



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
15/265,674	09/14/2016	David L. Perschbacher	279.F92US2	4309

45458 7590 01/29/2019
SCHWEGMAN LUNDBERG & WOESSNER/BSC
PO BOX 2938
MINNEAPOLIS, MN 55402

EXAMINER

LEVICKY, WILLIAM J

ART UNIT	PAPER NUMBER
----------	--------------

3792

NOTIFICATION DATE	DELIVERY MODE
-------------------	---------------

01/29/2019

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

uspto@slwip.com
SLW@blackhillsip.com

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte DAVID L. PERSCHBACHER,
JAMES O. GILKERSON, and RON A. BALCZEWSKI

Appeal 2018-004582
Application 15/265,674¹
Technology Center 3700

Before: STEFAN STAICOVICI, LEE L. STEPINA, and
ARTHUR M. PESLAK, *Administrative Patent Judges*.

STAICOVICI, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellants appeal under 35 U.S.C. § 134(a) from the Examiner’s decision in the Final Office Action (dated May 23, 2017, hereinafter “Final Act.”) rejecting claims 1–3 and 6–10.² We have jurisdiction under 35 U.S.C. § 6(b).

¹ Cardiac Pacemakers, Inc. is the applicant and identified as the real party in interest in Appellants’ Appeal Brief (filed Nov. 27, 2017, hereinafter “Appeal Br.”). Appeal Br. 2.

² Claims 4 and 5 are canceled. *See* Appellants’ Amendment, filed Apr. 10, 2017, at 3.

SUMMARY OF DECISION

We AFFIRM-IN-PART.

INVENTION

Appellants' invention relates to "a sensing vector for an implantable device." Spec. 1, ll. 9–10. Sole independent claim 1, reproduced below, is representative of the claimed subject matter:

1. A method comprising:
coupling a lead to a pulse generator the pulse generator including a can electrode, the lead including a proximal coil electrode which is electrically isolated from the can electrode, and the lead including a distal coil electrode which is electrically isolated from the can electrode;
sensing heart signals using a first unipolar sensing vector between the distal coil electrode and the can electrode and a second unipolar sensing vector between the proximal coil electrode and the can electrode.

REJECTIONS

- I. Claims 6 and 7 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite.
- II. Claims 3 and 7 are rejected under 35 U.S.C. § 112, fourth paragraph, as being of improper dependent form to further limit the subject matter of the claim upon which it depends.
- III. Claims 1–3 and 6–10 are rejected under 35 U.S.C. § 103(a) as unpatentable over Kim et al., (US 2005/0192506 A1, pub. Sept. 1, 2005, hereinafter "Kim") and Blow et al., (US 6,324,425 B1, iss. Nov. 27, 2001, hereinafter "Blow").

ANALYSIS

Rejections I and II

Appellants have not addressed the rejection of claims 6 and 7 under 35 U.S.C. § 112, second paragraph, as being indefinite, and the rejection of claims 3 and 7 under 35 U.S.C. § 112, fourth paragraph, as being of improper dependent form to further limit the subject matter of the claim upon which it depends. *See* Appeal Br. 8.

We appreciate Appellants' proposed amendments to claims 3, 6, and 7, presented in the After-Final Amendment (filed July 24, 2017, hereinafter "Amendment") at 2. However, as the Examiner has not entered the Amendment, the rejections stand. *See* Advisory Action, dated Aug. 1, 2017; *see also* Examiner Answer (dated Jan. 26, 2018, hereinafter "Ans.") at 2.

Accordingly, Appellants have waived any argument of error, and we summarily sustain the rejections of these claims.³ *See Hyatt v. Dudas*, 551 F.3d 1307, 1314 (Fed. Cir. 2008) (explaining that summary affirmance without consideration of the substantive merits is appropriate where an appellants fail to contest a ground of rejection).

Rejection III

The Examiner finds that Kim discloses, *inter alia*, coupling lead 104 to pulse generator 150 having can electrode 209, wherein lead 104 includes proximal electrode 116 (SVC-coil) and distal electrode 114 (RV-coil) electrically isolated from can electrode 209. Final Act. 5 (citing Kim, para.

³ To the extent that Appellants are requesting that we review the Examiner's decision denying entry of such amendment, that action is reviewable by petition under 37 C.F.R. § 1.181, and is thus not within the jurisdiction of the Board. *In re Mindick*, 371 F.2d 892, 894 (CCPA 1967).

55, Fig. 1). The Examiner further finds that Kim discloses “sensing heart signals using a first unipolar sensing vector between the distal coil electrode[] [RV-coil 114] and the can electrode [209].” *Id.* However, the Examiner finds that Kim does not disclose a second unipolar sensing vector between the proximal coil electrode 116 and the can electrode 209. *Id.* at 5–6. Nonetheless, the Examiner finds that Blow discloses that it is known in the pacing/sensing art that either unipolar or bipolar electrode sensing combinations, such as “an atrial *unipolar* signal” between proximal and can electrodes 16, 20, provide “reliable sensing options for facilitating sensing and therapy output.” *Id.* at 6 (citing Blow, col. 6, ll. 16–36). Thus, the Examiner concludes that it would have been obvious to a person having ordinary skill in the art to select a sensing vector between Kim’s proximal electrode 116 (SVC-coil) and can electrode 209 to provide “reliable sensing options for facilitating sensing and therapy output and since Blow teaches that selection of unipolar sensing combinations are well known in the art.” *Id.*

