UNITED STATES DISTRICT COURT WESTERN DISTRICT OF MICHIGAN SOUTHERN DIVISION

FLEET ENGINEERS, INC.,)
Plaintiff,)
)
-V-)
)
MUDGUARD TECHNOLOGIES, LLC, and)
TARUN SURTI,)
Defendants.)
)

No. 1:12-cv-1143

HONORABLE PAUL L. MALONEY

CLAIM CONSTRUCTION OPINION

Plaintiff Fleet Engineers develops, manufactures, and sells after-market products for the trucking industry. Defendant Tarun Surti is the president of Defendant Mudguard Technologies. In September 2009, Surti filed a patent application for a mudflap, and the patent was issued in April 2012, Patent No. 8,146,949 (ECF No. 1-1 "Patent No. '949"). In July 2010, Mudguard and Fleet entered into a distributor agreement for a product of Mudguard's known as the V-Flap, the mudflap that is the subject of the Patent No. '949. The agreement, however, was terminated only months later, in September 2010. Fleet then began to develop its own mudflap product, the AeroFlap, which was introduced at a trade show in February 2012. In June 2012, Surti, through counsel, sent Fleet a letter asserting that Fleet's mudflap infringed Patent No. '949. The parties exchanged letters and documents for several months. In September, counsel for defendants contacted Fleet and suggested that, unless Fleet stopped selling the AeroFlap, Surti would take action to stop the infringement and would seek to recover damages. That same month, Fleet became aware of letters alleging patent infringement that Surti had sent to companies that had purchased Fleet's AeroFlap.

In anticipation of a patent infringement suit by Surti, Fleet filed this lawsuit on October 19, 2012. Fleet seeks a declaratory judgment that its AeroFlap mudflap does not infringe the '949 patent

(Count I). Fleet seeks a declaratory judgment that Patent No. '949 is invalid (Count II). Fleet also makes a claim for tortious interference with a business relationship (Count III).

The parties filed a joint statement identifying the six claims within the patent that the Court would need to construe. (ECF No. 19 "Joint Statement" and ECF No. 27 "Chart".) The parties have separately filed claim construction briefs. (ECF No. 23 "Def. Br." and ECF No. 28 "Pl. Br.".) Defendants filed a reply brief as well. (ECF No. 35 "Reply.") Although the Joint Statement identified six claims that require construction, resolution of the competing interpretations of the language in Claim 1 appears to include the disputed language in all of the claims. The parties address only Claim 1 and Claim 9 in their briefs. The language in those two claims is largely identical. The claim construction hearing occurred on September 9, 2013.

LEGAL FRAMEWORK

Patent infringement analysis involves two steps. In the first step, the meaning and scope of the patent claims are determined. *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 976 (Fed. Cir. 1995) (en banc) *aff*^{*}*d*, 517 U.S. 370 (1996). In the second step, the construed claims are applied to the allegedly infringing device. *Id.*; *see Multiform Desiccants, Inc. v. Medzam, Ltd.*, 133 F.3d 1473, 1476 (Fed. Cir. 1998) ("Since a full and complete understanding of the scope of the claims is requisite to determining whether the patent is infringed, technical terms or words of art or special usages in the claims, if in dispute, are construed or clarified by the court before the construed claims are applied to the accused device."). The first step, commonly called "claim construction," is a matter of law reserved exclusively for the court. *Markman*, 52 F.3d at 976-79. The purpose or role of claim construction is "neither to limit nor to broaden the claims, but to define, as a matter of law, the invention that has been patented." *Netword, LLC v. Centraal Corp.*, 242 F.3d 1347, 1352 (Fed.

Cir. 2001). "It is a 'bedrock principle' of patent law that 'the claims of a patent define the invention to which the patentee is entitled the right to exclude."*Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed. Cir. 2005) (*en banc*) (quoting *Innova/Pure Water, Inc. v. Safari Water Filtration Sys, Inc.*, 381 F.3d 1111, 1115 (Fed. Cir. 2004)). The process of claim construction is similar to the process for interpreting statutes. *Markman*, 52 F.3d at 987 (explaining that both involve questions of law, both involve an analysis of words on a written document, both begin with a focus on the language in the document with the interpretation of the language governed by axioms and canons of construction, and in both there is only one correct interpretation).

