

United States Court of Appeals for the Federal Circuit

05-1088

AQUATEX INDUSTRIES, INC.,

Plaintiff-Appellant,

v.

TECHNICHE SOLUTIONS,

Defendant-Appellee.

Jack A. Wheat, Stites & Harbison, of Louisville, Kentucky, argued for plaintiff-appellant. With him on the brief was Joel T. Beres. Of counsel on the brief were Richard S. Myers, Jr., James R. Michels and Alexandra T. MacKay, of Nashville, Tennessee.

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Appealed from: United States District Court for the Middle District of Tennessee

Chief Judge Robert L. Echols

United States Court of Appeals for the Federal Circuit

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v.

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Defendant-Appellee.

DECIDED: August 19, 2005

Before MAYER, GAJARSA, and DYK, Circuit Judges.

MAYER, Circuit Judge.

AquaTex Industries, Inc. ("AquaTex") appeals the judgment of the United States District Court for the Middle District of Tennessee, AquaTex Indus. Inc. v. Techniche Solutions, No. 02-CV-914 (M.D. Tenn. Sept. 27, 2004), granting summary judgment of noninfringement in favor of Techniche Solutions ("Techniche"). Because there was no literal infringement, and because the district court improperly determined that prosecution history estoppel barred infringement under the doctrine of equivalents, we affirm-in-part, reverse-in-part, and remand.

Background

AquaTex initiated this action against Technique for contributory infringement of United States Patent No. 6,371,977 ("the '977 patent"). AquaTex is the assignee of the '977 patent entitled "Protective Multi-Layered Liquid Retaining Composite." Both parties market multi-layered, liquid-retaining composite material for evaporative cooling garments. AquaTex contends that Technique's evaporative cooling garments and products infringe the '977 patent either literally or under the doctrine of equivalents.

The '977 patent claims a method of cooling a person through evaporation by providing a multi-layered, liquid-retaining composite material comprising a fiberfill batting, and either hydrophilic polymeric fibers or hydrophilic polymeric particles. The technology is suited for use in a wide variety of items such as protective garments, blankets, and compresses. In general terms, practice of the patented method involves soaking a composite material in a liquid for a matter of minutes, wringing out the excess liquid, and then placing the material or garment against a person for cooling by evaporation.

The '977 patent specification describes the invention as including:

a basic configuration of a multi-layered, liquid-retaining composite material comprising of: a conductive layer which is adapted for placement in close proximity to, or indirect contact with the body of the wearer; a filler layer impregnated [with] a fiberfill batting material and with liquid absorbent particles, fibers, or a combination of both; a retainer layer for retention of the filler layer between the conductive layer and the retention layer; and, if needed, an outside protective layer attached to, or placed adjacent to, the outermost surface of the retention layer.

'977 patent, col. 3, ll. 31-44. The patent includes 35 claims. Independent claims 1 and 9 are disputed in this case. Claim 1 reads:

A method of cooling a person by evaporation, comprising:

providing a multi-layered, liquid-retaining composite material comprising a fiberfill batting material, and hydrophilic polymeric fibers that absorb at least about 2.5 times the fiber's weight in water; soaking said multi-layered composite in a liquid; employing said multi-layered, liquid-retaining composite material as a garment or a flat sheet and evaporatively cooling said person.

'977 patent, col. 13, ll. 64-67 & col. 14, ll. 1-6 (emphasis added). Similarly, claim 9 requires the water-absorbent layer to comprise "a fiberfill batting material and hydrophilic polymeric particles."

The specification of the '977 patent describes a "filler layer impregnated [with] a fiberfill batting material and with liquid absorbent particles, fibers, or a combination of both[.]" col. 3, ll. 37-39. Further, the specification states:

With respect to the liquid absorbent fibers, the blend is a combination of a superabsorbent polymeric fiber and a fiberfill or batting. The particular fiberfill is not known to be critical. That is, any commercial fiberfill may be used as long as it does not adversely affect the performance of the end composite. Accordingly, when the end composite is to be used as or part of a fire retardant garment, the fiberfill or batting is chosen accordingly. In such a case, the fiberfill is typically comprised of a flame and heat resistant material such as woven aramid and/or polybenzimidazole ("PBI") fibers. That is, the fiberfill is selected from a group consisting of an aramid polymer fabric material, as [a] blend of aramid polymer fabric materials, a polybenzimidazole material, and a blend of aramid polymer fabric and polybenzimidazole materials. For other non-flame retardant applications, commercial fiberfill such as DuPont DACRON® available from DuPont, or polyester fiberfill products from Consolidated Textiles, Inc. of Charlotte, N.C. Additionally, U.S. Pat. Nos. 5,104,725; 4,304,817; and 4,818,599; all of which [are] incorporated by reference, disclose fiberfill fibers and blends suitable for certain applications of the present invention.

