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United States Court of Appeals for the Federal Circuit

01-1420, 02-1006, -1106

NIKKEN USA, INC. (also known as Nikken, Inc.),

Plaintiff-Appellant,

v.

ROBINSONS-MAY, INC., HOMEDICS-USA, INC. (also known as Homedics, Inc.),
ACE HARDWARE CORP., AMERICAN DRUG STORES, INC.,
BED BATH & BEYOND, INC., BLOOMINGDALES, INC., BURDINES, INC., BURLINGTON
COAT FACTORY, BUSY BODY, INC., CVS DISTRIBUTION, INC.,
CWI (doing business as Camping World Inc.), DRUG EMPORIUM, INC.,
DRUGSTORE.COM, INC., FEDERATED DEPARTMENT STORES, INC., GENERAL
NUTRITION COMPANY, GOTTSCHALKS, INC., J&R ELECTRONICS, INC.,
J.C. PENNEY CO., LECHTERS CALIFORNIA, INC., LONGS DRUG STORES
CALIFORNIA, INC., MACY'S WEST, MERVYNS CALIFORNIA,
MONTGOMERY WARD, NATURAL WONDERS, INC., NORDSTROMS, INC.,
OFFICE DEPOT, INC., QVC, INC., RALPHS GROCERY COMPANY,
RITEAID CORPORATION, SAKS, INC., SEARS ROEBUCK & COMPANY,
SERVICE MERCHANDISE CO., INC., SHARPER IMAGE CORP,
TARGET STORES, INC., THE TJX COMPANIES, INC. (doing business as
Marshalls), TUESDAY MORNING, INC., WAL-MART STORES, INC., and WALGREENS,

Defendants-Cross Appellants,

and

AMES DEPARTMENT STORES, INC., COSTCO WHOLESALE
CORPORATION, and PRICESMART,

Defendants-Appellees,

and

K MART CORPORATION,

Defendant.

DECIDED: November 20, 2002

Before MICHEL, Circuit Judge, PLAGER, Senior Circuit Judge, and LOURIE, Circuit Judge.

LOURIE, Circuit Judge.

DECISION

Nikken, Inc. appeals from the decision of the United States District Court for the Central District of California granting HoMedics, Inc. and forty-one retail defendants (collectively, “HoMedics”) summary judgment that HoMedics’ magnetic therapy wrap products do not infringe U.S. Patent 5,304,111. Nikken USA, Inc. v. Homedics-USA, Inc., Nos. CV-99-9606, CV-99-10549, slip op. at 24-25 (C.D. Cal. Feb. 26, 2001) (“Reconsideration Order”). Nikken also appeals from the court’s decision granting HoMedics judgment as a matter of law (“JMOL”) that HoMedics’ magnetic therapy curved insole products do not infringe the ’111 patent, Nikken USA, Inc. v. Robinsons-May, Inc., Nos. CV-99-9606, CV-99-10549, slip op. at 7 (C.D. Cal. Sept. 17, 2001) (“JMOL Order”), and that HoMedics’ infringement of U.S. Patent 4,489,711 by the straight insole products was not willful, id. at 14. HoMedics cross-appeals from the court’s decision denying its motion for JMOL with respect to infringement of the ’711 patent. Id. at 9. We affirm-in-part, reverse-in-part, and remand-in-part.

BACKGROUND

Nikken owns U.S. Patents 5,304,111 and 4,489,711, both of which are directed to therapeutic magnets and methods of using therapeutic magnets to apply magnetic fields to the body. The '111 patent claims a flexible magnetic sheet that has a curved magnetization pattern and that has therapeutic use when applied to a body surface location. Claim 4 recites a “magnetizable flexible sheet” with a “repeating pattern of non-concentric curved first and second areas of alternating magnetic polarity permanently magnetized integrally into the sheet.” '111 patent, col. 5, ll. 40-45. Claims 5 and 8-10 depend from claim 4. The '711 patent claims both a flexible magnetic sheet that has a straight magnetization pattern and a method for achieving magnetic therapy. Claim 1 recites a “flexible, permanently magnetized plastic sheet” that is “self adhesive to the skin or attachable to the skin by a self adhesive plaster compatible with the skin.” '711 patent, col. 6, ll. 36, 42-44. Claim 12 recites a method for achieving magnetic therapy that requires the step of “applying it to the skin area of the patient.” *Id.* at col. 7, ll. 15-16. Claims 14 and 15 depend from claim 12.

