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## United States Court of Appeals for the Federal Circuit

04-1418,-1423

IZUMI PRODUCTS COMPANY,

Plaintiff-Appellant,

v.

KONINKLIJKE PHILIPS ELECTRONICS N.V.,  
PHILIPS ELECTRONICS NORTH AMERICA CORPORATION,  
and PHILIPS DOMESTIC APPLIANCES AND PERSONAL CARE B.V.,

Defendants-Cross Appellants.

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DECIDED: July 7, 2005

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Before NEWMAN, LOURIE, and LINN, Circuit Judges.

Opinion for the court filed by Circuit Judge LOURIE. Concurring-in-part and dissenting-in-part opinion filed by Circuit Judge LINN.

LOURIE, Circuit Judge.

Izumi Products Company (“Izumi”) appeals from the decision of the United States District Court for the District of Delaware granting summary judgment of noninfringement of United States Patent 5,408,749 in favor of Koninklijke Philips Electronics N.V., Philips Electronics North America Corp., and Philips Domestic Appliances and Personal Care B.V. (collectively “Philips”). Izumi Prods. Co. v. Koninklijke Philips Elecs. N.V., 315 F. Supp. 2d 589 (D. Del. 2004). Philips cross-appeals from the decision of the district court denying its motion for summary judgment

of invalidity of the '749 patent. Because we agree with the district court that Philips does not infringe the '749 patent and that Philips did not prove that the patent was invalid on the ground of anticipation by Japanese Patent Publication 55-47879, we affirm.

## BACKGROUND

The patent in this case generally relates to electric rotary razors. Conventional electric rotary razors are designed with a stationary ring of outer cutter blades and a rotating ring of inner cutter blades. An example of an inner cutter and an outer cutter is shown below in figures 2 and 3, respectively, as they appear in the patent.

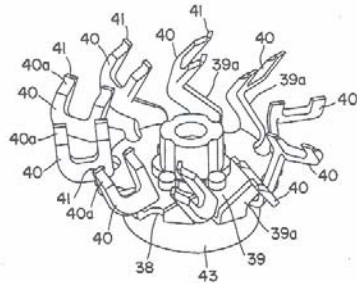


FIG. 2

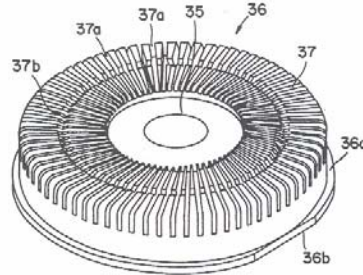


FIG. 3

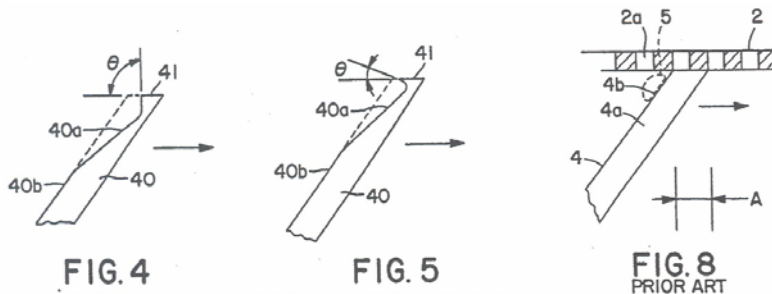
When such razors are applied to a skin surface to be shaved, the hairs on the skin pass through openings in the outer cutter and are sheared off by the inner cutter blades. To provide a close shave, electric rotary razors may use springs to keep the cutting edge surface of the inner cutter blades in constant contact with the bottom surface of the outer cutter blades. According to the patent specification, the shortcomings of such conventional electric rotary razors include sheared hairs adhering to the rear side surface of the inner cutter blades. '749 patent, col. 1, ll. 41-47. Another shortcoming of conventional electric rotary razors is that they have a relatively large area of contact between the surfaces of the outer and inner cutters. Id., col. 1, ll. 65-68. These

shortcomings result in conventional rotary razors having increased frictional resistance between the two cutters, increased power consumption, and reduced rotational speed of the inner cutter. Id., col. 1, ll. 47-55, 65-68. The increased frictional resistance also generates heat on the surface of the outer cutter that touches the skin, thereby causing discomfort. Id., col. 1, ll. 56-61.

