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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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*Ex parte* MARTIN HERBERT GOLLER and  
DAVID MYRON LINEMAN

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Appeal 2014-008323  
Application 12/631,055<sup>1</sup>  
Technology Center 1700

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Before ROMULO H. DELMENDO, JAMES C. HOUSEL, and  
MONTÉ T. SQUIRE, *Administrative Patent Judges*.

HOUSEL, *Administrative Patent Judge*.

DECISION ON APPEAL

Pursuant to 35 U.S.C. § 134(a), Appellants appeal from the Examiner's decision finally rejecting claims 1–22. We have jurisdiction over the appeal under 35 U.S.C. § 6(b).

We AFFIRM.<sup>2</sup>

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<sup>1</sup> According to Appellants, the real party in interest is Corning Incorporated. Br. 2.

<sup>2</sup> Our decision refers to the Specification (Spec.) filed December 4, 2009, Appellants' Appeal Brief (Br.) filed January 20, 2014, and the Examiner's Answer (Ans.) mailed May 22, 2014.

## STATEMENT OF THE CASE

The invention relates to oxide dispersion strengthened (ODS) platinum or platinum alloy weld structures and methods for forming these structures. Spec. ¶ 1. Claim 1, reproduced below from the Claims Appendix to Appellants' Brief, is illustrative of the subject matter on appeal. The limitation at issue is italicized.

1. A platinum welded structure comprising:
  - a first oxide dispersion strengthened platinum or platinum alloy portion;
  - a second oxide dispersion strengthened platinum or platinum alloy portion;
  - wherein the first portion is welded to the second portion with *a joint consisting of a fusion weld joint*, wherein the fusion weld joint includes a platinum or platinum alloy weld bead, wherein the weld bead further includes at least one member selected from the group consisting of Zr, ZrO<sub>2</sub> and rhodium at a level greater than the first and second portions.

Claim 12, the other independent claim on appeal, recites a method of making the platinum welded structure.

### *Rejections*

The Examiner maintains the following grounds of rejection:

- A. Claims 1 and 12 under 35 U.S.C. § 102(b) as anticipated by, or in the alternative, under 35 U.S.C. § 103(a) as unpatentable over, Witte;<sup>3</sup> and
- B. Claims 2–11 and 13–22 under 35 U.S.C. § 103(a) as unpatentable over Witte in view of Shoji<sup>4</sup> and Braun.<sup>5</sup>

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<sup>3</sup> Witte et al., US 2006/0138094 A1, published June 29, 2006 (“Witte”).

<sup>4</sup> Shoji et al., US 2009/0047170 A1, published February 19, 2009 (“Shoji”).

<sup>5</sup> Braun et al., US 6,129,997, issued Oct. 10, 2000 (“Braun”).

## ANALYSIS

The dispositive issue before us on appeal is whether the Examiner reversibly erred in finding Witte teaches a platinum welded structure having first and second ODS platinum or platinum alloy portions welded together to form *a joint consisting of a fusion weld joint*. For the reasons given in the Answer, we answer this question in the negative and sustain the Examiner's rejections.

Appellants do not separately argue the claims, but instead argue claims 1 and 12 together only. Therefore, we select claim 1 to decide the issue on appeal. The remaining claims stand or fall with claim 1. 37 C.F.R. § 41.37(c)(iv)(2013).

The Examiner finds Witte discloses a platinum welded structure as recited in claim 1 comprising, *inter alia*, a joint where the components are fusion welded together such that the “joint would be considered to be a fusion weld joint.” Ans. 3. In particular, the Examiner finds Witte teaches two possible welding methods including fusion welding and pressure welding, wherein Witte specifically teaches using the fusion welding method of tungsten-inert-gas (TIG) welding. Ans. 3 and 7–8. The Examiner also finds Witte teaches that it was known in the art to use non-modified fusion welding to join ODS alloys. Ans. 9.

Appellants contend that “Witte does not teach a structure or a method of forming a joint consisting of a fusion weld joint.” Br. 4. Appellants assert that Witte's weld is a modified fusion weld joint, formed by a modified method in which the two components to be welded together are not completely melted, spanning only about 15–25% of the sheet thickness. *Id.* at 4–5. Appellants argue that one of ordinary skill in the art would

understand that a weld spanning only 15–25% of the sheet thickness would be an insufficient weld for any practical purposes. *Id.* at 5. In support of this argument, Appellants note that Witte teaches modifying the fusion weld by mechanically recompacting via hammering, thereby creating a “modified fusion weld joint consist[ing] of two different joints: a fusion weld joint and a pressure weld joint.” *Id.* Appellants also direct our attention to the Goller Declaration,<sup>6</sup> wherein the declarant states that a partially melted seam spanning only 15–25% does not provide motivation to develop a weldment consisting only of a fusion weld. *Id.* at 6–7. As such, Appellants contend that Witte fails to “teach or suggest a joint consisting only of a fusion weld joint.” *Id.* at 5.