'977 patent, col. 3, ll. 45-65. The commercial fiberfill examples described in the specification are all synthetic or man-made materials. Likewise, the three United States patents incorporated by reference each discloses and teaches the use of synthetic polyester fiberfill or synthetic polyester fiberfill blends.

During prosecution of the '977 patent the United States Patent and Trademark Office initially rejected AquaTex's current claims 1 and 9 as anticipated by United States Patent No. 4,897,297 ("the '297 patent"). The rejection focused on the '297 patent's disclosure of a method for cooling a person using a multi-layered, liquid-retaining composite material comprising a fiberfill batting material. The examiner noted that the disclosed fiberfill batting material was a "mixture of synthetic polymer pulp or wood pulp, which is a fiber." In response to the office action, AquaTex traversed the rejection by distinguishing the '297 patent and by adding an additional claim limitation. AquaTex contended that: "The '297 Patent discloses a compress that is made from an elastic fabric and comprises a hydrogel-forming polymeric material. The absorbent polymer filler material may be particulate, and may be accompanied by a diluent filling material." Important to our analysis, AquaTex stated "the '297 Patent fails to disclose or suggest the fiberfill batting and polymeric fibers and/or particles of the composite material in the claimed method. Additionally, the '297 Patent fails to disclose or suggest the evaporative cooling method of the present invention." Addressing an obviousness rejection by the examiner based upon the '297 patent, AquaTex similarly pointed out that "the '297 Patent does not cool by evaporation, and is elastic."

AquaTex amended current claims 1 and 9 to specify cooling a person "by evaporation" to distinguish the '297 patent. As discussed in the office action response, the combination of materials within the '297 patent is designed to retain liquid and insignificant amounts of evaporation would occur over long periods of time. AquaTex contrasted the evaporative cooling method of the claimed invention which is designed to

release rather than retain moisture. The examiner withdrew the rejection and allowed the '977 patent to issue.

Techniche's accused products use Vizorb®, which is manufactured by Buckeye Technologies. Vizorb® is a commercially available composite material primarily containing cellulose fluffed pulp, but also incorporating both natural and synthetic fibers. In particular, it is manufactured from wood cellulose, superabsorbent polymer, bicomponent fiber, cellulose based carrier sheet, and a chemical binder. Physically, Vizorb's® fibers are between three to six millimeters in length and the product is glued together. The superabsorbent in Vizorb® is generally referred to as a powder. It is typically used in feminine hygiene products, baby diapers, and adult incontinence products, not as filler for furniture, pillows, or sleeping bags.

Techniche moved for summary judgment on the ground that its accused product does not infringe AquaTex's '977 patent literally or by application of the doctrine of equivalents. AquaTex correspondingly moved for partial summary judgment that Techniche's products do infringe its '977 patent.

The trial court construed "fiberfill" from the perspective of one of ordinary skill in the art to encompass synthetic fibers, and not natural fibers or a combination of synthetic and natural fibers. The court based its claim construction analysis on the ordinary meaning of the claim term "fiberfill" as elicited from a number of technical and industry dictionaries. Further, the court examined the specification of the '977 patent to reach the determination that the commercial fiberfill batting contemplated by the patentee must consist of polyester or other synthetic fibers. It also found that AquaTex disavowed the claim scope of natural fibers during prosecution of the '977 patent by

stating in its office action response that “the ’297 Patent fails to disclose or suggest the fiberfill batting and polymeric fibers and/or particles of the composite material in the claimed method.” The court concluded that AquaTex was barred from asserting any doctrine of equivalents claim because it disavowed the use of wood pulp or a mixture of synthetic and natural fibers as fiberfill in the water-absorbent layer. It reasoned that prosecution history estoppel barred AquaTex from asserting that “fiberfill batting material” could be partially comprised of natural fibers. The court granted Techniche’s motion for summary judgment of noninfringement, denied its request for attorney fees,^{*} and denied AquaTex’s motion for sanctions, which is not at issue in this appeal. AquaTex appeals and our jurisdiction is pursuant to 28 U.S.C. § 1295(a)(1).

