

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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THERABODY, INC.,  
Petitioner,

v.

DATAFEEL INC.,  
Patent Owner.

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PGR2025-00026  
Patent 12,036,174 B1

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Before SCOTT A. DANIELS, GEORGIANNA W. BRADEN, and  
LISA L. TSANG, *Administrative Patent Judges*.

TSANG, *Administrative Patent Judge*.

DECISION  
Denying Institution of Post-Grant Review  
*35 U.S.C. § 324*

## I. INTRODUCTION

Therabody, Inc. (“Petitioner”) filed a Petition (Paper 2 (“Pet.”)), seeking post-grant review of claims 1–19 of U.S. Patent No. 12,036,174 B1 (Ex. 1001 (“the ’174 patent”)). *See* Pet. 1. DataFeel Inc. (“Patent Owner”) filed a Preliminary Response. Paper 8 (“Prelim. Resp.”).

Under 35 U.S.C. § 324(a), a post-grant review may be instituted only if “the information presented in the petition . . . demonstrate[s] that it is more likely than not that at least 1 of the claims challenged in the petition is unpatentable.” Post-grant review is available for patents that issue from applications that at one point contained at least one claim with an effective filing date on or after March 16, 2013. *See* Leahy-Smith America Invents Act, Pub. L. No. 112-29, 125 Stat. 284 (2011) (“AIA”), §§ 3(n)(1), 6(f)(2)(A).

Upon considering the arguments and evidence, we conclude that the information presented shows it is not more likely than not that at least one challenged claim of the ’174 patent is unpatentable.

### *A. Real Parties in Interest*

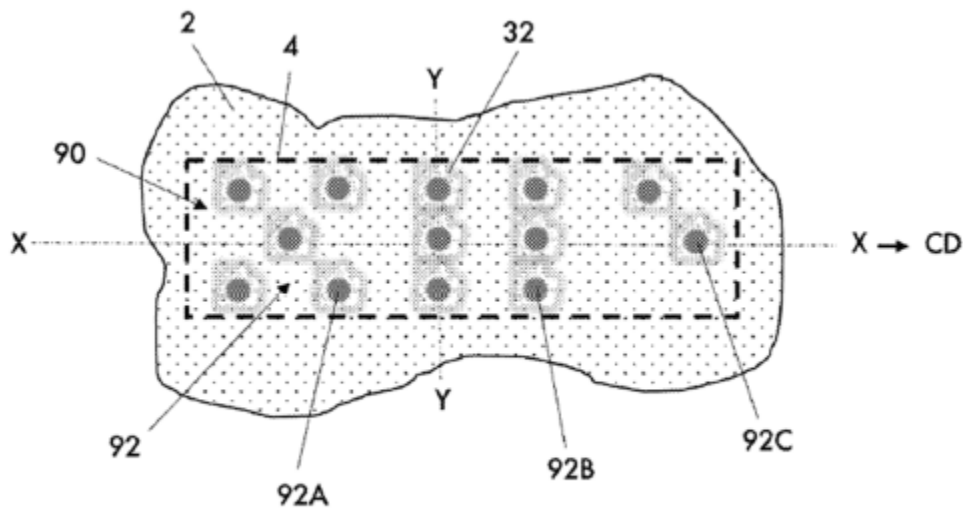
Petitioner identifies itself as the sole real party in interest. Pet. 1. Patent Owner identifies itself and its exclusive licensee, Hyper Ice, Inc., as the real parties in the interest. Paper 3, 2.

### *B. Related Matters*

The parties identify that the ’174 patent is involved in *Hyper Ice, Inc. v. MerchSource, LLC*, 8:24-cv-02092-JWH-(DFMx) (C.D. Cal.) and *Shenzhen Kelaisiman Trading Co., Ltd. v. Hyper Inc, Inc.*, 8:24-cv-01472-JWH-(DFMx) (C.D. Cal). Pet. 1; Paper 3, 2.

*C. The '174 Patent (Ex. 1001)*

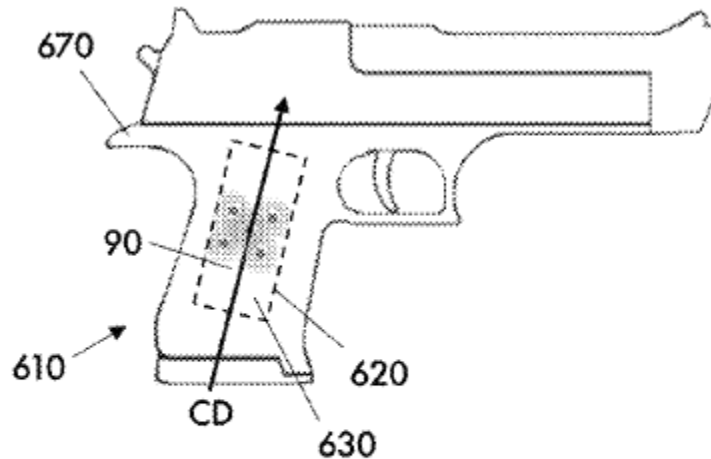
The '174 patent is titled “Communication Devices, Methods, and System” and provides a device having, in part, energy generator elements that “may be independently operable to convert electricity from [a] power source into a plurality of different energy types transmittable towards an area of skin of a user.” Ex. 1001, codes (54), (57). Figure 1A, reproduced below, illustrates an exemplary energy signal. *Id.* at 14:50–54.



**FIG. 1A**

Figure 1A shows energy signal 90 output onto communication area 4 of skin 2. Ex. 1001, 14:50–54. The energy signal includes sets of symbols 92 that are output in specific “pip patterns” of energies 32—depicted as dots in Figure 1A—each symbol being associated with a vital sign of a patient, for example temperature and pulse rate (symbol 92A), respiration rate (symbol 92B), or blood pressure (symbol 92C). *Id.* at 15:1–16.

Figure 7B, reproduced below, illustrates an embodiment of an energy transceiver configured to output an energy signal to the skin. Ex. 1001, 15:32–34, 24:39–44.



**FIG. 7B**

Figure 7B depicts gun-shaped energy transceiver 610 having body 620 and tissue interface 630 on a grip of the gun. *Id.* at Fig. 7B, 28:42–46. When a user holds the grip during use, the tissue interface is pressed against the user’s hand so as to allow the energy signal to be communicated to the skin. *Id.* at 28:46–62.

The ’174 patent explains that the tissue interface may include energy generators to output the energies. Ex. 1001, 16:47–52. Figures 4A–4D of the ’174 patent show details of an energy generator having various generator elements for each communicating a given type of energy to the skin. *Id.* at 12:64–13:8, 17:66–67. For example, Figures 4A and 4B, reproduced below, show the generator delivering an impact energy output and a heat energy output, respectively. *Id.* at Figs. 4A–4B, 13:1–4.

