG-1016, 1). In fact, Lee involves testing “the topical delivery of vitamin C” *after* laser treatment or microdermabrasion “using an *in vitro* model of nude mouse skin.” EUNSUNG-1016, 1. The *in vitro* testing involves treating excised mouse skin with a laser or microdermabrasion, then mounting the skin fragment for 12 hours in a “Franz vertical diffusion assembly” filled with a vitamin C formulation to determine the “amount of vitamin C retained in the skin.” *Id.*, 2 (Materials and Methods). In no way does Lee provide any motivation to use multiple types of treatment solutions during microdermabrasion as Simon alleges. EX2003 ¶ 75.

Eunsung also relies on “general knowledge” to argue that “fluid delivery techniques required to use multiple containers with Karasiuk’s handpiece were well-known and part of a POSITA’s general knowledge.” Pet., 10. Here, Eunsung provides a citation to Simon and a string citation (without pin cites) to many different, unrelated references that purportedly comprise the general knowledge art, with no substantive explanation. *Id.* The references include Hewlett Packard’s jet dispenser system (Trueba (EUNSUNG-1008)) and multiple dental irrigation systems (Palmer (EUNSUNG-1005), Armstrong (EUNSUNG-1011), and Pond (EUNSUNG-1007)). This string citation, without any substantive explanation, does

not satisfy Eunsung’s obligation to explain why a person of ordinary skill in the art would have modified Karasiuk based on the purported general knowledge in the art. EX2003 ¶ 76.

Simon’s cited testimony is conclusory. EUNSUNG-1003, [80]-[84]. He gives a vanilla description of the references, but fails to explain how incorporating structure from any of the disparate devices would, as he claims, “improve the flexibility and functionality offered by Karasiuk’s system.” *Id.*, [080]. That these references contain “multiple containers” and were “well-known and part of a POSITA’s general knowledge,” as Simon avers, does not, by itself, apprise a POSITA with any reason to modify Karasiuk. *Id.* The mere fact that multiple containers were used in some contexts would not have in any way suggested to a POSITA that using multiple containers would have improved Karasiuk’s single-container design. And merely alleging generic advantages such as flexibility and functionality is insufficient absent specific evidence why a POSITA would have modified Karasiuk to yield the claimed invention. *ActiveVideo Networks, Inc. v. Verizon Commc’ns., Inc.*, 694 F.3d 1312, 1327 (Fed. Cir. 2012).³ EX2003 ¶ 76.

³ Eunsung also offers a half-hearted “mere duplication” argument. Pet., 10 (citing *In re Harza*, 274 F.2d 669 (CCPA 1960)). Even if it were articulated, the argument

For these reasons, Eunsung has failed to show that “general knowledge” provides a motivation to modify Karasiuk to include multiple containers with multiple types of treatment solutions. *Cisco Sys., Inc. v. Video Sols. PTE. Ltd.*, IPR2024-00922, Paper 7 at 14 (PTAB Nov. 12, 2024) (“Put simply, we are not persuaded by Petitioner’s arguments regarding the background knowledge art because those arguments are not sufficiently explained.”) EX2003 ¶ 77.

2. “Karasiuk’s Disclosure” Was Not a Motivation

Next, Eunsung points to “Karasiuk’s disclosure” itself as a motivation to modify Karasiuk. But, like the “general knowledge,” the argument is fatally flawed. There is no disclosure in Karasiuk of using multiple types of treatment solutions from multiple containers in a microdermabrasion treatment, and Eunsung does not argue otherwise. The only Karasiuk disclosure that Eunsung cites is: (1) the types of compounds that can be used in Karasiuk’s single reservoir 70 (e.g., “lotions/vitamins or other fluids”); and (2) Karasiuk’s boilerplate language that “various [undescribed] changes” may be made “without departing from the true spirit and scope of the invention.” Pet., 9-10 (quoting EUNSUNG-1004, [0024],

is inapposite because it fails to account for additional claimed structure and function, such as the claimed block.

[0047], [0061], [0070]). Simon cites and quotes these same passages from Karasiuk without further explanation. EUNSUNG-1003, [78], [80]. EX2003 ¶ 78.

Regarding the types of compounds disclosed in Karasiuk, they include, e.g., abrasive particles, bleaching formulations, acne treatment formulations, lines/wrinkle treatment formulations, hydrating formulations, and antioxidant formulations. EUNSUNG-1004, [0061]. Karasiuk explains they can be “employed alone or in combination with other compounds” in a single reservoir 70. *Id.* A POSITA would have appreciated the simplicity of combining various constituents in a single step as part of a single mixture to achieve the benefits of each individual constituent. Eunsung points to no evidence a POSITA would have doubted the efficacy of applying the chosen constituents in a single step as part of a single mixture. EX2003 ¶ 79.

Turning to Karasiuk’s boilerplate, Eunsung fails to explain how its mention of “various changes” and “the true spirit and scope of the invention” (EUNSUNG-1004, [0070]), would have motivated a POSITA to make any particular modification at all, let alone the detailed and specific modifications proposed by Eunsung of adding multiple types of treatment solutions in multiple containers, along with a block and associated connections that allow selection of the treatment solutions. Such broad and vague language does not authorize Eunsung to *ex post* read into Karasiuk concepts taken from the ’287 patent to reconstruct the claimed inventions.

KSR Int’l Co. v. Teleflex Inc., 550 U.S. 398, 421 (2007) (“A factfinder should be aware, of course, of the distortion caused by hindsight bias and must be cautious of arguments reliant upon *ex post* reasoning.”). EX2003 ¶ 80.

Thus, “Karasiuk’s disclosure” contains no evidence of a motivation to modify Karasiuk’s system to include additional containers with treatment fluids and a block to control the flow of treatment fluids. EX2003 ¶ 81.

3. Eunsung’s Reliance on Palmer Is Based Solely on Hindsight

Eunsung asserts that in view of “general knowledge” and “Karasiuk’s disclosure,” a POSITA “would have investigated other references such as Palmer to achieve benefits offered by multiple treatment solutions.” Pet., 10. But, as explained above, neither “general knowledge” nor “Karasiuk’s disclosure” could have plausibly motivated a POSITA to investigate other references as Eunsung claims. Eunsung’s entire foundation for a POSITA seeking out Palmer is erroneous. EX2003 ¶ 82.

