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Sayeeda Mazed
21520 Yorba Linda Blvd.
No.393G
Yorba Linda, CA 92887

EXAMINER

PARK, HAEJIN S

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte SAYEEDA MAZED

Appeal 2019-000359
Application 15/330,358
Technology Center 1600

Before JEFFREY N. FREDMAN, JOHN G. NEW, and JAMIE T. WISZ,
Administrative Patent Judges.

WISZ, *Administrative Patent Judge.*

DECISION ON APPEAL

SUMMARY

Pursuant to 35 U.S.C. § 134(a), Appellant¹ appeals from the Examiner's decision to reject claims 1, 7, 8, 13, 14, and 16–20². We have jurisdiction under 35 U.S.C. § 6(b).

We affirm in part and enter a NEW GROUND of rejection pursuant to 37 C.F.R. § 41.50(b).

CLAIMED SUBJECT MATTER

The claims are directed to personal care devices (or apparatuses) including mechanical and optical components to deliver or activate bioactive compounds for growth and protection of hair and rejuvenation and protection of skin. Spec. ¶ 3. Claim 1, reproduced below, is illustrative of the claimed subject matter:

1. An apparatus comprising:

(a) a spray applicator to spray a bioactive compound, or a botanical compound, or a biologically active molecule, or a liquid for rejuvenation or protection of skin,

wherein the spray applicator comprises an ultrasonic wave generator, or a vibrator,

wherein the spray applicator is activated or set in motion by the ultrasonic wave generator, or the vibrator,

¹ We use the word “Appellant” to refer to “applicant” as defined in 37 C.F.R. § 1.42. Appellant identifies the real party in interest as Dr. Sayeeda Mazed, Ph.D. Appeal Br. 4.

² Claims 2, 5, 9, and 15 were cancelled. Appeal Br. 92, 94, 96 (Claims App'x). The Examiner indicates that claims 3 and 10 are considered patentable. Ans. 3. It does not appear that claims 4, 6, 11, or 12 stand rejected. Final Act. 7–11, 14–19; Adv. Act. 2.

wherein the ultrasonic wave generator, or the vibrator is configured to vibrate at an amplitude and a frequency to generate microbubbles, or nanoscaled bubbles of the bioactive compound, or the botanical compound, or the biologically active molecule, or the liquid,

wherein the said microbubbles, or nanoscaled bubbles are configured for cleaning or treatment of skin; and

(b) a light module, wherein the light module comprises a light emitting diode, or a laser,

wherein the light module activates or photoactivates a bioactive compound, or a botanical compound, or a biologically active molecule, or a liquid for rejuvenation or protection of skin,

wherein the light module provides an optical dose in the range from 0.5 J/cm² to 10 J/cm² in 600-700 nm wavelength range,

or

an optical dose in the range from 0.5 J/cm² to 50 J/cm² in 700-2000 nm wavelength range.

Appeal Br. 91–92 (Claims App’x).

REJECTIONS

The Examiner rejected claims 1, 7, 8, and 13 under 35 U.S.C. § 103 as being obvious over Altshuler³ in view of Peterson.⁴

³ Altshuler et al., US 2011/0046523 A1, published Feb. 24, 2011 (“Altshuler”).

⁴ Peterson, US 2009/0177122 A1, published July 9, 2009 (“Peterson”).

The Examiner rejected claims 14 and 16–20 under 35 U.S.C. § 103 as being obvious over Rabin⁵ in view of Dollar-Wright.⁶

The Examiner rejected claim 16 under 35 U.S.C. § 112(a) as lacking adequate written description.

