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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
15/005,893	01/25/2016	Anne Margaret Pianca	BSNC-1-171.2	6034
50638	7590	01/02/2020	EXAMINER	
Boston Scientific Neuromodulation Corp. c/o Lowe Graham Jones 701 Fifth Avenue Suite 4800 Seattle, WA 98104			TEJANI, ANKIT D	
			ART UNIT	PAPER NUMBER
			3792	
			NOTIFICATION DATE	DELIVERY MODE
			01/02/2020	ELECTRONIC

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte ANNE MARGARET PIANCA

Appeal 2019-003392
Application 15/005,893
Technology Center 3700

Before JENNIFER D. BAHR, MICHELLE R. OSINSKI, and
SEAN P. O’HANLON, *Administrative Patent Judges*.

OSINSKI, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellant¹ appeals under 35 U.S.C. § 134(a) from the Examiner’s decision rejecting claims 1–20 under 35 U.S.C. § 103(a) as unpatentable over Hegland (US 2006/0168805 A1, pub. Aug. 3, 2006) and Stone (US 2007/0203546 A1, pub. Aug. 30, 2007). We have jurisdiction over the appeal under 35 U.S.C. § 6(b).

We REVERSE.

¹ We use the term “Appellant” to refer to “applicant” as defined in 37 C.F.R. § 1.42. Appellant identifies the real party in interest as Boston Scientific Neuromodulation Corp. Appeal Br. 2.

THE CLAIMED SUBJECT MATTER

Claims 1, 11, and 17 are independent. Claim 1, reproduced below, is illustrative of the subject matter on appeal.

1. A pre-electrode, comprising:
 - at least two thin-walled portions; and
 - at least two thick-walled portions, wherein the thick-walled portions separate the thin-walled portions;
 - wherein the pre-electrode is formed in the shape of a ring having an isodiametric outer diameter and a non-isodiametric inner diameter, wherein the thin-walled portions and the thick-walled portions are conductive.

OPINION

In rejecting claim 1, the Examiner finds that Hegland teaches “a pre-electrode 700 comprising at least two thin-walled portions (704, 706, 708, 710) and at least two thick-walled portions (726, 728, 730, 732), wherein the thick-walled portions separate the thin-walled portions (figure 8), wherein the pre-electrode is formed in the shape of a ring (figure 8).” Final Act. 4 (boldface omitted). The Examiner finds that, “prior to the bridge being removed, and corresponding to the intermediary step embodied in Applicant’s figure 6, the bridges (704, 706, 708, 710) and segments (726, 728, 730, 732) [of Hegland] form an isodiametric outer diameter.” *Id.* (boldface omitted). The Examiner also finds that “Hegland does not explicitly disclose wherein the ring has a non-isodiametric [inner] diameter.” *Id.* However, the Examiner finds that “Stone also describes pre-electrodes in the form of leads, including wherein a ring may have a non-isodiametric inner diameter.” *Id.* (citing Stone, Figs. 3B–3D, ¶¶ 148–150); *see also id.* at 3 (explaining that “Stone . . . was relied upon to demonstrate a non-isodiametric inner diameter”). The Examiner determines that it would have

been obvious “to incorporate sections similar to those described by Stone when using a device similar to that described by Hegland, as doing so advantageously allows the resulting pre-electrodes to be further customized for a particular purpose and/or a particular location within the body.” *Id.* at 4–5.

Appellant argues that the Examiner’s findings as to the disclosure of Stone are incorrect. Appeal Br. 8 (citing Final Act. 4). In particular, Appellant asserts that paragraph 28 of Stone “identifies the elements of Figures 3A–3D as leads and electrodes, not pre-electrodes.” *Id.* The Examiner responds, in the Answer, that “it is not Stone’s disclosure of leads or electrodes that is particularly germane to the Examiner’s argument, but rather Stone’s teaching of radially segmented electrodes which may be configured with a non-isodiametric inner diameter.” Ans. 10–11. According to the Examiner, “[w]hen non-isodiametric inner diameter electrodes, similar to those embodied by Stone, are sought after, the skilled artisan would be motivated to use Hegland’s method and start removing material from the inner surface of a central lumen, resulting in a pre-electrode with an isodiametric outer diameter and a non-isodiametric inner diameter.” *Id.* at 11. However, the Examiner has not adequately supported a finding that Stone teaches a pre-electrode ring having a non-isodiametric inner diameter, as required by claim 1.