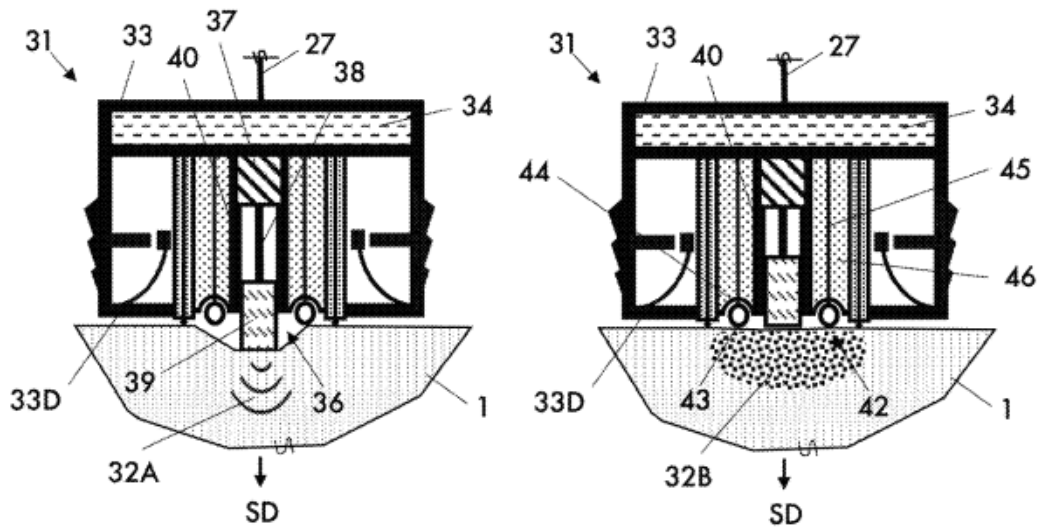


FIG. 4A

FIG. 4B

As shown, the generator includes, in part, impact generator element 36 (labeled in Figure 4A on the left) “configured to communicate an impact energy 32A to the brain through nerves associated with skin 2,” and heat generator element 42 (labeled in Figure 4B on the right) “configured to communicate a heat energy 32B to the brain through nerves associated with skin 2.” *Id.* at 17:67–18:3, 18:33–35. The impact generator element includes drive mechanism 37 and a motor assembly for translating piston 38 and tissue contact 39 along an axis such that the tissue contact moves between a retracted position and an extended position in contact with the skin. *Id.* at 18:7–25. The heat generator element includes conductor 45, electrical resistor 43 for converting electricity from the conductor into heat energy, heat reflecting groove 44 for directing the heat energy towards the skin, and insulating material 46 that may surround the conductor. *Id.* at 18:39–41, 45–47.

*D. Challenged Claims*

Petitioner challenges claims 1–19 of the '174 patent. Pet. 18–90.

Subsequent to the filing of the Petition, Patent Owner filed a statutory disclaimer under 35 U.S.C. § 253(a) to disclaim claims 1–3 and 5–19 of the '174 patent. Ex. 2006. Because Patent Owner's statutory disclaimer satisfies all regulatory requirements to disclaim claims 1–3 and 5–19, we do not consider Petitioner's challenges to those claims. *See id.*; 37 C.F.R. § 1.321(a); *General Elec. Co. v. United Techs. Corp.*, IPR2017-00491, Paper 9 (PTAB July 6, 2017) (precedential).

Dependent claim 4 is the sole remaining challenged claim. We reproduce independent claim 1, from which claim 4 depends, and claim 4 as follows:

1. A treatment device, comprising:

a body provided with a processing unit and a power source; and

a plurality of energy generator elements being independently operable to convert electricity from the power source into a plurality of different energy types transmittable towards an area of skin of a user, the plurality of energy generator elements being arranged coaxially about an axis,

wherein the body includes a grip arranged to be grasped by a hand of the user applying a gripping force to maintain the plurality of energy generator elements on or adjacent the area of skin,

wherein the plurality of energy generator elements includes a first energy generator element and a second energy generator element, and wherein the first energy generator element is an impact generator element having a tissue contact surface that is linearly actuatable along the axis to contact and cause corresponding physical movement of the area of skin.

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4. The treatment device of claim 1, wherein the second energy generator element includes a reflecting groove circumferentially arranged about the axis, the reflecting groove defining a concave shape arranged to reflect energy generated from the second energy generator element towards the area of skin.

Ex. 1001, 40:48–67, 41:9–15.

*E. The Alleged Grounds of Unpatentability<sup>1</sup>*

Petitioner asserts that claim 4 is unpatentable on the following grounds (*see* Pet. 27–39, 58–62, 77, 84–92):<sup>2</sup>

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<sup>1</sup> Petitioner asserts in the Petition that claims 1–3, 5, 6, and 8–19 would have been unpatentable over Lee and Barasch; claim 4 would have been unpatentable over Lee, Barasch, and Choi; claim 7 would have been unpatentable over Lee, Barasch, and Rhoades; claims 1–7 and 17–18 would have been unpatentable over Giraud and Choi; claims 1–19 would have been unpatentable for lack of written description support; and claims 1–19 would have been unpatentable for lack of enablement. Pet. 27–92. Because Patent Owner disclaimed claims 1–3 and 5–19, however, we consider the asserted grounds only as to claim 4.

<sup>2</sup> Petitioner supports its challenge with the Declaration of Morten O. Jensen, Ph.D., M.D. (“Dr. Jensen”). Ex. 1002.

<b>Claim(s) Challenged</b>	<b>35 U.S.C. §<sup>3</sup></b>	<b>Reference(s)/Basis</b>
4	103	Lee, <sup>4</sup> Barasch, <sup>5</sup> Choi <sup>6</sup>
4	103	Giraud, <sup>7</sup> Choi
4	112	Written Description
4	112	Enablement

*F. Eligibility for Post-Grant Review*

The AIA’s post-grant review provisions apply to patents that “contain[] or contained at any time . . . a claim to a claimed invention that has an effective filing date . . . that is on or after [March 16, 2013].” AIA §§ 3(n)(1), 6(f)(2)(A) (2011). In addition, “[a] petition for a post-grant review may only be filed not later than the date that is 9 months after the date of the grant of the patent or of the issuance of a reissue patent (as the case may be).” 35 U.S.C. § 321(c) (2012); *see* 37 C.F.R. § 42.202(a) (2023). Petitioner has the burden of demonstrating eligibility for post-grant review. *See Mylan Pharms. Inc. v. Yeda Res. & Dev. Co.*, PGR2016-00010, Paper 9 at 10 (PTAB Aug. 15, 2016)

Petitioner certifies that the ’174 patent is available for post-grant review. Pet. 2–3. Petitioner filed the Petition within nine months of

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<sup>3</sup> The AIA amended 35 U.S.C. §§ 102, 103, and 112. Because the ’174 patent claims priority to an application filed after the effective dates of the relevant amendments, we refer to the AIA versions. *See* Ex. 1001, codes (22), (63), (60).