When determining the proper construction of a claim, a court may consult both intrinsic and extrinsic sources. Intrinsic sources consist of "the patent itself, including the claims, the specification and, if in evidence, the prosecution history." *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996); *see Netword*, 242 F.3d at 1352; *Markman*, 52 F.3d at 979 (quoting *Unique Concepts, Inc. v. Brown*, 939 F.2d 1558, 1561 (Fed. Cir. 1991)). "It is well settled that . . . the court should look first to the intrinsic evidence of record Such intrinsic evidence is the most significant source of the legally operative meaning of disputed claim language." *Vitronics Corp.*, 90 F.3d at 1582 (internal citation omitted). Intrinsic evidence forms the "public record" of the patentee's claim. *Id.* at 1583. "[C]ompetitors are entitled to review the public record, apply the established rules of claim construction, ascertain the scope of the patentee's claimed invention and, thus, design around the claimed invention." *Id.* "Extrinsic evidence is that evidence which is external to the patent and the file history, such as expert testimony, inventor testimony, dictionaries, and technical treatises and articles." *Id.* at 1584; *see Metabolite Labs., Inc. v. Lab. Corp. of America Holdings*, 370 F.3d 1354, 1360-61 (Fed. Cir. 2004). When intrinsic evidence

unambiguously describes the scope of the patented invention, it would be improper for a court to rely on extrinsic evidence. *Vitronics Corp.*, 90 F.3d at 1583; *see Pall Corp. v. Micron Separation, Inc.*, 66 F.3d 1211, 1216 (Fed. Cir. 1995) ("Extrinsic evidence may also be considered, if needed to assist in determining the meaning or scope of technical terms in the claims."); *Hormone Research Found., Inc. v. Greentech, Inc.*, 904 F.2d 1558, 1562 (Fed. Cir. 1990) ("Claim interpretation involves a review of the specification, the prosecution history, the claims (including unasserted as well as asserted claims), and, if necessary, other extrinsic evidence, such as expert testimony.").

When engaged in the construction of claims, courts begin by looking to the words of the claims themselves to define the scope of the patented invention. *Vitronics Corp.*, 90 F.3d at 1582; Innova/Pure, 381 F.3d at 1116 ("[A] claim construction analysis must begin and remain centered on the claim language itself, for that is the language the patentee has chosen 'to particularly point[] out and distinctly claim[] the subject matter which the patentee regards as his invention." (quoting Interactive Gift Express, Inc. v. Compuserve, Inc., 256 F.3d 1323, 1331 (Fed. Cir. 2001) (quoting 35 U.S.C. § 112)) (alterations added in Interactive Gift); Pitney Bowes, Inc. v. Hewlett-Packard Co., 182 F.3d 1298, 1305 (Fed. Cir. 1999) ("The starting point for any claim construction must be the claims themselves."). "The touchstone for discerning the usage of claim language is the understanding of those terms among artisans of ordinary skill in the relevant art at the time of the invention." Metabolite, 370 F.3d at 1360; see Phillips, 415 F.3d at 1313 ("We have made clear, moreover, that the ordinary and customary meaning of a claim term is the meaning that the term would have had to a person of ordinary skill in the art in question at the time of the invention, i.e., as of the effective filing date of the patent application."). Such inquiry provides "an objective baseline from which to begin claim construction." Id.; see Innova/Pure, 381 F.3d at 1116 ("The inquiry into the meaning that claim terms would have to a person of skill in the art at the time of the invention is an objective one."); *Markman*, 52 F.3d at 986 ("[T]he focus is on the objective test of what one of ordinary skill in the art at the time of the invention would have understood the term to mean.").

