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| COLGATE-PALMOLIVE COMPANY | | | WRIGHT, SHANNEL N | |
| 909 RIVER ROAD | | | ART UNIT | PAPER NUMBER |
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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte SCOTT DEMAREST, FRANCIS TATU, MARK BARTLETT,
EVARISTO DELGADO, KATHRYN NEAL,
PATRIK JOHANSSON, and MARK LOWENTHAL

Appeal 2019-006512
Application 14/979,224
Technology Center 3700

Before MICHELLE R. OSINSKI, JEREMY M. PLENZLER, and
AMANDA F. WIEKER, *Administrative Patent Judges*.

PLENZLER, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Pursuant to 35 U.S.C. § 134(a), Appellant¹ appeals from the Examiner's decision to reject claims 1, 2, 5, 7, 8, 11, 12, and 14–21. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

¹ We use the word Appellant to refer to “applicant” as defined in 37 C.F.R. § 1.42(a). Appellant identifies the real party in interest as Colgate-Palmolive Company. Appeal Br. 2.

CLAIMED SUBJECT MATTER

The claims are directed to an oral treatment device. Claim 1, reproduced below, is illustrative of the claimed subject matter:

1. An oral treatment device comprising:

an intraoral mouthpiece comprising:

a first light emitting surface configured to emit light onto a user's maxillary teeth, the first light emitting surface being a smooth exposed surface having a concave curvature;

a second light emitting surface configured to emit light onto a user's mandibular teeth, the second light emitting surface being a smooth exposed surface having a concave curvature;

the first and second light emitting surfaces located on opposite sides of a horizontal reference plane;

the first light emitting surface inclined so that a first acute angle is formed between the first light emitting surface and the horizontal reference plane; and

the second light emitting surface inclined so that a second acute angle is formed between the second light emitting surface and the horizontal reference plane;

wherein the first light emitting surface is inclined at the first acute angle and the second light emitting surface is inclined at the second acute angle when the intraoral mouthpiece is in an unbiased state; and

wherein the first and second acute angles are different.

REFERENCES

The prior art relied upon by the Examiner is:

| Name | Reference | Date |
|---------|--------------------|---------------|
| Osborn | US 2008/0063999 A1 | Mar. 13, 2008 |
| Levine | US 2012/0183919 A1 | July 19, 2012 |
| Chetiar | US 2013/0045457 A1 | Feb. 21, 2013 |
| Brawn | US 2015/0140502 A1 | May 21, 2015 |
| Min | KR 10-1525123 B1 | June 3, 2015 |

REJECTIONS

Claims 1, 8, 14, 15, and 21 are rejected under 35 U.S.C. § 103 as being unpatentable over Osborn and Levine.

Claims 2, 11, 16–18, and 20 are rejected under 35 U.S.C. § 103 as being unpatentable over Osborn, Levine, and Brawn.

Claims 5 and 7 are rejected under 35 U.S.C. § 103 as being unpatentable over Osborn, Levine, Brawn, and Min.

Claims 12 and 19 are rejected under 35 U.S.C. § 103 as being unpatentable over Osborn, Levine, Brawn, and Chetiar.

OPINION

Independent claims 1, 18, and 21 each require that the “first light emitting surface” and the “second light emitting surface” of the “intraoral mouthpiece” extend at first and second acute angles, respectively. The claims additionally require that “the first and second acute angles are different.”

Appellant addresses only claim 1, and relies on those contentions for the patentability of claims 2, 5, 7, 8, 11, 12, and 14–21. *See* Appeal Br. 7–11.

In each of the rejections, the Examiner finds that Osborn teaches an intraoral mouthpiece having first and second light emitting surfaces, but is silent as to whether those surfaces extend at acute angles. Final Act. 3–5, 9. The Examiner finds that Levine teaches the disposition of first and second surfaces at acute angles. *Id.* at 3, 5, 9–10. Appellant does not dispute these findings. *See* Appeal Br. 8–10.

The Examiner explains that it would have been obvious to include the acute angles for Osborn’s light emitting surfaces to “position[] the first and second light emitting surface[s] in an ergonomic position.” Final Act. 3, 5, 10. Appellant responds that “Osborn relies on LEDs 14 embedded into smooth upper and lower portions 17, 18” and alleges that “[a] person of ordinary skill would be led away from inclining [Osborn’s] upper and lower portions 17, 18 without also incorporating [Levine’s] textured bands 16.” Appeal Br. 9–10. The Examiner has the better position.

