

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

CORDIS CORPORATION,)
)
Plaintiff,)
)
v.) Civ. No. 03-027-SLR
)
BOSTON SCIENTIFIC CORPORATION)
and SCIMED LIFE SYSTEMS, INC.,)
)
Defendants.)

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MEMORANDUM OPINION

Dated: June 3, 2005
Wilmington, Delaware


ROBINSON, Chief Judge

I. INTRODUCTION

On January 13, 2003, plaintiff Cordis Corporation ("Cordis") filed this patent infringement action against defendants Boston Scientific Corporation and Scimed Life Systems, Incorporated (collectively "BSC") alleging infringement of U.S. Patent No. 4,739,762 ("the '762 patent") by BSC's EXPRESS and TAXUS EXPRESS stents. (D.I. 1) On March 5, 2003, BSC answered and counterclaimed against Cordis, alleging that Cordis' BX VELOCITY, CYPHER, BX SONIC and GENESIS stents infringed U.S. Patent No. 5,922,021 ("the '021 patent"). (D.I. 26) On August 2, 2004, Cordis filed an amended complaint alleging BSC's LIBERTE stent infringed the '762 patent and U.S. Patent No. 5,895,406 ("the '406 patent"). (D.I. 161) On August 18, 2004, BSC answered the amended complaint. (D.I. 163)

This court has jurisdiction pursuant to 28 U.S.C. § 1331. Pending before the court are the parties' motions for summary judgment with respect to infringement of the '762 and '021 patents. (D.I. 216, 219, 225, 226)

II. BACKGROUND

A. The '762 Patent

The '762 patent has been the subject of substantial litigation in this court. In 1998, Cordis sued BSC alleging infringement of the '762 patent by BSC's NIR stent. See Cordis Corp. v. Boston Scientific Corp., 97-550-SLR (D. Del.). A trial

was held in 2000; upon appeal, the Federal Circuit affirmed in part, reversed in part and remanded the case and a subsequent trial was held in March 2005. Id.; Cordis Corp. v. Medtronic AVE, Inc., 339 F.3d 1352 (Fed. Cir. 2003). The court has construed the currently disputed claim limitations. (D.I. 334) In addition, there are several limitations construed by the court in 97-550-SLR that are not in dispute.¹ (D.I. 234)

Cordis alleges BSC's TAXUS, EXPRESS and LIBERTE stents infringe claims 9,² 12,³ 19⁴ and 22⁵ of the '762 patent, and the EXPRESS AND LIBERTE stents infringe claims 1 and 23 of the '762 patent. (D.I. 230 at 15) Each of these accused devices is a balloon expandable stent. The EXPRESS stent is laser cut from a tube and electropolished. (D.I. 228 at 3-4) It is comprised of connected circular, sinusoidal bands of varying amplitudes.

¹The parties do not dispute the court's previous construction of "graft," "prosthesis," "tubular member," "plurality of slots formed therein," "wall surface," or "smooth surface." (D.I. 234)

²Claim 9 depends from claim 1 as amended by the reexamination certificate. ('762 patent, col. 11, ll. 47-50; '762 reexamination certificate, col. 1, ll. 39-41)

³Claim 12 depends from claim 9, which depends from claim 1. ('762 patent, col. 11, ll. 58-61; '762 reexamination certificate, col. 1, ll. 39-41)

⁴Claim 19 depends from claim 23. ('762 reexamination certificate, col. 2, ll. 17-20)

⁵Claim 22 depends from claim 19. ('762 patent, col. 12, ll. 51-54)

(D.I. 262 at 5) The TAXUS stent is an EXPRESS stent with a drug eluting coating. (Id. at 6)

B. The '021 Patent

BSC asserts that the accused Cordis stents infringe claim 36 of the '021 patent. Claim 36 depends from claim 24. ('021 patent, col. 22, l. 42) The court has construed the currently disputed limitations of claims 24 and 36. (D.I. 334)

III. STANDARD OF REVIEW

A court shall grant summary judgment only 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). The moving party bears the burden of proving that no genuine issue of material fact exists. See Matsushita Elec. Indus. Co. v. Zenith Radio Corp., 475 U.S. 574, 586 n.10 (1986). "Facts that could alter the outcome are 'material,' and disputes are 'genuine' if evidence exists from which a rational person could conclude that the position of the person with the burden of proof on the disputed issue is correct." Horowitz v. Fed. Kemper Life Assurance Co., 57 F.3d 300, 302 n.1 (3d Cir. 1995) (internal citations omitted). If the moving party has demonstrated an absence of material fact, the nonmoving party then "must come forward with 'specific facts showing that there is a genuine

issue for trial.'" Matsushita, 475 U.S. at 587 (quoting Fed. R. Civ. P. 56(e)). The court will "view the underlying facts and all reasonable inferences therefrom in the light most favorable to the party opposing the motion." Pa. Coal Ass'n v. Babbitt, 63 F.3d 231, 236 (3d Cir. 1995). The mere existence of some evidence in support of the nonmoving party, however, will not be sufficient for denial of a motion for summary judgment; there must be enough evidence to enable a jury reasonably to find for the nonmoving party on that issue. See Anderson v. Liberty Lobby, Inc., 477 U.S. 242, 249 (1986). If the nonmoving party fails to make a sufficient showing on an essential element of its case with respect to which it has the burden of proof, the moving party is entitled to judgment as a matter of law. See Celotex Corp. v. Catrett, 477 U.S. 317, 322 (1986).