<sup>4</sup> Korean Unexamined Application Publication No. 10-2001-0008111, published February 5, 2001 (Ex. 1005). Petitioner filed a certified English translation of Lee (Ex. 1006).

<sup>5</sup> U.S. Patent Application Publication No. 2016/0310353 A1, published October 27, 2016 (Ex. 1007).

<sup>6</sup> Korean Patent No. 10-1123926, issued February 28, 2012 (Ex. 1008). Petitioner filed a certified English translation of Choi (Ex. 1009).

<sup>7</sup> U.S. Patent Application Publication No. 2015/0305969 A1 (Ex. 1011).

the '174 patent's issue date, and the earliest possible priority date of the '174 patent is after March 16, 2013 (the effective date for the first inventor to file provisions of the Leahy-Smith America Invents Act). Ex. 1001, codes (45) (showing an issue date of July 16, 2024), (22) (showing a filing date of December 1, 2023), (63) (indicating that the '174 patent is a continuation of several U.S. applications and a PCT application, the earliest of which was filed on October 22, 2018), (60) (identifying related Provisional Application Nos. 62/676,949 and 62/575,951, filed May 26, 2018 and October 23, 2017, respectively); Paper 1, 1 (according the Petition a filing date of January 17, 2025). Accordingly, we determine that the '174 patent is eligible for post-grant review.

## II. ANALYSIS

### *A. Legal Standards*

In a post-grant review, the petitioner has the burden from the onset to show with particularity why the patent it challenges is unpatentable. *See* 35 U.S.C. § 322(a)(3) (requiring post-grant review petitions to identify “with particularity . . . the evidence that supports the grounds for the challenge to each claim”); *cf. Harmonic Inc. v. Avid Tech., Inc.*, 815 F.3d 1356, 1363 (Fed. Cir. 2016) (“[I]t was [Petitioner’s] burden to explain to the Board how [the combination of prior art] rendered the challenged claims unpatentable.”).

A patent claim is unpatentable under 35 U.S.C. § 103 if the differences between the claimed invention and the prior art are such that the claimed invention, as a whole, would have been obvious before the effective filing date of the claimed invention to a person having ordinary skill in the art to which the claimed invention pertains. 35 U.S.C. § 103; *KSR Int’l Co.*

*v. Teleflex Inc.*, 550 U.S. 398, 406 (2007). The legal question of obviousness is resolved on the basis of underlying factual determinations including (1) the scope and content of the prior art; (2) any differences between the claimed subject matter and the prior art; (3) the level of ordinary skill in the art; and (4) when in evidence, objective evidence of nonobviousness.<sup>8</sup> *Graham v. John Deere Co. of Kan. City*, 383 U.S. 1, 17–18 (1966). One seeking to establish obviousness based on more than one reference must articulate sufficient reasoning with rational underpinnings to combine teachings. *See KSR*, 550 U.S. at 418.

The test for compliance with the written description requirement is “whether the disclosure of the application relied upon reasonably conveys to those skilled in the art that the inventor had possession of the claimed subject matter as of the filing date.” *Ariad Pharms., Inc. v. Eli Lilly & Co.*, 598 F.3d 1336, 1351 (Fed. Cir. 2010) (en banc). One shows possession “by such descriptive means as words, structures, figures, diagrams, formulas, etc., that fully set forth the claimed invention. Although the exact terms need not be used *in haec verba*, . . . the specification must contain an equivalent description of the claimed subject matter.” *Lockwood v. Am. Airlines, Inc.*, 107 F.3d 1565, 1572 (Fed. Cir. 1997) (citation omitted).

“[T]o be enabling, the specification of a patent must teach those skilled in the art how to make and use the full scope of the claimed invention without ‘undue experimentation.’” *Trs. of Boston Univ. v. Everlight Elecs. Co.*, 896 F.3d 1357, 1362 (Fed. Cir. 2018) (citations omitted). We consider

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<sup>8</sup> The current record does not include allegations or evidence of objective indicia of nonobviousness.

certain factors to determine whether a disclosure satisfies the enablement requirement, including:

(1) the quantity of experimentation necessary, (2) the amount of direction or guidance presented, (3) the presence or absence of working examples, (4) the nature of the invention, (5) the state of the prior art, (6) the relative skill of those in the art, (7) the predictability or unpredictability of the art, and (8) the breadth of the claims.

*In re Wands*, 858 F.2d 731, 737 (Fed. Cir. 1988).

*B. Level of Ordinary Skill in the Art*

Relying on the Declaration of Mr. Jensen for support, Petitioner contends a person of ordinary skill in the art (“POSITA”) would have had a bachelor’s degree in biomedical engineering, or a related field, and two-to-three years of experience in the research, design, development, or testing of electromechanical treatment devices, with additional education substituting for experience and vice versa. A higher level of education or skill might make up for less experience, and vice versa.

Pet. 13 (citing Ex. 1002 ¶ 40).

Patent Owner, on the other hand, submits that a person of ordinary skill in the art would have had “a working knowledge of product development and would likely have a degree in engineering and/or industrial design and/or at least three to five years of experience in conceiving, designing, engineering, and/or modifying such products and devices.” Prelim. Resp. 4–5.

For purposes of this Decision, we adopt the level of ordinary skill in the art articulated by Petitioner because, based on the current record, it is consistent with our review and understanding of the technology and descriptions in the ’174 patent and prior art of record. *Okajima v. Bourdeau*,

261 F.3d 1350, 1355 (Fed. Cir. 2001). We note, however, that our analysis below would be the same regardless of whether we adopt Petitioner’s or Patent Owner’s proffered level of skill in the art.

### *C. Claim Construction*

We apply the claim construction standard used to construe the claims in a civil action under 35 U.S.C. § 282(b), as articulated in *Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005) (en banc). 37 C.F.R. § 42.100(b). Under the *Phillips* standard, claim terms must be given “the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention.” *Phillips*, 415 F.3d at 1313.

Petitioner and Patent Owner agree that no claim terms need construction. Pet. 14; Prelim. Resp. 6.

After reviewing the evidence and arguments presented by the parties, we determine that it is not necessary to expressly construe any claim terms because doing so would not change the outcome of our analysis below. *See Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co.*, 868 F.3d 1013, 1017 (Fed. Cir. 2017) (noting that “we need only construe terms ‘that are in controversy, and only to the extent necessary to resolve the controversy’”) (quoting *Vivid Techs., Inc. v. Am. Sci. & Eng'g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999)).