The patented invention seeks to improve upon conventional electric rotary razors by reducing the surface area of the cutting edge surface of the inner cutter blades and by designing the inner cutter blades so that shaving debris does not easily adhere to its rear side surface. Id., col. 2, ll. 19-28. To achieve both of these results, the patent specification discloses an inner cutter blade with the rear portion of the cutting edge surface removed. Id., col. 2, ll. 40-48; Id. col. 4, ll. 56-58. As illustrated below in the embodiments shown in figures 4 and 5, the specification further discloses that an inner cutter blade (40) with a cutout (40(a)), or recess, having a cutout angle  $\theta$  of 90 degrees (figure 4) or less (figure 5) between the cutting edge surface (41) and the rear side surface of the inner cutter blade, will reduce shaving debris adhesion to the rear side surface of the inner cutter blade. Id., col. 4, l. 58 to col. 5, l. 8.

The specification contrasts the embodiments of the invention shown in figures 4 and 5 with the inner cutter blade (4) of a conventional electric rotary razor, shown below in figure 8, which does not have a cutout. Without the cutout, the rear side surface (4(b)) of the inner cutter blade is parallel to the front side surface, and the angle between the rear side surface and the cutting edge surface is greater than 90 degrees. Id., col. 5, ll. 9-13. According to the patent specification, because this angle is greater

than 90 degrees, shaving debris (5) will not be prevented from adhering to the rear side surface. Id.



In March 2002, Izumi filed suit against Philips alleging infringement of the '749 patent. Specifically, Izumi accused 116 different electric rotary razor models manufactured by Philips of infringing the '749 patent. Izumi Prods., 315 F. Supp. 2d at 596. All of the accused electric rotary razors have semi-cylindrical grooves on the rear side surface of the inner cutter blades. Moreover, the grooves are cut at an angle so that the rear side surface is parallel to the front side surface, resulting in a cutout angle  $\theta$  of greater than 90 degrees, similar to the prior art inner cutter blade shown in figure 8 above. Philips denied Izumi's allegations of infringement and filed counterclaims seeking a declaratory judgment of noninfringement and invalidity. Izumi asserted all three claims of the '749 patent in the district court proceeding.

Claim 1, one of two independent claims of the '749 patent, reads as follows:

- An electric razor comprising;
- at least one outer cutter with openings through which whiskers penetrate;
- at least one inner cutter having a plurality of cutter blades, each one of said cutter blades having a cutting edge surface at an upper end thereof that slides on an inside surface of said outer cutter, said cutter blades being inclined in a direction of rotation of said inner cutter; and
- a recess comprising an indentation formed immediately beneath said cutting edge surface and facing in a direction opposite from said direction of rotation of said

inner cutter in each one of said plurality of cutter blades whereby said cutting edge surface is made thinner than a thickness of said cutter blade.

Claim 2 depends from claim 1, and it includes limitations regarding a cutter disk and the orientation of cutter arms relative to said cutter disk. Claim 3, the other independent claim, reads as follows:

An inner cutter used in an electric rotary razor comprising:  
a cutter disk with a through hole at a center thereof;  
a plurality of cutter arms extending from an outer edge of said cutter disk in a vertical direction relative to said cutter disk;  
a cutter blade extending from each one of said cutter arms and inclined in a rotational direction of said inner cutter, each one of said cutter blades being provided with a cutting edge surface at an end surface of said cutter blade and with a recess formed below said cutting edge surface; and wherein  
said recess is formed on a rear surface of said cutter blade, said rear surface facing an opposite direction from the rotational direction of said inner cutter.

Izumi moved for summary judgment of infringement and Phillips moved for summary judgment of noninfringement. Following the parties' respective motions, the district court construed the limitations "a recess comprising an indentation formed immediately beneath said cutting edge surface" and "a recess formed below said cutting edge surface" of claims 1 and 3, respectively. Izumi Prods. Co. v. Koninklijke Philips Elecs. N.V., No. 02-156-SLR, 2004 WL 1043375, at \*1 (D. Del. Apr. 27, 2004). Both limitations were construed to mean "A cut out formed directly under the cutting edge surface and oriented in a horizontal direction, parallel to the cutting edge surface." Id. In reaching this construction, the court relied on the specification, which states: "It is . . . possible to form a recess of a great amount of indentation on the upper rear side surface of the cutter blade so that the recess is located immediately beneath the rear

edge of the cutting edge surface that is on the opposite side from the direction of rotation of the inner cutter.” Id. (citing ’749 patent, col. 2, ll. 43-48). The court further noted that “[t]he specification explains that the purpose for the cut out is to prevent shaving debris from adhering to the surface of the inner cutter.” Id.