HoMedics sells two types of accused products. The first are wrap products that include discrete hard magnets sewn into flexible fabric material such as neoprene. The second are magnetized shoe insoles that have either straight or curved magnetization patterns.

Nikken brought suit against HoMedics and forty-one retailers for direct and contributory infringement, respectively, of the '111 and '711 patents.^[1] Nikken alleged that the fabric wrap products and the insoles having a curved magnetization pattern infringe claims 4, 5, and 8-10 of the '111 patent. Nikken also alleged that the insoles having a straight magnetization pattern infringe claims 1, 12, 14, and 15 of the '711 patent. Nikken further alleged that HoMedics' infringement was willful.

The district court granted in part and denied in part HoMedics' motion for summary judgment of noninfringement. First, the court addressed the fabric wrap products' alleged infringement of claim 4 of the '111 patent. Construing the phrase “magnetizable flexible sheet” to require that “the flexible sheet itself must be capable of being made a magnet,” *Nikken USA, Inc. v. Homedics-USA, Inc.*, Nos. CV-99-9606, CV-99-10549, slip op. at 13 (C.D. Cal. Sept. 15, 2000) (“Summary Judgment Order”)

(emphasis added), the court found that the fabric wrap products do not literally infringe claim 4 because they consist of magnets affixed to nonmagnetizable materials such as neoprene and polyurethane, id. at 14. The court therefore granted HoMedics' motion for summary judgment that the fabric wrap products do not literally infringe the '111 patent. Id. at 21-22. However, the court found that the doctrine of equivalents raised a genuine issue of material fact and therefore denied HoMedics' motion for summary judgment on that ground. Id. at 21.

Secondly, the court addressed the curved insole products' alleged infringement of claim 4 of the '111 patent. The court interpreted the phrase "having a planar skin compatible surface" to mean that the magnetizable sheet could have a single-, double-, or multiple-layer construction. Id. at 20-21. Finding that Nikken had raised a genuine issue of material fact with regard to whether the curved insoles literally infringe the '111 patent, the court denied HoMedics' motion for summary judgment on that ground. Id. at 21.

Third, the court turned to the straight insole products' alleged infringement of the '711 patent. The court construed claim 1 to require "either that the product be self adhesive or that the product be 'attachable to the skin by a self adhesive plaster compatible with the skin.'" Id. at 22 (citation omitted). Having thus construed claim 1 not to require the use of a self-adhesive plaster, the court found that claim 12's "application" of the claimed invention to the body did not require the use of a self-adhesive plaster either. Id. at 23. Based on that claim construction, the court found the existence of genuine issues of material fact and denied HoMedics' motion for summary judgment of noninfringement of the '711 patent. Id. at 26.

The court then granted HoMedics' motion for reconsideration of the summary judgment order in light of our November 2000 decision in Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co., 234 F.3d 558, 56 USPQ2d 1865 (Fed. Cir. 2000) (en banc), vacated in relevant part, 122 S. Ct. 1831 (May 28, 2002). Finding that the "magnetizable flexible sheet" limitation was narrowed during prosecution by an amendment related to patentability, the court ruled that prosecution history estoppel completely barred a finding that the fabric wrap products infringe claim 4 of the '111 patent under the doctrine of

equivalents. Reconsideration Order at 23. Accordingly, the court entered summary judgment that the fabric wrap products do not infringe the '111 patent by equivalence. Id. at 25.