The second step in claim construction is to review the patent specification. Claims must always be read in view of the specification, which "is highly relevant to the claim construction analysis. Usually it is dispositive; it is the single best guide to the meaning of a disputed item." Vitronics Corp., 90 F.3d at 1582; see Phillips, 415 F.3d at 1315-16 (collecting cases which have "long emphasized the importance of the specification in claim construction."). After looking at the claim language, a court must "always [] review the specification to determine whether the inventor has used any terms in a manner inconsistent with their ordinary meaning." Vitronics Corp., 90 F.3d at 1582 (alteration added); see Phillips, 415 F.3d at 1316 ("[T]he specification may reveal a special definition given to a claim term by the patentee that differs from the meaning it would otherwise possess. In such cases, the inventor's lexicography governs."); Interactive Gift, 256 F.3d at 1331 ("If the claim language is clear on its face, then our consideration of the rest of the intrinsic evidence is restricted to determining if a deviation from the clear language of the claims is specified."). "[T]he specification may reveal an intentional disclaimer, a disavowal, or claim scope by the inventor. In that instance as well, the inventor has dictated the correct claim scope, and the inventor's intention, as expressed in the specification, is regarded as dispositive." Phillips, 415 F.3d at 1316. "Any special meaning, however, must be sufficiently clear in the specification that any departure from common usage would be so understood by a person of experience in the field of the invention." Multiform Desiccants, 133 F.3d at 1477.

When reviewing the specification, the court must keep in mind two axioms: (1) the claim must be construed with a view of the specification and (2) the court may not read a limitation into a claim from the specification. Innova/Pure, 381 F.3d at 1117; see Playtex Prods, Inc. v. Proctor & Gamble Co., 400 F.3d 901, 906 (Fed. Cir. 2005) (noting both axioms). The Federal Circuit has recognized that the two axioms create a "fine line" between an acceptable claim construction and an unacceptable one. See Comark Comm'ns, Inc. v. Harris Corp., 156 F.3d 1182, 1186 (Fed. Cir. 1998). The problem becomes particularly acute when "the written description of the invention is narrow, but the claim language is sufficiently broad that it can be read to encompass features not described in the written description, either by general characterization or by example in any of the illustrative embodiments." Liebel-Flarsheim Co. v. Medrad, Inc., 358 F.3d 898, 905 (Fed. Cir. 2004). In these situations, courts should remember to look to the specification to "ascertain the meaning of the claim term as it is used by the inventor in the context of the entire invention,' and not merely to limit a claim term." Interactive Gift, 256 F.3d at 1332 (quoting Comark Commc'ns, 156 F.3d at 1187). The Federal Circuit cautioned that "particular embodiments and examples appearing in the specification will not generally be read into the claims." Comark Commc'ns, 156 F.3d at 1187. Furthermore, when the specification contains only a single embodiment, the claim should not be read so restrictively, "unless the patentee has demonstrated a clear intent to limit the claim scope using 'words or expressions of manifest exclusion or restriction.'" Innova/Pure, 381 F.3d at 1117 (quoting Liebel-Flarsheim, 358 F.3d at 906); see ACTV, Inc. v. Walt Disney Co., 346 F.3d 1082, 1091 (Fed. Cir. 2003) ("Where the written description does not expressly limit the claim term and otherwise supports a broader interpretation, we are constrained to follow the language of the claims and give the claim term its full breadth of ordinary meaning as understood by persons

skilled in the art.") (internal quotation and citation omitted). Conversely, when the specification makes clear that the description of a particular embodiment is an essential characterization of the invention, the claim will not encompass a broader subject. *See Anderson Corp. v. Fiber Composites, LLC*, 474 F.3d 1361, 1367 (Fed. Cir. 2007). Along the same lines, when the specification "makes clear that the invention does not include a particular feature, that feature is deemed outside the reach of the claims of the patent, even though the language of claims, read without reference to the specification, might be considered broad enough to encompass the feature in question." *Scimed Life Sys., Inc. v. Advanced Cardiovascular Sys., Inc.*, 242 F.3d 1337, 1341 (Fed. Cir. 2001).

The third source of intrinsic evidence a court may consider is the prosecution history of the patent. The prosecution history, if in evidence, contains the complete report of the proceedings before the Patent and Trademark Office (PTO), including representations by the patentee regarding the scope of the claims. *Vitronics Corp.*, 90 F.3d at 1583. The prosecution history may include prior art cited by the examination of the patent. *Phillips*, 415 F.3d at 1317. While the prosecution history is "often of critical significance in determining the meaning of the claims," (*Vitronics Corp.*, 90 F.3d at 1583), because it represents an "ongoing negotiation between the PTO and the applicant, rather than the final product of the negotiation, it often lacks the clarity of the specification and thus is less useful for claim construction purposes" (*Phillips*, 415 F.3d at 1317). "Nonetheless, the prosecution history can often inform the meaning of the claim language by demonstrating how the invention in the course of prosecution, making the claim scope narrower than it otherwise would be." *Id.* (citing *Vitronics Corp.*, 90 F.3d at 1582-83). Like the specification, the prosecution history should be used to understand the claim language and should not be used to "enlarge, diminish, or

vary' the limitations in the claims." *Markman*, 52 F.3d at 980 (quoting *Goodyear Dental Vulcanite Co. v. Davis*, 102 U.S. 222, 227 (1880)).