After construing the claim limitations, the court addressed whether the accused products, as a matter of law, met the “recess beneath/recess below” limitations. In granting summary judgment of no literal infringement,<sup>1</sup> the court found that the inner cutter blades of the accused products have grooves that are positioned at or begin flush with the cutting edge surface, as opposed to having a recess lying immediately below the cutting surface, as the claim requires. Izumi Prods., 315 F. Supp. 2d at 598-99. Moreover, the court noted that the grooves are not oriented in a horizontal direction or parallel to the cutting edge surface. Id.

The district court also granted Philips’ motion to preclude Izumi’s expert witness, Dr. Charles E. Benedict, from testifying regarding infringement by the accused products under the doctrine of equivalents. Id. at 602. Although Dr. Benedict was qualified as an expert, the court questioned the reliability of his opinion on the effect of turbulence on shaving debris adhesion to the rear side surface of the inner cutter blades of an electric rotary razor. Id. The court noted that Dr. Benedict’s proffered opinion was not supported by tests conducted on the accused products and that the opinion did not cite any supporting literature. Id. Moreover, the court determined that there was no valid

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<sup>1</sup> With respect to Philips’ motion for summary judgment of noninfringement under the doctrine of equivalents, the court found that genuine issues of material fact existed as to whether the accused products perform the same function in substantially the same way as the electric razor claimed in the ’749 patent. Izumi Prods., 315 F. Supp. 2d at 599. Philips, however, does not appeal the court’s disposition of that motion.

scientific connection between Dr. Benedict's turbulence theory and the way the grooved inner cutter blade of the accused products functions. Thus, the court found that Dr. Benedict's testimony could potentially confuse the jury, and it was therefore precluded from presentation to the jury. Id.

Finally, the district court addressed the parties' competing motions for summary judgment of validity and invalidity of the '749 patent under 35 U.S.C. § 102(b). The allegedly anticipatory reference was Japanese Patent Publication 55-47879 (the "Hamashima '879 publication"). Id. at 603. In concluding that the patent was not anticipated, the court determined that the Hamashima '879 publication did not disclose "a plurality of cutter arms extending from an outer edge of said cutter disk in a vertical direction," as required by claims 2 and 3 of the '749 patent. Id. The court construed the limitation to mean that "two or more projections extend in a vertical direction from the outer edge of the cutter disk." Izumi Prods., 2004 WL, at \*1. The court then observed that the cutter arms in the Hamashima reference extended radially, and not from the outer edge of the cutter disk in a vertical direction. Izumi Prods., 315 F. Supp. 2d at 603. Thus, the court granted Izumi's motion for partial summary judgment of no anticipation of claims 2 and 3 of the '749 patent and denied Philips' cross-motion for summary judgment that the Hamashima '879 publication anticipates claim 3 of the '749 patent. Id. at 604.

On May 4, 2004, the district court entered final judgments of noninfringement of the '749 patent and a lack of anticipation of claims 2 and 3 of the '749 patent by the Hamashima '879 publication. The district court also dismissed all declaratory judgment

counterclaims as moot. Izumi timely appealed and Philips timely cross-appealed to this court. We have jurisdiction pursuant to 28 U.S.C. § 1295(a)(1).

## DISCUSSION

We review a district court's grant of summary judgment de novo, reapplying the same standard used by the district court. Ethicon Endo-Surgery, Inc. v. U.S. Surgical Corp., 149 F.3d 1309, 1315 (Fed. Cir. 1998). Summary judgment is appropriate if there is no genuine issue as to any material fact and the moving party is entitled to a judgment as a matter of law. Fed. R. Civ. P. 56(c). "The evidence of the non-movant is to be believed, and all justifiable inferences are to be drawn in his favor." Anderson v. Liberty Lobby, Inc., 477 U.S. 242, 255 (1986).