Appellants argue that the Examiner’s rejection is based on impermissible hindsight because “absent access to Appellants’ disclosure, a person of ordinary skill in the art would be unable to piece together the teachings of the applied references to arrive at the requirements of Appellants’ claims.” Appeal Br. 10. Appellants contend that Kim is directed to comparing sensed signals (cardiac beats) between distal electrode 114 and can electrode 209, or between distal electrode 114 and can electrode 209 shorted to proximal electrode 116, to a morphology template representing a patient’s normal supraventricular rhythm (SVR) in order to

discriminate between SVT and VT.⁴ *Id.* at 8–9. Appellants further contend that although Blow discloses various sensing/pacing electrode combinations, “Blow merely describes a laundry list of all possible combinations between the electrodes” with “[n]o importance . . . [being] attached to any of the combinations.” *Id.* at 9. Hence, according to Appellants, because “[t]here is no discussion in the Kim reference or the Blow reference that any other sensing vectors are need[ed] but the ones described by Kim,” a person of ordinary skill in the art would not have any reason to combine the teachings of Kim and Blow in the manner claimed. *Id.* at 9–10.

The Examiner responds that Appellants are attacking the teachings of Kim and Blow individually instead of the combination of Kim and Blow.

See Ans. 3. The Examiner notes that

Blow . . . is being relied upon to teach that it is known to include a unipolar sensing vector between the proximal coil electrode and the can electrode, while Kim teaches that it is known to use the sensed signal and compare the signals to templates characterizing cardiac events.

Id. at 4. Thus, the Examiner determines that modifying Kim’s method, according to Blow, would have been obvious to a person of ordinary skill in the art because “selecting the proximal (SVC) coil 116 and the can electrode [209] for a sensing vector . . . would provide . . . reliable sensing options for facilitating sensing and therapy output.” *Id.* at 3. Accordingly, the Examiner contends that the rejection is not based upon impermissible hindsight.

⁴ SVT stands for supraventricular tachycardia and VT stands for ventricular tachycardia. *See Spec. 3, l. 16; see also Kim, para. 61.*

It is undisputed that Kim fails to disclose a second unipolar sensing vector between proximal coil electrode 116 and can electrode 209. *See* Final Act. 5–6. Blow discloses a variety of unipolar and bipolar electrode sensing combinations, wherein an atrial unipolar signal between proximal and can electrodes 16, 20 is merely one combination. *Id.* at 6. For example, Blow discloses both bipolar and unipolar atrial signals between proximal and can electrodes 16, 20; bipolar and unipolar signals between distal and can electrodes 36, 20; and unipolar ventricle signals between distal and can electrodes 52, 20. *See* Blow, col. 6, ll. 22–31, Fig. 2. Hence, although Blow discloses that it is known in the art to use a unipolar sensing vector, we find the Examiner’s rejection insufficient to explain what would have prompted a person of ordinary skill in the art to select Blow’s atrial unipolar sensing vector, from all other available combinations, and use it between Kim’s proximal coil electrode 116 and can electrode 209. The Examiner has not provided any findings that Kim recognized any problems with sensing heart signals using a first unipolar sensing vector between distal electrode 114 and can electrode 209, or between distal electrode 114 and can electrode 209 shorted to proximal electrode 116.

Furthermore, the reason proffered by the Examiner to modify the teachings of Kim, i.e., to “provid[e] reliable sensing options for facilitating sensing and therapy output,” appears to already be adequately performed by the sensing system of Kim. *See* Final Act. 6. In other words, because the Examiner has not provided any findings that Kim recognized any problems with sensing heart signals using a first unipolar sensing vector, the Examiner’s reasoning does not support the conclusion of obviousness as the Examiner has not shown the relevance of such reasoning in the context of

Kim's sensing method. The mere fact that elements can be combined is not, in itself, a reason to combine them. Rather, an obviousness rejection further must explain the reasoning by which those findings support the Examiner's conclusion of obviousness. *Perfect Web Techs., Inc. v. Info USA, Inc.*, 587 F.3d 1324, 1328–30 (Fed. Cir. 2009). Hence, in this case, we agree with Appellants that “there is no [reasonable] reason to conclude that a random one of Blow's [sensing] vectors would be better than the specific [sensing] vector disclosed by Kim.” Reply Brief (dated Mar. 26, 2018) at 3.

In conclusion, absent hindsight, we fail to see why a person of ordinary skill in the art would have provided Blow's second unipolar sensing vector between Kim's proximal coil electrode 116 and can electrode 209 in the manner claimed. Therefore, for the foregoing reasons, we do not sustain the rejection under 35 U.S.C. § 103(a) of claims 1–3 and 6–10 as unpatentable over Kim and Blow.

DECISION

The Examiner's decision to reject claims 6 and 7 under 35 U.S.C. § 112, second paragraph, as being indefinite, is affirmed.

The Examiner's decision to reject claims 3 and 7 under 35 U.S.C. § 112, fourth paragraph, as being of improper dependent form to further limit the subject matter of the claim upon which it depends, is affirmed.

The Examiner's decision to reject claims 1–3 and 6–10 under 35 U.S.C. § 103(a) as unpatentable over Kim and Blow is reversed.

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)(iv).

Appeal 2018-004582
Application 15/265,674

AFFIRMED-IN-PART