Discussion

We review a district court’s grant of summary judgment *de novo*. Vanmoor v. Wal-Mart Stores, Inc., 201 F.3d 1363, 1365 (Fed. Cir. 2000). “Summary judgment is appropriate when there is no genuine issue as to any material fact and the moving party is entitled to judgment as a matter of law.” *Id.* (citations omitted). Summary judgment is improper “if the evidence is such that a reasonable jury could return a verdict for the nonmoving party.” Anderson v. Liberty Lobby, Inc., 477 U.S. 242, 248 (1986). “In the context of a grant of summary judgment of no infringement, this court reviews the entire infringement inquiry without deference.” Salazar v. Procter & Gamble Co., 2005 U.S. App. LEXIS 1351, at *5 (Fed. Cir. July 8, 2005) (citing Omega Eng’g, Inc. v. Raytek

* Because Techniche failed to cross appeal on this issue properly, we decline to consider it. See Radio Steel & Mfg. Co. v. MTD Prods., Inc., 731 F.2d 840, 844 (Fed. Cir. 1984) (“[A] party will not be permitted to argue before us an issue on which it has lost and on which it has not appealed, where the result of acceptance of its argument would be a reversal or modification of the judgment rather than an affirmance.”).

Corp., 334 F.3d 1314, 1320 (Fed. Cir. 2003)). Application of prosecution history estoppel to limit the doctrine of equivalents presents a question of law that this court also reviews without deference. Glaxo Wellcome, Inc. v. Impax Labs., Inc., 356 F.3d 1348, 1351 (Fed. Cir. 2004).

Because the '977 patent claims the use of evaporative cooling garments, rather than the actual multi-layer fabric itself, AquaTex's cause of action is one for contributory infringement under 35 U.S.C. § 271(c). Although not directly infringing, a party may still be liable for inducement or contributory infringement of a method claim if it sells infringing devices to customers who use them in a way that directly infringes the method claim.^{**} R.F. Del., Inc. v. Pac. Keystone Techs., Inc., 326 F.3d 1255, 1267 (Fed. Cir. 2003). “Liability for either active inducement of infringement or for contributory infringement is dependent upon the existence of direct infringement.” Joy Techs., Inc. v. Flakt, Inc., 6 F.3d 770, 774 (Fed. Cir. 1993).

“An infringement analysis entails two steps. First, the meaning and scope of the asserted patent claims is determined, and then the properly construed claims are compared to the accused product or process.” Ranbaxy Pharm., Inc. v. Apotex, Inc., 350 F.3d 1235, 1239-40 (Fed. Cir. 2003) (citing Cybor Corp. v. FAS Techs., Inc., 138

^{**} The trial court determined that in order for contributory infringement to exist, Vizorb®, a component of Techniche's products, must not have any substantial noninfringing uses. Contributory infringement liability arises when one “sells within the United States . . . a[n] . . . apparatus for use in practicing a patented process, constituting a material part of the invention . . . and not a staple article or commodity of commerce suitable for substantial noninfringing use” 35 U.S.C. § 271(c) (2000). From the record before us, the “apparatus for use in practicing” the claimed methods is Techniche's multi-layered product. The proper question is not whether Vizorb® is a staple article of commerce, which is readily apparent, but whether the accused Techniche products are “suitable for substantial noninfringing use[s].”

F.3d 1448, 1454 (Fed. Cir. 1998) (en banc)). Claim construction is a question of law reviewed de novo. Cybor Corp., 138 F.3d at 1456.

To ascertain the meaning of a disputed claim term “the words of a claim are generally given their ordinary and customary meaning,” as would be understood by “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.” Phillips v. AWH Corp., 415 F.3d 1303, __, (Fed. Cir. 2005) (en banc). The specification is of central importance in construing claims because “the person of ordinary skill in the art is deemed to read the claim term not only in the context of the particular claim in which the disputed term appears, but in the context of the entire patent, including the specification.” Id. at *24. Where, as here, the disputed claim term is technical or a term of art, “[t]he best source for understanding [it] is the specification from which it arose, informed, as needed, by the prosecution history.” Id. at *30 (quoting Multiform Desiccants, Inc. v. Medzam Ltd., 133 F.3d 1473, 1478 (Fed. Cir. 1998)). Along with the intrinsic evidence of record, including the prosecution history, extrinsic evidence can be useful in claim construction and “technical dictionaries may provide [help] to a court ‘to better understand the underlying technology’ and the way in which one of skill in the art might use the claim terms.” Id. at *38 (quoting Vitronics Corp. v. Conceptronic, Inc., 90 F.3d 1576, 1584 (Fed. Cir. 1996)).