Having disposed of all the summary judgment motions, the court issued an order construing the remaining claims. Nikken USA, Inc. v. Homedics-USA, Inc., Nos. CV-99-9606, CV-99-10549 (C.D. Cal. Feb. 26, 2001) ("Claim Construction Order"). The court considered three limitations found in claim 4 of the '111 patent. The court stated that it had earlier construed, albeit in the context of distinguishing a prior art reference, the phrase "regular, translationally repeating pattern of non-concentric curved first and second areas of alternating magnetic polarity" to require that "magnets of one polarity are placed atop magnets of the other polarity." Id. at 8 (quoting Summary Judgment Order at 18-19) (emphasis omitted). The court next interpreted the phrase "magnetized integrally into the sheet" to mean that "the 'portion' or 'pattern' referenced in the limitation is magnetized wholly, entirely, and completely into the sheet so that it is in a unified, harmonious whole with the sheet." Id. at 11. The court construed the phrase "a plurality of said curved areas" to require "the blood vessel to traverse more than one of the first areas and more than one of the second areas, each area having a north or south polarity." Id. at 14. Turning to the '711 patent, the court declared that it had already construed claim 1 as requiring "either that the product be self adhesive or that the product be 'attachable to the skin by a self adhesive plaster compatible with the skin.'" Id. at 8-9 (quoting Summary Judgment Order at 22-23). The court then interpreted claim 12 of the '711 patent as not incorporating claim 1's self-adhesive limitation by use of the phrase "applying it." Id. at 17.

The case then proceeded to trial. A jury found that the curved insoles infringe claim 4 of the '111 patent and that the straight insoles infringe claims 1 and 12 of the '711 patent. Nikken USA, Inc. v. Robinsons-May, Inc., Nos. CV-99-9606, CV-99-10549, slip op. at 2 (C.D. Cal. Sept. 17, 2001) ("JMOL Order"). The jury also found that HoMedics', but not the retailers', infringement was willful. Id.

Following the jury verdict, both parties moved for JMOL. Finding "a complete absence of any evidence to support infringement" of the "first and second areas of alternating magnetic polarity"

limitation in Nikken's case-in-chief and refusing to consider Nikken's rebuttal evidence on a motion filed under Fed. R. Civ. P. 50(a), the court granted HoMedics' motion for JMOL that the curved insoles do not infringe claim 4 of the '111 patent. *Id.* at 6-7. The court, however, denied HoMedics' motion for JMOL of noninfringement of claims 1 and 12 of the '711 patent by the straight insole products, finding that Nikken had offered sufficient evidence in its case-in-chief. *Id.* at 9. Additionally, the court granted HoMedics' motion for JMOL that its infringement of the '711 patent was not willful, because Nikken had failed to provide enough evidence of HoMedics' intentional copying or failure to exercise due care to sustain the jury's finding of willfulness. *Id.* at 14.

Nikken now appeals from the district court's decisions granting HoMedics summary judgment and JMOL, and HoMedics cross-appeals from the court's denial of JMOL. We have jurisdiction pursuant to 28 U.S.C. § 1295(a)(1) (2000).

DISCUSSION

A. The Fabric Wrap Products

On appeal, Nikken argues that the district court erred in granting summary judgment that the fabric wrap products do not infringe claim 4 of the '111 patent. Nikken contests the district court's construction of the phrase "magnetizable flexible sheet," arguing that the court improperly required every portion of the sheet to be magnetizable. Nikken contends that a proper reading of that phrase — in view of the claim language, the specification, the prosecution history, a prior art reference, a dictionary definition, and expert testimony — requires only that the flexible sheet have permanently magnetized portions and encompasses a flexible sheet with attached magnets. Consequently, Nikken asserts, the district court improperly granted summary judgment that the fabric wraps do not literally infringe claim 4.

Nikken also argues that the court erred in denying the availability of the doctrine of equivalents. Nikken contends that the patentee's addition of the phrase "the flexible sheet having permanently magnetized portions" during prosecution was not a narrowing amendment but was merely intended to

clarify what was already implicit in the claim. Even if the amendment did narrow the claim, Nikken argues, it amended the curved magnetization pattern limitation and should not give rise to prosecution history estoppel regarding the distinct “magnetizable flexible sheet” limitation. Moreover, Nikken adds that the district court’s reliance on our en banc Festo decision is now inappropriate in light of the Supreme Court’s recent vacation of part of that decision in Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co., 122 S. Ct. 1831 (May 28, 2002). Thus, Nikken asserts that it should have been allowed to present evidence that the fabric wraps infringe the ’111 patent under the doctrine of equivalents or that the court’s decision granting summary judgment of noninfringement should be reversed.

HoMedics responds that the court correctly construed claim 4, given the plain meaning of the word “magnetizable,” the specification’s consistent use of that word to refer to flexible sheet material that is itself magnetizable, and the patentee’s explanation during prosecution that the word “magnetizable” means “that the flexible sheet is capable of being magnetized.” Based on the district court’s proper claim construction, HoMedics argues, the fabric wraps do not literally infringe claim 4 because they do not include any flexible sheet that is magnetizable.