Further, in response to the Examiner’s position that a modified fusion weld joint is still a fusion weld joint (Ans. 6), Appellants urge that the claims exclude the modified combination of a fusion weld and a pressure weld as described in Witte. Br. 6. Because Witte’s modification is to incorporate a pressure weld for the purpose of completing and improving a partial fusion weld, Appellants argue that it is clear Witte fails to teach or suggest a joint consisting only of a fusion weld. *Id.*

The Examiner responds that the Goller Declaration refers to Witte’s process as a “modified fusion weld,” which the Examiner finds is still a fusion weld. Ans. 6. In this regard, the Examiner determines that the use of the word, “modified,” does not diminish the fact that the welding method is a fusion-welding method, nor that the resulting joint is a fusion-welded joint. *Id.* The Examiner also notes that the Specification teaches that the ZrO<sub>2</sub>

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<sup>6</sup> Declaration of Martin H. Goller, dated August 2, 2013.

level in the joint may be increased by initially increasing the Zr level in the weld joint, followed by treating the joint to convert the Zr to  $\text{ZrO}_2$  as by oxidation annealing. *Id.* at 8 (citing Spec. ¶ 5). The Examiner finds that such a treatment “modifies” the weld joint, such that Appellants’ weld joint is in fact a modified fusion weld joint. *Id.*

We note that Appellants do not contest the Examiner’s finding that Witte teaches that it was known in the art to use unmodified fusion weld joints to join two ODS alloys. No Reply Brief has been filed, nor does the Appeal Brief address this finding. The Examiner’s finding is supported by a preponderance of the evidence. Although Witte identifies a problem with regard to such fusion weld joints of ODS alloys—coagulation and floating of a large part of the dispersoids in the melt—such does not negate the fact that unmodified ODS fusion weld joints were known in the prior art to Witte. Witte ¶ 2 (“oxide-dispersion-strengthened platinum alloys are increasingly used”; and “metal sheets or sheet-metal elements are joined together to give the required geometry . . . by fusion welding”). Therefore, we cannot say that Appellants have identified reversible error in the Examiner’s rejection as this finding supports the Examiner’s anticipation finding and obviousness conclusion.

Notwithstanding Witte’s disclosure of unmodified fusion weld joints of ODS alloys, it is undisputed that Witte further teaches a modified fusion weld joint. Appellants argue that claim 1’s recitation of “a joint consisting of a fusion weld joint” excludes Witte’s modified fusion weld joint, in that this recitation means that the joint is only formed by fusion welding without any other welding technique. The Examiner’s position is that this limitation means that the joint must be at least in part a fusion weld joint, although it

may be modified with other techniques. Thus, in order to decide the dispositive issue, it is necessary to construe the language in question in claim 1, i.e., what “joint consisting of a fusion weld joint” means.

It is axiomatic that during examination proceedings, claims are given their broadest reasonable interpretation consistent with the specification. *In re ICON Health & Fitness, Inc.*, 496 F.3d 1374, 1379 (Fed. Cir. 2007); *In re Am. Acad. of Sci. Tech. Ctr.*, 367 F.3d 1359, 1364 (Fed. Cir. 2004).

Although claims are to be interpreted in light of the specification, limitations from the specification are not to be read into the claims. *See In re Van Geuns*, 988 F.2d 1181, 1184 (Fed. Cir. 1993). An applicant seeking a narrower construction must either show why the broader construction is unreasonable or amend the claim to expressly state the scope intended. *In re Morris*, 127 F.3d 1048, 1057 (Fed. Cir. 1997).

The recitation uses the transitional terms, “consisting of” to recite what the joint is, e.g., the joint consisting of a fusion weld joint.

“[C]onsisting of” is a closed transitional phrase that is “understood to exclude any elements, steps, or ingredients not specified in the claim.” *AFG Indus., Inc. v. Cardinal IG Co.*, 239 F.3d 1239, 1245 (Fed. Cir. 2001).

Although Appellants do not direct our attention to any specific disclosure in their Specification in support of their interpretation, we note Appellants disclose that any standard welding method such as TIG welding may be used, and special welding methods such as hammer welding are not required. Spec. ¶ 45. Appellants disclose use of a torch and welding rod to torch weld the components together with the formation of a weld bead. *Id.* However, as the Examiner finds, Appellants do permit modification of the weld joint, as by oxidative annealing. Spec. ¶¶ 4, 6, 43.

Nonetheless, we note claim 1 recites a “platinum welded structure.” Thus, this claim recites an article of manufacture which is defined by its structure. Appellants’ disclose that the joint may be produced using standard welding methods without special welding methods such as hammer welding. Thus, Appellants’ position is that “a joint consisting of a fusion weld joint,” is a joint formed only by a fusion welding process. Given that claim 1 is directed to a product, Appellants’ recitation, “a joint consisting of a fusion weld joint,” is a product-by-process limitation.