The Examiner finds that “Levine discloses the light emitted being guided and directed to more evenly illuminate the surface of the teeth ([¶] 39),” which is undisputed.² Ans. 17. The Examiner explains that although Levine describes the use of the light emitting surface at an incline having an acute angle in combination with the textured band, “one of ordinary skill in the art would also understand that angulation of the light emitting surface would result in a difference in the distribution of light,” which “would result in the distribution of light more evenly across the tooth surface and would be an obvious advantage based on the disclosure of Levine.” *Id.* As the Examiner explains, “Levine is used to teach the

² Appellant did not respond to the Examiner’s Answer with a Reply Brief.

obviousness of providing an inclined light emitting surface,” and “while the textured band is a part of the distribution of the light to the surface of the teeth this does not render modifying the light emitting surfaces of Osborn to be inclined by an acute angle unobvious as Levine provides clear advantages to the modification.” *Id.* at 18.

Appellant’s main dispute with the Examiner’s rejections is with respect to the claim recitation that “the first and second acute angles are different.” The Examiner determines that “the first and second acute angles being different is considered an obvious matter of design choice lacking in criticality, well within the skill of an ordinary artisan, for the purpose of providing a specific contact with the patient.” Final Act. 4; *see also id.* at 5–6, 10.

Appellant alleges that “[t]he Final Rejection improperly relies on design choice.” Appeal Br. 8. Appellant contends that “equal angles appear to be sufficient to provide adequate sealing,” and “inclining these portions at different angles would not accomplish any known purpose in view of the disclosures of Osborn and Levine.” *Id.* at 9. Without citation to evidence, Appellant further alleges, for example, that “[t]he present oral treatment device improves on the teachings of both Osborn and Levine because it provides a superior distribution of light onto the user’s teeth as a result of the use of light emitting surfaces inclined at different acute angles.” *Id.* at 10. The Examiner has the better position.

“[D]esign choice” is appropriate where the applicant fails to set forth any reasons why the differences between the claimed invention and the prior art would result in a different function. *In re Chu*, 66 F.3d 292, 298–99 (Fed. Cir. 1995). Appellant’s Specification explains, without further

discussion, that “[i]n one embodiment, the first and second acute angles θ_1 , θ_2 are different from one another,” and “[i]n another embodiment, the first and second acute angles θ_1 , θ_2 are the same.” Spec. ¶ 123. There is no particular benefit assigned to either arrangement. The Examiner explains that the use of different angles would simply be the result of “modifying the inclination or angle of inclination of the light emitting surface based on anatomical differences between the upper and lower teeth.” Ans. 17. That is, there is no real difference in function. Rather, the use of different angles is simply to accommodate fitting a given structure (i.e., the particular geometry of an individual’s upper and lower jaw structure). Appellant does not persuasively dispute this determination.

Appellant additionally contends that use of design choice is somehow inappropriate in this instance because “the present invention is not directed to ranges, but to structural features of a mouth guard.” Appeal Br. 9. This, too, is unpersuasive because design choice is not limited to ranges, as Appellant alleges. *See, e.g., In re Dailey*, 357 F.2d 669, 672–73 (CCPA 1966) (determining a change in shape was obvious as a matter of design choice where an appellant did not show the shape was significant or beyond what was obvious to perform the same function).

Appellant does not present arguments other than those discussed above in connection with independent claim 1.

For the reasons set forth above, Appellant does not apprise us of error in the Examiner’s decision to reject claims 1, 2, 5, 7, 8, 11, 12, and 14–21.

CONCLUSION

The Examiner’s rejections are affirmed.

DECISION SUMMARY

In summary:

| Claims Rejected | 35 U.S.C. § | Reference(s)/Basis | Affirmed | Reversed |
|------------------------|--------------------|--------------------------------|------------------------------|-----------------|
| 1, 8, 14, 15, 21 | 103 | Osborn, Levine | 1, 8, 14, 15, 21 | |
| 2, 11, 16–18, 20 | 103 | Osborn, Levine, Brawn | 2, 11, 16–18, 20 | |
| 5, 7 | 103 | Osborn, Levine, Brawn, Min | 5, 7 | |
| 12, 19 | 103 | Osborn, Levine, Brawn, Chetiar | 12, 19 | |
| Overall Outcome | | | 1, 2, 5, 7, 8, 11, 12, 14–21 | |

TIME PERIOD FOR RESPONSE

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

AFFIRMED