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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte DAN E. ANDERSEN and DAVID H. MORDAUNT

Appeal 2013-005853
Application 11/606,451
Technology Center 3700

Before PATRICK R. SCANLON, MICHELLE R. OSINSKI, and
BRADLEY B. BAYAT, *Administrative Patent Judges*.

BAYAT, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellants¹ appeal under 35 U.S.C. § 134(a) from the decision rejecting claims 17–21, 23–25, and 39–42 under 35 U.S.C. § 103(a) as being unpatentable over Slatkine² and Latina.³ Appellants’ representative presented oral arguments on October 17, 2016. We have jurisdiction under 35 U.S.C. § 6(b).

We REVERSE.

¹ Appellants identify the real party in interest as “Topcon Medical Laser Systems, Inc.” Appeal Brief 2 (“Appeal Br.,” filed Nov. 26, 2012).

² Slatkine et al., US 2005/0096639 A1, pub. May 5, 2005.

³ Latina, US 5,549,596, iss. Aug. 27, 1996.

CLAIMED INVENTION

Appellants' claimed invention provides methods "for the targeted photothermal treatment of ocular structures, for example, the layers adjacent to the retinal pigmented epithelium and those of the trabecular meshwork." Specification ¶ 2 ("Spec.," filed Nov. 29, 2006). Claims 17 and 23 are independent and recite substantially similar subject matter. Claim 17, reproduced below, is illustrative of the subject matter on appeal.

17. A method of treating ophthalmic tissue adjacent to a retinal pigmented epithelium or ophthalmic tissue adjacent to a pigmented portion of a trabecular meshwork of an eye, comprising:

generating a beam of light;

deflecting the beam of light into a pattern;

wherein at least one of the generating and the deflecting causing the beam of light to comprise a plurality of light pulses; and

delivering the pattern of light pulses through the cornea to the retinal pigmented epithelium or the pigmented portion of the trabecular mesh work of the eye, wherein:

each light pulse of the pattern of light pulses is delivered for a duration of between 30 μ s and 10 ms,

each light pulse of the pattern of light pulses has a wavelength of between 400 and 700 nm, and

each light pulse of the pattern of light pulses has a power intensity of less than or equal to 100 kW/cm².

Appeal Br. 15, Claims Appendix.

ANALYSIS

Independent claim 17 recites, *inter alia*, "delivering the pattern of light pulses through the cornea to the retinal pigmented epithelium or the pigmented portion of the trabecular meshwork of the eye." *See supra*. In interpreting this limitation, the Examiner asserts that "[t]his statement does

not preclude destroying or damaging the cornea in the step of delivering. In fact, this statement doesn't preclude removing a portion of the cornea prior to the step of delivering." Answer 6 (mailed Jan. 25, 2013). Relying on this interpretation, the Examiner finds that Slatkine's laser ablation of parts of the cornea necessarily results from delivering light pulses through the cornea as required by the claim. *Id.* at 4, 8 (citing Slatkine ¶ 59). According to the Examiner, "[t]he only aspect that needs to be satisfied in order for the prior art to mete [sic] the claims is that a portion of the cornea transmits a portion of the incident light." *Id.* at 6.

Appellants argue that

the dictionary meanings of the claim terms "delivering . . . light pulses through the cornea to the retinal pigmented epithelium" in the relevant limitations of claim 17 do not require ablation of the cornea. The term that is alleged by the Examiner, "ablation," describes the melting or vaporizing of a target tissue. In contrast, the terms that are recited by claim 17, "delivering" and "through," have dictionary meanings that do not require that a tissue be melted or vaporized. Rather, dictionary meanings of the terms indicate that the light pulses can be transferred through a transmission medium, in this case the cornea, while leaving the cornea intact. Thus, the Examiner's position that the claimed method ablates the cornea is inconsistent with the dictionary meanings of the relevant claim terms.

Appeal Br. 6 (footnotes omitted).

Responding to Appellants' argument, the Examiner acknowledges:

although the term "through" does contrast with "absorb", which is required to obtain an ablative effect, those of ordinary skill in the art are fully aware that when light propagates through a medium and or enters a new medium (e.g. the tissue/air interface) it is at least partially absorbed, partially transmitted [particularly in a transparent medium] and partially scattered. Therefore, the

notion that Applicant's term "through" precludes partial or substantial absorption is not consistent with the understanding of a skilled artisan.

Answer 7.

We disagree with the Examiner's interpretation of the plain claim language. Contrary to the Examiner's assertion, an ordinary artisan would not understand that delivering light pulses *through* the cornea necessarily ablates a portion of the cornea. As the Examiner acknowledges *supra*, the term "through" contrasts with the term "absorb," because ablation occurs when the energy of the laser is absorbed. *See* Slatkine ¶ 5. "Laser ablation operates by light being absorbed by tissues in a thin layer, for example between 1 and 50 microns thick and the light causing heating of the tissue, so that the absorbing tissue explodes." Slatkine ¶ 61. As such, we agree with Appellants "that incidental absorption of light, if any, at a patient's cornea as [a] result of the claimed method would not rise to levels that cause ablation of the cornea." Reply Br. 2–3 (filed Mar. 25, 2013). Thus, the plain meaning of "delivering the pattern of light pulses through the cornea to the retinal pigmented epithelium or the pigmented portion of the trabecular meshwork of the eye" cannot reasonably extend to ablation of the cornea, in which sufficient absorption of light by the cornea takes place so as to destroy the cornea. We find this interpretation is not inconsistent with the Specification because the Examiner has not shown and we do not find any ablation of the cornea resulting from the recited method in Appellants' disclosure in which light is delivered to the particular targeted tissue.

Accordingly, Appellants have persuasively shown that the Examiner's interpretation of the contested claim language is erroneous, and Slatkine does not support the Examiner's finding as to the claimed subject matter as

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recited in independent claim 17. As such, we do not sustain the rejection of independent claim 17, and independent claim 23, which recites substantially similar subject matter and stands rejected based on the same erroneous interpretation. For the same reasons, we also do not sustain the rejection of dependent claims 18–21, 24, 25, and 39–42. *Cf. In re Fritch*, 972 F.2d 1260, 1266 (Fed. Cir. 1992) (“dependent claims are nonobvious if the independent claims from which they depend are nonobvious”) (citations omitted).

DECISION

The rejection of claims 17–21, 23–25, and 39–42 is reversed.

REVERSED