IV. DISCUSSION

A. BSC's Motions For Summary Judgment That The LIBERTE Stent Does not Infringe the Palmaz '762 Patent

BSC argues that its LIBERTE stent does not infringe either claim 1 or 23 of the '762 patent because it does not literally, or equivalently,⁶ have slots that are substantially parallel to

⁶Because the court finds that there are material issues of fact in dispute with respect to literal infringement by the LIBERTE stent, it also finds that there is evidence from which a reasonable jury could find that the LIBERTE stent infringes under the doctrine of equivalents.

the longitudinal axis of the stent or a biologically inert coating.⁷

A patent is infringed when a person "without authority makes, uses or sells any patented invention, within the United States . . . during the term of the patent." 35 U.S.C. § 271(a). A court should employ a two-step analysis in making an infringement determination. Markman v. Westview Instruments, Inc., 52 F.3d 967, 976 (Fed. Cir. 1995). First, the court must construe the asserted claims to ascertain their meaning and scope. Id. Construction of the claims is a question of law subject to de novo review. See Cybor Corp. v. FAS Techs., 138 F.3d 1448, 1454 (Fed. Cir. 1998). The trier of fact must then compare the properly construed claims with the accused infringing product. Markman, 52 F.3d at 976. This second step is a question of fact. See Bai v. L & L Wings, Inc., 160 F.3d 1350, 1353 (Fed. Cir. 1998). Literal infringement occurs where each limitation of at least one claim of the patent is found exactly in the alleged infringer's product. Panduit Corp. v. Dennison Mfg. Co., 836 F.2d 1329, 1330 n.1 (Fed. Cir. 1987). The patent owner has the burden of proving infringement and must meet its

⁷Cordis alleges that the LIBERTE stent infringes claims 9, 12, 19 and 22 of the '762 patent. Because all of these claims depend from either claim 1 or claim 23 of the '762 patent, if the LIBERTE stent does not infringe claims 1 or 23, it cannot infringe the claims asserted against it. See Whapeton Canvas Co., Inc. v. Frontier, Inc., 870 F.2d 1546, 1553 (Fed. Cir. 1989).

burden by a preponderance of the evidence. SmithKline
Diagnostics, Inc. v. Helena Lab. Corp., 859 F.2d 878, 889 (Fed.
Cir. 1988) (citations omitted).

1. Substantially Parallel Slots

Claims 1 and 23 require that a stent have "slots being disposed substantially parallel to the longitudinal axis of the tubular member." As construed by the court, "a 'slot' is a long and narrow opening or groove, an opening whose length is substantially greater than its width." (D.I. 334) "[T]he claim also requires slots in the tubular members that run largely or approximately parallel to the longitudinal axis." (Id.) BSC asserts that the slots of the LIBERTE stent cannot be substantially parallel to the longitudinal axis because they intersect the longitudinal axis of the stent at between 30 and 45 degree angles. (D.I. 223 at 11) Cordis argues that the slots of the LIBERTE stent are banana shaped slots with a direction of elongation that is parallel to the longitudinal axis.

Based on the current record, a reasonable jury could conclude that the slots of the LIBERTE stent are banana shaped, as opposed to two straight slots as argued by BSC. (D.I. 223 at 6) Such banana shaped slots would be "slots," as construed by the court, because they are long, narrow openings whose length is substantially greater than its width. (D.I. 334)

To meet the limitations of claims 1 and 23, these banana shaped slots do not have to be exactly parallel to the longitudinal axis, but only "largely or approximately" parallel. The banana shaped slots of the LIBERTE stent could be considered largely or approximately parallel to the longitudinal axis because they run along the longitudinal axis. Cordis has provided expert deposition testimony that one of ordinary skill in the art would regard the LIBERTE slots as substantially parallel to the longitudinal axis because the "overall effect" is that slots are directionally elongated parallel to the longitudinal axis. (D.I. 258, Ex. 5 at 55, 202) For these reasons, there are material issues of fact with respect to the slots of the LIBERTE stent. BSC's motion for summary judgment is denied in this regard.

2. Biologically Inert Coating

Claims 9 and 19 of the '762 patent require that a stent have a "biologically inert coating." As construed by the court, a "biologically inert coating" is "a coating that is not biologically active." (D.I. 334) BSC argues that the drug-eluting coating of the LIBERTE stent cannot be "biologically inert." Cordis asserts that the polymer, SIBS, that coats the LIBERTE stent is biologically inert and merely carries the drug; therefore, one could conclude that the coating of the LIBERTE stent is biologically inert.