It is no surprise then that the alleged “benefits” Eunsung has selected from Palmer are rooted in the needs of periodontal irrigation systems at the time, not any then-known microdermabrasion system. Eunsung’s attempt to shoehorn them into Karasiuk’s microdermabrasion system can only be explained with impermissible hindsight. EX2003 ¶ 83.

The **first and second alleged benefits** are “allow[ing] easy selection among multiple treatment solutions” and “enabl[ing] sequential delivery of different treatment solutions.” Pet., 10-11. However, both benefits are premised on Palmer’s described need for multiple irrigating solutions delivered sequentially in a periodontal procedure—i.e., hydrogen peroxide for “removal of loose organic debris,” zinc chloride for “reduc[ing] inflammation,” sodium fluoride for “desensitization of tooth structure,” and stannous fluoride and chlorhexidine digluconate for “reduction of bacterial concentration.” EUNSUNG-1005, 1:33-43; *id.*, 5:52-64. Palmer’s motivation was, as Eunsung agrees, the drawback in “conventional irrigation arrangements” that did not provide “the opportunity of easy selection among several irrigant solutions.” Petition, 10-11 (quoting EUNSUNG-1005, 1:30-53). EX2003 ¶ 84.

Palmer’s additional disclosure further informs a POSITA the sequential delivery was actually unique to periodontal irrigation systems, which involved color coding the solutions and use of “flavor coordinated” solutions. EUNSUNG-1005, 3:42-48. Using “substantially the same predetermined flavor” allows a patient to be “treated with two or more solutions during the procedure, *one after the other*, without being subjected to the discomfort which would normally occur when a person tastes two or more *diverse flavors, one immediately after the other.*” EUNSUNG-1005, 6:42-51. Eunsung erroneously cites this passage in alleging

POSITA would have applied Palmer's teachings to Karasiuk's microdermabrasion system, but the sequential delivery is clearly meant for periodontal irrigation systems. Pet., 11. EX2003 ¶ 85.

Dental clinicians would have recognized the lack of easy selection among irrigant solutions to be a problem for dental-irrigation devices because delivering multiple dental-irrigation solutions together in a single step would necessarily dilute and destroy the efficacy of many such solutions. By contrast, Eunsung does not identify any such drawback with Karasiuk's microdermabrasion system; rather, a POSITA would have expected Karasiuk's delivery of a mixture of treatment fluids in a single step to achieve the efficacy of each of individual fluids. Therefore, Eunsung has not shown that microdermabrasion clinicians would have recognized any problem with Karasiuk's single-container design in need of a solution. EX2003 ¶ 86.

Eunsung also relies on the following assertion of Palmer in the first benefit:

If circumstances require the use of a different treatment solution, either with the same or a subsequent patient, the solution remaining in the tank is usually discarded and the tank must be cleaned and refilled with the new solution. This procedure is time-consuming and costly, not to mention messy.

EUNSUNG-1005, 1:47-53 (cited by Pet., 11). Palmer's opinion that cleaning and refilling a dental-irrigation tank is a time-consuming, costly, and messy procedure is

irrelevant to Karasiuk's microdermabrasion procedure. Neither Eunsung nor Simon asserts a POSITA would have found cleaning or refilling Karasiuk's reservoir to be sufficiently time-consuming, costly, and messy to justify adding more containers and a complicated fluid-selection structure to Karasiuk's device. In fact, a POSITA would have expected the operation of Karasiuk's single-container device to be *less* time-consuming, costly, and messy than Eunsung's proposed multi-container device. EX2003 ¶ 87.

The **third alleged benefit** is “minimiz[ing] refilling downtime because when a particular container runs out mid-operation, the combined system can quickly switch to a second container to keep the supply flowing.” Pet., 11. However, Eunsung presents no evidence a POSITA would have considered Karasiuk's reservoir to be too small to contain sufficient treatment fluid for its purpose. And if the size of Karasiuk's reservoir were a concern, Eunsung presents no evidence a POSITA would have been motivated to add complicated valves and tubing simply to allow a clinician to switch to an extra container of the same treatment fluid. Indeed, a POSITA would have simply increased the size of Karasiuk's reservoir so it could contain the amount of treatment fluid required for most procedures. Because nothing in Karasiuk restricts the size of the reservoir, a POSITA would have understood Karasiuk as teaching or suggesting the use of a reservoir adequately sized for Karasiuk's purpose. Moreover, Eunsung presents no evidence clinicians could

not quickly refill the reservoir for abnormal procedures requiring more treatment fluid than usual, or that the possibility of such abnormal procedures would drive a POSITA to add structure unnecessary for most procedures. EX2003 ¶ 88.

The **fourth alleged benefit** is “Palmer’s modular design to provide added flexibility, organization, and portability.” Pet., 11. But this supposed benefit is irrelevant to Eunsung’s proposed change from Karasiuk’s single-container design to a multi-container design. Rather, as Eunsung recognizes, it relates to the desirability of container placement in a variety of *locations*, such as on a countertop, on a mobile cart, in a cabinet, or underneath a counter. Pet., 11-12. EX2003 ¶ 89.

In sum, Eunsung’s citation to Palmer’s benefits for periodontal irrigation is premised entirely on a hindsight reconstruction of the claimed invention. Eunsung presents no evidence a POSITA would have appreciated any of these benefits in the field of microdermabrasion before the priority date of the ’287 patent. While those in the field now understand the benefits of, e.g., sequential delivery in view of the teachings of the ’287 patent and the success of HydraFacial’s commercial embodiments of the ’287 patent, it would be legally improper to assume, without evidence, that a POSITA would have appreciated those benefits at the time of the invention. EX2003 ¶ 90.