### *D. Summary of Asserted Prior Art*

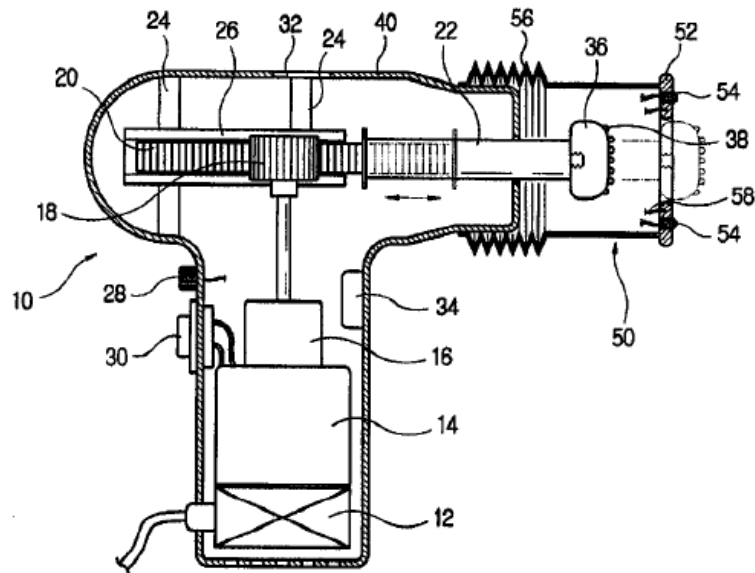
#### *1. Lee (Exs. 1005, 1006)*

Lee is titled “Automatic Percussion Massager” and provides a portable massager “adapted to provide a certain pressure impact to the human body to facilitate recovery from fatigue or breakdown of body fat.”

Ex. 1006, code (54), Abstr. In addition to providing pressure, Lee's massager "allows the massaged area to be steamed to a predetermined temperature to further enhance the effectiveness of the massage." *Id.* ¶ 7.

Figure 1, reproduced, is a cross-sectional view of an exemplary automatic percussion massager. Ex. 1006 ¶ 10.

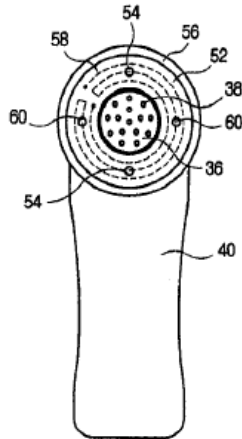
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The massager shown in Figure 1 includes massager body 10 and protective cover 50. *Id.* ¶ 11. The massager body has a T-shape and includes, in part, motor-driven linearly reciprocating massager rod 22 having massaging ball 36 at an end of the massager rod for contacting and massaging the human body. *Id.* ¶¶ 12, 14–15. The protective cover extends from the massager body and includes human body contact member 52 at a distal end "in direct contact with the human body." *Id.* at Fig. 1, ¶ 16. The massaging ball reciprocates outwardly through the body and the protective cover, which can be length-adjusted to modify a degree of impact of the massaging ball on the human body. *Id.* at Fig. 1, ¶¶ 16–17.

Figure 3, reproduced below, is a side view of the automatic percussion massager. Ex. 1006 ¶ 10.

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As Figures 1 and 3 show, the human body contact member further includes heat wire 58 and temperature sensor 60. *Id.* at Figs. 1, 3, ¶ 18. Lee explains that “[t]he human body contact member (52) . . . is configured to perform a compress by applying a predetermined heat to the body part to be massaged by installing a heat wire (58) that emits a predetermined heat,” and the temperature sensor is “capable of measuring the temperature of the body part being heated by the heat wire (58).” *Id.*

## 2. Barasch (Ex. 1007)

Barasch is titled “Massager Communication Device, System, and Method.” Ex. 1007, code (54). Figure 1, reproduced below, shows a block diagram of components of an exemplary massager. *Id.* at Fig. 1, ¶ 9.