HoMedics further responds that the district court did not err in granting summary judgment that the fabric wraps do not infringe the ’111 patent under the doctrine of equivalents. HoMedics contends that a nonmagnetizable sheet with discrete magnets cannot be equivalent to a magnetizable flexible sheet and that Nikken failed to offer any evidence of equivalence. HoMedics also asserts that because claim 4 was narrowed in response to a 35 U.S.C. § 112 rejection, prosecution history estoppel bars Nikken from arguing equivalence.

Looking first at claim construction, we agree with HoMedics that the district court correctly interpreted the phrase “magnetizable flexible sheet.” Relying on that phrase’s plain meaning and a dictionary definition, the court construed “magnetizable flexible sheet” to require that “the flexible sheet itself must be capable of being made a magnet.” Summary Judgment Order at 13 (emphasis added). Indeed, that meaning is consistent with additional claim language, which requires the magnetization

pattern to be “magnetized integrally into the sheet,” ’111 patent, col. 5, l. 46, as well as with the specification, which describes the curved magnetization pattern as being “magnetically imprinted” into “flexible magnetic sheet material,” *id.* at col. 3, ll. 59-61; *see id.* at col. 4, ll. 61-63. Moreover, during prosecution the patent owner explained “magnetizable” as meaning “that the flexible sheet is capable of being magnetized.” Nikken’s argument that the court improperly required every aspect of the sheet to be magnetizable mistakenly focuses on how much of the sheet must be magnetizable; Nikken overlooks the fact that the sheet itself must be magnetizable. Thus, we conclude that the phrase “magnetizable flexible sheet” requires that “the flexible sheet itself must be capable of being made a magnet.”

Having determined that the district court properly construed claim 4, we turn next to infringement. We agree with HoMedics that the district court did not err in granting summary judgment that the fabric wrap products cannot literally infringe claim 4. The fabric wraps do not include flexible sheets that are themselves capable of being made magnets. Instead, the wraps include flexible sheets that are made of neoprene or polyurethane, neither of which is magnetizable. The only magnetizable portions of the wraps are the discrete magnets, which are sewn into the flexible wraps; those magnets are not part of the flexible sheets themselves.

We also agree with HoMedics that, as a matter of law, the fabric wrap products cannot infringe claim 4 under the doctrine of equivalents. Although the district court’s application of a complete bar to any equivalents was correct under then-existing law, it is now incorrect in light of the Supreme Court’s Festo decision, which created a rebuttable presumption of an estoppel arising from a narrowing amendment and barring a claim of equivalence. Festo, 122 S. Ct. at 1842. Nonetheless, we conclude that Nikken is still not entitled to any range of equivalents. Nikken makes only conclusory statements regarding equivalence and has failed to provide any evidence of how the accused fabric wraps are equivalent to the invention claimed in the ’111 patent. Such allegations are not enough to warrant a remand on this issue, as they do not raise any genuine issues of material fact. See Intellicall, Inc. v. Phonometrics, Inc., 952 F.2d 1384, 1389, 21 USPQ2d 1383, 1388 (Fed. Cir. 1992). Additionally, reading the “magnetizable flexible sheet” limitation so broadly as to encompass the affixation of discrete magnets to a flexible sheet, as Nikken urges, would make any flexible material “magnetizable” and

would impermissibly vitiate the disputed limitation. See Warner-Jenkinson, 520 U.S. at 29-30 (holding that the doctrine of equivalents cannot be employed in a manner that effectively eliminates a claim limitation).

Accordingly, we find that the doctrine of equivalents is not available to Nikken. We therefore conclude, as a matter of law, that the district court did not err in granting summary judgment of no infringement, as no reasonable fact-finder could conclude that the fabric wrap products infringe the '111 patent either literally or under the doctrine of equivalents.

