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United States Court of Appeals for the Federal Circuit

04-1503

OUTLAST TECHNOLOGIES, INCORPORATED,

Plaintiff-Appellant,

v.

FRISBY TECHNOLOGIES, INCORPORATED,

Defendant-Appellee.

DECIDED: March 30, 2005

Before MICHEL, Chief Judge, RADER, and SCHALL, Circuit Judges.

SCHALL, Circuit Judge.

DECISION

Outlast Technologies, Inc. (“Outlast”), acting as an exclusive licensee, sued Frisby Technologies, Inc. (“Frisby”) for infringement of U.S. Patent No. 5,366,801 (issued Nov. 22, 1994) (“the ’801 patent”) in the United States District Court for the District of Colorado. Frisby denied infringement and asserted counterclaims for tortious interference with business relations and trade libel. On January 14, 2004, the district court granted Frisby partial summary judgment of non-infringement. Outlast Techs.,

Inc. v. Frisby Techs., Inc., 298 F. Supp. 2d 1112 (D. Colo. 2004) (“Summary Judgment”). The court subsequently certified the judgment under Fed. R. Civ. P. 54(b) and Outlast appealed to this court. Because we conclude that the district court erred in construing the asserted claims, we reverse and remand for further proceedings consistent with this decision.

DISCUSSION

I.

The technology at issue in this case relates to temperature-resistant, phase-change materials (“PCMs”). PCMs resist change in temperature by changing between their solid and liquid states. For instance, if the ambient temperature increases, the PCMs change from their solid to liquid phase and, in making this phase change, absorb heat from the surrounding environment. Similarly, if the ambient temperature decreases, the PCMs change back from their liquid to solid phase, which, in turn, has the incidental effect of releasing heat back into the environment. There are numerous types of PCMs, and different types of PCMs exhibit different phase-change temperatures. This allows for temperature control based on the particular type of PCM selected.

The temperature-resistant properties of PCMs make them well suited for use in jackets, gloves, hats, and other articles of clothing where it is desirable to have a material resistant to changes in temperature. For example, when incorporated into the fabric of a ski jacket, the PCMs work to maintain a constant, comfortable temperature for the wearer. If the wearer starts to get too warm, the PCMs absorb the heat and thereby keep the wearer cool; if the wearer starts to get too cold, the PCMs release heat

and warm the wearer. This is the general application claimed by the '801 patent. Claim 1 is representative and reads:

An article having enhanced thermal storage properties and repeatability of thermal response consisting essentially of:

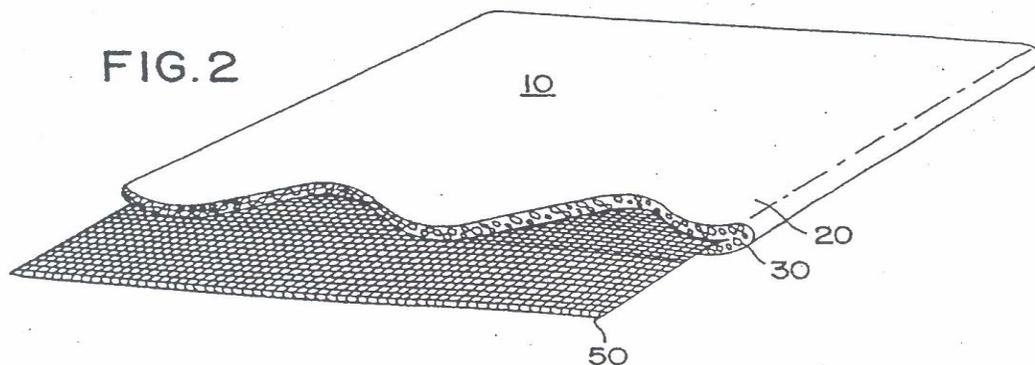
a base material (50) selected from the group consisting of fabrics and fibers, and

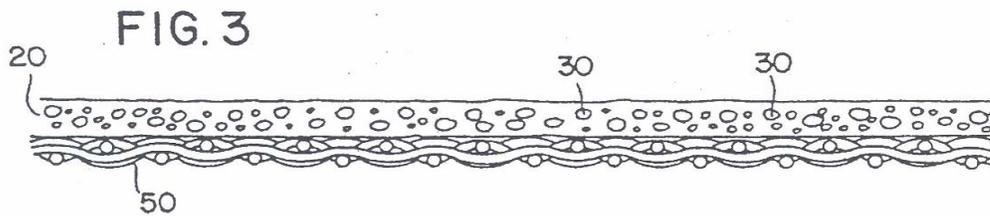
a coating (10) covering at least a portion of the surface of said base material (50) and comprising:

a polymeric binder (20), and

a plurality of microcapsules (30) dispersed throughout and submerged within said binder (20) on the surface of said base material (50) so as to be surrounded thereby, said microcapsules (30) containing a temperature stabilizing means selected from the group consisting of phase change materials and plastic crystals, whereby the article exhibits enhanced thermal stability when subjected to heat or cold.