### I. Infringement

On appeal, Izumi challenges the district court's summary judgment of noninfringement of the '749 patent, arguing that the court erred in its claim construction analysis. Izumi contends that the court erred by construing the limitation "recess . . . formed immediately beneath," as used in claim 1, to mean a recess that is "directly under" the cutting edge surface. Izumi argues that the court should have construed the limitation to mean a recess that is "lower than the cutting edge surface," but not necessarily "directly under" the cutting edge surface. Although the dictionary defines the term "beneath" as both "directly underneath" and "lower than," according to Izumi, claim 1 would not cover the embodiment shown in figure 4 under the court's construction since no portion of the recess is "directly under" the cutting edge surface.

With respect to the limitation "recess formed below," as used in claim 3, Izumi argues that the district court erred by also construing that term to mean "directly under."



As with the claim term “beneath,” Izumi asserts that the proper meaning of the term “below” is “lower than.” Izumi also contends that the limitation “below” is broader than “immediately beneath,” since a “recess formed below” is not necessarily “immediately beneath” the cutting edge surface. Thus, according to Izumi, “recess formed below” should be construed to mean a recess that is lower than the cutting edge surface, but not necessarily “immediately beneath” the cutting edge surface.

Izumi also argues that the district court erred by construing the “recess beneath/recess below” limitations of claims 1 and 3 to be “oriented in a horizontal direction, parallel to the cutting edge surface.” According to Izumi, the court improperly read into the claims an additional limitation. Aside from a horizontally-oriented recess not being disclosed in the patent, Izumi further points out that the recess in the embodiment shown in figure 4 can be viewed as either a horizontally-oriented recess or a vertically-oriented recess, like the accused products.

Finally, Izumi appeals from the district court’s preclusion of Dr. Benedict’s testimony on infringement under the doctrine of equivalents. Izumi argues that, contrary to the district court’s finding, Dr. Benedict considered all of the accused products in forming his opinion. Izumi also asserts that the court committed legal error by requiring Dr. Benedict to test the accused products or cite supporting literature. Izumi argues that Dr. Benedict’s testimony applying “well-established” principles of turbulence to electric rotary razors did not require testing or citation of supporting literature. Izumi also disputes the court’s finding of a lack of scientific connection between Dr. Benedict’s testimony and the functionality of the grooved inner cutter blades. According to Izumi,

Dr. Benedict's testimony did explain how the grooved inner cutter blades of the accused products reduce shaving debris adhesion.

Philips responds with various counterarguments to support the district court's claim construction. To support the court's choice of the dictionary definition "directly under," instead of "lower than," Philips cites portions of the specification stating that the cutout angle between the rear side surface of inner cutter blade and the cutting edge surface must be 90 degrees or less in order to reduce shaving debris adhesion. Philips argues that a recess that is simply "lower than" the cutting edge surface will not accomplish the patent's stated objective. Philips also disputes Izumi's assertion that the "directly under" construction would read out the embodiment shown in figure 4. According to Philips, figure 4 represents an embodiment having a recess at the furthest point where it can still be considered "directly under" the cutting edge surface. Philips also argues that Izumi, by surrendering claims reciting an inner cutter blade with a reduced cutting edge surface, disclaimed inner cutter blades with a recess that was simply "lower than" the cutting edge surface.

Philips also defends the court's construction requiring the recess to be "oriented in a horizontal direction, parallel to the cutting edge surface." According to Philips, a recess that is "directly under" the cutting edge surface will necessarily be "oriented in a horizontal direction, parallel to the cutting edge surface." Moreover, Philips argues that a recess at or flush with the cutting edge surface will be oriented in a vertical direction.

Regarding the limitation "recess formed below," as used in claim 3, Philips disagrees with Izumi that that term is broader in scope than "recess . . . . formed immediately beneath," as used in claim 1. Philips notes that the specification never

uses the term “below” to describe the position of the recess, but instead always uses the term “immediately beneath.” Moreover, Philips argues that contrary to the specification, a recess that is not “immediately beneath” the cutting edge surface will not reduce shaving debris adhesion at the rear of the inner cutter blade.