The claim limitation disputed by the parties is “fiberfill batting material,” and the primary issue is whether it should be construed to encompass only synthetic fibers as the trial court held. Resolution of the claim construction issue then controls whether Vizorb® constitutes “fiberfill” as required by the ’977 patent for literal infringement

because Vizorb® contains a combination of natural and synthetic fibers. Whether Techniche is liable for contributory infringement depends upon this issue.

Turning to the specification of the '977 patent, we examine the context of the term "fiberfill" in the claims themselves. Both claims 1 and 9 call for a method of cooling a person by evaporation through use of "a multi-layered, liquid-retaining composite material comprising a fiberfill batting material, and hydrophilic polymeric fibers [particles in claim 9] . . ." As used in this context, the fiberfill batting material, in conjunction with other polymeric fibers or particles, must be capable of liquid retention and evaporation. The claims, however, offer little guidance as to the underlying composition of "fiberfill batting material" apart from the functions it must be capable of performing.

The written description, on the other hand, does provide guidance as to the composition of "fiberfill batting material." In the detailed description of the invention, AquaTex dictated that "[t]he particular fiberfill is not known to be critical. That is, any commercial fiberfill may be used as long as it does not adversely affect the performance of the end composite." '977 patent, col. 3, ll. 47-50. From this statement, the patentee has informed the public that any commercial fiberfill that is capable of performing the claimed functions will suffice. The written description continues by describing numerous examples of commercial grade fiberfill, all of which are comprised entirely of synthetic materials.

Because AquaTex chose to incorporate by reference the teachings of three United States Patents to define the scope of the term "fiberfill," these publications are highly relevant to one of ordinary skill in the art for ascertaining the breadth of the claim term. In United States Patent No. 4,304,817, the specification teaches that "[p]olyester fiberfill

is used commercially in many garments and other articles because of its desirable thermal insulating and aesthetic properties Most commercial polyester fiberfill has been in the form of crimped polyester staple fiber.” col. 1, ll. 11-16. Similarly, the remaining two patents describe “fiberfill” in terms of a synthetic, normally polyester, fiber for use as a filling material. None of the patents discusses the possibility of using natural fibers as commercial fiberfill batting.

“In addition to consulting the specification . . . a court ‘should also consider the patent’s prosecution history, if it is in evidence.’” Phillips, 415 F.3d at __ (quoting Markman v. Westview Instr., Inc., 52 F.3d 967, 980 (Fed. Cir. 1995) (en banc)). In interpreting “fiberfill,” the trial court relied heavily upon statements made during prosecution of the ’977 patent as a clear disavowal of natural fibers for use as “fiberfill batting material.” The prosecution history, however, is ambiguous and does not directly address the composition of “fiberfill.” Thus, we disagree with the trial court that AquaTex’s arguments foreclose potential compositions of fiberfill, and we decline to give the prosecution history much weight. See Phillips, 415 F.3d at __ (because the prosecution history represents an ongoing negotiation, “it often lacks the clarity of the specification and thus is less useful for claim construction purposes”). Particularly, the examiner represented that the prior art ’297 patent contained a blend of fiberfill batting comprised of synthetic polymer pulp and wood pulp. Instead of addressing the composition of the fiberfill batting in the prior art, AquaTex chose to traverse the rejection by distinguishing how the overall composition of materials was used, and by pointing out that the prior art composition of materials was designed to retain liquid for long periods of time. The representations made during prosecution neither support nor

discredit any particular meaning of the term “fiberfill.” They are not a clear disavowal of claim scope.

The extrinsic evidence of record, in the form of technical dictionaries, supports construing “fiberfill” as a purely synthetic fiber because it is consistently defined as such. The definitions given in all but one of the dictionaries relied upon by the trial court define “fiberfill” as either a synthetic fiber or as a man-made material used as a filler for various items. The contradictory source was a chemical dictionary that simply gave two examples of natural materials that could constitute “fiberfill.” Other extrinsic industry sources examined by the trial court lend support to construing “fiberfill” as a synthetic or polyester fill material. The United States Customs Service, in its publication “Fiber Trade Names and Generic Terms” Nov. 1999, lists “Fiberfill” as a “Fiber Trade Name” for the generic term “Polyester.” Similarly, the United States International Trade Commission issued a ruling that polyester staple fiber is known in the industry as “fiber for fill.” Certain Polyester Staple Fiber from Korea and Taiwan, Investigation Nos. 731-TA-825-826 (Final) (May 5, 2000).

