

**United States Court of Appeals  
for the Federal Circuit**

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**ULF BAMBERG, PETER KUMMER,  
ILONA STIBUREK,**  
*Appellants*

v.

**JODI A. DALVEY, NABIL F. NASSER,**  
*Appellees*

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2015-1548

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Appeal from the United States Patent and Trademark  
Office, Patent Trial and Appeal Board in Nos. 105,961,  
105,964, 105,966.

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Decided: March 9, 2016

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STEPHEN HOLMES, Barlow, Josephs & Holmes, Ltd.,  
Providence, RI, argued for appellants. Also represented by  
JOSHUA A. STOCKWELL; KURT JOHN NIEDERLUECKE, LAURA  
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P.A., Minneapolis, MN, argued for appellees. Also repre-  
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Before MOORE, HUGHES, and STOLL, *Circuit Judges*.

HUGHES, *Circuit Judge*.

Ulf Bamberg, Peter Kummer, and Ilona Stiburek appeal from the Patent Trial and Appeal Board's consolidated interference proceeding decision refusing to allow the claims of four patent applications because the specification failed to meet the written description requirement of 35 U.S.C. § 112. Because the Board properly construed the claims and substantial evidence supports the Board's determination that Bamberg failed to meet the written description requirement, and because it was not an abuse of discretion to deny Bamberg's motion to amend, we affirm.

## I

This case arises out of consolidated interference proceeding No. 105,964 between Ulf Bamberg, Peter Kummer, and Ilona Stiburek (collectively, Bamberg) and Jodi A. Dalvey and Nabil F. Nasser (collectively, Dalvey). The claims at issue originated in four Dalvey patents issued between July 6, 2010, and April 22, 2014, which all claim priority to an application filed September 9, 1999.

Bamberg, believing that they had earlier invented the claimed methods, intentionally copied the Dalvey claims into four patent applications to provoke an interference. Bamberg's applications claim priority to an international application filed under the Patent Cooperation Treaty (PCT) on June 1, 1999. To determine which party had priority of inventorship, the Board declared three interferences on September 26, 2013.<sup>1</sup> The Board declared Bamberg the senior party to the interference under 37 C.F.R. § 2.96. As the junior party, Dalvey was required to prove an earlier priority date by a preponderance of the evidence.

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<sup>1</sup> The three interferences were subsequently consolidated into one, No. 105,964.

The involved claims disclose a method for the transfer of printed images onto dark colored textiles by ironing over a specialty transfer paper. The transfer paper generally contains: (1) a removable substrate coated with silicon, (2) a hot-melt adhesive, (3) a white layer, and (4) an ink-receptive layer. To use the transfer sheet, an image is first printed on the ink-receptive layer. The removable substrate is then peeled off and the remaining portion (the hot-melt adhesive, white layer, and the ink-receptive layer) is placed on the dark textile with the printed ink-receptive layer facing up. The user then places the removable substrate over the ink-receptive layer and applies heat with an iron which melts the hot-melt layer causing the white layer and the ink-receptive layer to adhere to the dark textile.

During the interference proceeding, Dalvey filed a motion alleging that Bamberg's claims were unpatentable for lack of written description, as required by 35 U.S.C. § 112. Dalvey alleged that the copied claims recite a white layer that melts at a wide range of temperatures, but Bamberg's specification only discloses a white layer that does not melt at ironing temperatures (i.e., below 220°C). Therefore, Dalvey argued that Bamberg's specification failed to meet the written description requirement because it does not disclose an invention in which the white layer melts at temperatures below 220°C.

Pursuant to *Agilent Technologies, Inc. v. Affymetrix, Inc.*, 567 F.3d 1366, 1375 (Fed. Cir. 2009), the Board reviewed the claims in light of the Dalvey patent specification and concluded that the claims were not limited to a white layer that melts at or above 220°C, but rather the claims also include within their scope a white layer that melts below 220°C. After reviewing Bamberg's specifications, the Board granted Dalvey's motion, finding that Bamberg failed to provide an adequate written description of a white layer that melts below 220°C. Because the written description requirement is a threshold issue, the

Board did not decide Dalvey's remaining motions. *See* 37 CFR § 41.201(2)(ii). The Board also denied Bamberg's motion to amend because Bamberg failed to provide a claim chart as required by 37 C.F.R. § 41.110(c)(2).

Bamberg appeals. We have jurisdiction under 28 U.S.C. § 1295(a)(4)(A) and 35 U.S.C. § 141.

## II

Bamberg urges us to find that the Board erred in its claim construction by improperly importing a functional limitation requiring the white layer to melt below 220°C. We review underlying factual determinations concerning extrinsic evidence for substantial evidence and the ultimate construction of the claims de novo. *Teva Pharm. U.S.A., Inc. v. Sandoz, Inc.*, 135 S. Ct. 831, 841 (2015).