When the claims remain ambiguous even after an examination of the intrinsic evidence, a court may rely on extrinsic evidence, to interpret the claim. *Phillips*, 415 F.3d at 1317 (citing *Markman*, 52 F.3d at 980. "The court may, in its discretion, receive extrinsic evidence in order 'to aid the court in coming to a correction conclusion' as to the 'true meaning of the language employed' in the patent. *Markman*, 52 F.3d at 980 (quoting *Seymour v. Osborne*, 72 U.S. (11 Wall.) 516, 546 (1871)). Like both the specification and the prosecution history, extrinsic evidence "is to be used for the court's understanding of the patent, not for the purpose of varying or contradicting the terms of the claims." *Id.* at 981 (citing *United States Indus. Chems, Inc. v. Carbide & Carbon Chems Corp.*, 315 U.S. 668, 678 (1942)); *see Vitronics Corp.*, 90 F.3d at 1584 ("[I]t may not be used to vary or contradict the claim language. Nor may it contradict the import of other parts of the specification. Indeed, where the patent documents are unambiguous, expert testimony regarding the meaning of a claim is entitled to no weight." (internal citation omitted)).

Claim construction is required where the meaning or scope of technical words or terms of art are unclear. *United States Surgical Corp. v. Ethicon, Inc.*, 103 F.3d 1554, 1568 (1997). Claim construction is "not an obligatory exercise in redundancy." *Id.* In some cases, the ordinary meaning of claim language as understood by a person of skill in the art may be readily apparent even to lay judges, and claim construction in such cases involves little more than the application of widely accepted meaning of commonly understood words." *Phillips*, 415 F.3d at 1314. Accordingly, a court need not "repeat or restate every claim term in order to comply with the ruling that claim construction is for the court." *United States Surgical Corp.*, 103 F.3d at 1568.

OVERVIEW

The principle purpose of a mudflap is to minimize the water and debris, lifted from a road surface by spinning tires, from impairing the vision of drivers of nearby vehicles. As a flat, non-aerodynamic surface, mudflaps block the water and debris, but also create wind drag, lowering gas mileage. Surti designed a mudflap with vertical channels to trap and direct water and debris down. Surti also added small slots or openings within the channels so that air could flow through the flap. The allegedly infringing product contains similar channels and slots. However, most of the channels run at forty-five degree angles, the channels do not run the length of the mudflap. And they are arranged in a diamond pattern. The slotted openings are also larger.

ANALYSIS

The dispute between the parties can be summarized in three questions. First, does the patent require that the channels run perpendicular to the road? Second, does the patent require the channel to run the length of the mudflap without interruption? Third, does the patent require the slots to be a size through which only air can pass?

The parties' claim construction briefs identifies four claims and four disputed phrases. (Pl. Br. 1 PgID 268; Def. Br. 11-18 PgID 180-187.)

Claim 1

1. A mudflap preventing spray from a wheel of a vehicle on a wet roadway from impairing the vision of other drivers of vehicles, comprising a vertically extending flap which is mounted to the rear of the wheel with a front side of the flap facing the wheel and the rear side facing away from the wheel, a plurality of laterally spaced, *vertically extending vanes defining a plurality of vertically extending channels* on the front side of the flap for directing water and debris from the wheel in a downward direction toward the ground and not to the rear or sides of the flap, and *vertically extending slotted openings in the channels of a size permitting air to pass through the openings to the rear of the flap and preventing water and debris from doing so.*

Patent No. '949 Col. 4 Lines 36-48 (emphasis added).

Claim 5

5. The mudflap of claim 1 wherein the slotted openings are arranged end-to-end in *vertically extending* rows in the channels between the vanes.

Id. Col. 4 Lines 59-61 (emphasis added).