While we adhere to the adage that limitations from the specification must not be imported into the claims, see, e.g., Nazomi Communications, Inc. v. ARM Holdings, PLC, 403 F.3d 1364, 1369 (Fed. Cir. 2005), based upon the teachings of the specification, one of ordinary skill in the textile manufacturing industry would understand that commercial “fiberfill batting material” is made of synthetic or polyester fibers. The combined teachings within the specification of the ’977 patent, the patents incorporated by reference, and the consistent interpretations in the industry publications would lead one skilled in the art to this conclusion. Therefore, we affirm the district court’s

determination that the accused Techniche products do not literally infringe claims 1 and 9 of the '977 patent.

However, “[t]he doctrine of equivalents allows the patentee to claim those insubstantial alterations that were not captured in drafting the original patent claim but which could be created through trivial changes.” Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co., 535 U.S. 722, 733 (2002) (“Festo II”). Infringement under the doctrine of equivalents requires that the accused product contain each limitation of the claim or its equivalent. Warner-Jenkinson Co. v. Hilton Davis Chem. Co., 520 U.S. 17, 40 (1997). An element in the accused product is equivalent to a claim limitation if the differences between the two are insubstantial. The analysis focuses on whether the element in the accused device “performs substantially the same function in substantially the same way to obtain the same result” as the claim limitation. Graver Tank & Mfg. Co. v. Linde Air Prods. Co., 339 U.S. 605, 608 (1950) (internal quotation omitted).

Prosecution history estoppel can prevent a patentee from relying on the doctrine of equivalents when the patentee relinquishes subject matter during the prosecution of the patent, either by amendment or argument. Pharmacia & Upjohn Co. v. Mylan Pharm., Inc., 170 F.3d 1373, 1376-77 (Fed. Cir. 1999). “The doctrine of prosecution history estoppel limits the doctrine of equivalents when an applicant makes a narrowing amendment for purposes of patentability, or clearly and unmistakably surrenders subject matter by arguments made to an examiner.” Salazar, 2005 U.S. App. LEXIS 13517, at *6; see Festo II, 535 U.S. at 736 (narrowing amendment for purposes of patentability); Eagle Comtronics, Inc. v. Arrow Communication Labs., Inc., 305 F.3d 1303, 1316 (Fed. Cir. 2002) (argument-based estoppel).

While at least one claim limitation was added here to overcome an anticipation rejection during the prosecution of the patent, Techniche does not allege amendment-based estoppel. Instead it asserts argument-based estoppel. To invoke argument-based estoppel, the prosecution history “must evince a clear and unmistakable surrender of subject matter.” Pharmacia, 170 F.3d at 1377 (internal quotation omitted). To determine if subject matter has been relinquished, an objective test is applied, inquiring “whether a competitor would reasonably believe that the applicant had surrendered the relevant subject matter.” Cybor Corp., 138 F.3d at 1457.

We do not see the clear and unmistakable surrender of subject matter required to invoke argument-based prosecution history estoppel. During prosecution of the '977 patent AquaTex stated that “the '297 Patent fails to disclose or suggest the fiberfill batting and polymeric fibers and/or particles of the composite material in the claimed method.” Techniche and the trial court believe this argument limited claim coverage of fiberfill to only synthetic fibers. The argument, however, does not address or even relate to the composition of the fiberfill batting. Rather, it was based on the '297 patent not teaching or suggesting the overall composition of materials, or the use of the disclosed compress to cool a person through evaporation. The compress of the '297 patent was designed to retain much of its liquid over long periods of time, thus giving the material a high heat capacity and a high insulative value. '297 patent, col. 6, ll. 24-55. The claimed invention of the '977 patent achieves cooling through evaporation.

The arguments made during prosecution, and the corresponding addition of the claim limitation “by evaporation,” indicate that AquaTex was distinguishing the overall method of cooling of its claimed invention from that of the '297 patent. The subject

matter surrendered by the narrowing amendment bears no relation to the composition of the fiberfill batting material. There is no indication in the prosecution history whether or not AquaTex agreed or disagreed with the examiner's statement that the fiberfill found in the prior art comprised natural fibers. Thus, the trial court erred in holding that prosecution history estoppel barred AquaTex from asserting infringement under the doctrine of equivalents. Upon remand the trial court must consider whether or not each limitation of the claims in dispute, or its equivalent, is present in the accused Techniche products. See Graver Tank, 339 U.S. at 608.

Conclusion

Accordingly, the judgment of the United States District Court for the Middle District of Tennessee is affirmed-in-part, reversed-in-part, and the case is remanded for further proceedings consistent with this opinion.

COSTS

No costs.

AFFIRMED-IN-PART, REVERSED-IN-PART, AND REMANDED