Stone teaches that “FIGS. 3A–3D are transverse cross-sections of example stimulation leads having one or more electrodes around the circumference of the lead.” Stone ¶ 147 (boldface omitted). For example, Figure 3B of Stone is reproduced below.

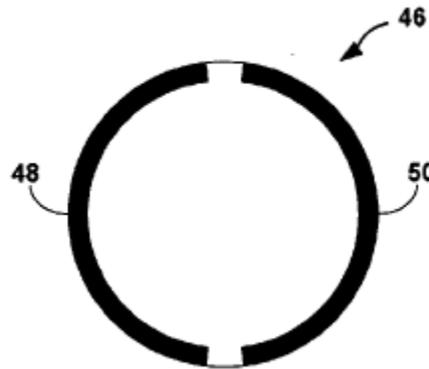


Figure 3B of Stone depicts a cross-section of a stimulation lead having two electrodes 48 and 50. *Id.* ¶¶ 147, 148² Stone teaches:

FIG. 3B shows electrode level 46 which includes two electrodes 48 and 50. Each electrode 48 and 50 wraps approximately 170 degrees around the circumference of electrode level 46. Spaces of approximately 10 degrees are located between electrodes 48 and 50 to prevent inadvertent coupling of electrical current between the electrodes.

Id. ¶ 148 (boldface omitted). We fail to see sufficient evidence to support the Examiner’s finding that Stone teaches a pre-electrode ring having a non-isodiametric inner diameter (*see* Final Act. 3–4; Ans. 10–11). We agree with Appellant that “Stone does not provide any identity or discussion of the thin lines separating the electrodes in Figures 3B–3D, but these lines appear to correspond to the outer surface of the non-conductive lead housing 30, 38 of Figures 2A–2B of Stone.” Appeal Br. 9. In other words, the Examiner does not identify, nor do we discern, any teaching that the electrodes depicted in Figures 3B–3D are formed in a ring having a non-isodiametric inner diameter. Instead, Stone’s figures appear to show independent segmented electrodes, each having an isodiametric inner diameter.

² Figures 3B, 3C, and 3D of Stone show similar stimulation lead cross-sections.

The Examiner's conclusion of obviousness is based on a deficient finding as to the scope and content of Stone, namely, that Stone teaches a pre-electrode formed in a ring having a non-isodiametric inner diameter, as called for in claim 1. *See* Final Act. 3–4; Ans. 10–11. To the extent that the Examiner's Answer may be proposing an alternative basis for concluding that the disputed limitation would have been obvious (*see* Ans. 9–10), this basis continues to appear to rely on a “combination of Hegland and Stone” (*id.* at 9) or otherwise lacks an adequate explanation of a reason with a rational evidentiary underpinning to explain why one of ordinary skill in the art would have been led to modify Hegland's pre-electrode to have a non-isodiametric inner diameter. *See In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006) (requiring “some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness”) (cited with approval in *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 419 (2007)).

For the foregoing reasons, we are persuaded that the Examiner erred in concluding that the combination of Hegland and Stone renders obvious the subject matter of independent claim 1. Accordingly, we do not sustain the rejection of independent claim 1 and its dependent claims 2–10 under 35 U.S.C. § 103(a) as unpatentable over Hegland and Stone. Because the Examiner relies on the same deficient findings and reasoning in rejecting independent claims 11 and 17 (Final Act. 6–8), we also do not sustain the rejection of claims 11 and 17, and dependent claims 12–16 and 18–20, under 35 U.S.C. § 103(a) as unpatentable over Hegland and Stone.

CONCLUSION

In summary:

Claims Rejected	35 U.S.C. §	Reference(s)/Basis	Affirmed	Reversed
1-20	103(a)	Hegland, Stone		1-20

REVERSED