United States Court of Appeals for the Federal Circuit

ENOCEAN GMBH,
Appellant,

v.

FACE INTERNATIONAL CORPORATION,
Appellee.

2012-1645

Appeal from the United States Patent and Trademark Office, Board of Patent Appeals and Interferences, in Interference No. 105,755.

Decided: January 31, 2014

GEORGE E. QUILLIN, Foley & Lardner LLP, of Washington, DC, argued for appellant.

DUNCAN G. BYERS, Byers Law Group, of Norfolk, Virginia, argued for appellee.

Before RADER, *Chief Judge,* LOURIE and PROST, *Circuit Judges.*

PROST, *Circuit Judge*.

EnOcean GmbH ("EnOcean") appeals from an order of the U.S. Patent and Trademark Office ("PTO"), Board of Patent Appeals and Interferences ("Board"), finding all of EnOcean's claims involved in Patent Interference No. 105,755 with Face International Corporation ("Face") unpatentable over a combination of prior art that includes PCT Application No. PCT/GB01/00901 to Burrow ("Burrow reference"). *See* J.A. 50. Because the Board erred in treating certain EnOcean claims as means-plus-function claims and in finding that certain EnOcean claim limitations lack support in its priority German and PCT applications, we vacate-in-part[1] the Board's order with respect to EnOcean's claims and motions, and we remand for further proceedings.

I. BACKGROUND

EnOcean owns the rights to U.S. Patent Application No. 10/304,121 ("EnOcean application"), which contains claims to a self-powered switch. The switch can be used to turn on and off lights, appliances, and other devices without a battery or a connection to an electrical outlet.

The named inventors on the EnOcean Application originally filed a patent application disclosing their new switch in Germany on May 24, 2000 (DE 10025 561.2), and on May 21, 2001 they filed a PCT application with a similar disclosure. *See* PCT Application No. PCT/DE01/01965.

Following EnOcean's formal suggestion, the Board declared an interference on June 25, 2010 between EnOcean

---

[1] Since Face has not appealed the Board's finding that all of its claims involved in the interference are unpatentable as obvious, the portion of the Board's opinion that relates to Face's claims remains intact.

and Face, the real party of interest in U.S. Patent No. 7,084,529, which also claims a self-powered switch. Subsequently, the Board found that all the involved Face claims were unpatentable under 35 U.S.C. § 103 in view of the Burrow reference in combination with several other references. J.A. 41. Face has not appealed this determination.

Under 37 C.F.R. § 41.207(c),[2] the Board next applied a presumption that EnOcean's claims would be unpatentable for the same reasons that Face's claims were unpatentable. J.A. 45. EnOcean's sole argument for rebutting the presumption required a determination that EnOcean's involved claims could benefit from the filing date of its German and PCT applications, thereby eliminating the Burrow reference from the realm of prior art.[3] However, the Board found that EnOcean's disclosure of a "receiver" in its German application did not support the

---

[2] Section 41.207(c) states: "When a motion for judgment of unpatentability against an opponent's claim on the basis of prior art is granted, each of the movant's claims corresponding to the same count as the opponent's claim will be presumed to be unpatentable in view of the same prior art unless the movant in its motion rebuts this presumption."

[3] The Burrow reference is a published PCT application with a publication date of September 13, 2001 and an international filing date of March 5, 2001. Since the Burrow reference was filed on or after November 29, 2000, designated the United States, and was published in English, it is available as prior art as of its PCT filing date. 35 U.S.C. § 102(e)(2) (2002). The Burrow reference is an intervening reference because its filing date of March 5, 2001 falls between the U.S. filing date of the EnOcean Application (November 25, 2002) and the filing date of the German application (May 24, 2000).

"means for receiving" limitation in the EnOcean application's claims 37, 38, and 43-45 ("means-plus-function claims"). J.A. 46-47. The Board also found that the EnOcean application's claims 29, 30, 32, 33, 39, 40, and 41 ("receiver claims") were means-plus-function claims, despite the fact that they all lack "means for" language. J.A. 43-46. The Board explained that the word "receiver" is defined in the claims solely in terms of functional language, thus creating no difference between a "receiver" and "signal receiving means." J.A. 43-44. Therefore, the Board accorded no benefit of priority to the receiver claims as well, and it found all of EnOcean's claims unpatentable under § 103 for the same reasons that Face's claims were unpatentable. J.A. 45. The Board then dismissed all other pending motions of both parties as moot. J.A. 6-7. EnOcean timely appealed. We have jurisdiction under 28 U.S.C. § 1295(a)(4).