“The patentability of a product does not depend on its method of production. If the product in a product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process.” *In re Thorpe*, 777 F.2d 695, 697 (Fed. Cir. 1985); *see also In re Pilkington*, 411 F.2d 1345, 1348 (CCPA 1969) (“[The] patentability of a claim to a *product* does not rest merely on a difference in the method by which that product is made. Rather, it is the product itself which must be new and unobvious.”)

Here, Appellants have not shown, either by persuasive technical reasoning or evidence, that Witte’s modified fusion weld joint is structurally different from a joint formed only by fusion welding. The Goller Declaration does not state that a joint produced only by fusion welding is structurally distinct from Witte’s modified fusion weld joint. Accordingly, we cannot say that Appellants have identified a reversible error in the Examiner’s finding that Witte anticipates, or in the alternative, renders obvious, the invention of claim 1.

Appellants next argue that Witte teaches away from the use of a joint consisting of a fusion weld joint. Br. 8. In particular, Appellants assert that



Witte distinguishes from fusion welding by stating that the combined fusion and pressure welding reduced energy input. *Id.* Further, Appellants assert that Witte teaches the undesirability of standard welding methods such as fusion welding, including joints with weak points and losses in strength. *Id.* Appellants also contend that the Goller Declaration confirms that one would not have been motivated to employ only a fusion welding process in creating a strengthened weldment from ODS alloy. *Id.* Appellants urge that Witte teaches use of ODS alloys employing zirconium produces inadequate results, e.g., inadequate mechanical properties, due to separation of dispersoids and an increase in grain size. *Id.*

“A reference may be said to teach away when a person of ordinary skill, upon reading the reference, would be discouraged from following the path set out in the reference, or would be led in a direction divergent from the path that was taken by the applicant.” *In re Gurley*, 27 F.3d 551, 553 (Fed. Cir. 1994). Further, references in a combination may be said to teach away where their combined teachings would produce a “seemingly inoperative device.” *In re Spinnoble*, 405 F.2d 578, 587 (CCPA 1969). Teaching an alternative or equivalent method, however, does not teach away from the use of a claimed method. *In re Dunn*, 349 F.2d 433, 438 (CCPA 1965).

Initially, we note that an argument that a reference teaches away from the claimed invention is not relevant in a § 102 anticipation rejection.

It is well settled that a claim is anticipated if each and every limitation is found either expressly or inherently in a single prior art reference. A reference is no less anticipatory if, after disclosing the invention, the reference then disparages it. Thus,

the question whether a reference ‘teaches away’ from the invention is inapplicable to an anticipation analysis.

*Celeritas Techs. Ltd. v. Rockwell Int’l Corp.*, 150 F.3d 1354, 1361 (Fed. Cir. 1998) (citation omitted). Thus, Appellants’ teaching away argument lacks persuasive merit with regard to the Examiner’s § 102 anticipation finding by Witte.

We further note that Appellants’ teaching away argument does not apply to the Examiner’s application of Witte’s modified fusion weld joint because this joint is Witte’s invention. As to the Examiner’s § 103 obviousness determination over Witte based on Witte’s discussion of the prior art unmodified fusion weld joint, we note that although Witte discusses the disadvantages of the prior art use of only a fusion welding process to form the weldment, Witte nonetheless discloses that such unmodified fusion weld joints were known. Ans. 10. In this regard, the Examiner finds that although Witte discusses potential problems arising from fusion welding ODS platinum alloys, Witte nevertheless discloses it was known to fusion weld two ODS platinum alloys. *Id.* Witte’s discussion of the disadvantages of prior fusion welding of ODS alloys does not establish that such weldments were unacceptable, but that these weldments lose the strengthening benefits of the oxide dispersoids in the welded seam, resulting in joints with mechanical properties similar to standard alloys. Witte ¶ 2.

Although a reference that teaches away is a significant factor to be considered in determining unobviousness, the nature of the teaching is highly relevant, and must be weighed in substance. A known or obvious composition does not become patentable simply because it has been described as somewhat inferior to some other product for the same use.

*Gurley*, 27 F.3d at 553. Thus, Witte's disclosure of the known unmodified fusion weld joints as somewhat inferior does not teach away from such unmodified fusion weld joints.

#### DECISION

Upon consideration of the record, and for the reasons given above and in the Answer, the decision of the Examiner rejecting claims 1 and 12 under 35 U.S.C. § 102(b) as anticipated by, or in the alternative under 35 U.S.C. § 103(a) as unpatentable over Witte, and rejecting claims 2–11 and 13–22 over Witte, Shoji, and Braun is *affirmed*.

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).

AFFIRMED