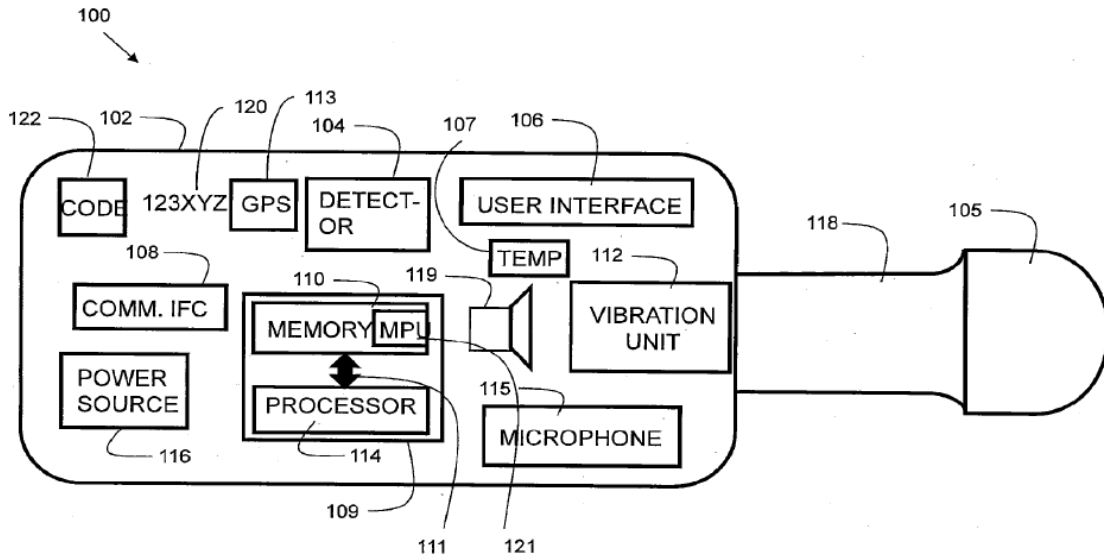


Figure 1

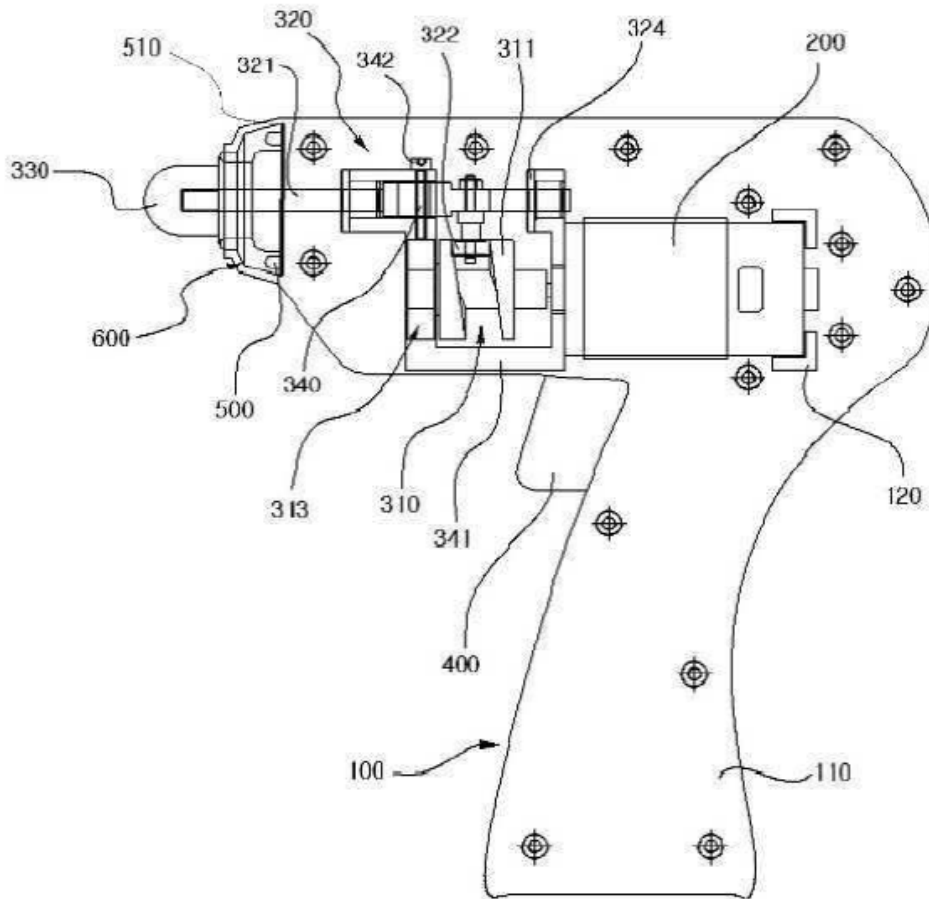
Massager 100, depicted in Figure 1, includes power source 116, communications interface 108, computer 109, microphone 115, heating/cooling mechanism 107, user interface 106, usage parameter detector 104, GPS system 113, and label/tag/identifier 122. *Id.* at Fig. 1. The massager also includes vibration unit 112, which may be mechanically coupled to shaft 118 that is “configured for applying pressure to one or more human body parts.” *Id.* ¶ 40.

3. *Choi (Exs. 1008, 1009)*

*Choi* is titled “Muscle Vibration Massage Device” and relates to a hand-held, gun-shaped massage device that transmits mechanical vibrations to muscles for relaxing them. Ex. 1009, codes (54), (57).

Figure 2, reproduced below, depicts components of the massage device. Ex. 1009, Fig. 2, ¶ 15.

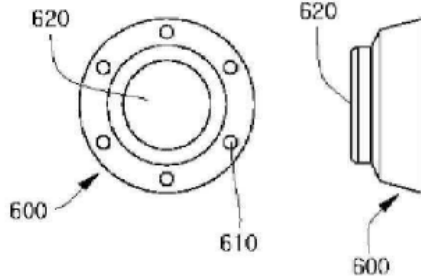
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Choi's massage device includes vibration stimulation part 330 coupled to vibration slide part 320 and drive components for rotating the vibration slide part in a horizontal reciprocating motion. *Id.* ¶¶ 18–19. The vibration stimulation part is exposed outside main body 100 of the massage device so as “to provide vibration stimulation . . . to the muscles of the user.” *Id.* ¶ 19.

The massage device additionally includes infrared lamp housing 600 and infrared LED lamp 500, which are illustrated in Figures 5 and 6 of Choi, respectively, reproduced side-by-side below.

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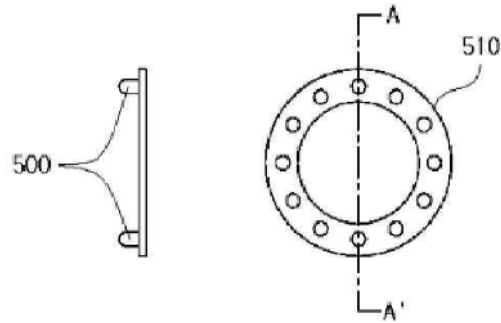


Figure 5 (left) shows a plan view and a side view of the infrared lamp housing. Ex. 1009, Fig. 5, ¶ 15. Figure 6 (right) shows a cross-section view and a plan view of the infrared LED lamp. *Id.* at Fig. 6, ¶ 15. Choi describes the infrared lamp housing as “configured in a circular shape corresponding to the inner surface shape of the main body 100,” and functioning “to fix the infrared LED lamp 500, and to guide the infrared light generated by the infrared LED lamp 500 to irradiate the skin of the user.” *Id.* ¶ 20; *see id.* ¶¶ 46–47.

#### 4. Giraud (Ex. 1011)

Giraud is titled “Massaging Appliance Equipped with Interchangeable and Distinguishable Massaging Heads” and provides a massaging appliance having at least one removable massaging head and control means for controlling drive means so as to control movement of at least two elements of the massaging head. Ex. 1011, codes (54), (57). Figure 1, reproduced below, shows a massaging appliance with various interchangeable massaging heads. *Id.* ¶ 46.