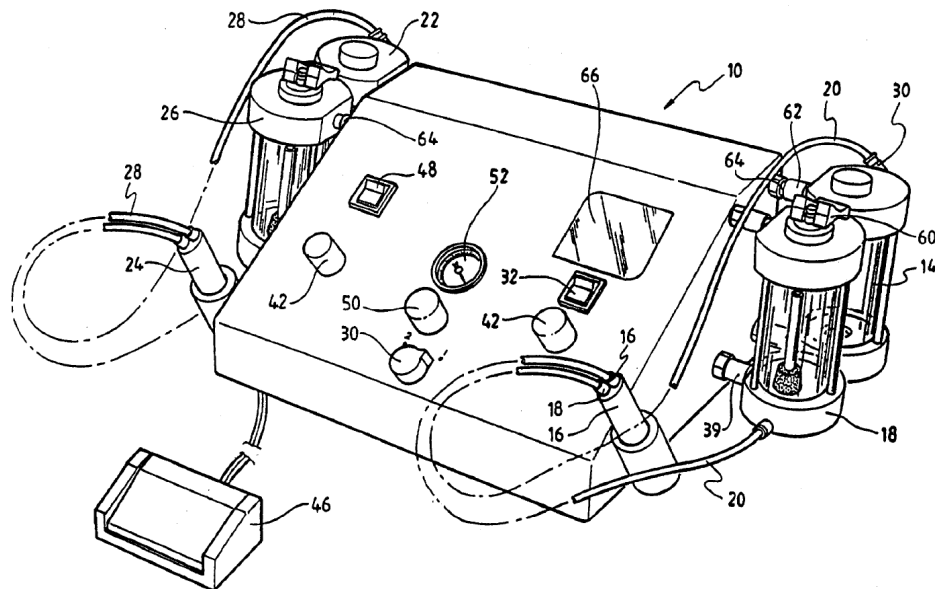
C. Eunsung failed to establish a reasonable likelihood it would prevail on either Ground 1A or Ground 1B with respect to any claim.

For the foregoing reasons, Eunsung failed to establish a reasonable likelihood it would prevail on Ground 1A or Ground 1B with respect to any claim of the '287 patent.

V. PATENTABILITY OVER THE GREENBERG GROUNDS

In Ground 2A, Eunsung alleges that all independent claims and some dependent claims would have been obvious over Greenberg alone. Pet., 1. In Ground 1B, Eunsung alleges that independent claim 1 and some dependent claims would have been obvious in view of Greenberg and Trueba. *Id.* Significantly, with respect to both grounds and all claims, Eunsung relies solely upon Greenberg as allegedly disclosing a device that applies multiple treatment materials or fluids to the skin. In Ground 1B, Eunsung alleges Trueba discloses other claim limitations, but does not rely on Trueba for the multiple-treatment-fluid limitations. EX2003 ¶ 91.

Greenberg discloses an old-style microdermabrasion machine using abrasive particles to abrade the skin. Greenberg is focused on “using abrasive particles of different sizes and/or type.” EUNSUNG-1006, [0002]. Accordingly, Greenberg’s machine in Fig. 1 has first and second assemblies on either side, each with its own recovery container, supply container, and handle to separately drive particles of different sizes or type. *Id.*, ¶[0049].

**FIG 1**

Id., Fig. 1. The machine has a vacuum source to draw spent abrasive particles into the recovery container, but for heavier abrasive particles, it also uses a compressor upstream of the bottles to propel the particles. *Id.*, [0050]-[0051]. Other embodiments in Greenberg alter the number of supply containers, recovery containers, and handles. Eunsung relies on different combinations of Greenberg's embodiments shown in Fig. 1-5 depending on the limitation in Ground 2A. *E.g.*, Pet., 62 (citing FIGS. 1, 2-4, 3, 5). However, in all instances, the machine uses only dry particles to abrade the skin.

For the reasons set forth below, Eunsung fails to show that Greenberg discloses or renders obvious the multiple-treatment-fluid limitations. Because it is

necessary to show that Greenberg discloses or renders those limitations obvious to establish a *prima facie* case of unpatentability for both Grounds 2A and 2B, Eunsung's failure to prove Greenberg discloses or renders those limitations obvious is sufficient to find that Eunsung has failed to establish a reasonable likelihood it would prevail on Ground 2A or Ground 2B with respect to any claim of the '287 patent.

A. Greenberg's disclosure of microdermabrasion using dry particles does not disclose or make obvious the claimed invention using treatment materials or fluids.

1. Greenberg lacks the "treatment fluid[s]" of claims 1 and 37.

Claim 1 recites "the first container contains a treatment fluid" and the "additional container contains an additional treatment fluid." Similarly, claim 37 recites "first treatment fluid contained in the first container" and "second treatment fluid contained in the at least one additional container." Greenberg does not disclose "treatment fluid." Rather, it discloses "supply containers including particulates" or "different particles." EUNSUNG-1006, [0015], [0020], [0021]. Greenberg further discloses typical particles used in "a micro-dermabrasion machine," including "[p]urely organic materials," a "mixture of abrasive particles such as aluminum oxide mixed with organic materials," or "[a]brasive particles that are coated with organic materials." *Id.*, [0073]-[0076]. Disclosed examples include "aluminum oxide particles," "organically coated aluminum oxide particles," and "organic

particles.” *Id.*, [0077]. Further, Greenberg emphasizes that the particles must be kept dry, not dissolved in fluid, to work for the intended microdermabrasion treatment:

Of course, great care needs to be taken to ensure that the particle[s] do not become too wet whereupon they will not be able to move freely through the apparatus but will stick to the container and the various tubes.

Id., [0085]; *id.*, ¶[0070] (“provided that the particles are *sufficiently dry* and of a suitable size, a whole range of organic particles may be used.”). Therefore, a POSITA would have understood that Greenberg’s microdermabrasion treatment solely uses dry particles and lacks the claimed treatment *fluids*. EX2003 ¶ 93.

Eunsung does not dispute that Greenberg solely uses dry particles. Eunsung also does not propose any modification of Greenberg to use anything other than dry particles. Rather, Eunsung asserts “a POSITA would have understood and found obvious that Greenberg’s ‘particles’ constitute ‘fluid’ within the meaning of the ’287 patent.” Pet., 69. EX2003 ¶ 94.

Eunsung’s argument rests entirely upon an interpretation of the claim term “treatment fluid” to encompass a collection of dry particles. To be clear, Eunsung does not assert Greenberg’s dry particles constitute “treatment fluid” under the ordinary meaning of that term. Indeed, Eunsung does not propose *any* construction of “treatment fluid,” much less one that would encompass a stand-alone collection

of dry particles. Eunsung instead attempts to distort a non-limiting list of example substances that may be included in a “treatment material” to suggest it somehow changes “treatment fluid” to cover a stand-alone collection of dry particles. Pet., 69 (citing EUNSUNG-1001, 5:47-54). But Eunsung is incorrect, as explained above, because a “treatment fluid” is not a collection of dry particles. EX2003 ¶ 95.