Philips also responds to Izumi’s argument that the district court improperly precluded Dr. Benedict’s testimony on infringement under the doctrine of equivalents. Philips reiterates the district court’s position that Dr. Benedict’s testimony was unreliable because he offered no support for his testimony, in particular, the lack of testing on the accused products and citation of supporting literature. Philips also asserts that, given the lack of support in his testimony, the court appropriately found insufficient connection between Dr. Benedict’s turbulence theory and the way the inner cutter blades of the accused products function.

As an initial matter, we conclude that the court erred in construing the limitations “recess . . . formed immediately beneath” and “recess formed below” to mean “a cut out formed directly under the cutting edge surface and oriented in a horizontal direction, parallel to the cutting edge surface.” As Izumi recognizes, under the district court’s construction, the embodiment shown in figure 4 would not meet either limitation, and that result argues against the court’s interpretation. The recess of the embodiment shown in figure 4 does not have any part of its cutout directly under the cutting edge surface, as the district court’s claim construction requires. Instead, the recess begins at a point immediately adjacent to the point directly under the cutting edge surface.

We are not, however, prepared to give Izumi the broad interpretation that it currently seeks. The specification states that an objective of the disclosed invention is

“to provide an electric razor which assures that the shaving debris and other substances do not easily adhere to the cutter blades of the inner cutter.” ’749 patent, col. 2, ll. 25-28. The invention accomplishes this objective by cutting out the rear portion of the cutting edge surface. Id., col. 2, ll. 40-44. The specification further teaches that inner cutter blades having a recess with a cutout angle  $\theta$  of greater than 90 degrees between the rear side surface of the inner cutter blade surface and the cutting edge surface, as seen in the prior art electric rotary razors, will not prevent shaving debris adhesion. Id., col. 5, ll. 9-13. In disclosing that the cutout angle  $\theta$  must be 90 degrees or less, the specification is not describing an embodiment of the disclosed invention, but rather defining a critical aspect of the invention itself. We therefore construe the claim term “recess,” as used in both claims 1 and 3, to be a cutout having an angle  $\theta$  of 90 degrees or less between the rear side surface of the inner cutter blade and the cutting edge surface.

Furthermore, we reject Izumi’s attempt to construe the limitation “recess formed below,” as used in claim 3, more broadly than the limitation “recess . . . formed immediately beneath,” as used in claim 1. As we construe it, the claim term “recess” has a cutout angle  $\theta$  between the rear side surface of the inner cutter blade and the cutting edge surface. But there can be no cutout angle  $\theta$  if the “recess” is not immediately below the cutting edge surface. Indeed, an intervening section of the inner cutter blade would preclude the existence of an angle between the rear side surface portion of the cutout and the cutting edge surface. Thus, the “recess,” as that term is used in claim 3, must be immediately below the cutting edge surface. Moreover, Izumi’s proposed construction of “recess formed below” would be contrary to a stated objective

of the invention, viz., to minimize the contact pressure between the surfaces of the inner and outer cutter blades by reducing the thickness of the cutting edge surface of the inner cutter blade. Id., col. 2, ll. 19-24. Under Izumi's construction, the cutting edge surface of the inner cutter blade would not necessarily have a reduced thickness.

Next, we address the district court's construction requiring the recess to be "orientated in a horizontal direction, parallel to the cutting edge surface." We agree with Izumi that the patent specification does not support this claim construction. As we have construed them here, the claims require only a recess having a cutout angle  $\theta$  of 90 degrees or less. A semi-cylindrical recess having a cutout angle  $\theta$  of 90 degrees or less would not be "orientated in a horizontal direction, parallel to the cutting edge surface," but would otherwise appear to fall within the scope of the claim term "recess," as we have defined it. Thus, we conclude that the district court erred in requiring the recess to be "orientated in a horizontal direction, parallel to the cutting edge surface."

Despite our differences with the district court's claim construction, we will affirm its decision on infringement. The court's errors were harmless. Under our construction of the limitations "recess . . . formed immediately beneath said cutting edge surface" and "recess formed below said cutting edge surface" to mean "a cut out having an angle  $\theta$  of 90 degrees or less between the rear side surface of the inner cutter blade and the cutting edge surface, with the cutout also being immediately lower than the cutting edge surface," the accused products do not literally infringe claims 1 and 3 of the '749 patent. Indeed, neither party disputes that the angle  $\theta$  between the rear side surface of the inner cutter blade and the cutting edge surface of all of the accused products is greater than 90 degrees. That being the case, there is no infringement.