Because this is an interference, and Bamberg copied Dalvey's claims, we give the claims their broadest reasonable construction in light of the Dalvey specification. *Harari v. Lee*, 656 F.3d 1331, 1340 (Fed. Cir. 2011); *see also Agilent Techs., Inc.*, 567 F.3d at 1375 (“[W]hen a party challenges written description support for an interference count or the copied claim in an interference, the originating disclosure provides the meaning of the pertinent claim language.”); *In re Spina*, 975 F.2d 854, 856 (Fed. Cir. 1992) (“When interpretation is required of a claim that is copied for interference purposes, the copied claim is viewed in the context of the patent from which it was copied.”). “[U]nder the broadest reasonable interpretation, the Board's construction cannot be divorced from the specification and the record evidence, and must be consistent with the one that those skilled in the art would reach.” *Microsoft Corp. v. Proxyconn, Inc.*, 789 F.3d 1292, 1298 (Fed. Cir. 2015) (internal quotations and citations omitted).

The Board analyzed the scope of the contested claims based on Dalvey's specification and concluded that the

“white layer” does not have a minimum melting temperature. See J.A. 21. Bamberg asserts that the Board improperly imported a limitation into the claims and, instead, the Board should have concluded that the “white layer” is simply “a white layer that remains opaque after application.” Pet. Br. 18.

Dalvey’s specification defines “white layer” as “a layer on a transfer sheet positioned between a release layer and a receiving layer. The white layer imparts a white background on a dark substrate.” U.S. Patent No. 7,749,581, col. 3 ll. 32–36. The specification discloses embodiments in which the white layer melts at a number of different temperatures. *Id.* at col. 10 l. 65 – col. 11 l. 5 (“Heat 850 was applied to the peeled printed layers 820 and the release paper 852. The heat 850 was applied at 200 F, 225 F, 250 F, 300 F, 350 F, and 400 F. A good image transfer was observed for all of these temperatures.”);<sup>2</sup> *id.* at col. 6 ll. 32–37 (“When heat is applied to the image transfer sheet . . . [the white layer] exhibit[s] a melt point from 20°C up to 225°C”); *id.* at col. 7 ll. 14–15 (“The LDPE polymer of the [white layer] melts at a point within a range of 43°–300°C.”). We find no error in the Board’s conclusion that the broadest reasonable interpretation of “white layer” includes within its scope a white layer that melts at temperatures both above and below 220°C.

### III

Bamberg disputes the Board’s determination that the specification failed to provide adequate written support under 35 U.S.C. § 112. To satisfy the written description requirement under 35 U.S.C. § 112, the specification must sufficiently describe an invention understandable to a person of ordinary skill in the art and “show that the

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<sup>2</sup> 200°F ≈ 93°C; 225°F ≈ 107°C; 250°F ≈ 121°C; 300°F ≈ 148°C; 350°F ≈ 177°C; 400°F ≈ 204°C.

inventor actually invented the invention claimed.” *Ariad Pharm., Inc. v. Eli Lilly & Co.*, 598 F.3d 1336, 1351 (Fed. Cir. 2010) (en banc). In other words, “the applicant must ‘convey with reasonable clarity to those skilled in the art that, as of the filing date sought, he or she was in possession of the invention,’ and demonstrate that by disclosure in the specification of the patent.” *Carnegie Mellon Univ. v. Hoffmann-La Roche Inc.*, 541 F.3d 1115, 1122 (Fed. Cir. 2008) (quoting *Vas-Cath Inc. v. Mahurkar*, 935 F.2d 1555, 1563–64 (Fed. Cir. 1991)). Satisfying the written description requirement is a question of fact that we review for substantial evidence. *Harari*, 656 F.3d at 1341 (citing *Chen v. Bouchard*, 347 F.3d 1299, 1304 (Fed. Cir. 2003)).

Because the contested claims are properly construed in light of Dalvey’s specification to encompass a white layer that melts above and below 220°C, Bamberg’s specification must also support a white layer that melts above and below 220°C to satisfy the written description requirement. Substantial evidence supports the Board’s determination that Bamberg’s specification fails to meet the written description requirement.

The white background layer in Bamberg’s specification “comprises or is composed of permanently elastic plastics which are non-fusible at ironing temperatures (i.e. up to about 220°C) and which are filled with white pigments—also non-fusible (up to about 220°C).” J.A. 1390–91. The specification clarifies that the “elastic plastics must not melt at ironing temperatures in order not to provide with the adhesive layer . . . an undesired mixture with impaired (adhesive and covering) properties.” *Id.* at 1391. Additionally, Ulf Bamberg testified that “we came to understand that clarity and resolution are decreased where the white background layer is permitted to melt . . . . Accordingly, we developed a white background layer that nonetheless formed a strong bond with the ink-receiving layer but did not melt at conventional iron-pressing temperatures (i.e., [that is] tempera-

tures up to about 220°C).” *Id.* at 1911 (alterations in original).