Eunsung also argues that Greenberg discloses the use of “treatment fluid” because it “us[es] an air flow to carry particles through a hand tool.” Pet., 69. Eunsung asserts a “POSITA would have understood that the air flow carrying particles is considered to be ‘fluid’ as used in the ’287 patent.” *Id.* But Eunsung cites nothing but Simon’s conclusory testimony. Neither Eunsung nor Simon explains why an “air flow carrying particles” is a “treatment fluid.” In any event, the claims require the treatment fluid to be contained in the containers. When contained in Greenberg’s containers, the dry particles are just sitting together in a pile, not in an air flow carrying particles. EX2003 ¶ 96.

Therefore, Greenberg does not disclose or make obvious claims 1 or 37. EX2003 ¶ 97.

2. Greenberg lacks the “treatment material” or “fluid” flowing through components “in fluid communication with” each other of claims 11, 22, and 26.

Claims 11 and 22 recite “treatment material,” and claim 26 recites “fluid,” that flows through various components that are “in fluid communication with” each

other. As explained above, the claimed “treatment material” and “fluid” is a substance that easily flows through the components “in fluid communication with” each other, not a collection of dry solid particles. By contrast, Greenberg discloses a microdermabrasion device that uses a collection of dry solid particles. Therefore, Greenberg does not disclose or make obvious claims 11, 22, or 26. EX2003 ¶ 98.

B. The claims would not have been obvious in view of Greenberg and Trueba because neither reference discloses hydrodermabrasion using treatment materials or fluids.

In Ground 2B, Eunsung proposes modifying “Greenberg’s device by including Trueba’s computer control and display.” Pet., 91. Eunsung also relies on Trueba as allegedly rendering obvious *automatic switching* between containers, to the extent the claims are interpreted to require such automatic switching. *Id.*, 93, 94. In addition, Eunsung relies on Trueba as allegedly disclosing a touchscreen user-input device and an additional display separate from the touchscreen. *Id.*, 94, 95. Significantly, Eunsung does not rely on Trueba for the treatment material or treatment fluid limitations missing from Greenberg. *Id.*, 91-95. Therefore, Eunsung fails to show that the prior art, even when combined, satisfies the treatment material and treatment fluid limitations. EX2003 ¶ 99.

C. Eunsung failed to establish a reasonable likelihood it would prevail on either Ground 2A or Ground 2B with respect to any claim.

For the foregoing reasons, Eunsung failed to establish a reasonable likelihood it would prevail on Ground 2A or Ground 2B with respect to any claim of the ’287

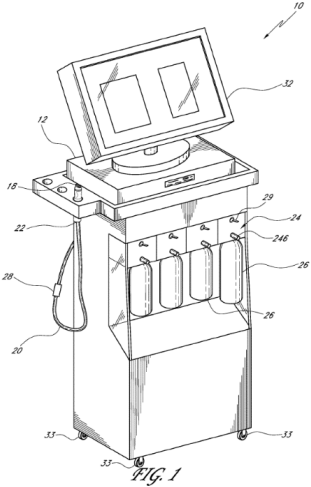
patent. Therefore, because Eunsung also failed to establish a reasonable likelihood it would prevail on Ground 1A or Ground 1B, the Board should deny the Petition under 35 U.S.C. § 314(a).

VI. OBJECTIVE INDICIA REINFORCE PATENTABILITY OF THE CLAIMS AND PROTECT AGAINST EUNSUNG’S HINDSIGHT BIAS

Objective evidence of nonobviousness—commercial success, copying, and industry praise—further demonstrates the patentability of the challenged claims. Objective indicia “are not just a cumulative or confirmatory part of the obviousness calculus but constitute[] independent evidence of nonobviousness.” *Leo Pharm. Prods., Ltd. v. Rea*, 726 F.3d 1346, 1358 (Fed. Cir. 2013) (internal quotation marks omitted). “[T]he objective indicia of nonobviousness are crucial in avoiding the trap of hindsight.” *Id.* Indeed, such evidence “may often be the most probative and cogent evidence in the record” and “may often establish that an invention appearing to have been obvious in light of the prior art was not.” *Transocean Offshore Deepwater Drilling, Inc. v. Maersk Drilling USA, Inc.*, 699 F.3d 1340, 1349 (Fed. Cir. 2012) (internal quotation marks omitted). Though each objective indicia provides substantial weight to nonobviousness, “it stands to reason that these individual weights would sum to a greater weight” to firmly establish the challenged claims are patentable. *Volvo Penta of the Ams., LLC v. Brunswick Corp.*, 81 F.4th 1202, 1215 (Fed. Cir. 2023).

A nexus between the objective indicia and a novel feature of the claimed invention is presumptively attributed to the patented invention where the product is coextensive with the claimed features. *Muniauction, Inc. v. Thomson Corp.*, 532 F.3d 1318, 1328 (Fed. Cir. 2008) (citation omitted). Here, there is a nexus between the objective indicia and the claimed invention. Specifically, as shown below: (1) the HydraFacial Systems are embodiments of, and coextensive with, the claimed inventions, such that nexus is presumed; and (2) the objective indicia result directly from the HydraFacial Systems' unique and claimed ability to selectably apply multiple treatment fluids drawn from separate containers.

Here, at least four HydraFacial multi-container systems practice the claims of the '287 patent and are co-extensive with them: HydraFacial's Tower, Elite, Allegro, and Syndeo systems (collectively, "HydraFacial Systems"). HydraFacial's Tower system was the originating multi-container system, first sold in 2005. The Tower is reflective of the system depicted in the figures in the '287 patent, including Fig. 1 as shown below:

Tower Product	'287 Patent, Fig. 1
	

EX2033 at 1; EX2001 ¶ 66; EUNSUNG-1001, Fig. 1.

As Mr. Leinsing explains in detail, each of the Tower, Elite, Allegro, and Syndeo systems practices at least claim 1 of the '287 patent. EX2001 ¶¶ 51-174. Furthermore, as Mr. Leinsing also explains, the HydraFacial Systems are co-extensive with the claims of the '287 patent. *Id.*, ¶¶ 175-179. For example, claim 1 of the '287 patent is directed to skin treatment systems with specific key features including (1) multiple fluid containers, (2) a block, (3) fluid communication between the fluid containers and the block (4) fluid communication between a handpiece and the block (5) a vacuum source, (6) a waste container, and (7) fluid communication between the vacuum source and waste container and the handpiece. *Id.*, ¶ 177. Each of the Syndeo, Elite, Allegro, and Tower is a skin treatment system that includes these key features recited in the claims. *Id.*, ¶ 177, ¶¶ 51-174.