Claim 9

9. A mudflap for preventing spray from a wheel of a vehicle on a wet roadway from impairing the vision of drivers of other vehicles, comprising a vertically extending flap, a plurality of *laterally spaced*, *vertically extending*, tapered vanes with inwardly and rearwardly inclined lateral surfaces that define a plurality of *vertically extending channels* for carrying water and debris striking the front side of the flap in a downward direction, and *vertically extending slotted openings* with inclined side walls *which permit air to pass from the channels through the flap and prevent water and debris from doing so*.

Id. Col. 5 Lines 7-16 (emphasis added).

Claim 13

13. The mudflap of claim 9 where in the side walls of the slotted openings are arranged end-to-end in *vertically extending* rows in the channels between the vanes.

Id. Col. 15 Lines 26-28 (emphasis added).

"vertically extending" (Claims 1, 5, 9, and 13)

Plaintiff contends this means straight down at a 90 degree angle to the road. Defendants

contend this means downwardly inclined, but not necessarily perpendicular to the road.¹

Here, "vertically extending" means perpendicular or at a 90 degree angle to the road surface.

In these claims, the phrase "vertically extending" is used the describe vanes, channels, and slotted

¹For the purpose of considering this patent, the Court will assume a hypothetical, uniformly flat, road surface.

openings.² As used in these claims, "vertically" is an adverb describing the direction of the vanes, channels, and slotted openings. A person ordinarily skilled in the art at the time of the patent application would understand that the word "vertically" is more restrictive than the phrase "downwardly inclined." All vertical channels will be downwardly inclined. However, not all downwardly inclined channels will be vertical. A vertically extending channel will be perpendicular to the road surface, while a downwardly inclined channel need not be perpendicular to the road. Defendants opted to use the more restrictive terminology to describe the invention.

This interpretation is consistent with portion of the patent describing a limitation of the prior art. Other patents allow for water and debris to be directed to the side of the mudflap, which then obscures the vision of other drivers. Patent No. '949 Col. 1 Lines 26-27. In its reply brief, Defendants readily admit that the purpose of the patent "is to direct water in a downward direction rather than off the sides of the flap where it can impair the vision of other drivers riding alongside the flap." (Reply 2 PgID 321.) Although Defendants suggest that a mudflap can have downwardly inclined channels that are not perpendicular to the road and that end at the bottom of the mudflap, rather than the side, Defendants offer no examples of such a mudflap.

"vertically extending vanes defining a plurality of vertically extending channels" (Claim 1)

Plaintiff contends the phrase requires that each channel extends the length of the mudflap, without interruption. Defendants contend that this phrase requires only that the vanes define a plurality of channels between the vanes and does not require that the channels be uninterrupted.

The phrase requires that the channels be defined by the vanes. The phrase does not require the channel or vane to extend the length of the mudflap without interruption. The patent explicitly

²The claim also uses the phrase "vertically extending" to describe the flap itself.

defines a channel as something defined by vertical vanes on the front of the mudflap. The patent makes no mention of whether the channel or vane must extend the length of the mudflap, without interruption. The patent requires only that the vanes and channels be "extending," such that the water and debris travel in a downward direction toward the ground. The patent contains no length requirement for either the vane or the channel.

In this portion of its claim construction brief, Plaintiff also argues that the vane must protrude from the body of the mudflap. Because this issue was not raised in the joint comprehensive statement of claim construction issues (ECF No. 19), Plaintiff's assertion is not timely. Even it if were timely, the Court would not accept Plaintiff's interpretation. For this construction, Plaintiff relies on a description of an embodiment of the mudflap. No. '949 Col. 2 Lines 34-37. Certainly, the specification may be used to interpret what the patentee meant by a word or phrase in the claim language. E.I. du Pont de Nemours & Co. v. Phillips Petroleum Co., 849 F.2d 1430, 1433 (Fed. Cir. 1988) However, the description of the embodiment contained in the specification should not be used as a requirement limiting the claim, where the claim language contains no such requirement. Id. The Federal Circuit has repeatedly warned against this sort of interpretive process. Phillips, 415 F.3d at 1323 (explaining that court should "avoid the danger of reading limitations from the specification into the claim[.]"). The purpose of the specification and the embodiment is to "teach and enable those skilled in the art to make and use the invention and to provide a best mode for doing so." Id. Although a specification may describe a specific embodiment of an invention, "we have repeatedly warned against confining the claims to those embodiments." Id. The language in Claim 1 does not support the limitation Plaintiff seeks to add.