'801 patent, col. 5, ll. 35-50 (numerals and emphases added). An embodiment of the claim is shown below in figures 2 and 3 from the '801 patent, where figure 3 is a cross-sectional view of figure 2.





As shown in figures 2 and 3, the article consists generally of a coating (10), which is a mixture of microcapsules (30) and a polymeric binder (20), and a base material (50). Although not specifically identified in the figures, the PCMs are enclosed within the microcapsules (30), which are in turn surrounded by the polymeric binder (20). This creates a “dual wall” structure around the PCMs—the first wall being formed by the microcapsules (30) and the second wall by the polymeric binder (20)—that serves to retain the PCMs within the article. It is this coating that is then applied to the surface of the base material to form the temperature-change-resistant article. Note that in figures 2 and 3 the base material is a fabric, but the claim states that it could also be an individual fiber.

II.

On September 24, 2001, Outlast sued Frisby for infringement of the '801 patent. Outlast specifically alleged that Frisby's ComforTemp® product, a non-woven fabric, infringed independent claim 1 and dependent claims 2, 3, and 6 of the '801 patent. Summary Judgment, 298 F. Supp. 2d at 1114. Frisby denied infringement and filed counterclaims for tortious interference with business relations and trade libel. In due course, the parties filed cross motions for summary judgment. However, before the court could rule on the motions, all proceedings were stayed as a result of Frisby filing for bankruptcy in the United States Bankruptcy Court for the Middle District of North

Carolina. Id. at 1113. Subsequently, the bankruptcy court modified the stay order to allow the cross-motions for summary judgment on infringement to go forward. Id. at 1113-14.

Thereafter, the parties agreed to have the case referred to a magistrate judge. On January 14, 2004, the magistrate judge granted partial summary judgment in favor of Frisby. The court's decision was based on its construction of the term "on the surface of said base material." Specifically, the court determined that during prosecution of the '801 patent the patentees disclaimed articles in which the microcapsules were impregnated in the fabric. Id. at 1123. It therefore concluded that "on the surface of said base material" was strictly limited to mean articles with microcapsules only on the surface of the fabric. See id. at 1123-24. As a result, and because "it [was] undisputed that Frisby's accused products [were] made by impregnating a nonwoven fabric starting material," the court granted Frisby partial summary judgment of non-infringement. Id. at 1124.

The court applied prosecution disclaimer based on statements the patentees made in overcoming an obviousness rejection by the Examiner; specifically, statements made in overcoming the Examiner's obviousness rejection based on "the Bryant reference" in view of "the Woo reference."¹ Id. at 1120. According to the Examiner, the combination rendered the claimed invention obvious because the Bryant reference disclosed microcapsules filled with a PCM, id. at 1118, and the Woo reference disclosed

¹ This was actually the second obviousness rejection. The Examiner had previously rejected the claims as obvious in view of the Bryant and Doree references. Summary Judgment, 298 F. Supp. 2d at 1119-20. In response, the patentees amended the claims and successfully distinguished their invention from that combination based on its "dual wall" structure. Id. at 1120.

an article made by applying a mixture of microcapsules and binder material to a fabric and then “impregnating” the mixture into the fabric by passing the coated fabric through a pair of heated rollers, id. at 1119.

In response to the rejection, the patentees amended claim 1 by adding, among other things, the “on the surface of said base material” language.² In addition, the patentees submitted accompanying remarks explaining how the claimed invention differed from Woo. It was from these additional remarks that the district court concluded the patentees disclaimed impregnated fabrics. In particular, the court focused on the following statement:

In contrast [to Woo], the present invention is a coating that is applied to the surface or the substrate (i.e., the fabric or the fiber) and is intended to remain on the surface.

Id. at 1122. Based on this statement, the court held that the patentees had unambiguously disclaimed impregnated fabrics and, therefore, “on the surface of said base material” meant that the binder-microcapsule mixture must be only on the surface of the fabric; not impregnated within the fabric. Id. at 1122-23.