Additionally, as Mr. Leinsing explains, the HydraFacial Systems do not include other key or driving features that are not claimed. *Id.*, ¶ 178. The HydraFacial Systems may be equipped with ancillary components like a red and blue light therapy handpieces, but these handpieces are insignificant to the HydraFacial Systems. *Id.* The HydraFacial Systems are, and have been, extensively marketed as hydrodermabrasion systems. *See id.* (citing EX2038 (Tower), EX2039 (Tower), EX2040 (Tower), EX2041 (Tower), EX2042 (Tower), EX2043 (Tower), EX2044 (Elite), EX2045 (Elite), EX2046 (Elite), EX2047 (Allegro)). Furthermore, red and blue light therapy could be achieved using less expensive devices. *Id.*; EX2003 ¶ 47; EX2015. It is the significant features of the HydraFacial Systems that have been claimed in the '287 patent and are coextensive with the claims.

Thus, for these reasons, a nexus between the objective indica discussed below and the patented invention is presumed.

A. HydraFacial's Commercial Success Provides Objective Evidence the Claims Are Not Obvious

The HydraFacial Tower was the first hydrodermabrasion product that allowed clinicians to selectably apply multiple treatment fluids drawn from separate containers. Ever since the launch of the Tower in 2005, and with the Allegro, Elite, and Syndeo that followed, the HydraFacial Systems have maintained the dominance in the field HydraFacial created. *See e.g.*, EX2003, ¶ 45-46, 48-49.

Through this market dominance, the HydraFacial Systems have generated global revenue of [REDACTED] dollars from May 2005 through June 2024:

Product	Period	Global Revenue
Tower	2005-2023	[REDACTED]
Allegro	2012 - Q2 2024	[REDACTED]
Elite	2016 - Q2 2024	[REDACTED]
Syndeo	2022 - Q2 2024	[REDACTED]
Total	2005 - Q2 2024	[REDACTED]

EX2009 ¶ 7; EX2010. As explained above, a nexus is presumed between this tremendous commercial success and the claimed features of the '287 patent. The HydraFacial Systems have been manufactured almost entirely in the United States, and have experienced tremendous commercial successes in the United States and throughout the world. Thus, the global sales revenue is properly reflective of that commercial success. *See, e.g., Lindemann Maschinenfabrik GMBH v. Am. Hoist & Derrick Co.*, 730 F.2d 1452, 1461 (Fed. Cir. 1984) (“The district court improperly discounted the weight due the evidence of commercial success because that success occurred abroad. A showing of commercial success of a claimed invention, wherever such success occurs, is relevant in resolving the issue of nonobviousness.”).

It is well known that HydraFacial created the hydradermabrasion market. EX2003, ¶ 48-49. Given the significant sales revenue attributed to the HydraFacial

Systems, HydraFacial need not present market share data at this time. *Chemours Co. FC, LLC v. Daikin Indus., Ltd.*, 4 F.4th 1370, 1378 (Fed. Cir. 2021) (market share data is potentially useful, but “is not required to show commercial success.”).

Furthermore, additional evidence confirms a nexus exists between the commercial success of the HydraFacial Systems and the claims of the '287 patent, including the claimed feature of selecting treatment fluids from multiple containers. The commercial success of the HydraFacial Systems is particularly astounding compared to another HydraFacial product, the Nectre. The Nectre was a product offered by HydraFacial from approximately 2008 to 2013. EX2009 ¶ 8. The Nectre, like the Karasiuk reference relied on by Eunsung, used only a single container rather than allowing clinicians to selectably apply multiple treatment fluids drawn from separate containers. EX2001 ¶ 180. An image of the Nectre is shown below:



EX2036 at 11; EX2001 ¶ 180-216. A clinician was required to manually change out the container during the treatment to use a different treatment solution. EX2036 at 11. Except for using a single container at a time, the Nectre is comparable in every other material respect to the HydraFacial Systems. EX2001 ¶ 180-216.

The Nectre experienced poor sales and HydraFacial discontinued it in 2013. EX2009 ¶ 8; EX2010. By contrast, the Tower and Allegro multi-container systems experienced strong sales over the same period of 2008-2013. EX2009 ¶ 8; EX2010. The Tower was available on the market over the same period as the Nectre, 2008-2013, and the Allegro overlapped for two years, 2012-2013. But despite the Nectre's similarities and overlapping sales period, it achieved only about [REDACTED] in revenue between 2008 and 2013, whereas the Tower and Allegro together had approximately [REDACTED] over the same period. EX2009 ¶ 8. The staggering difference in sales revenue between devices that are essentially the same except for the Tower and Allegro including the claimed ability to allow clinicians to selectably apply multiple treatment fluids drawn from separate containers demonstrates that that claimed feature is responsible for the commercial success of the HydraFacial Systems. EX2001 ¶¶ 217-219.

B. Copying of the HydraFacial Systems Provides Objective Evidence the Claims Are Not Obvious

The copying by competitors of the HydraFacial Systems is strong evidence the claims of the '287 patent would not have been obvious. *Volvo Penta*, 81 F.4th at 1213 (“[A]lthough copying is not alone dispositive of nonobviousness, we have usually considered a determination of copying to be strong evidence of nonobviousness.”) (internal quotation marks omitted).

Dr. Dubois has first-hand experience with a competitor selling a blatant copy of HydraFacial’s Tower product, including all the features claimed in the '287 patent. EX2003 ¶¶ 101-112. HydraFacial became aware in 2014 that Rafael Newton Aguila (“Aguila”) was selling a knockoff (shown on the right below) of the HydraFacial Tower product (on the left):



EDGE HYDRAFACIAL® PRODUCT



DEFENDANT'S ACCUSED PRODUCT

EX2005 (Summary Judgment Order) at 6; EX2003 ¶ 105. Aguila even attempted to pass off his company as Edge Systems (as HydraFacial was previously known), going to great lengths to assume Edge's identity. EX2005, 6-7; EX2003 ¶ 106.

