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EXAMINER
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MONDT, JOHANNES P

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PAPER

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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*Ex parte* MARCUS RAY TAYLOR

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Appeal 2010-011687  
Application 11/537,604  
Technology Center 3600

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Before: CHARLES N. GREENHUT, JILL D. HILL, and  
MITCHELL G. WEATHERLY, *Administrative Patent Judges*.

WEATHERLY, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Marcus R. Taylor (“Appellant”) appeals under 35 U.S.C. § 134 from the decision of the Examiner rejecting claims 1-3. We have jurisdiction under 35 U.S.C. § 6(b).

We affirm.

The claims are directed to a radioisotope powered electric generator.  
Claim 1, reproduced below, is representative of the claimed subject matter:

1. A radioisotope powered electric generator comprising

a positive node having a radioisotope curium-243 sandwiched between or diffused within a first lead plate, with said lead plate having a thickness less than the range of 5 Mev alpha particles approximately 10–15 microns;

a negative node having a radioisotope cesium-137 sandwiched between or diffused within a second lead plate, with said lead plate having a thickness of approximately 1 mm thereby exceeding the range of an electron at maximum radioisotope energy;

liquid helium disposed between the first and second lead plates as an electrical insulation and cooling agent;

and means of connecting said first and second lead plates together by a resistive load to attain and maintain a voltage level.

## REJECTIONS

Appellant seeks our review of the following rejections:

1. Claims 1-3 stand rejected under 35 U.S.C. § 112 first paragraph as failing to comply with the written description requirement. Ans. 5-6.
2. Claims 1-3 stand rejected under 35 U.S.C. § 112 second paragraph as failing to set forth the subject matter which Appellant regards as the invention. Ans. 6.
3. Claims 1-3 stand rejected under 35 U.S.C. § 112 first paragraph as failing to comply with the enablement requirement. Ans. 6-9.
4. Claims 1-3 stand rejected under 35 U.S.C. § 112 second paragraph as being indefinite. Ans. 7-8.

5. Claims 1-3 stand rejected under 35 U.S.C. § 101 because the claimed invention is inoperative and therefore lacks utility. Ans. 8.

## OPINION

### *Written description support for claims 1-3*

The Examiner has twice rejected claims 1-3 under 35 U.S.C. § 112, first paragraph for failing to comply with the written description requirement. Ans. 5-6. Regarding the first written description rejection, the Examiner finds that claim 1 recites that the positive node includes a lead plate “having a thickness **less** than the range of 5 Mev alpha particles.” *Id.* at 5. The claim had previously recited “having a thickness exceeding the range of 5 Mev alpha particles.” *Id.* The Specification supports only the former recitation, describing the positive node lead plate as: (1) thick enough to “inhibit the escape of nuclear particles” with the plate being “drawn to a thickness of several millimeters” (Spec., para. 21), and (2) having a thickness exceeding the range of 5 Mev Alpha particles (*Id.*, Description of Heliatomic Generator as Depicted in Figure (1) and Figure (2) at paras. 1, 2).

In response, Appellant characterizes the recitation of “less than” instead of “exceeding” in amended claim 1 as a “typing error.” Br. 24. However, Appellant does not identify any supporting material in the Specification for claim 1 as amended. The defect in claim 1 is present in its dependent claims 2 and 3. Therefore, we affirm the Examiner’s rejection of claims 1-3 under 35 U.S.C. § 112, paragraph 1 as stated on page 5 of the Examiner’s Answer for failing to comply with the written description requirement.

The Examiner also set forth a second rejection of claims 1-3 under 35 U.S.C. § 112, paragraph 1 as failing to comply with the written description

requirement on apparently separate grounds. The Examiner identifies reasoning expressed in “sections 3, 4 of this Office Action.” Ans. 6. We understand “this Office Action” in the Examiner’s Answer to refer to the Final Office Action mailed June 4, 2009. The material set forth in sections 3-4 of that Office Action relate, if anything, to a lack of enablement rather than a failure to comply with the written description. Therefore, we reverse the second rejection of claims 1-3 for failing to comply with the written description requirement.