II. DISCUSSION

This appeal concerns two sets of EnOcean's claims, the receiver claims and the means-plus-function claims, and presents two main issues: (1) whether the Board erred in finding that the receiver claims invoke § 112, ¶ 6; and (2) whether the Board erred in finding that both sets of claims are not entitled to claim priority to the German and PCT applications. We address each issue in turn.

A. Whether the Receiver Claims Invoke § 112, ¶ 6

It is well established that the use of the term "means" triggers a rebuttable presumption that § 112, ¶ 6 governs the construction of the claim term. *Inventio AG v. ThyssenKrupp Elevator Ams. Corp.*, 649 F.3d 1350, 1356 (Fed. Cir. 2011) (citing *TriMed, Inc. v. Stryker Corp.*, 514 F.3d 1256, 1259 (Fed. Cir. 2008)). Conversely, where, as here, the claim language does not recite the term "means," we presume that the limitation does not invoke § 112, ¶ 6. *Id.* (citing *Personalized Media Commc'ns, LLC v. Int'l Trade Comm'n,* 161 F.3d 696, 703-04 (Fed. Cir.

1998)). However, this presumption can be overcome if the challenger demonstrates that "the claim term fails to 'recite sufficiently definite structure' or else recites 'function without reciting sufficient structure for performing that function.'" *Id.* (citing *CCS Fitness v. Brunswick Corp.*, 288 F.3d 1359, 1369 (Fed. Cir. 2002)). The correct inquiry is "whether skilled artisans, after reading the patent, would conclude that a claim limitation is so devoid of structure that the drafter constructively engaged in means-plus-function claiming." *Inventio*, 649 F.3d at 1357. Therefore, "[u]ltimately, whether claim language invokes § 112, ¶ 6 depends on how those skilled in the art would understand the structural significance of that claim language." *Id.* at 1360.

Whether a claim limitation invokes means-plus-function claiming under 35 U.S.C. § 112, ¶ 6 (now 35 U.S.C. § 112(f)), is an exercise in claim construction which we review without deference. *Power Integrations, Inc. v. Fairchild Semiconductor Int'l, Inc.*, 711 F.3d 1348, 1355 (Fed. Cir. 2013) (citing *Inventio*, 649 F.3d at 1356).[4] We set aside factual findings of the Board "that are unsupported by substantial evidence." *Falkner v. Inglis*, 448 F.3d 1357, 1363 (Fed. Cir. 2006).

Here, EnOcean challenges the Board's construction that its receiver claims invoke § 112, ¶ 6. The receiver claims include the following limitations:

---

[4] Face argues that the Board's construction is entitled to deference if the PTO's interpretation is reasonable in light of all the evidence before the Board. *See In re Suitco Surface, Inc.*, 603 F.3d 1255, 1259 (Fed. Cir. 2010). Although we apply de novo review to the Board's claim construction, in this case a more deferential standard of review would not change the outcome.

> Claim 37: "a signal *receiver for receiving* a first electromagnetic signal transmitted by said first signal transmitter;"
>
> Claim 38: "a *receiver for receiving* a first radiofrequency signal transmitted by said first signal transmitter;"
>
> Claim 43: "a *receiver adapted to receiving* a radiofrequency telegram transmitted by said radio frequency transmission stage;"
>
> Claim 45: "a *receiver adapted to receiving* a radiofrequency telegram transmitted by said first radio frequency transmission stage;"

EnOcean application, claims 37, 38, 43, and 45 (emphases added). Notably, these claims all lack the word "means," thus entitling them to a presumption that they are not means-plus-function claims. Despite the benefit of this presumption, the Board concluded that "the recited 'receiver' element of the involved EnOcean claims invokes § 112, ¶ 6." J.A. 47. The Board found "that there is no distinction in meaning between 'receiver' and 'signal receiving means,'" and stated that "the receiver of the EnOcean claims is defined in the claims solely in terms of functional language." *Id.*

On appeal, EnOcean challenges the Board's determination that its receiver claims invoke § 112, ¶6. EnOcean argues that the claim limitation "receiver" is reasonably well understood in the art as a name for a structure which performs the recited function. *See Greenberg v. Ethicon Endo-Surgery, Inc.*, 91 F.3d 1580, 1583 (Fed. Cir. 1996) (applying this test to the claim term "detent mechanism"). EnOcean points to external evidence and expert testimony to support this assertion.

Face responds by arguing that the claimed "receiver" is defined only in terms of the function that it performs (i.e., receiving), not its structure. Citing *Blackboard, Inc.*

v. Desire2Learn, Inc., it argues that a receiver is "essentially a black box that performs a recited function," because "how it does so is left undisclosed." 574 F.3d 1371, 1383 (Fed. Cir. 2009).