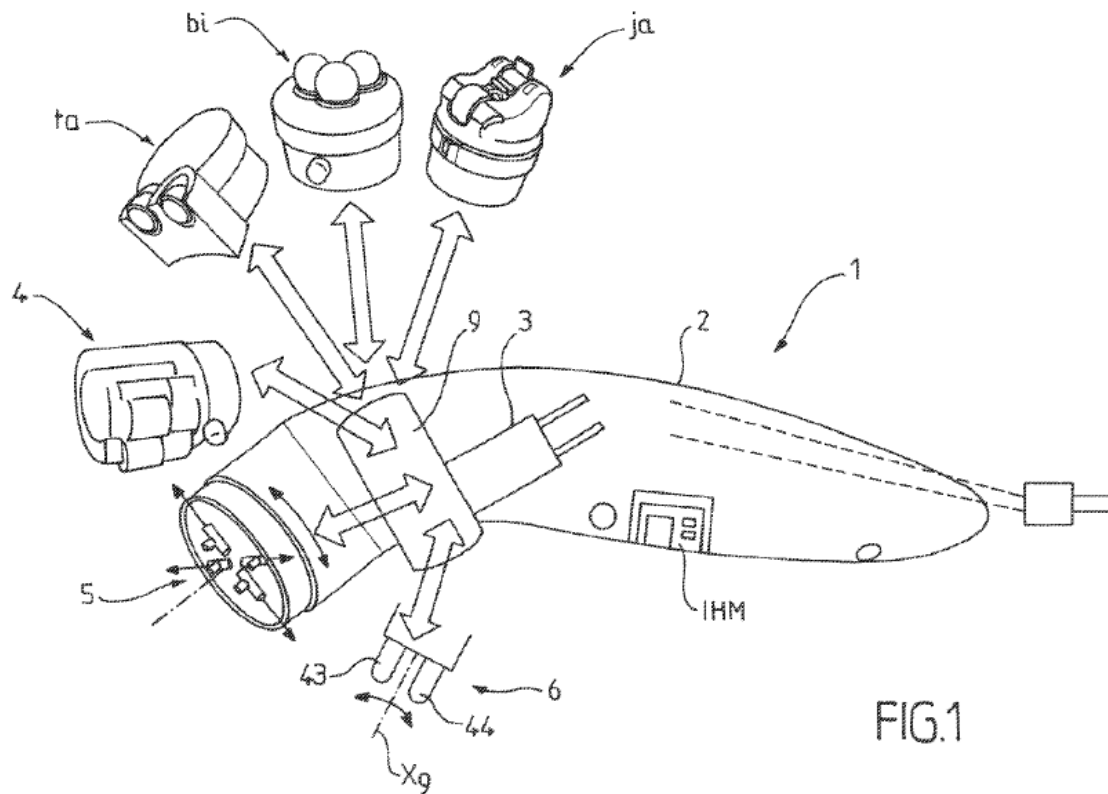


Figure 1 shows massaging appliance 1 having body 2 with removable attachment 9 for receiving various massaging heads 4, 5, 6, ta, bi, ja. *Id.* ¶ 88. Figure 38, reproduced below, shows another embodiment, an exemplary “Tapping Head” massaging appliance. *Id.* ¶ 118.

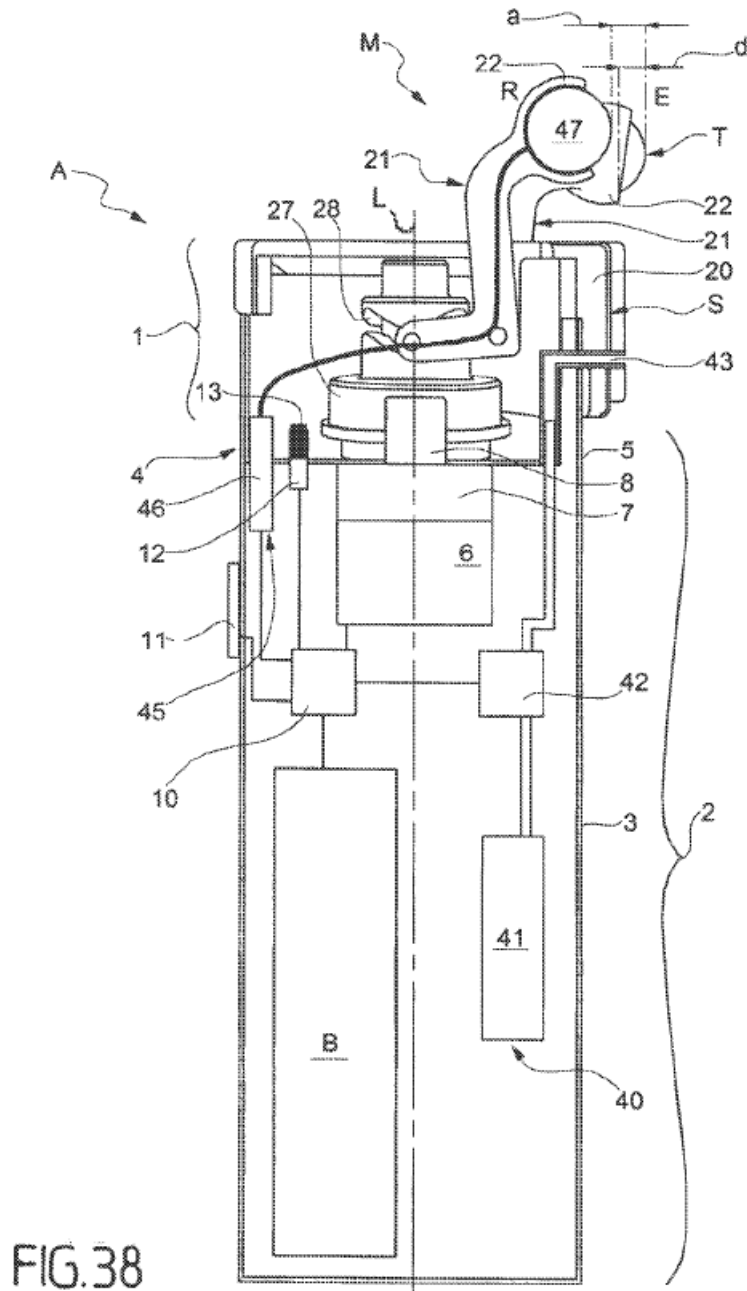


FIG. 38

“Tapping Head” A, depicted in Figure 38, has massaging head 1 “designed to exert a mechanical action on the skin of the user’s face via massaging elements (M) propelled by an electric motor.” *Id.* ¶ 119. In greater detail, Giraud explains that the massaging head performs a tapping massage, such that two massaging fingers 21 of the massaging elements alternately retract

to position R and extend to position E to “imitate[] the act of massage that would be performed using two fingers, such as the index and middle fingers alternately tapping the skin of the face, and particularly the skin around the eyes.” *Id.* ¶¶ 124, 126–127, 132–133.

Giraud further describes using its massaging appliance in massage sessions, for example “anti-aging, anti-wrinkles, rejuvenating and sculpting,” that may include different massages combined with warming or heating light treatments. Ex. 1011 ¶¶ 205–206.

*E. Alleged Obviousness Over Lee, Barasch, and Choi*

Petitioner contends that claim 4 of the ’174 patent would have been obvious under 35 U.S.C. § 103 over Lee, Barasch, and Choi. Pet. 58–61. We begin by summarizing Petitioner’s contentions regarding disclaimed independent claim 1, from which claim 4 depends. We then address Petitioner’s and Patent Owner’s arguments regarding the merits of Petitioner’s challenge to claim 4. As discussed below, we find that Petitioner has not shown sufficiently that the combination of Lee, Barasch, and Choi would have taught or suggested all the required limitations of challenged claim 4.

*1. Independent claim 1*

Petitioner contends that Lee and Barasch teach or render obvious all of the limitations of claim 1. For example, Petitioner argues Lee teaches a treatment device comprising a body (i.e., Lee’s body 10) having a power source (i.e., Lee’s power supply unit 12) and a grip having the recited features. Pet. 31, 37 (annotating Figure 1 of Lee to show Lee’s “grip”). Petitioner relies on Barasch for teaching the body also having a processing unit in the form of a computing device having a processor and memory that

performs certain tasks. *Id.* at 32. Petitioner reasons that modifying Lee to have a computer, as taught by Barasch, “would enhance the performance and functionality of Lee” and “enable more user-friendly and efficient control of the massage operation,” thereby “providing more functionality, flexibility, interactivity, and personalization to the user.” *Id.* at 27–29.