B. The Curved Insole Products

On appeal, Nikken argues that the district court erred in granting JMOL that the insole products having a curved magnetization pattern do not infringe claim 4 of the '111 patent. Nikken contends that, in deciding the motion for JMOL, the court should have reviewed the evidence as a whole rather than ignored the evidence that Nikken submitted on rebuttal. Nonetheless, Nikken asserts that it provided sufficient evidence — including the '111 patent, the accused curved insoles, magnetic viewing film, and expert testimony during its case-in-chief alone or in combination with additional expert testimony during its rebuttal — to support the jury's finding of infringement. Nikken also contests the court's claim construction, arguing that the district court incorrectly instructed the jury that the phrase “first and second areas of alternating magnetic polarity” requires “magnets of one polarity [] placed atop magnets of the other polarity.” Specifically, Nikken asserts that that construction adds a limitation to the claim, is contrary to the specification, and is physically impossible because a magnet cannot be of only one polarity.

HoMedics responds that Nikken submitted no evidence regarding the “first and second areas of alternating magnetic polarity” limitation during its case-in-chief, thereby failing to make a prima facie case of infringement. Furthermore, HoMedics argues that the court acted within its discretion in choosing not to consider Nikken's rebuttal evidence when it granted the Rule 50(a) motion for JMOL. As to claim construction, HoMedics argues that the court's interpretation of the phrase “first and second areas of alternating magnetic polarity” is consistent with the specification and notes that, even if

magnets of one polarity were a physical impossibility, that would mean that the jury ignored the court's claim construction in finding infringement.

We agree with Nikken that the district court's claim construction was flawed. In its Summary Judgment Order, the court distinguished claim 4 from a prior art reference and, in so doing, interpreted the phrase "first and second areas of alternating magnetic polarity" as requiring that "magnets of one polarity are placed atop magnets of the opposite polarity." Summary Judgment Order at 18-19. But a proper interpretation of the disputed phrase — that is, one that comports with the claim language, the specification, and the laws of physics — requires two modifications to the district court's claim construction. First, a magnet is not generally understood to have only one pole, but must include two opposite poles.^[2] Raymond A. Serway & Jerry S. Faughn, *College Physics* 591 (4th ed. 1995). The court's references to "magnets of one polarity" are thus more accurately described as "areas of one polarity." Secondly, claim 4 does not require that opposite polarities be placed atop one another.^[3] The claim language imposes no such requirement. On the contrary, the claim and the specification suggest that areas of a given polarity may be positioned adjacent to one another so long as the areas of opposite polarity are alternating and curved. The specification discloses a preferred embodiment having a magnetization pattern in which "first areas" of one polarity and alternating "second areas" of the opposite polarity are separated by boundaries of wavy lines. '111 patent, col. 2, ll. 53-59. Figure 7 depicts those areas of alternating polarity as being adjacent to one another. Id. at fig. 7. Thus, we conclude that claim 4 does not require areas of opposite polarities placed atop one another, but requires areas of one polarity that share curved boundaries with alternating areas of the opposite polarity.

Given that claim construction, we agree with Nikken that the district court erred in granting JMOL that the curved insole products do not infringe claim 4 of the '111 patent. The court found that Nikken provided no evidence regarding the "first and second areas of alternating magnetic polarity" limitation. But that conclusion was based on the court's erroneous and unduly restrictive claim interpretation. Nikken may not have presented evidence of magnets of one polarity atop magnets of the opposite polarity, but it did provide sufficient evidence of "first and second areas of alternating magnetic polarity." Namely, Nikken offered the accused insole products, magnetic viewing film, and the

testimony of Ronald Reagin. In any event, the district court's error in claim construction was harmless because the jury's finding of infringement under the district court's narrower claim construction would necessarily have resulted in a finding of infringement under our broader construction. Thus, we find that Nikken provided sufficient evidence to support the jury's finding that the curved insoles have "first and second areas of alternating magnetic polarity."

After the district court ruled in its JMOL order that Nikken had provided no evidence regarding the "first and second areas of alternating magnetic polarity" limitation, it found no reason to determine whether Nikken had submitted evidence regarding a second limitation that the sheet have "permanently magnetized portions." JMOL Order at 7. However, now that we have determined that Nikken did provide sufficient evidence to support the jury's finding of infringement of the first limitation, we must also consider the second limitation. The district court correctly interpreted the phrase "permanently magnetized portions" as requiring "that a sheet not be entirely magnetized." Id. at 6. We conclude that Nikken's proffered evidence of the accused curved insoles and the magnetic viewing film was such that a reasonable jury could find that the curved insoles have "permanently magnetized portions." Thus, we need not remand the case for the jury to revisit its verdict of infringement on that ground.