We agree with EnOcean. The term "receiver" (i.e., the absence of the term means) presumptively connotes sufficiently definite structure to those of skill in the art. *See Personalized Media*, 161 F.3d at 703-04. And in this case, Face has not overcome that presumption. Indeed, the record indicates that the term "receiver" conveys structure to one of skill in the art—the Board itself made a factual finding that that the "skilled worker would have been familiar with the design and principles of the types of components utilized in the claimed invention, including . . . receivers." J.A. 18.

We also come to this conclusion, in part, because EnOcean has provided extensive evidence demonstrating that the term "receiver" conveys known structure to the skilled person. *See, e.g.,* J.A. 1772-73, 1947 (scientific literature demonstrating that the term "receiver" was well understood in the art); J.A. 1199-1220, 1377-87, 1434-35, 1654-64 (expert declarations addressing how well known the term "receiver" was); *see also Inventio,* 649 F.3d at 1356 (calling for courts to consider relevant extrinsic evidence to determine whether a claim term invokes § 112, ¶ 6). Further, we are not persuaded by Face's arguments that the term "receiver" is simply too broad to recite sufficiently definite structure. We have stated previously that just because "the disputed term is not limited to a single structure does not disqualify it as a corresponding structure, as long as the class of structures is identifiable by a person of ordinary skill in the art. *Linear Tech. Corp. v. Impala Linear Corp.*, 379 F.3d 1311, 1322 (Fed. Cir. 2004); *see also Power Integrations,* 711 F.3d at 1365 ("[W]e require only that the claim term be used in common parlance or by ordinarily skilled artisans to designate *sufficiently definite* structure, even if the

term covers a broad class of structures.") (internal citation omitted). Given the demonstrated familiarity that one of skill in the art would have with a "receiver" and the Board's own factual finding that a skilled worker would know what a "receiver" is, we hold that in this case the term is not the "black box that performs a recited function" that Face would have us believe it is.

This conclusion is also well supported by our precedent. We have found sufficient structure in claim terms to avoid invoking § 112, ¶ 6 in several similar cases. *See, e.g.*, *Flo Healthcare Solutions, LLC v. Kappos,* 697 F.3d 1367, 1374-75 (Fed. Cir. 2012) (holding that "height adjustment mechanism" imparts sufficient structure so that the presumption against applying § 112, ¶ 6 is not overcome); *Inventio*, 649 F.3d at 1353, 1359-60 (holding that "computing unit . . . for . . . evaluating . . ." is not a means-plus-function limitation because the term connotes a computer or other data processing device); *Linear Tech.*, 379 F.3d at 1320-21 (holding that term "circuit" itself in claim term "'circuit' for 'monitoring a signal from the output terminal to generate a first feedback signal'" connotes structure); *Personalized Media Commc'ns*, 161 F.3d at 704 (holding that claim term "digital detector" recited sufficient structure to avoid § 112, ¶ 6); *Greenberg*, 91 F.3d at 1583-84 (holding that § 112, ¶ 6 did not apply to the term "detent mechanism," because "the noun 'detent' denotes a type of device with a generally understood meaning in the mechanical arts, even though the definitions are expressed in functional terms."). For the foregoing reasons, we conclude that the Board erred in finding that the EnOcean application's receiver claims invoked § 112, ¶ 6.

B. Whether the Board Erred in Determining Priority

Turning to the priority issue, we now examine whether the means-plus-functions claims and/or the receiver claims are entitled to claim the benefits of the earlier

German and PCT applications' priority dates. This inquiry is crucial because, as the Board correctly noted, to overcome the date of the Burrow reference, EnOcean must establish that its claims are entitled to an earlier priority date. J.A. 43.

"To obtain the benefit of the filing date of a parent application, the claims of the later-filed application must be supported by the written description in the parent 'in sufficient detail that one skilled in the art can clearly conclude that the inventor invented the claimed invention as of the filing date sought.'" *Anascape, Ltd. v. Nintendo of Am. Inc.*, 601 F.3d 1333, 1335 (Fed. Cir. 2010) (citing *Lockwood v. Am. Airlines, Inc.*, 107 F.3d 1565, 1572 (Fed. Cir. 1997)). We review de novo the Board's legal conclusions regarding priority. *Eaton v. Evans*, 204 F.3d 1094, 1097 (Fed. Cir. 2000).