For the limitations “a plurality of energy generator elements being independently operable to convert electricity from the power source into a plurality of different energy types transmittable towards an area of skin of a user, the plurality of energy generator elements being arranged coaxially about an axis” and “wherein the plurality of energy generator elements includes a first energy generator element and a second energy generator element,” Petitioner equates Lee’s (1) “percussive massage element to massage the skin” to a first generator element and (2) “heat wire to warm the skin” to a second energy generator element. Pet. 33. Petitioner contends Lee’s percussive massage element and heat wire are independently operable—via different control elements—and convert electricity from the power source to kinetic energy (by the percussive massage element) and heat energy (by the heat wire) that directly contact a user’s skin. *Id.* at 33–35. Petitioner further avers that an ordinarily skilled artisan viewing Lee’s Figure 2 would have understood that Lee’s percussive massage element and heat wire are arranged coaxially about an axis extending through the center of Lee’s massage ball 36. *Id.* at 35–36. Additionally, Petitioner argues that because Lee explains its massager can be held by hand and further “describes handheld massagers as ‘designed to be used by the practitioner to massage or acupressure the desired area,’” an ordinarily skilled artisan would have understood that Lee’s grip is “arranged to be grasped by a hand

of the user applying a gripping force to maintain the plurality of energy generator elements on or adjacent the area of skin,” as claimed. *Id.* at 36–37.

With respect to claim 1’s final limitation, “wherein the first energy generator element is an impact generator element having a tissue contact surface that is linearly actuatable along the axis to contact and cause corresponding physical movement of the area of skin,” Petitioner contends that the massage ball of Lee’s percussive massage element linearly reciprocates along an axis to impact the skin. Pet. 38–39.

## 2. *Dependent claim 4*

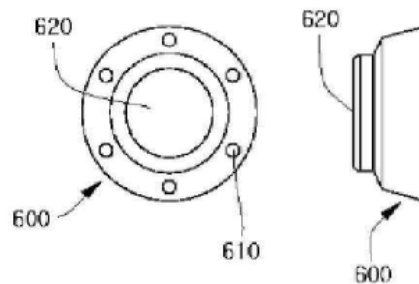
Patent Owner contends Lee, Barasch, and Choi do not teach “[a] reflecting groove defining a concave shape,” as claimed, because Choi teaches convex infrared lamps and a convex infrared housing. Prelim. Resp. 18–20. For the reasons discussed below, we agree with Patent Owner that Petitioner has not shown sufficiently that Lee, Barasch, and Choi would have taught or suggested claim 4’s limitation, “the second energy generator element includes *a reflecting groove . . . defining a concave shape* arranged to reflect energy generated from the second energy generator element towards the area of skin” (emphasis added).

Petitioner relies on Choi for teaching the claimed concave shape of the reflecting groove. Pet. 61–62. In particular, Petitioner argues Choi’s infrared LED lamp 500 is equivalent to the claimed “second energy generator element.” *Id.* at 61 (citing Ex. 1008 ¶49). Petitioner further argues Choi teaches circular or tubular infrared lamp housing 600 that holds the infrared LED lamp via circumferentially spaced lamp fixing parts 610 and directs its light towards a user’s skin. *Id.* (citing Ex. 1008 ¶¶ 20, 46, 48, Fig. 5). According to Petitioner, given Choi’s teachings in this regard, “a

POSITA would have understood that the housing is circumferentially arranged around the central axis and is a concave shape that fits the LED lamp.” *Id.* at 61–62 (citing Ex. 1002 ¶ 197). Dr. Jensen, likewise, cites the above-noted teachings of Choi and opines the same without further substantive explanation, but adds a parenthetical descriptor: “concave (inner circular) shape.” *See* Ex. 1002 ¶ 197.

Petitioner relies solely on Figure 5 and paragraphs 20, 46, 48, and 49 of Choi to support its argument that an ordinarily skilled artisan would have understood Choi’s infrared lamp housing to define a concave shape as claimed. *See* Pet. 61–62. With only this explanation and evidence from Petitioner and Dr. Jensen, however, we cannot not discern how these portions of Choi would have so apprised an ordinarily skilled artisan. For example, the side view of the infrared lamp housing, illustrated in Figure 5 reproduced below, shows the housing having a convex, rather than concave, shape. *See* Ex. 1008, Fig. 5.

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Furthermore, paragraphs 20 and 48 refer to the housing’s “circular” shape and outer periphery and also “tubular” shape. *See id.* ¶¶ 20, 48. But these descriptions, either alone or together with Figure 5, also do not support

adequately a finding that Choi's housing is concave. Choi's teachings in paragraphs 20 and 46 regarding the lamp housing guiding or directing infrared light from the lamp to irradiate the skin of a user, without more, are similarly deficient. *See id.* ¶¶ 20, 46. And although Dr. Jensen appears to equate "concave" with "inner circular," he does not provide the basis for his testimony or explain what "inner circular" means, particularly in the context of distinguishing a convex shape from a concave shape. *See Ex. 1002* ¶ 197. Accordingly, we determine there is insufficient evidence to support Petitioner's conclusory statements that an ordinarily skilled artisan would have understood Choi's infrared lamp housing to define a concave shape as claimed.

### 3. Conclusion

For the foregoing reasons and based on the current record, we determine Petitioner has not demonstrated that it is more likely than not that claim 4 of the '174 patent would have been unpatentable over Lee, Barasch, and Choi.

#### *F. Alleged Obviousness Over Giraud and Choi*

Petitioner contends that claim 4 of the '174 patent would have been obvious under 35 U.S.C. § 103 over Giraud and Choi. Pet. 77. Specifically, Petitioner argues, in full, "Giraud-Choi renders obvious Claim 4 for the same reasons explained in Ground 2 [i.e., Lee, Barasch, and Choi], which also relies on Choi for this claim." *Id.*

For this ground, Patent Owner reiterates its argument that Choi does not teach "the reflecting groove defining a concave shape" as claimed. Prelim. Resp. 20–22.

For the reasons discussed above, we agree with Patent Owner’s argument that Petitioner has not sufficiently shown that Choi teaches the disputed limitation. Accordingly, we determine that Petitioner has not established that it more likely than not that claim 4 would have been unpatentable over the combined teachings of Giraud and Choi.

*G. Alleged Lack of Written Description Support*

Petitioner argues claims 1–19 are unpatentable under 35 U.S.C. § 112 for lacking written description support. Pet. 84–90. In particular, with respect to claim 1, Petitioner contends the Specification of the ’174 patent does not reasonably convey to those of ordinary skill in the art that the inventor had possession of “[a] treatment device” comprising “a plurality of energy generator elements,” as recited in claim 1. *Id.* According to Petitioner, the Specification does not disclose energy generator elements that have only a treatment function, rather than a treatment function and a communication function. *Id.* at 84–85 (citing Ex. 1002 ¶¶ 46–58, 247–250), 88–90. Relatedly, Petitioner avers that the disclosed device and energy generator elements also do not serve a treatment purpose, but only a communication purpose, where the energy generator elements communicate or transmit information. *Id.* at 85–90 (citing Ex. 1001, 1:59–2:61, 12:58–63, 21:56–62, 22:15–22, 29:46–65, 30:3–5, 30:29–33, 30:39–42; Ex. 1002 ¶¶ 248–250).