"vertically extending slotted openings in the channels of a size permitting air to pass through the openings of the rear of the flap and preventing water and debris from doing so" (Claim 1)

The parties focus their competing interpretations of this phrase on the word "preventing." Plaintiff contends this phrase requires the mudflaps stop all water from passing through the openings when in use. Defendants contend that this phrase requires only that the mudflap stop water from passing through the openings, to the extent that it would otherwise impair the vision of other drivers. Because the meaning of the disputed phrase may be resolved by looking to the language of the patent, the Court finds no need to look beyond the patent itself to resolve this matter.

The ordinary or plain meaning of "preventing" supports Plaintiff's interpretation. That conclusion, however, does not resolve the inquiry. "[A] patentee may use ordinary words in an atypical fashion[,]" and, therefore, "'it is always necessary to review the specifications to determine whether the inventor has used any terms in a manner inconsistent with their ordinary meanings." *Liberty Ammunition, LLC v. United States*, 111 Fed. Cl. 365, 371 (Fed. Cl. 2013) (quoting *Vitronics Corp.*, 90 F.3d at 1582). Implicitly, the parties disagree about the phrase "of a size." The slotted openings are "of a size" that (1) permits air to pass through and (2) prevents water and debris from passing through. The words "permitting" and "preventing" describe the behavior of solids, liquids and gasses in the slotted opening.

As used in this claim, the word "preventing" does not mean that absolutely no water passes through the slotted opening. The specification explicitly anticipates that some water and debris may pass through the slotted openings. In describing the first embodiment, the patent states "[b]ecause of the narrow width of the openings, relatively little water and debris can escape through them." Patent No. '949, Col. 3, Lines 10-11. In describing the second embodiment, the patent states "any water or debris that does pass through the slotted openings will tend to strike side walls 39 and deflectors 38 and be directed in a downward direction" *Id.* Col. 4, Lines 9-12. The specification for both embodiments thus anticipates that some water and debris would pass through the slotted openings.

The patent does not support any quantitative measurement of the amount of water that passes through the slotted openings. A person with ordinary skill in the art would understand that the slotted openings should be large enough to achieve aerodynamic benefits by allowing air to pass through the mudflap, while minimizing the amount of water and debris from passing through the mudflap to impair the vision of other drivers. The patent does not otherwise specify how narrow or wide the slotted opening must be. Reading further limitations into the disputed phrase is not proper. A person with ordinary skill in the art would understand that the slotted openings are not created at the molecular level such that air molecules may pass through but water molecules, being larger, could not pass through. The laws of physics necessitate that, with the force at which the water and debris are being thrown at the mudflap by the rotating tire, and the wind force created by the moving vehicle pushing water and debris against the body of the mudflap, the combination of forces will push water and debris through the slotted opening. To the extent that the patent anticipates and allows for some water and debris to pass through the slotted opening, Defendants have the better interpretation of this phrase.

"which permit air to pass from the channels through the flap and prevent water and debris from doing so" (Claim 9)

Although this phrase is identified as one in dispute at the beginning of Plaintiff's brief,

Plaintiff does not separately support its interpretation of this phrase.³ Defendants do separately address this phrase. (Def. Br. 18 PgID 187.) Defendants state that the parties agree that this disputed phrase should be construed in the same manner in which the previous disputed phrase is construed. The Court agrees, and this phrase is construed in the same manner.

CONCLUSION

Having carefully examined the claim and specification language, the Court has concluded how each of the disputed phrases should be interpreted. The patent does require the vanes and channels run perpendicular to the road surface. The patent does not require the vanes and channels to run the length of the mud flap without interruption. Finally, the patent does not require the slotted openings to be of a size that stops all water and debris from flowing through them.

Date: December 10, 2013

<u>/s/ Paul L. Maloney</u> Paul L. Maloney Chief United States District Judge

³In Plaintiff's chart of the location of the claim, the disputed term, and its proposed construction, Plaintiff indicates that this phrase appears in Claim 13. It does not. This language appears in Claim 9.