The Board first found, and EnOcean does not dispute, that claims 29, 30, 32, 33, 39, and 41 are means-plus-function claims. J.A. 44. A portion of EnOcean's exemplary claim 29 is reproduced below:

> 29. A switching system comprising:
>
> . . .
>
> signal reception *means for receiving* a first electromagnetic signal transmitted by said first signal transmission means;
>
> said *signal reception means* being adapted to generate a second signal in response to said first electromagnetic signal transmission means; . . . .

EnOcean application, claim 29 (emphases added). The Board then looked to the German application and found that it "makes only passing reference to the signal reception means." J.A. 45. The German application's only reference to a receiver states:

> In this case, a typical scenario is that all the switches, for example light switches, upon actuation, emit one or a plurality of radio frequency telegrams which are received by *a single receiver* and the latter initiates the corresponding actions (lamp on/off, dimming of lamp, etc.).

J.A. 1276 (emphasis added). Based on that disclosure, the Board found that "the PCT and German applications [do not] describe the structure, materials, acts or the equivalents corresponding to the claimed signal reception means." J.A. 46. In making its finding, the Board required that the priority documents "expressly describe the structure of the receiver." J.A. 45.

Merely because we concluded above that the term "receiver" in EnOcean's receiver claims connotes enough structure to avoid invoking § 112, ¶ 6 does not necessarily mean that we must conclude that the disclosure of "a single receiver" connotes enough structure to support EnOcean's means-for-receiving claims for purposes of claiming priority. *Compare Inventio*, 649 F.3d at 1360 ("Ultimately, whether claim language [lacking 'means for'] invokes § 112, ¶ 6 depends on how those skilled in the art would understand the structural significance of that claim language."), *with Lucent Techs., Inc. v. Gateway, Inc.*, 543 F.3d 710, 719 (Fed. Cir. 2008) (citing *Biomedino, LLC v. Waters Techs. Corp.*, 490 F.3d 946, 952 (Fed. Cir. 2007)) (stating that for purposes of claiming priority to an earlier application, "[t]he understanding of one of skill in the art does not relieve the patentee of the duty to disclose sufficient structure to support means-plus-function claim terms").

Nonetheless, we do come to that conclusion. "Sufficient structure must simply 'permit one of ordinary skill in the art to know and understand what structure corresponds to the means limitation' so that he may 'perceive the bounds of the invention.'" *In re Aoyama*, 656 F.3d

1293, 1298 (Fed. Cir. 2011). For the reasons articulated in section II.A, *supra*, EnOcean has demonstrated that a person of ordinary skill in the art could understand the bounds of the invention merely by reading the term "receiver," which is present in EnOcean's German and PCT applications. In requiring that the German and PCT applications "expressly describe the structure of the receiver," the Board applied an incorrect standard. J.A. 45. Since the inventors did not invent the receiver, and the Board found that the structure was well known as of the filing date, the inventors were "not obliged . . . to describe . . . the particular appendage to which the improvement refers, nor its mode of connection with the principal machine." *Webster Loom Co. v. Higgens,* 105 U.S. 580, 586 (1881). "This enables patents to remain concise statements of what is new, not cumbersome repetitions of what is already known and readily provided by reference." *Pressure Prods. Med. Supplies, Inc. v. Greatbatch Ltd.*, 599 F.3d 1308, 1324 (Fed. Cir. 2010). Thus, we conclude that the Board erred in finding on this basis that the EnOcean application's means-plus-function claims were not entitled to claim the benefit of the German and PCT applications' priority dates.

The Board stated that it applied the same priority analysis to EnOcean's receiver claims as it applied to EnOcean's means-plus-function claims and subsequently concluded that the receiver claims were also not entitled to the benefit of the German and PCT applications' priority dates. J.A. 44. Therefore, we also conclude that the Board erred in finding that the receiver claims were not entitled to claim the benefit of the German and PCT applications' priority dates.

III. CONCLUSION

For the foregoing reasons, we hold: (1) that the receiver claims in EnOcean's application do not invoke § 112, ¶ 6; (2) that the "means for receiving" limitations found in

EnOcean's means-plus-function claims are adequately supported by the written descriptions found in the German and PCT applications for purposes of claiming priority; and (3) that the "receiver" limitations found in EnOcean's receiver claims are adequately supported by the written descriptions found in the German and PCT applications for purposes of claiming priority. We therefore vacate-in-part the Board opinion to the extent it relates to EnOcean's receiver and means-plus-function claims. We also vacate the Board's dismissal of EnOcean's remaining motions and remand with instructions to the Board to consider all outstanding EnOcean motions in view of this opinion.

VACATED-IN-PART AND REMANDED