Patent Owner responds that: (1) the preamble of claim 1 is not limiting; (2) “Petitioner fails to explain the basis for its unfounded contention that the written description must disclose energy generator elements that only provide treatment functionality and no communication functionality;” and (3) the ’174 patent uses the term “communication”

broadly to encompass “the communication of treatments” using heat, impact, electrical, and pressure energies. Prelim. Resp. 8–11 (citing Ex. 1001, 2:5–10, 2:16–20, 9:34–38, 15:46–54, 18:1–7, 18:33–41, 18:62–19:4, 19:25–33).

As an initial matter, and on the current record, we agree with Patent Owner that the preamble of claim 1, “[a] treatment device,” is not limiting. Here, the body of the claims define a structurally complete invention, and the preamble states only a purpose or intended use of the invention. *See* Ex. 1001, 40:48–67; *see also Catalina Mktg. Int’l, Inc. v. Coolsavings.com, Inc.*, 289 F.3d 801, 808 (Fed. Cir. 2002) (quoting *Rowe v. Dror*, 112 F.3d 473, 478 (Fed. Cir. 1997)). Although Petitioner argues even a non-limiting preamble provides context for interpreting the claims and understanding the invention (Pet. 85 n.5), we disagree with Petitioner’s argument that the preamble requires written description support for a device or energy generator elements that provide only treatment and no communication. Notably, the claims do not include any such qualifying or limiting language. *See* Ex. 1001, 40:48–67, 41:9–15. Furthermore, Petitioner does not apprise us of any authority that prohibits a patentee from claiming less—for example, “a treatment device” rather than “a treatment and communication device”—than what is disclosed in the Specification.

We also agree with Patent Owner that the Specification provides sufficient written description support for the recited claim elements, including “energy generator elements,” providing a treatment function. Indeed, the Petition quotes a portion of the ’174 patent that discloses, “[a]lternatively, all or portion of the energies 32 [output from the energy generator elements] may be output toward the bone-facing surface of

element 770 to communicate signals *and/or apply treatments* to the bone.” *See* Ex. 1001, 30:3–5, *cited in* Pet. 87 (emphasis added). And Patent Owner points persuasively to various descriptions in the ’174 patent relating to the energy generator elements outputting heat energy, impact energy, electrical energy, and pressure energy to nerves in skin or tissue, which functions to provide treatment to the skin or tissue. *See, e.g.*, Ex. 1001, 9:34–38, 15:46–54, 18:1–7, 18:33–41, 18:62–19:4, 19:25–33, *cited in* Prelim. Resp. 9–11.

Petitioner does not advance separate arguments relating to claim 4. *See* Pet. 84–90. Accordingly, for the foregoing reasons and based on the current record, we determine that Petitioner has not demonstrated that it is more likely than not that claim 4 of the ’174 patent would have been unpatentable for lacking written description support.

#### *H. Alleged Lack of Enablement*

Petitioner contends claims 1–19 are unpatentable under 35 U.S.C. § 112 for lacking enablement. Pet. 90–92. According to Petitioner, “the specification does not provide sufficient guidance and direction on how to utilize energy generator elements as part of a treatment device.” *Id.* at 91 (citing Ex. 1001, 30:3–5). Petitioner further argues,

[t]he specification does not disclose any details or examples of how such outputting of energies for treatments to the bone would be achieved, what types of energies would be suitable for bone treatment, what types of input data and control signals would be used, what types of bone conditions or diseases would be targeted, or what types of attachment elements would be compatible with such outputting of energies. The specification does not provide any working examples, experimental data, or comparative analysis to support the feasibility and operability of such outputting of energies. Nor does the specification cite

any prior art references or teachings that would enable a POSITA to fill in the gaps and omissions in the disclosure.

*Id.*

Patent Owner asserts that Petitioner’s argument does not address *Wands* factors 1, 4, 5, 6, 7, or 8 and “provides only a brief, conclusory analysis regarding *Wands* factors 2 and 3.” Prelim. Resp. 12. Patent Owner further argues that the ’174 patent is replete with guidance, directions, and examples as to how to use the claimed energy generator elements in the recited treatment device. *Id.* at 13–17 (citing Ex. 1001, Figs. 3A, 4A–4D, 17:11–17, 18:1–7, 18:33–41, 18:62–19:4).

We agree with Patent Owner that Petitioner, at best, addresses only *Wands* factors 2 and 3—“the amount of direction or guidance presented” and “the presence or absence of working examples.” *Wands*, 858 F.2d at 737. Petitioner does not proffer arguments regarding “the quantity of experimentation necessary” (factor 1), “the nature of the invention” (factor 4), “the state of the prior art” (factor 5), “the relative skill of those in the art” (factor 6), “the predictability or unpredictability of the art” (factor 7), or “the breadth of the claims” (factor 8). *See id.*; Pet. 90–92.

With respect to *Wands* factor 2, as Patent Owner points out, the Specification of the ’174 patent provides sufficient structural and implementation details that would have allowed an ordinarily skilled artisan to make and use the invention without undue experimentation. *See, e.g.*, Ex. 1001, Figs. 3A, 4A–4D, 7B, 17:11–19:51. Additionally, regarding *Wands* factor 3, the absence of working examples of the claimed treatment device, alone, does not support a determination of non-enablement, especially where Petitioner does not allege the necessity of a great deal of experimentation, complexity of the invention, a nascent state or

unpredictable nature of the art, and/or low relative skill of artisans. We note, further, that the related art asserted in Petitioner's obviousness grounds, similarly, do not include working examples, which tends to support that working examples would not have been necessary to make and use the invention without undue experimentation. *See generally* Exs. 1005–1009, 1011.

Petitioner does not advance separate arguments relating to claim 4. *See* Pet. 90–92. Given the sufficient structural and implementation details provided in the Specification and figures of the '174 patent, the absence of persuasive explanation as to why working examples would have been important to practicing the claimed invention without undue experimentation, and the lack of arguments or evidence relating to *Wands* factors 1, 4, 5, 6, or 7, we determine Petitioner has not demonstrated that it is more likely than not that claim 4 of the '174 patent would have been unpatentable for lacking enablement.

### III. CONCLUSION

Based on the record before us, we determine the information presented in the Petition does not show it is more likely than not that at least one challenged claim of the '174 patent is unpatentable. Accordingly, we do not institute a post-grant review and deny the Petition.

### IV. ORDER

Accordingly, it is:

ORDERED that the Petition is denied as to all challenged claims, and no post-grant review is instituted.

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