Aguila lured customers into thinking the knockoff product was an authentic version of HydraFacial's Tower. For example, Dr. Dubois purchased a knockoff product from Aguila, thinking he was actually purchasing an authentic HydraFacial Tower product from HydraFacial. EX2005, 7; EX2003 ¶¶ 106-107.

In November 2014, HydraFacial filed an emergency motion for an ex parte temporary restraining order ("TRO") and also sought a preliminary injunction. EX2005, 8-9. The court granted the TRO in December 2014 and later entered a preliminary injunction against Aguila. *Id.*; EX2007; EX2008. The court subsequently also granted HydraFacial's motion for summary judgment of patent and trademark infringement and entered a permanent injunction. EX2005, 42-43. In that ruling, the court characterized Aguila's copying this way:

Bootleg. Clone. Copycat. Imitation. Knock-off. Palm-Off. However one labels a peddled product that conspicuously capitalizes on another's intellectual property rights, this case presents the quintessential example.

EX2005, 1; EX2003 ¶ 111.

The '287 patent had not issued by 2014, and, therefore, was not being asserted against Aguila. Rather, HydraFacial asserted patents from a different patent family

against Aguila. EX2005, 3-4. Nonetheless, Aguila’s wholesale copying of the features claimed in the ’287 patent is strong evidence that the ’287 patent would not have been obvious. *Liqwd, Inc. v. L’Oreal USA, Inc.*, 941 F.3d 1133, 1138 (Fed. Cir. 2019) (“[W]here there is evidence of actual copying efforts, that evidence is always relevant.”); EX2003 ¶ 112.

C. Industry Praise of the HydraFacial Systems Provides Objective Evidence the Claims Are Not Obvious

HydraFacial has been the recipient of industry praise for its HydraFacial Systems, often in the form of awards and positive industry press, that provides objective evidence that the claims of the ’287 patent would not have been obvious. EX2003 ¶¶ 113-117.

For example, HydraFacial received two 2023 Aesthetician’s Choice Awards from DERMASCOPE Magazine, a leading resource for skincare professionals, for “Favorite Signature Treatment and Hydrodermabrasion Machine: Hydrafacial Syndeo™ Delivery System.” EX2016; EX2003 ¶ 113.

HydraFacial was awarded NewBeauty’s award for “Best Hydrating Facial” in 2022, 2023, and 2024. EX2017 (promoted as “3-step customizable” treatment); EX2018; EX2019; EX2003 ¶ 114. In 2020, HydraFacial was given NewBeauty’s award for “The Best Facial” under the category of “The Best In-Office Treatments.” EX2020. The NewBeauty publication described HydraFacial’s treatment using the

multi-container system as providing a “customized treatment that cleanses, extracts, and hydrates.” *Id.* at 4; EX2003 ¶ 114.

In 2016, HydraFacial was awarded NewBeauty’s Beauty Choice Award for “The Best Facial to Transform Your Skin” for the HydraFacial MD product (i.e., the HydraFacial Tower). EX2021; EX2003 ¶ 114. There, the award emphasizes the use of multiple treatment serums: “The treatment is used to cleanse, exfoliate, extract impurities and flood the skin with treatment serums.” EX2021 at 2. The award also distinguishes HydraFacial’s treatment from traditional microdermabrasion: “instead of relying on an abrasive diamond tip to remove dead skin, it delivers various proprietary serums that help to dislodge dead cells and excess sebum while a suctioning action removes them from skin.” *Id.* It further explains that the treatment “concludes with a liberal application of serum rich in antioxidants, peptides and hyaluronic acid, designed to maintain results and give skin that immediate healthy glow.” *Id.*; EX2003 ¶ 114.

Healthcare clinicians have also promoted the HydraFacial treatments that provide multiple solutions from multiple bottles, consistent with the claims of the ’287 patent. For example, Michele Green, MD spoke of HydraFacial as follows in an article in Haught Living, describing the “patented three-part regimen”:

Hydrafacial is a medical-grade “hydradermabrasion” device that carries out a patented three-part regimen - cleansing, exfoliating, and infusing

skin with intensive serums. This gentle approach vacuums out the pores while simultaneously infusing potent active ingredients, which treats redness, brightens, and rejuvenating the skin.

EX2022; EX2003 ¶ 115.

In another example, NewBeauty Magazine discussed the benefits of HydraFacial's treatment, including the "three actions that contribute to the resurfacing of the skin," with New York plastic surgeon Sachin Shridharani, MD:

As New York plastic surgeon Sachin Shridharani, MD explains, the HydraFacial is comprised of three actions that contribute to the resurfacing of the skin: "Physical exfoliation from suction pressure and a textured tip, chemical exfoliation from acids such as glycolic and salicylic, and suction to lift dead skin cells off the surface."

At each step, your provider will use the HydraFacial wand on every inch of your face. Not only does the treatment entail a three-part rejuvenation of your skin, that also means you get thirty minutes to relax and be pampered while your Hydrafacial technician goes to work.

Each step contributes to the pursuit of glowing skin. A Signature treatment starts with Cleanse + Peel, which uncovers a new (and thus brighter, younger-looking) layer of skin with gentle exfoliation and resurfacing. Next, as Dr. Shridharani explains, the device will Extract + Hydrate your skin with painless suction as debris is removed from the pores, which are then nourished with professional-grade moisturizers. Finally, the provider will Fuse + Protect the skin's surface with an antioxidant serum with strengthening peptides.

VII. THE BOARD SHOULD DENY THE PETITION UNDER § 325(d)

35 U.S.C. § 325(d) provides that the Director may reject the Petition when “the same or substantially the same prior art or arguments previously were presented to the Office.” Here, every ground of the Petition relies heavily on either Karasiuk or Greenberg. Eunsung acknowledges that Karasiuk and Greenberg were previously presented to the Office in an IDS during examination. Pet., 95. These facts implicate § 325(d) and require an *Advanced Bionics* analysis to determine whether to deny the Petition.

Eunsung attempts to rewrite Section 325(d) to avoid an *Advanced Bionics* analysis. Specifically, Eunsung argues:

Because the ’287 patent’s prosecution did not involve negotiation regarding the prior art combinations applied, Grounds 1A-1B and 2A-2B cannot be said to be the same as, or substantially similar to, art or arguments that the Office previously considered.