*The rejections of claims 1-3 for lack of utility and enablement*

The Examiner has rejected claims 1-3 under 35 U.S.C. § 101 because the invention of claim 1 is inoperative and therefore lacks utility. Ans. 8. The Examiner has also rejected claims 1-3 under 35 U.S.C. § 112, paragraph 1 on the grounds that written description supporting the claimed device does not enable a skilled artisan to make and use the claimed device. *Id.* at 6-9.<sup>1</sup> We analyze these rejections together as being based upon the same facts.

“The questions of whether a specification provides an enabling disclosure under § 112, ¶ 1, and whether an application satisfies the utility requirement of § 101 are closely related.” *In re Swartz*, 232 F.3d 862, 863 (Fed. Cir. 2000). The utility requirement of § 101 requires that the claimed invention be operable to achieve a useful result. *Id.* Where the invention is inoperative, the claims also fail to satisfy the enablement requirement of § 112, first paragraph, because a skilled artisan cannot practice the

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<sup>1</sup> The Examiner states three rejections under 35 U.S.C. § 112, first paragraph for lack of enablement. *See* Ans. 6-9 (stating enablement rejections in sections 8, 9, and 14). We discern no substantive difference among these three rejections and analyze all three together.

invention. *Id.* Whether the invention satisfies the utility requirement is a question of fact, and enablement is a question of law based on underlying factual inquiries. *Id.*

Before the PTO can reject claims for lack of utility, it must have reason to doubt the objective truth of the statements supporting the claims in the written description. *In re Brana*, 51 F.3d 1560, 1566 (Fed. Cir. 1995). “The PTO may establish a reason to doubt an invention’s asserted utility when the written description ‘suggest[s] an inherently unbelievable undertaking or involve[s] implausible scientific principles.’” *In re Cortright*, 165 F.3d 1353, 1357 (Fed. Cir. 1999) (quoting *In re Brana*, 51 F.3d 1560, 1566 (Fed. Cir. 1995)) (alterations in original). Once the PTO furnishes evidence that a skilled artisan would reasonably doubt the asserted utility of the claimed invention, the burden shifts to the applicant to provide evidence sufficient to convince a skilled artisan of the invention’s asserted utility. *Swartz*, 232 F.3d at 864.

The Examiner found that the Specification fails to satisfy the enablement requirement for the device of claims 1-3 because, among other reasons:

charged particles do not escape from electrodes . . . and charged particles are not collected by the electrodes. There is no a credible reason for creating a potential difference between the electrodes as disclosed. A charge is conserved during process of a radioactive decay in closed system as electrode.

The electrodes cannot become more “negative” or more “positive” through an internal radioactive transformation of materials inside electrode without escaping or collection charged particles (there is a charge conservation law in radioactive decay). There are no reasons for generation of a potential difference between the Applicant’s positive and

negative electrodes and no way for a current penetration between said electrodes through liquid Helium.

Ans. 9-10. We agree with these findings and adopt them as our own.

Because the Examiner found that the Specification did not enable the device of claims 1-3, the Examiner also found that the claimed device was inoperative and therefore lacked utility. *Id.* at 12. We find that the Examiner met the burden of providing evidence that a skilled artisan would reasonably doubt the asserted utility of the claimed device. Accordingly, the burden shifts to Appellant to submit evidence sufficient to convince a skilled artisan of the invention's utility. *Swartz*, 232 F.3d at 864.

As an initial matter regarding Appellant's rebuttal evidence, we point out that even *pro se* appellants must provide an appendix containing any evidence relied upon and indicating where in the record that evidence was entered by the Examiner. 37 C.F.R. § 41.37 (c)(1) and (c)(1)(ix). Appellant has not done so. Out of an abundance of caution, we have considered Appellant's alleged evidence set forth in the body of the argument at pages 37-41 of the Appeal Brief, although it is not clear whether any of this evidence was properly entered into the record prior to the appeal.

Appellant's evidence never addresses the primary reason upon which the Examiner finds that the claimed device is inoperative. Namely, Appellant fails to rebut that the electrodes in the claimed device would not "become more 'negative' or more 'positive'" because of the law of charge conservation for radioactive decay. Therefore, we conclude that Appellant has not persuaded us of error in the Examiner's rejections, and we affirm the utility and enablement rejections of claims 1-3 under 35 U.S.C. §§ 101 and 112, first paragraph.