ISSUES AND ANALYSIS

Obviousness over Altshuler in view of Peterson

The Examiner finds that claims 1, 7, 8, and 13 are rendered obvious by the combined disclosures of Altshuler and Peterson. Final Act. 8–11. We interpret the limitation in claim 1, step (b) in which the light module activates or photoactivates as applying to all of the remaining elements in that clause, including the liquid for rejuvenation or protection of skin. Although the Examiner cites Altshuler for teaching laser/light energy (*id.* at 8), and cites Peterson for teaching a liquid spray that is activated by an ultrasonic wave generator (*id.* at 9), the Examiner does not point to any portion of Altshuler or Peterson which teaches that the “light module activates or photoactivates a bioactive compound, or a botanical compound, or a biologically active molecule, or a liquid for rejuvenation or protection of skin” as recited in claims 1 and 8. The Examiner also finds that Altshuler teaches a “spray cooling means which provides a cooling medium to the skin;” however, the Examiner does not explain how this spray cooling means may be activated by a light module. *Id.* at 8 (citing Altshuler ¶ 48). Therefore, we find that the Examiner has not established a prima facie case

⁵ Rabin et al., US 2010/0106077 A1, published Apr. 29, 2010 (“Rabin”).

⁶ Dollar-Wright, US 2008/0230246 A1, published Sept. 25, 2008 (“Dollar-Wright”).

of obviousness and erred in rejecting claims 1, 7, 8, and 13 as being obvious over Altshuler and Peterson.

Obviousness over Rabin in view of Dollar-Wright

The Examiner finds that claims 14 and 16–20 are rendered obvious by the combined disclosures of Rabin and Dollar-Wright. Final Act. 14–19. The Examiner finds that Rabin teaches a phototherapy light cap for treating the scalp. *Id.* at 14 (citing Rabin, Abstract (57), ¶¶ 7–12). According to the Examiner, the light cap comprises a scalp massager and a light module (LED or laser) that provides 1–10 J/cm² of light at various wavelengths, including 630 nm, 670 nm, and 900 nm. Final Act. 14 (citing Rabin, Title (54), Abstract (57), ¶¶ 7–12, 38, 44, 77). The Examiner further finds that Rabin teaches “a variety of liquid applications” including “scalp dye which may be heat-activated and/or heat-cured substances, light-activated and/or light-cured substances” and also teaches that the light cap can “deliver heat & illumination to physically and or chemically change cosmetic formulations to provide a suitable cosmetic effect.” *Id.* (citing Rabin ¶¶ 44, 51–52). The Examiner further finds that Rabin teaches bristles that touch the scalp. *Id.* (citing Rabin ¶¶ 55–57, Figs. 3, 4).

The Examiner concedes that Rabin does not expressly teach that the bristles that touch the scalp comprise a massaging device or that the massaging device is mechanically rotated in a clockwise, counter clockwise, or circular motion; however, the Examiner relies on Dollar-Wright for this disclosure. *Id.* Specifically, the Examiner finds that Dollar-Wright teaches a “cord-less hand-held device [that] provides both a rotary movement and a vibration both together or each individually,” including a brush head with

bristles for human hair. *Id.* (citing Dollar-Wright, Title (54), Abstract (57), ¶¶ 7, 10, 53, 55, 61, 77, Fig. 5, claims 1, 4, 6).

The Examiner concludes:

It would have been prima facie obvious to one having ordinary skill in the art at the time of the invention to combine the teachings of Rabin and Dollar-Wright and devise Rabin's bristles to vibrate and rotate and provide massage onto the scalp as recited in the instant claim(s). The skilled person would have been motivated to do so because Rabin (i) expressly teaches combining vibration or massage therapies with the light cap (¶¶0009, 0044) and bristles that touch the scalp (Figs. 3, 4, and accompanying text), (ii) Dollar-Wright specifically teaches massaging the human hair with bristles that brush hair and massage scalp simultaneously, and (iii) the skilled the person would have recognized that using Rabin's bristles to deliver vibration or rotating massaging effect, i.e., as part of the massaging device, avoids bulk and simplifies the design and manufacturing of Rabin's light cap.

Id. at 14–15 (emphasis omitted).