The district court acknowledged that the patentees’ accompanying remarks contained statements indicating that the coating could also be located within the interstices of the fabric:

In contrast, in the present invention, the microcapsules are placed on the surface of the substrate as well as within the interstices of the substrate, should there be any such interstices

Id. at 1122. However, the court concluded that

² The patentees also amended another limitation of the claim to read “a coating covering at least a portion of the surface of said base material and comprising:”

[t]he patentee's additional statements in the amendment form cannot alter the clear effect of the prosecution history Prosecution history disclaimer is substantive, focusing on the "subject matter the patentee relinquished or disclaimed." Here, . . . "the simple chronology of the prosecution history" leads inexorably to the conclusion that the second amendment to [the claim] narrowed the scope of that claim to exclude application of the microcapsules by impregnation.

Id. (citations omitted).

The district court certified its summary judgment decision under Fed. R. Civ. P. 54(b) and Outlast timely appealed to this court.³ We have jurisdiction pursuant to 28 U.S.C. § 1295(a)(1).

III.

We review a grant of summary judgment de novo. TorPharm Inc. v. Ranbaxy Pharms., Inc., 336 F.3d 1322, 1326 (Fed. Cir. 2003). Summary judgment is appropriate "if the pleadings, depositions, answers to interrogatories, and admissions on file, together with the affidavits, if any, show that there is no genuine issue as to any material fact and that the moving party is entitled to judgment as a matter of law." Fed. R. Civ. P. 56(c). Resolution of a patent infringement claim requires a district court to first construe the claims and, second, compare the accused product to the properly construed claims. Mars, Inc. v. H.J. Heinz Co., L.P., 377 F.3d 1369, 1373 (Fed. Cir. 2004). The first step is a question of law, while the second is a question of fact. Power Mosfet Techs., L.L.C. v. Siemens AG, 378 F.3d 1396, 1406 (Fed. Cir. 2004).

"It is well-settled that, in interpreting an asserted claim, the court should look first to the intrinsic evidence of record, i.e., the patent itself, including the claims, the

³ The bankruptcy court again modified the stay order for the sole purpose of allowing Outlast to appeal the district court's summary judgment decision. (J.A. at 990.)

specification and, if in evidence, the prosecution history.” Vitronics Corp. v. Conceptronic, Inc., 90 F.3d 1576, 1582 (Fed. Cir. 1996). Under this framework, claim terms are given their ordinary meaning “unless the patentee unequivocally imparted a novel meaning to those terms or expressly relinquished claim scope during prosecution.” Omega Eng’g, Inc. v. Raytek Corp., 334 F.3d 1314, 1323 (Fed. Cir. 2003). Accordingly, we have held that ambiguous statements in the prosecution history are not sufficient to surrender claim scope. Kumar v. Ovonic Battery Co., Inc., 351 F.3d 1364, 1371 (Fed. Cir. 2003). Rather, “for prosecution disclaimer to attach, our precedent requires that the alleged disavowing actions or statements made during prosecution be both clear and unmistakable.” Omega Eng’g, 334 F.3d at 1326.

On appeal, Outlast first contends that the district court erred by not giving “on the surface of said base material” its plain and ordinary meaning. More specifically, Outlast argues that the statements made by the patentees in distinguishing the Woo reference do not support the court’s conclusion that the patentees disclaimed all articles in which the microcapsules are impregnated into the fabric. Outlast asserts that the district court’s construction has the impermissible effect of reading a process limitation into a product claim and of excluding two of the three embodiments disclosed in the ’801 patent’s specification. Second, Outlast urges that, under the correct claim construction, the district court should have granted partial summary judgment of infringement in its favor.

In response, Frisby contends that the district court properly interpreted claim 1 to exclude articles containing impregnated microcapsules. First, Frisby argues that the patentees unambiguously disclaimed impregnated fabrics during prosecution of the ’801

patent. Frisby asserts that the district court properly ignored the patentees' statement that the microcapsules could also be dispersed within the interstices of the base material because the statement is of no legal significance according to this court's decision in Springs Window Fashions LP v. Novo Indus., L.P., 323 F.3d 989, 994 (Fed. Cir. 2003). Second, even if prosecution disclaimer did not occur, Frisby urges that the district court's construction is nevertheless supported by the plain language of the claim, because the "consisting essentially of" transition phrase means that the article must "consist essentially of surface coated fabric." Frisby further urges that the Markush form of the limitation "a base material selected from the group consisting of fabrics and fibers," precludes Outlast from arguing that impregnated fabrics consist essentially of surface coated fibers. This, according to Frisby, is because the use of a Markush group requires that the base material consist either of fabric or fiber, but not both.