In sum, we conclude that sufficient evidence supports the jury's findings that the curved insole products have "first and second areas of alternating magnetic polarity" under a proper construction of that phrase and that they have "permanently magnetized portions." Accordingly, we reverse the district court's JMOL that the curved insoles do not infringe the '111 patent, and we reinstate the jury's finding of infringement.

C. The Straight Insole Products

On cross-appeal, HoMedics argues that the district court erred in denying JMOL that the insole products having a straight magnetization pattern do not literally infringe the '711 patent. HoMedics challenges the court's decision with respect to claims 1 and 12.

1. Claim 1

HoMedics asserts that the straight insoles lack a sheet that is "self adhesive to the skin or attachable to the skin by a self adhesive plaster." HoMedics argues that the district court did not fully construe claim 1 and argues that that claim requires the insole itself to be self-adhesive or to include a

self-adhesive plaster. HoMedics contends that claim 1 does not, as the district court found, include anything that might be attached with a self-adhesive plaster because during the prosecution history the patent owner specifically disclaimed insoles to which a self-adhesive plaster might be added. Moreover, HoMedics argues that the district court's interpretation of claim 1 renders the "attachable to the skin with a self adhesive plaster" limitation meaningless because it makes everything "attachable." Thus, given a proper claim construction, HoMedics asserts, the straight insoles do not infringe claim 1.

Nikken responds that claim 1 does not require a self-adhesive and that HoMedics' straight insoles are "attachable to the skin," according to the ordinary meaning of that phrase. But even under HoMedics' proposed claim construction, Nikken argues, there was sufficient evidence for the jury to find infringement.

We agree with HoMedics that the district court erred in its reading of claim 1. The district court's limited interpretation of claim 1 recognized the disjunctive nature of the claim — that is, that the sheet must be either "self adhesive to the skin" or "attachable to the skin by a self adhesive plaster." It is clear that the straight insoles are not self-adhesive to the skin. Consequently, the question of infringement turns on whether the straight insoles are "attachable to the skin by a self adhesive plaster."

The court did not, however, construe the individual terms in the disputed limitation. We therefore must interpret the phrase "attachable to the skin by a self adhesive plaster." Looking to the plain meaning, we find that the word "attachable" requires that the magnetic sheet itself must be capable of being attached to the skin by a self-adhesive plaster.^[4] But reading the limitation broadly to include any magnetic sheet that could somehow be attached to the skin by the addition of some external means would make everything attachable and would render meaningless the "attachable" limitation. We refuse to construe a claim term so broadly. See Ethicon Endo-Surgery, Inc. v. U.S. Surgical Corp., 93 F.3d 1572, 1578, 40 USPQ2d 1019, 1023 (Fed. Cir. 1996) (refusing to read a limitation so broadly that it would become "meaninglessly empty").

Moreover, statements made during the prosecution history, including reexamination proceedings, are relevant to determining claim scope. E.I. du Pont de Nemours & Co. v. Phillips Petroleum Co., 849 F.2d 1430, 1439, 7 USPQ2d 1129, 1136 (Fed. Cir. 1988). The prosecution history limits the scope of claim terms so as to exclude any interpretation that was disclaimed during prosecution. Pall Corp. v.

PTI Techs. Inc., 259 F.3d 1383, 1393, 59 USPQ2d 1763, 1770 (Fed. Cir. 2001) (citing Southwall Techs., Inc. v. Cardinal IG Co., 54 F.3d 1570, 1576, 34 USPQ2d 1673, 1676 (Fed. Cir. 1995)). During reexamination of the '711 patent, the then-owner of the patent distinguished prior art references by disclaiming certain magnetic therapy devices that are not self-adhesive and that do not include self-adhesive plasters but to which self-adhesive plasters might be added. Specifically, the patent owner argued that two such prior art inventions are not “self adhesive to the skin or attachable to the skin by a self adhesive plaster compatible with the skin” because one is hung as a necklace and the other is attached by a buckle. Nikken cannot now claim a broader scope of claim 1 to include subject matter that has been disclaimed during the prosecution history. Thus, we find that the “attachable” limitation requires the magnetic sheet itself to be “attachable to the skin by a self adhesive plaster” without the addition of other means for attaching and therefore requires the magnetic sheet to include a self-adhesive plaster.