Appellant asserts that the combination of Rabin and Dollar-Wright fail to teach several limitations of the claims and that there was no reasonable expectation of success in combining the prior art to arrive at the claimed invention. Appeal Br. 45–46, 82–87. We address each of these arguments below.

First, Appellant asserts that Rabin does not teach that the bristles are “a biocompatible material, or a biocomposite material, or nylon” and that the Examiner used impermissible hindsight bias. *Id.* at 36. In response, the Examiner explains that, because Rabin teaches treating the human scalp, the skilled person would have understood that all components, including the bristles, should be made of biocompatible material. Ans. 9 (citing Rabin, Figs. 3–4). We agree with the Examiner that one of ordinary skill in the art

would have found it obvious that bristles, which touch the human scalp, should be made of a material that is compatible with skin.

Appellant also asserts that Dollar-Wright does not teach “wherein the massaging device for skin, or the bristles are mechanically rotated in a clockwise motion, or a counter clockwise motion, or a circular motion.”

Appeal Br. 36. In response, the Examiner explains that Dollar-Wright teaches a hand-held device having both a rotary movement and vibration and includes a brush with bristles. Ans. 10 (citing Dollar-Wright, Abstract (57), ¶¶ 7, 10, 53, 55, 61, 77, Fig. 5, claims 1, 4, 6). We agree with the Examiner that the disclosure in Dollar-Wright of a rotary movement would include a clockwise, counter clockwise, and/or circular motion.

Appellant further asserts that Dollar-Wright does not disclose “wherein the massaging device for skin, or the bristles are mechanically vibrated within a range of frequencies.” Appeal Br. 83. The Examiner responds that Dollar-Wright teaches a hand-held device having both a rotary movement and vibration and that “[v]ibration inherently means repetitive movement, possessing a frequency range, however minute.” Ans. 10. We agree with the Examiner that, if something vibrates, it necessarily has a frequency of some amount. Although Appellant argues that this term means a “range of frequencies (e.g., from 40 Hz to 100 Hz) suitable for skin rejuvenation” (Reply Br. 45), these frequencies are not recited in the claim. Appellant’s attempt to argue features not recited in the claims is unpersuasive. *See Phillips v. AWH Corp.*, 415 F.3d 1303, 1323 (Fed. Cir. 2005) (en banc) (explaining it is improper to “import[] limitations from the specification into the claims”).

Appellant also contends that Rabin does not teach an optical dose from 0.5 J/cm² to 10 J/cm² or wavelength ranges of 600–700 nm or 700–2000 nm because it only shows discrete wavelengths at 630 nm, 670 nm, 800 nm, and 900 nm and does not specify Appellant’s entire range of 0.5 J/cm² to 10 J/cm². Appeal Br. 82–83. We agree with the Examiner that Rabin discloses optical doses and wavelengths within the claimed ranges; therefore, it renders obvious this limitation. *See Atlas Powder Co. v. Ireco, Inc.*, 190 F.3d 1342, 1346 (Fed. Cir. 1999) (explaining that when a claim defines a composition in terms of ranges of elements, any single prior art reference that falls within each of the ranges anticipates).

Appellant also asserts that the Examiner did not define the person of ordinary skill in the art. Appeal Br. 43–46. We agree with the Examiner that the cited prior art implicitly defines the scope of the level of ordinary skill in the art. Ans. 12; *see Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir. 2001) (Explaining that specific findings regarding ordinary skill level are not required “where the prior art itself reflects an appropriate level and a need for testimony is not shown.”) (quoting *Litton Indus. Prods., Inc. v. Solid State Sys. Corp.*, 755 F.2d 158, 163 (Fed. Cir. 1985)). The person of ordinary skill in the art is a hypothetical person who is presumed to have known the relevant art at the time of the invention. *Daiichi Sankyo Co. v. Apotex, Inc.*, 501 F.3d 1254, 1256 (Fed. Cir. 2007). We also agree that Appellant does not explain how this alleged failure to define a person of ordinary skill in the art led to a faulty finding of obviousness; therefore, we are not persuaded by Appellant’s arguments in this regard.