Pet., 95-96. That argument relies on irrelevant, non-statutory bases to avoid application of Section 325(d). Prior art need only have been “previously presented to the Office” to invoke Section 325(d). The prosecution history need not include detailed evidence the prior art was “considered” or involved in any “negotiation.” In any event, the Examiner expressly certified he considered Karasiuk and Greenberg. EUNSUNG-1002, 229. EX2001 ¶ 44.

In *Advanced Bionics*, the Board explained its two-part framework for deciding whether to deny institution under Section 325(d):

Thus, under § 325(d), the Board uses the following two-part framework: (1) whether the same or substantially the same art previously was presented to the Office or whether the same or substantially the same arguments previously were presented to the Office; and (2) if either condition of [the] first part of the framework is satisfied, whether the petitioner has demonstrated that the Office erred in a manner material to the patentability of challenged claims. If a condition in the first part of the framework is satisfied and the petitioner fails to make a showing of material error, the Director generally will exercise discretion not to institute *inter partes* review. If reasonable minds can disagree regarding the purported treatment of art or arguments, it cannot be said that the Office erred in a manner material to patentability. At bottom, this framework reflects a commitment to defer to previous Office evaluations of the evidence of record unless material error is shown.

Advanced Bionics, LLC v. Med-El Elektromedizinische Geräte GMBH, IPR2019-01469, Paper 6 at 8-9 (PTAB Feb. 13, 2020) (precedential). The Board further explained that *Becton, Dickinson* factors (a), (b), and (d) provide insight into whether the same or substantially the same art or arguments was previously presented to the Office, and *Becton, Dickinson* factors (c), (e), and (f) provide insight into whether the petitioner has shown the Office materially erred. *Id.* at 10-11; *see*

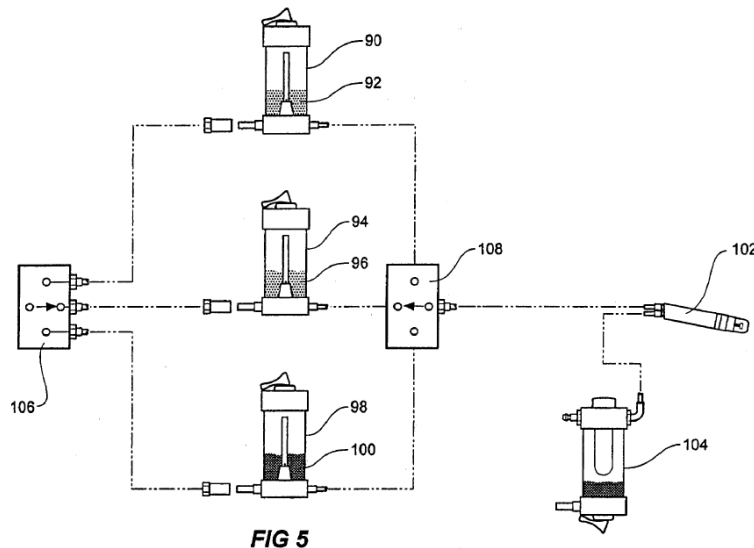
Becton, Dickinson and Co. v. B. Braun Melsungen AG, IPR2017-01586, Paper 8 at 17 (PTAB Dec. 15, 2017) (precedential). Here, applying the *Becton, Dickinson* factors under the *Advanced Bionics* framework supports denial of the Petition under Section 325(d).

A. *Advanced Bionics* 1A – the same or substantially the same art

Becton, Dickinson factor (a)—“the similarities and material differences between the asserted art and the prior art involved during examination”—and *Becton, Dickinson* factor (b)—“the cumulative nature of the asserted art and the prior art involved during examination”—bear on whether the same or substantially the same art was previously presented to the Office. *Id.* Here, the Examiner already considered the *exact* primary references, Karasiuk and Greenberg, Eunsung relies on. Eunsung argues the Examiner did not consider secondary references Palmer and Trueba. Pet., 95. However, there are no material differences between the relied-on teachings of Palmer and Trueba and the prior art the Examiner already considered. And to the extent Eunsung relies on any teachings of Palmer or Trueba that goes beyond Karasiuk and Greenberg, such teachings are cumulative of prior art the Examiner already considered.

Eunsung cannot allege Palmer discloses multiple skin-treatment containers because Palmer discloses dental-irrigant containers. Eunsung relies on Palmer more generally, as allegedly disclosing multiple treatment containers and container-

selection structure. But that alleged disclosure is not materially different than the disclosure of Greenberg—which the Examiner considered—of a valve 108 that connects one of multiple containers to select from “different particles to use in a micro-dermabrasion machine.”



EUNSUNG-1006, Fig. 4, [0073]-[0077]. Moreover, Greenberg’s containers are more closely related to the claimed invention than Palmer’s. As explained above, Greenberg does not disclose the claimed invention, at least because its containers store dry particles rather than fluid. But, unlike Palmer, Greenberg is at least in the field of microdermabrasion rather than the unrelated field of dental irrigation. Thus, if it would have been obvious to combine Karasiuk with the disclosure of multiple treatment containers and container-selection structure to yield the claimed invention, the Examiner would have rejected the claims in view of Karasiuk and Greenberg. The Examiner’s finding that the claims are patentable over Karasiuk and Greenberg

shows that the claims are likewise patentable over Karasiuk and Palmer. EX2001 ¶¶ 45-46.

Eunsung also cannot rely on Trueba to overcome Section 325(d). Eunsung does not even rely on Trueba for Grounds 1A and 2A. And Trueba adds nothing of consequence to Grounds 1B and 2B because Eunsung does not allege that Trueba discloses the limitations missing from Karasiuk and Palmer (Ground 1B) or Greenberg (Ground 2B). Rather, Eunsung relies on Trueba as allegedly disclosing a computer interface with a touchscreen and a display for automatically controlling the device. The Examiner did not find the claims patentable based on those computer-interface limitations. EUNSUNG-1002, 201-204. Indeed, in rejecting some claims, the Examiner found that Shadduck discloses a computer for device control and Duchon discloses a touchscreen and a display. *Id.*, 199-201. Eunsung does not rely on Trueba as allegedly disclosing anything the Examiner had not already found to be taught by the prior art applied during examination. Therefore, Trueba's teachings do not call into question the Examiner's patentability findings. EX2001 ¶ 47.

Eunsung's reliance on the same or substantial the same art as was previously presented to the Office, as demonstrated above, is sufficient to satisfy the first step of the *Advanced Bionics* framework. Moreover, Eunsung undoubtedly knew its reliance on primary references it acknowledges the Examiner considered during

examination satisfies the first step. Therefore, Eunsung was required to proceed to step two and show in the Petition that the Office erred in a manner material to the patentability of challenged claims.