In *Tronzo v. Biomet, Inc.*, this court determined that the asserted claims of the patent at issue, which described a generic-shaped cup hip implant, were invalid because these claims could not claim priority to the parent patent and, without that priority date, they were anticipated by intervening prior art. 156 F.3d 1154 (Fed. Cir. 1998). We determined that the asserted claims could not claim priority to the parent patent because it did not provide written description support where it described only a conically shaped cup and specifically distinguished the prior art (i.e., other shapes) as “inferior” by detailing the advantages of the conically shaped cup. *Id.* at 1158–59. Because the specification detailed why the prior art was inferior, the court determined that the patent “discloses *only* conical shaped cups and nothing broader.” *Id.* at 1159.

Bamberg attempts to distinguish *Tronzo* by arguing that its specification does not distinguish the prior art as “inferior” but simply claims that a melting white layer is “undesired.” J.A. 1391. Bamberg asserts that it meets the written description requirement because it “obviously had an embodiment that did melt,” and therefore one reasonably skilled in the art would understand that one “could have a layer that melted, but it may not be as good.” Oral Argument at 10:51–58, 13:35–44, <http://oralarguments.cafc.uscourts.gov/default.aspx?fl=2015-1548.mp3>. But there is insufficient evidence in the record to support such a conclusion or to overcome the deferential standard of review on appeal.

Moreover, this is a distinction without a difference. We are not persuaded by the assertion that one skilled in the art would understand that an inventor possesses something that it deems undesirable, but not something that it deems inferior. An inventor aware of an “unde-

sired” embodiment theoretically could possess that invention, perhaps by including it in the description of a preferred embodiment in the specification. But that is not the question. For purposes of the written description requirement, “the subject matter of the counts [must] be described sufficiently to show that the applicant was in possession of the invention.” *Goeddel v. Sugano*, 617 F.3d 1350, 1356 (Fed. Cir. 2010).

Consequently, like in *Tronzo*, we find that Bamberg does not possess a white layer that melts below 220°C because it specifically distinguished white layers that melt below 220°C as producing an “undesired” result. *Cf. Tronzo*, 156 F.3d at 1159 (Statements that the prior art is “inferior” “make clear that the [parent patent] discloses *only* conical shaped cups and nothing broader.”). Even Mr. Bamberg’s testimony confirms that his invention did not include a white layer that melted below a threshold of 220°C so as to not decrease the clarity and resolution of the final image.

Because substantial evidence supports the Board’s conclusion that Bamberg did not possess a white layer that melts below 220°C, Bamberg’s specification fails to meet the written description requirement of 35 U.S.C. § 112.

#### IV

Finally, Bamberg appeals the Board’s denial of its motion to amend. During the interference proceeding, Bamberg moved to amend the claims of its applications in response to Dalvey’s motion alleging lack of written description support. The Board denied the motion.

A party seeking to add or amend a claim has the burden of establishing that the amended or new claim is supported by an adequate written description. *See* 37 C.F.R. § 41.121(b) (“The party filing the motion has the burden of proof to establish that it is entitled to the



requested relief.”). The PTO has determined that, in the context of interference proceedings, this burden is best satisfied with a claim chart. 37 C.F.R. § 41.110(c) (“Any motion to add or amend a claim must include: (1) A clean copy of the claim, (2) A claim chart showing where the disclosure of the patent or application provides written description of the subject matter of the claim, and (3) Where applicable, a copy of the claims annotated . . .”).

We review a Board decision “pursuant to the permissive rules governing a patent interference proceeding for abuse of discretion.” *Koninklijke Philips Elecs. N.V. v. Cardiac Sci. Operating Co.*, 590 F.3d 1326, 1334 (Fed. Cir. 2010) (quoting *Eli Lilly & Co. v. Bd. of Regents of the Univ. of Wash.*, 334 F.3d 1264, 1266 (Fed. Cir. 2003)). “An abuse of discretion occurs if the decision (1) is clearly unreasonable, arbitrary, or fanciful; (2) is based on an erroneous conclusion of law; (3) rests on clearly erroneous fact findings; or (4) involves a record that contains no evidence on which the Board could rationally base its decision.” *Id.* (quoting *Eli Lilly*, 334 F.3d at 1266–67).

Here, Bamberg did not provide a claim chart—the principal means for determining if Bamberg satisfied its burden of establishing that the proposed amended claims were supported by an adequate written description—and thus failed to comply with the regulations governing interference proceedings. *See* 37 C.F.R. § 41.110(c). The Board denied the motion after concluding that Bamberg’s failure to provide a claim chart improperly shifted to Dalvey the burden of establishing that the amended claim is *not* supported by an adequate written description. *See* 37 C.F.R. § 41.121(b). We find that the Board’s decision to deny the motion for failing to comply with its interference regulations, which improperly shifted the burden, is not an abuse of discretion.

## V

We have reviewed Bamberg's remaining arguments and find them unpersuasive. For the foregoing reasons, we affirm the Board's decision cancelling the claims of Bamberg's patent applications for failure to meet the written description requirement of 35 U.S.C. § 112, and its denial of Bamberg's motion to amend.

**AFFIRMED**