Having construed claim 1 as requiring the magnetized sheet to be self-adhesive or to include a plaster, we conclude that no reasonable jury could have found that the straight insole products infringe that claim. The straight insoles are not self-adhesive. Nor are the insoles themselves “attachable,” for they do not contain any plaster by which to be attached to the skin area. Instead, any attaching must be achieved by some external means — for example, by taping the insoles to a patient’s feet. We therefore find, as a matter of law, that the straight insole products cannot infringe claim 1 of the '711 patent.

2. Claim 12

With respect to claim 12, HoMedics argues that use of the straight insoles does not involve “applying it to the skin area” as the claim requires. HoMedics asserts that, given the ordinary meaning of the phrase “applying it,” claim 12 requires attaching, not simply placing an insole in proximity to the skin area. Moreover, HoMedics contends that the prosecution history mandates such an interpretation because claim 12 was added during prosecution and was “directed to the disclosed use of the claimed product” and because claims 1 and 12 were not distinguished during three reexaminations of the '711 patent. HoMedics further argues that Nikken provided no evidence that the straight insoles were ever self-adhesive or used with a self-adhesive plaster.

Nikken responds that the use of an adhesive and the “attachable” language are found only in

claim 1 and should not be imported into claim 12. Nikken also argues that it provided sufficient evidence to support the jury's finding of infringement.

We agree with HoMedics that the court erred in its interpretation of claim 12. That claim recites:

[A] method of achieving magnetic therapy on a patient which comprises applying it to the skin area of the patient, where it is desired to produce a heat field for a therapeutic purpose, a flexible, permanently magnetized plastic sheet having a flux density of about 50 to 2000 Gauss, a thickness of from 0.2 to 5 mm, which sheet is compatible with the skin, and which sheet has alternating positive and negative parallel magnetized strips and the positive and negative poles of the strips are at distances between each other of from about 4 to 10 mm.

'711 patent, col. 7, l. 14 to col. 8, l. 8 (emphases added). Although claim 12 is far from a model of clarity in claim drafting, we conclude that the word "it," first occurrence, must refer to the later-described "flexible, permanently magnetized plastic sheet." Otherwise, the claim language after the words "a heat field for a therapeutic purpose" would be superfluous. Thus, claim 12 requires "applying [a magnetized plastic sheet] to the skin area." Turning to the word "applying," we find that the ordinary meaning of the word and the fact that the magnetized sheet must be "compatible with the skin" suggest that the sheet must be held in contact with the skin. That conclusion is consistent with the specification's nine examples of the invention, all of which involve "sticking" a magnetized sheet to the skin. *Id.* at col. 4, l. 54 to col. 6, l. 25. Thus, we find the phrase "applying it" to entail affixing a magnetized plastic sheet to the skin area.^[5]

Given our claim interpretation, we conclude that no reasonable jury could have found that the straight insoles infringe claim 12 of the '711 patent. Use of the straight insoles, as sold by HoMedics, does not involve "applying" a magnetized sheet to the skin area because it does not involve affixing the insoles to the skin area. Instead, the insoles are simply placed in a patient's shoe. Such use does not constitute "applying it" as claimed. Consequently, we find, as a matter of law, that the straight insoles cannot infringe claim 12.

In sum, we conclude that no reasonable jury could have found that the straight insole products satisfy the limitations of either claim 1 or claim 12, given proper construction of those claims.

Accordingly, we reverse the district court's denial of JMOL and conclude, as a matter of law, that the straight insole products cannot infringe the '711 patent.

D. Willfulness

On appeal, Nikken also challenges the district court's JMOL that HoMedics' infringement was not willful. Nikken asserts that HoMedics copied its design, claiming that the '111 patent "read[s] like . . . a product specification for HoMedics' wavy-line insoles." Furthermore, Nikken argues that the jury properly considered evidence including HoMedics' failed attempts to license magnetic therapy technology from others; HoMedics' knowledge of the '111 and '711 patents and its possession of Nikken's products prior to creation of the accused products; HoMedics' lack of magnetics knowledge; and HoMedics' untimely opinion letter, which was written one year after Nikken filed suit against HoMedics.