Furthermore, we hold that the district court did not abuse its discretion by precluding Dr. Benedict's testimony regarding infringement under the doctrine of equivalents. Dr. Benedict's testimony generally explained how inner cutter blades shaped like the accused products could potentially generate sufficient turbulence to prevent shaving debris adhesion. The testimony then immediately jumped to the conclusion that the accused products "perform[] substantially the same function in substantially the same way to achieve the same result as the claimed invention." The testimony, however, was missing the essential analysis as to whether inner cutter blades having the same physical dimensions and operating parameters of the accused products generated sufficient turbulence to prevent adhesion of shaving debris. Such an analysis was necessary given that Dr. Benedict had not tested whether shaving debris actually adhered to the rear side surface of the inner cutter blades of the accused products. As the district court noted, without this minimal testing, Dr. Benedict was merely providing his subjective beliefs, which were not supported. We also reject Philips' assertion that Dr. Benedict did consider tests that were performed on the accused products. Aside from the question whether Dr. Benedict relied on appropriate prior tests, from our review of the testimony, even if Dr. Benedict did consider the appropriate tests, it was not reflected in his conclusory testimony. In view of these deficiencies, we conclude that the district court did not abuse its discretion in finding Dr. Benedict's testimony unreliable.

## II. Anticipation

Philips cross-appeals from the district court's decision denying its motion for summary judgment of invalidity of the '749 patent on the ground of anticipation by the Hamashima '879 reference under 35 U.S.C. § 102(b). Philips also disputes the court's construction of the limitation "a plurality of cutter arms extending from an outer edge of said cutter disk" to mean "two or more projections extend in a vertical direction from the outer edge of the cutter disk."

Arguing that the court did not apply the plain meaning rule, Philips requests that we construe the limitation to mean an inner cutter comprised of a disk having cutter arms projecting from the disk at some position away from center of the disk and at the disk's outer edge. Under its proposed construction, Philips argues that the Hamashima reference meets this limitation by disclosing cutter arms extending in a radial direction from within the cutter disk. To further support its proposed construction, Philips also argues that the cutter arm arrangement disclosed in the Hamashima reference is "identical" to that in U.S. Patent 2,824,367, where, according to Philips, the Examiner found cutter arms extending from an outer edge of the cutter.

We affirm the district court's decision that the Hamashima '879 publication does not anticipate claims 2 and 3 of the '749 under 35 U.S.C. § 102(b). Moreover, we conclude that the court did not err in its construction of the limitation "a plurality of cutter arms extending from an outer edge of said cutter disk." We agree with Izumi that the claims clearly require some portion of the cutter arms to extend from the outer edge of the cutter disk in a vertical direction. The Hamashima reference, however, only discloses cutter arms extending from within the cutter disk, not from the outer edge of

the cutter disk. Indeed, no portion of the cutter arms in Hamashima even touches the outer edge of the cutter disk. Moreover, contrary to Philips' assertion, the cutter arms in the Hamashima reference are not identical to the cutter arms in the '367 patent. Unlike the cutter arms in the Hamashima reference, a portion of the cutter arms disclosed in the '367 patent extends from the outer edge of the cutter disk. Thus, the Hamashima reference does not anticipate claims 2 and 3 of the '749 patent.

We have considered Izumi's remaining arguments regarding the '749 patent and find them not persuasive.

#### CONCLUSION

We affirm the district court's grant of summary judgment of noninfringement of the '749 patent and summary judgment of a lack of anticipation of claims 2 and 3 of the '749 patent by the Hamashima '879 publication.

#### COSTS

Each party shall bear its own costs.



NOTE: Pursuant to Fed. Cir. R. 47.6, this disposition  
is not citable as precedent. It is a public record.

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KONINKLIJKE PHILIPS ELECTRONICS N.V.,  
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and PHILIPS DOMESTIC APPLIANCES AND PERSONAL CARE B.V.,

Defendants-Cross Appellants.

LINN, Circuit Judge, concurring-in-part and dissenting-in-part.