B. *Advanced Bionics* 1B – the same or substantially the same arguments

Becton, Dickinson factor (d)—“the extent of the overlap between the arguments made during examination and the manner in which [Eunsung] relies on the prior art of Patent Owner distinguishes the prior art”—bears on whether the same or substantially the same arguments were previously presented to the Office. IPR2017-01586, Paper 8 at 17. It is not necessary to determine whether the same or substantially the same arguments were previously presented to the Office because Eunsung’s reliance on the same or substantially the same art previously presented to the Office is enough to satisfy the first step of *Advanced Bionics*. Nevertheless, Eunsung’s reliance on its asserted prior art overlaps significantly with arguments implicitly made in the Examiner’s finding that the claims are patentable over the prior art of record.

For example, Eunsung argues it would have been obvious to modify Karasiuk’s single-container microdermabrasion device to include the multiple selectable containers of Palmer to yield the claimed invention. However, the Examiner’s findings that the prior art of record, including Karasiuk and Greenberg, does not make obvious the claimed multi-container devices (*see* EUNSUNG-1002,

201-204), necessarily implies the Examiner considered and rejected the argument that it would have been obvious to modify a single-container microdermabrasion device to include multiple selectable containers to yield the claimed invention.

Eunsung also argues Greenberg's containers of dry particles satisfy the limitations requiring multiple containers of treatment fluids. But the Examiner found that Coleman's container of abrasive material such as rock salt does not contain fluid (*see* EUNSUNG-1002, 203), necessarily implying the Examiner considered and rejected the argument that dry particles can be a treatment fluid. Accordingly, in view of the significant overlap between Eunsung's reliance on its asserted prior art and arguments the Examiner implicitly considered and rejected, Eunsung relies on the same or substantially the same arguments previously presented to the Office, satisfying the first step of *Advanced Bionics*.

C. *Advanced Bionics 2* – Eunsung fails to show the Office erred in a manner material to the patentability of challenged claims

As explained above, because Eunsung undoubtedly knew its Petition satisfies the first step of *Advanced Bionics*, Eunsung was required to proceed to the second step and show in the Petition that the Office erred in a manner material to the patentability of challenged claims. Eunsung failed to show in the Petition that the Office made any such material error.

Becton, Dickinson factors (c), (e), and (f) related to whether Eunsung has demonstrated a material error by the Office. *Advanced Bionics*, IPR2019-01469, Paper 6 at 10. With respect to factor (c)—“the extent to which the asserted art was evaluated during examination, including whether the prior art was the basis for rejection”—Eunsung argues Karasiuk and Greenberg were cited in an IDS but “not addressed substantively during examination.” Pet., 95. However, even when “the record of the Office’s previous consideration of the art is not well developed or silent, then a petitioner” must still “show the Office erred by overlooking something persuasive under factors (e) and (f).” *Advanced Bionics*, IPR2019-01469, Paper 6 at 10. Eunsung failed to show any such error.

With respect to *Becton, Dickinson* factor (e)—“whether Petitioner has pointed out sufficiently how the Examiner erred in its evaluation of the asserted prior art” (IPR2017-01586, Paper 8 at 18)—Eunsung merely asserts that “[t]o the extent Karasiuk and Greenberg were previously considered, the Examiner erred in overlooking the teachings cited in the Petition.” Pet., 96. That conclusory assertion is pure speculation, supported by no evidence. Nothing in the prosecution history even suggests the Examiner overlooked, ignored, or misapplied the teachings of Karasiuk, Greenberg, or the other prior art of record. Moreover, even if a reasonable mind could interpret the prosecution history as suggesting the Examiner may have overlooked any prior-art teachings, a reasonable mind could also interpret the

prosecution history as showing that the Examiner considered Karasiuk and Greenberg, along with the other prior art of record, and determined that the claims would not have been obvious over any combination of that art. In that case, where “reasonable minds can disagree regarding the purported treatment of art or arguments, it cannot be said that the Office erred in a manner material to patentability.” *Advanced Bionics*, IPR2019-01469, Paper 6 at 9. EX2001 ¶ 48.

With respect to *Becton, Dickinson factor (f)*—“the extent to which additional evidence and facts presented in the Petition warrant reconsideration of the prior art or arguments” (IPR2017-01586, Paper 8 at 18)—Eunsung merely argues the “Examiner did not have the benefit of considering” Karasiuk and Greenberg “in combination with Palmer or Trueba.” Pet., 96. However, as explained above, the Palmer teaching Eunsung relies on—multiple selectable containers for dental irrigation—is at best cumulative, and indeed, less relevant, than Greenberg’s teaching of multiple selectable containers for microdermabrasion. And the Trueba teaching Eunsung relies on—a computer interface with a touchscreen and a display for automatically controlling the device—is not only (1) irrelevant to the reasons the claims were allowed during examination and are patentable over the art asserted in this IPR, but also (2) cumulative of the Shadduck and Duchon references the Examiner applied against some of the claims.

Accordingly, Eunsung has not shown the Examiner materially erred in allowing the claims over Karasiuk, Greenberg, and the other prior art of record. Therefore, the Board should defer to the Examiner's patentability finding by denying the Petition under Section 325(d). *Advanced Bionics*, IPR2019-01469, Paper 6 at 9.

VIII. CONCLUSION

For the foregoing reasons, HydraFacial respectfully requests that the Board deny institution of the Petition.

Respectfully submitted,

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Dated: January 15, 2025

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CERTIFICATE OF TYPE-VOLUME LIMITATIONS
UNDER 37 C.F.R. § 42.24

The undersigned certifies that the foregoing **PATENT OWNER PRELIMINARY RESPONSE** contains 13,162 words, exclusive of the parts exempted as provided in 37 C.F.R. §42.24(a), and therefore complies with the type-volume limitations of 37 C.F.R. §42.24(a).

Respectfully submitted,

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CERTIFICATE OF SERVICE

I hereby certify that a true and correct copy of **PATENT OWNER PRELIMINARY RESPONSE** and **EXHIBITS 2001-2047** are being served on January 15, 2025, via email pursuant to 37 C.F.R. § 42.6(e), to counsel for Patent Owner as addressed below:

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