Appellant also asserts that “[c]ombined Phototherapy & Heat Activation/Heat Curing on Tissue taught by Rabin . . . teaches away from

Appellant’s Claimed invention of Low Intensity Light based Photochemistry (including Free Radicals).” Appeal Br. 53. Similarly, Appellant argues that Rabin changes the “intended purpose/operating principle of Appellant’s Claimed Invention of Low Intensity Light based Photochemistry (including Free Radicals).” *Id.* at 55. We agree with the Examiner that, without more specific information or evidence regarding how Rabin allegedly teaches away from or changes the intended purpose of the claimed invention, these statements are merely conclusory. Ans. 13. Furthermore, as stated by the Examiner, the claims do not recite any specific limitation regarding free radicals. *Id.* Therefore, we are not persuaded by Appellant’s arguments regarding teaching away or changing the intended purpose of the claimed invention.

We are similarly not persuaded by Appellant’s arguments regarding a lack of a reasonable expectation of success because Appellant’s arguments are merely conclusory and do not provide any evidence or arguments to counter the Examiner’s analysis or conclusions in establishing a prima facie case of obviousness. “Obviousness does not require absolute predictability of success. . . . For obviousness under § 103, all that is required is a reasonable expectation of success.” *In re O’Farrell*, 853 F.2d 894, 903–04 (Fed. Cir. 1988).

With regard to claim 20, which recites an “electromagnetically coupled wireless charger through air,” Appellant contends that the Examiner used hindsight bias in taking official notice that wireless coupling of a device to its electrical charger has been widely known, e.g., cordless drills with rechargeable batteries that charge on a base. Appeal Br. 31–35. In making a rejection, . . . an examiner may “take notice of facts beyond the

record which, while not generally notorious, are capable of such instant and unquestionable demonstration as to defy dispute.” *In re Ahlert*, 424 F.2d 1088, 1091 (CCPA 1970). Although Appellant asserts that the Examiner used hindsight bias, Appellant does not appear to dispute that the wireless coupling described by the Examiner was widely known, nor does Appellant explain how its invention is different than the types of apparatuses for which the Examiner took official notice. Therefore, we find that the Examiner’s official notice is correct in our consideration of the obviousness rejection of this dependent claim. *See In re Fox*, 471 F.2d 1405, 1407 (CCPA 1973) (affirming rejection based on official notice where “appellant has not denied the existence of the facts on which the examiner rested his obviousness rejection nor the added facts of which the board took judicial notice”).

For the reasons described herein and those already of record, we affirm the Examiner’s rejection of claim 14. Other than the judicial notice argument regarding claim 20 discussed above, claims 16–20 are not argued separately, and fall with claim 14. *See* 37 C.F.R. § 41.37(c)(1)(iv).

Written Description

The Examiner finds that claim 16 lacks adequate written description. Ans. 4. Claim 16 recites a massaging device in which “the bristles are mechanically vibrated within a range of frequencies from 40 Hz to 100 Hz.” Appeal Br. 96 (Claims App’x). The Examiner finds that the recited range of bristle vibration frequencies is not supported in the Specification. Adv. Act. 2. Appellant does not contest this rejection (Reply Br. 6), and we agree that there does not appear to be written description support in the Specification for this range of frequencies; therefore, we affirm the rejection of claim 16 for lack of written description.

NEW GROUND OF REJECTION

We enter the following new ground of rejection for independent claims 1 and 8 under the provisions of 37 CFR § 41.50(b).