While I concur in the majority's affirmance of the district court's grant of summary judgment of lack of anticipation of claims 2 and 3 of United States Patent No. 5,408,749 ("the '749 patent") and its determination that the district court did not abuse its discretion in excluding expert testimony, I must respectfully dissent from its conclusion regarding noninfringement. The majority concludes that there is no infringement because the accused products have an angle  $\theta$ , between the rear side surface of the inner cutter blade and the cutting edge surface, greater than 90 degrees and, thus, do not read on the claimed "recess," which, the majority concludes, requires "having an angle  $\theta$  of 90 degrees or less." Ante at 13. In my view, the restriction of the scope of the claimed recess to require this angular limitation improperly reads a limitation from the specification into the claims. I can discern no proper basis to do so and would give the "recess" limitation the full scope of its ordinary and customary meaning.

The disputed claimed term “recess” appears in independent claims 1 and 3. Claim 1 recites an electric razor comprising, among other things, “a recess ... formed immediately beneath said cutting edge surface ... whereby said cutting edge surface is made thinner than a thickness of said cutter blade.” Claim 3 recites an inner cutter comprising, “a recess formed below said cutting edge surface.”

Claim terms are to be given their ordinary and customary meaning to one of skill in the relevant art. Johnson Worldwide Assocs., Inc. v. Zebco Corp., 175 F.3d 985, 989 (Fed. Cir. 1999). In the context of the specification, the ordinary and customary meaning of “recess” is a cutout. The specification states that “the rear portion of the cutting edge surface (or the portion which faces a direction opposite to the rotational direction of inner cutter) is cut out.” ’749 patent, col. 2, ll. 40-43. The specification further states that “The recess 40a is formed by cutting away a portion of the cutting edge surface 41.” Id., col. 4, ll. 56-58.

The majority imposes an angular structural limitation on the claim term “recess.” Specifically, the majority construes the claim term “recess” to be a cutout having an angle  $\theta$  of 90 degrees or less between the rear side surface of the inner cutter blade and the cutting edge surface. Ante at 12. The majority imposes such an angular limitation based on two statements from the specification. In my view, neither statement compels such a conclusion.

First, the majority contends that the “recess” is limited to cutouts having angles of 90 degrees or less in order to accomplish an objective of the invention; namely, to prevent shaving debris and other substances from adhering to the cutter blades. The specification, however, merely identifies preventing shaving debris from adhering as

one of two objectives of the invention. The patent also identifies the objective of “provid[ing] an electric razor which can minimize the contact pressure of the inner cutter against the inside or bottom surface of the outer cutter by securing a reduced amount of surface area of the inner cutter that is in contact with the outer cutter.” ’749 patent, col. 2, ll. 20-24. Our precedent is clear that “the fact that a patent asserts that an invention achieves several objectives does not require that each of the claims be construed as limited to structures that are capable of achieving all of the objectives.” Liebel-Flarsheim Co. v. Medrad, Inc., 359 F.3d 898, 908 (Fed. Cir. 2004). Here, cutter blades with cutouts having angles greater than 90 degrees, which would be excluded under the majority’s construction, would still achieve the objective of minimizing the contact pressure of the cutter blade. The reduction in contact pressure stems from the reduction in the thickness of the cutting edge surface, regardless of any angular limitation. The identification of an objective that is not met when the claim is given its ordinary meaning is not in itself a disclaimer that is sufficient to narrow that ordinary meaning.

The second passage relied on by the majority, states: “In the conventional inner cutter, the angle  $\theta$  is greater than 90 degrees as indicated by the dotted lines in [figures] 4 and 5. Accordingly, the shaving debris, etc. tends to adhere to the rear surface 40b of the cutter blade 40.” ’749 patent, col. 5, ll. 9-13. The majority interprets the quoted text as a requirement that the cutout angle  $\theta$  must be 90 degrees or less. I respectfully disagree.

While the angularity referenced in this statement of the specification is described as affecting the tendency of shaving debris to adhere to the blade, it has no effect

whatsoever on the second objective of the invention, namely, the reduction of friction. Thus, this description of inner cutters with angles equal to or less than 90 degrees, when considered in context, is not a disclaimer of subject matter, but simply an explanation of why inner cutters having not only recesses but also these particular angles are preferred embodiments in achieving one of the objectives of the invention. “Such a description, of course, does not limit the scope of the claims.” Honeywell Inc. v. Victor Co. of Japan, 298 F.3d 1317, 1326 (Fed. Cir. 2002) (holding that claim need not be construed in a manner that would lead to the solution of both prior art problems discussed in the written description).