HoMedics responds by pointing to the irrelevance and even falsity of Nikken's willfulness assertions, arguing that there is not sufficient evidence to support the jury's finding of willfulness. HoMedics further argues that Nikken's arguments regarding willful infringement of the '111 patent are not properly raised on appeal because the district court did not address willfulness with regard to the '111 patent in its JMOL order.

Because we have reversed the district court's denial of JMOL with regard to the '711 patent, no finding of infringement with respect to that patent remains. The issue of willfulness as to the '711 patent is thus moot. However, as we have reinstated the jury's verdict of infringement of the '111 patent, the issue of willfulness with respect to that patent is not moot. Nikken presented at trial evidence of willfulness with regard to both patents, and the jury found that HoMedics' infringement of both patents was willful. HoMedics sought JMOL that any infringement of the '111 and '711 patents was not willful. But the district court's decision granting JMOL that HoMedics' infringement was not willful only addressed the '711 patent because the court had ruled that the '111 patent was not infringed. Nonetheless, Nikken argues on appeal that HoMedics' infringement of both the '111 patent and the '711 patent was willful. Given those facts, we conclude that Nikken has properly raised willfulness regarding infringement of the '111 patent, and we address that issue.

Nikken presented evidence and testimony of willfulness regarding the '111 patent, including evidence that HoMedics had knowledge of the '111 patent, that HoMedics obtained samples of Nikken's insole products, that the magnetization patterns of HoMedics' insoles are nearly identical to those claimed in the '111 patent, and that HoMedics' opinion letter regarding the '111 patent was prepared more than a year after Nikken filed suit against HoMedics. We find that evidence sufficient to support the jury's finding by clear and convincing evidence that HoMedics' infringement of the '111 patent was willful. However, because the district court did not decide the question of enhancement of damages resulting from willful infringement, we remand for the district court to determine whether Nikken is entitled to enhanced damages for HoMedics' willful infringement of the '111 patent.

CONCLUSION

The district court correctly granted summary judgment that HoMedics' fabric wrap products do

not infringe the '111 patent, and we affirm that decision. However, the court incorrectly granted JMOL that HoMedics' curved insoles do not infringe the '111 patent; we reverse that decision and reinstate the jury's finding of infringement of the '111 patent. The court also erred in denying JMOL as to the '711 patent; we reverse that denial of JMOL and the jury's verdict of infringement, and we conclude that no reasonable jury could have found that the straight insoles infringe the '711 patent. Finally, we do not address the court's granting of JMOL that HoMedics' infringement of the '711 patent was not willful because that issue is moot; however, we find that sufficient evidence supports the jury's finding that HoMedics' infringement of the '111 patent was willful, and we remand for the district court to determine whether enhanced damages are appropriate. Accordingly, we affirm-in-part, reverse-in-part, and remand-in-part.

[1] The parties later agreed to a stipulated summary judgment of noninfringement with respect to defendants Ames Department Stores, Costco Wholesale Corp., and Pricemart. Nikken USA, Inc. v. Robinsons-May, Inc., Nos. CV 99-9606, CV 99-10549, slip op. at 3 (C.D. Cal. May 23, 2001) (Revised Stipulated Summary Judgment of Noninfringement).

[2] Physicists, however, have acknowledged that “[t]here is some basis for the speculation that magnetic monopoles . . . may exist in nature.” Raymond A. Serway & Jerry S. Faughn, *College Physics* 591 (4th ed. 1995).

[3] The district court seems to have garnered the “atop” requirement from a preferred embodiment and Figure 2 in the specification, both of which describe a polka dot magnetization pattern. See Summary Judgment Order at 18-19. However, those examples do not require opposite polarities “atop” one another and are more illustrative of the magnetization pattern of claim 1, not that of claim 4.

[4] Such a reading is consistent with the court's finding that the word “magnetizable,” found in claim 4 of the '111 patent and also having the “-able” suffix, requires that the sheet itself be capable of being made a magnet. Summary Judgment Order at 13.

[5] The district court correctly stated that limitations found in claim 1, such as the “self adhesive” and “attaching” limitations, should not be imported into claim 12. Claim Construction Order at 17. However, use of claim 1's self-adhesive or plaster to attach a sheet to the skin area would seem to be the intended method of “applying it.”