*The rejections of claims 1-3 under section 112, second paragraph*

The Examiner states three different grounds for rejecting claims 1-3 as being indefinite under 35 U.S.C. § 112, second paragraph. Ans. 6-8. We address each in turn.

First, the Examiner concludes that claim 1 fails to set forth the subject matter which Appellant regards as the invention. Ans. 6. We must presume, in the absence of evidence to the contrary, that the invention set forth in the claims is directed to that which Appellant regards as the invention. *In re Moore*, 439 F.2d 1232, 1235 (C.C.P.A. 1971). Evidence showing that a claim does not correspond in scope with that which applicant regards as the invention may be found, for example, in contentions or admissions contained in briefs or remarks filed by applicant, *Solomon v. Kimberly-Clark Corp.*, 216 F.3d 1372, 1377-78 (Fed. Cir. 2000). However, the Specification alone may not be relied upon as the evidentiary basis for the Examiner's rejection. *Application of Conley*, 490 F.2d 972, 976 (C.C.P.A. 1974). The Examiner cites two statements by Appellant outside the Specification as evidence that claim 1, which requires that the positive node include a "lead plate having a thickness less than the range of 5 MeV alpha particles" does not set forth subject matter which Appellant regards as the invention. The Examiner first cites Appellant's version of claim 1 reciting that a "lead plate having a thickness exceeding the range of 5 MeV alpha particles," which was submitted in the paper filed August 12, 2008. Ans. 6. The Examiner also cites Appellant's admission that the recitation in claim 1 of "less than" instead of "exceeding" was a "typing error." Ans. 15. Appellant also states: "I had no 'conscious intention' of replacing the word 'exceeding' with the words 'less than'." Br. 26. Thus, we conclude that claim 1 as recited is not

directed to subject matter that Appellant regards as the invention. We, therefore, affirm the Examiner's rejection of claims 1-3 under 35 U.S.C. § 112, paragraph 2 as set forth on page 6 of the Examiner's Answer.

Second, the Examiner concludes:

The claims are vague, indefinite and incomplete, and its metes and bounds cannot be determined, particularly in regard to reason set forth in section 5 [concerning written description].

Ans. 7.<sup>2</sup> The Examiner's reference to a lack of written description support suggests an inadequacy of the Specification, not the claims, and thus is more properly directed to a rejection under the first paragraph of 112 rather than the second paragraph. Additionally, the Examiner does not adequately identify which elements of claim 1 are vague and indefinite. Therefore, we reverse the Examiner's rejection under § 112, second paragraph as set forth on page 7 of the Examiner's Answer.

Third, the Examiner concludes:

The claims are vague, indefinite and incomplete, and its metes and bounds cannot be determined, particularly in regard to reason set forth in section 8 [concerning enablement].

Ans. 8. The Examiner's reference to a lack of enablement suggests an inadequacy of the Specification, not the claims, and thus is more properly directed to a rejection under the first paragraph of 112 rather than the second paragraph. Additionally, the Examiner does not adequately identify which elements of claim 1 are vague and indefinite. Therefore, we reverse the

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<sup>2</sup> The Examiner states this rejection in section 10 of the Answer and repeats the same rejection *verbatim* in section 11. Ans. 7-8. We decide the sustainability of both rejections together.

Examiner's rejection under § 112, second paragraph as set forth on page 8 of the Examiner's Answer.

### DECISION

For the reasons stated above, we:

1. AFFIRM the rejection as stated at page 5 of the Examiner's Answer of claims 1-3 under 35 U.S.C. § 112 first paragraph as failing to comply with the written description requirement;
2. REVERSE the rejection as stated at page 6 of the Examiner's Answer of claims 1-3 under 35 U.S.C. § 112, first paragraph as failing to comply with the written description requirement;
3. AFFIRM the rejection of claims 1-3 under 35 U.S.C. § 112, second paragraph as failing to set forth the subject matter which Appellant regards as the invention;
4. AFFIRM the rejections of claims 1-3 under 35 U.S.C. § 112, first paragraph as failing to comply with the enablement requirement;
5. REVERSE the rejections of claims 1-3 under 35 U.S.C. § 112, second paragraph as being indefinite; and
6. AFFIRM the rejection of claims 1-3 under 35 U.S.C. § 101 for lack of utility stemming from the claims being directed to an inoperative device.

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).

AFFIRMED

Klh