The two statements from the specification of the ‘749 patent relied on by the majority do not sufficiently evidence an intention to depart from the ordinary meaning of “recess.” Moreover, the specification here does “not suggest that [recesses having angles of 90 degrees or less] are an essential component of the invention, nor is there any language ... in the specification, that disclaims the use of the invention in the absence of [recesses having angles of 90 degrees or less].” Liebel, 358 F.3d at 908. Nor is this case like SciMed Life Systems, Inc. v. Advanced Cardiovascular Systems, Inc., 242 F.3d 1337 (Fed. Cir. 2001), where the specification specifically disclaimed non-disclosed embodiments by stating that the “structure defined above is the basic ... structure for all embodiments of the present invention contemplated and disclosed herein.” Id. at 1343 (quoting the patents at issue). In sum, in this case I can discern no proper basis for deviating from the ordinary and customary meaning of recess, viz., a cutout.

Regarding the construction of the claimed phrase “recess ... formed immediately beneath” recited in claim 1, I agree with the majority that “beneath” should not be construed simply as “directly under” because that would exclude the embodiment shown in figure 4. Ante at 11. Thus, consistent with the ordinary meaning of recess and in the context of the specification, I would construe the limitation “recess ... formed immediately beneath” as “a cutout beginning at a point immediately adjacent to the point directly under the cutting edge surface.” But I would not read in an additional limitation with respect to the angle  $\theta$ .

The majority construes the limitation “recess formed below” (claim 3) to have the same scope as “recess ... formed immediately beneath” (claim 1). Ante at 12. Under the doctrine of claim differentiation, “there is presumed to be a difference in meaning and scope when different words or phrases are used in separate claims.” Tandon Corp. v. United States Int’l Trade Comm’n, 831 F.2d 1017, 1023 (Fed. Cir. 1987). Although claim differentiation only creates a presumption that each claim in a patent has a different scope and is “not a hard and fast rule of construction,” Kraft Foods, Inc. v. Int’l Trading Co., 203 F.3d 1362, 1368 (Fed. Cir. 2000) (quoting Comark Communications, Inc. v. Harris Corp., 156 F.3d 1182, 1186 (Fed. Cir. 1998)), in this case, I see no basis to overcome the presumption.

The majority marshals two arguments in support of its conclusion that the limitation “recess formed below” and the limitation “recess ... formed immediately beneath” should be construed identically. First, because the majority’s construction of the term “recess” requires having a particular cutout angle, the majority reasons that the presence of a cutout angle necessitates construing the limitation “recess formed below”

as a recess located immediately beneath. Ante at 12. For the reasons set forth above, I do not find that the claimed term “recess” requires any structural angular limitation.

Second, the majority reasons that to read the limitation “recess formed below” more broadly than “recess formed immediately beneath” would be contrary to a stated objective of the invention—to minimize contact pressure between the surfaces of the inner cutter and outer cutter blades. Ante at 12. But the invention has two objectives: minimizing contact pressure and preventing shaving debris from adhering. Both claim 1 and claim 3 need not be construed “in a manner that would lead to the solution of both prior art problems.” Honeywell, 298 F.3d at 1326; see Resonate Inc. v. Alteon Websystems, 338 F.3d 1360, 1367 (Fed. Cir. 2003) (“The issue at this point may be stated thus: when the written description sets out two different problems present in the prior art, is it necessary that the invention claimed, and thus each and every claim in the patent, address both problems? We conclude that on the record in this case, the answer is no.”) Claim 3 only requires that the recess be located below, and not immediately beneath, the cutting edge surface. Because I do not find any redefinition of the term or any disavowal of claim scope in the intrinsic evidence, I would ascribe to the limitation “recess formed below” its ordinary and customary meaning of a cutout located “at a lower level” than the cutting edge surface. Webster’s Third New International Dictionary 202 (1993).

I agree with the majority that the district court erred in its claim construction in requiring the recess to be “oriented in a horizontal direction, parallel to the cutting edge surface.” As the majority notes, the patent specification does not support this claim construction. Ante at 13. Based on that error and based on the district court’s

erroneous construction of the limitations “recess formed below” and “recess ... formed immediately beneath,” I would vacate the district court’s grant of summary judgment and remand.

For the foregoing reasons, I respectfully dissent.