Claims 1 and 8 are rejected under 35 U.S.C. § 103(a) as being obvious over Altshuler, Peterson, and Rabin. As discussed *supra*, we find that the combination of Altshuler and Peterson fails to teach the limitation wherein the “light module activates or photoactivates a bioactive compound, or a botanical compound, or a biologically active molecule, or a liquid” However, we find that Rabin teaches this limitation by disclosing a phototherapy light cap for treating the scalp, including LEDs or lasers, wherein the therapy can include “scalp dye which may be heat activated and/or heat-cured substances, light-activated and/or light-cured substances.” Rabin ¶¶ 8, 44, 52. The phototherapy cap can also deliver heat and illumination “to physically or chemically change cosmetic formulations to provide a suitable cosmetic effect.” *Id.* ¶ 52.

We conclude that it would have been obvious to a person of ordinary skill in the art to combine the teachings of Rabin with Altshuler and Peterson because all three references teach the use of laser/light and/or ultrasonic wave energy for cosmetic treatment of the skin. Altshuler teaches the use of laser/light and/or ultrasound energy to improve the appearance of cellulite while Peterson teaches treating inflammatory skin disorders using ultrasonic energy, which may be delivered via a liquid spray such as a medicament. Altshuler ¶¶ 24, 48, 50, 6, 68; Peterson, Abstract (57), ¶¶ 9, 40, 44, 52. Peterson also teaches that “the liquid mist is generated by contacting, dripping, or otherwise delivering a liquid to a portion of a vibrating ultrasound transducer, for example, a portion of the transducer tip, to create

a spray.” Peterson ¶ 119. We further conclude that a person of ordinary skill in the art would have been motivated to combine Rabin’s teaching of the use of light to activate a therapeutic substance with the teachings in Altshuler and Peterson of the use of ultrasonic wave generators or vibrators, to achieve improved cosmetic treatment of the skin. Consequently, we conclude that claims 1 and 8 are unpatentable under 35 U.S.C. § 103(a) as obvious over Altshuler, Peterson, and Rabin.

We have entered the new ground only for independent claims 1 and 8 and leave it to the Examiner to evaluate the patentability of the other claims in view of only these references or in combination with other newly found or previously cited references.

CONCLUSION

On the record before us, we find that the Examiner erred in rejecting claims 1, 7, 8, and 13 because the combination of Altshuler and Peterson do not disclose all of the claim limitations. Therefore, we do not sustain the 35 U.S.C. § 103 rejection of independent claims 1, 7, 8, and 13. We affirm the Examiner’s obviousness rejection of claims 14 and 16–20 over Rabin in view of Dollar-Wright. We also affirm the rejection of claim 16 for lacking adequate written description. Claims 1 and 8 are newly rejected.

DECISION SUMMARY

In summary:

Claims Rejected	35 U.S.C. §	References/ Basis	Affirmed	Reversed	New Ground
1, 7, 8, 13	103	Altshuler, Peterson		1, 7, 8, 13	
14, 16–20	103	Rabin, Dollar- Wright	14, 16–20		
16	112(a)	Written Description	16		
1, 8	103	Altshuler, Peterson, Rabin			1, 8
Overall Outcome			14, 16–20	1, 7, 8, 13	1, 8

TIME PERIOD FOR RESPONSE

This Decision contains a new ground of rejection pursuant to 37 C.F.R. § 41.50(b). 37 C.F.R. § 41.50(b) provides “[a] new ground of rejection pursuant to this paragraph shall not be considered final for judicial review.”

37 C.F.R. § 41.50(b) also provides that the Appellant, WITHIN TWO MONTHS FROM THE DATE OF THE DECISION, must exercise one of the following two options with respect to the new ground of rejection to avoid termination of the appeal as to the rejected claims:

(1) *Reopen prosecution.* Submit an appropriate amendment of the claims so rejected or new Evidence relating to the claims so rejected, or both, and have the matter reconsidered by the examiner, in which event the proceeding will be remanded to the examiner. . . .

(2) *Request rehearing.* Request that the proceeding be reheard under § 41.52 by the Board upon the same Record. . . .

Further guidance on responding to a new ground of rejection can be found in the Manual of Patent Examining Procedure § 1214.01.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1). *See* 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED IN PART
37 C.F.R. § 41.50(b)