IV.

We agree with Outlast that the district court erred in its construction of the asserted claims. First, we do not think that the patentees clearly disclaimed impregnated materials or materials made by an impregnation process⁴ during prosecution of the '801 patent. It is true that in distinguishing Woo the patentees stated that

the present invention is a coating that is applied to the surface or the substrate (i.e., the fabric or the fiber) and is intended to remain on the surface.

⁴ We note that, absent clear and unambiguous evidence to the contrary, a product claim is not limited to, or does not exclude, products made by a particular process. See Vanguard Prods. Corp. v. Parker Hannifin Corp., 234 F.3d 1370, 1372 (Fed. Cir. 2000).

Summary Judgment, 298 F. Supp. 2d at 1122. However, as already noted, the patentees went on to state that

in the present invention, the microcapsules are placed on the surface of the substrate as well as within the interstices of the substrate, should there be any such interstices

Id. These seemingly contradictory statements do not unequivocally or unambiguously disclaim articles in which the microcapsules are impregnated within the interstices of the substrate. On the contrary, such contradictory statements are indicative of ambiguity.⁵

The district court ignored the second statement on the ground that it could not overcome the substantive effect of the prior statement. Id. The court indicated that this was because, after the patentees amended the claim to overcome the first obviousness rejection, “the examiner found that application of microcapsules by impregnation was obvious under Woo, and the patentees were required following the second rejection to give up application by impregnation to gain patentability.” Id. This, however, is not necessarily true. Woo appeared to disclose an article in which all of the microcapsules were impregnated within the fabric, i.e., no microcapsules remained on the surface of the fabric. The patentees’ statement can consequently be interpreted as distinguishing Woo on that ground, i.e., on the more limited ground that, unlike Woo, in the claimed invention microcapsules are not only dispersed within the interstices of the fabric but also on the surface of the fabric. Indeed, in the same paragraph in which the patentees stated that the microcapsules were intended to remain on the surface of the fabric, they also stated that the

⁵ Contrary to Frisby’s contention, our decision in Springs Window, supra, in no way suggests that we should ignore the second of two conflicting statements in the prosecution history.

present invention allows a much greater quantity of microcapsules to be located on the substrate since the entire surface and not only the interstices between fibers is available for capsule loading.

(J.A. at 211.) In short, the prosecution history does not provide unambiguous evidence that the patentees disclaimed all impregnated fabrics or fabrics made by an impregnation process.

Second, we are also not persuaded by Frisby's argument that the plain language of the claim requires the article to consist essentially of a surface coated fabric or fiber. The claim does require that the article consist essentially of a base material and a coating. However, with respect to the coating, the claim expressly states that the coating must merely cover "at least a portion of the surface of said base material." '801 patent, col. 5., ll. 40-41 (emphasis added). Nor does the fact that the base material limitation is written in Markush format have a material effect on our construction because it merely requires the base material to consist of a fabric or a fiber. Therefore, if the base material is fabric, the claim requires at least a portion of the fabric's surface to be covered by the coating. However, it does not preclude the coating from also being dispersed within the interstices of the fabric.

In sum, we hold that "on the surface of said base material" does not exclude articles in which microcapsules are dispersed within the fabric, whether by impregnation or some other process. The limitation simply means that the coating (i.e., the mixture of microcapsules and polymeric binder) is dispersed on at least a portion of the surface of the base material, irrespective of whether the coating is also dispersed within the interstices of the base material.

V.

Based on the record before us, we do not think it is appropriate for us to reach the second step of the infringement analysis. That is because the second step—comparing the accused product to the properly construed claims—is a question of fact that the district court did not address in granting summary judgment. The court granted summary judgment of non-infringement on the ground that Frisby’s ComforTemp® product was made of impregnated fabric, after noting that it was “undisputed that Frisby’s accused products are made by impregnating a nonwoven fabric starting material.” Summary Judgment, 298 F. Supp. 2d at 1124. On appeal, however, the parties do not appear to agree on the structure of the base material of the accused product. (Br. of Frisby at 26-28.) In addition, Outlast disputes the admissibility of the declarations of Dr. Peter S. Gynaesus and Mr. Rory Holmes. (Br. of Outlast at 57, 60.) Therefore, considering that we have reversed the district court’s claim construction, we think it is appropriate that the district court have the first opportunity to address any evidentiary issues as to infringement. Accordingly, we reverse the grant of summary judgment and remand the case for further proceedings on infringement in view of the claim construction set forth above.

Each party shall bear its own costs.