Cordis has provided evidence showing that one of ordinary skill in the art might consider SIBS, by itself, to be the coating of the LIBERTE stent. Dr. Buller states that the SIBS polymer does not have a biological activity. (D.I. 259, Ex. 5 at 94) According to Dr. Buller, the drug and the polymer coating do not interact and the drug is only present in discrete patches. (Id. at 92, 95) Dr. Storey also testified to this effect. (Id., Ex. 8) A jury could credit either, or both, of these expert opinions and determine that the coating of the LIBERTE stent is biologically inert. For this reason, BSC's motion for summary judgment is denied in this regard.

B. Cordis' Motion For Summary Judgment That the EXPRESS And TAXUS Stents Infringe The '762 Patent

Cordis argues that the EXPRESS and TAXUS stents meet all the limitations of claims 1 and 23 of the '762 patent. BSC contends that these accused stents do not meet the "thin-walled," "substantially uniform thickness," or "smooth surface" limitations of claim 1, as construed by the court. BSC also asserts that the accused stents do not meet the "wall surface" limitation of claim 23.

1. Claim 1 Of The '762 Patent

Claim 1 of the '762 patent requires that a stent be thin-walled. As construed by the court, "thin-walled" requires that "the wall of the tubular member must have little extent from one surface to its opposite at both its first and second diameters."

(D.I. 334)⁸ BSC has offered evidence that one of ordinary skill in the art would consider a stent with "little extent" to be "around 3 or 4/1000 of an inch." (D.I. 262, Ex. M at 161-62) The accused stents have a wall thickness of approximately 0.0052 inches, i.e., thicker than that considered of "little extent" by one of ordinary skill. Therefore, there are genuine issues of material fact. Cordis' motion for summary judgment is denied in this regard.

2. Claim 23 Of The '762 Patent

Claim 23 requires that a stent have a "wall surface." As construed by the court, "wall surface" requires that "the outer surface of the tubular member must be disposed in a common cylindrical plane." (D.I. 234, citing 97-550-SLR, D.I. 1127)⁹ BSC has provided evidence that the accused stents may not have a

⁸BSC argues that the court should reconstrue its construction of "thin-walled" to exclude struts that are thicker than they are wide, as Dr. Palmaz disclaimed such subject matter during prosecution of the '762 patent. (D.I. 262 at 10-11) The court declines to reconsider its claim construction.

⁹Cordis argues that this limitation applies only to a stent in its first diameter. Nothing in the court's construction, however, requires that the wall surface be disposed in a common cylindrical plane only in its first diameter. The claim itself discusses both the first and second diameter of the stent. ('762 patent, col. 12, ll. 3-13) The court disagrees with Cordis that the prosecution history of the '762 patent requires that "wall surface" apply only to the stent in the first diameter. The portion of the prosecution history cited by Cordis merely references the stent in the first diameter in conjunction with a common cylindrical plane, but does not require that the wall surface limitation only apply in the first diameter. (D.I. 262, Ex. A at PWRAP 3054)

wall surface on a common cylindrical plane, as the unconnected peaks of the stent flare out upon expansion. (D.I. 262 at 11, Ex. K at 182-83) For this reason, there are genuine issues of material fact. Cordis' motion for summary judgment is denied in this regard.

C. Cordis' Motion For Summary Judgment That Its Accused Stents Do Not Infringe Claim 36 Of The '021 Patent

Cordis argues that claim 23, as properly construed, does not include stents that are 180 degrees out of phase, as such subject matter was disclaimed by the patentees during prosecution when they amended claim 23 to add the "wherein" limitation. BSC argues that when properly construed, claim 23 does not exclude stents that are 180 degrees out of phase. According to BSC, there was no clear disclaimer of subject matter during prosecution of the '021 patent.

1. Literal Infringement

With respect to the "wherein" limitation, the court adopted neither of the parties' constructions. Instead, the court adopted the ordinary meaning of the limitation, finding support for such an interpretation in both the specification and the prosecution history. (D.I. 334) Because Cordis did not present any evidence that its accused stents do not meet the "wherein" limitation, as construed by the court, its motion for summary judgment is denied with respect to literal infringement.

2. Infringement Under The Doctrine Of Equivalents

Cordis argues that BSC cannot assert a doctrine of equivalents argument because the patentees of the '021 patent narrowed claim 23 by adding the "wherein" limitation by amendment in response to the examiner's rejection.

The doctrine of equivalents is limited by the doctrine of prosecution history estoppel. In Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co., Ltd., 535 U.S. 722 (2002), the Supreme Court stated:

Prosecution history estoppel ensures that the doctrine of equivalents remains tied to its underlying purpose. Where the original application once embraced the purported equivalent but the patentee narrowed his claims to obtain the patent or to protect its validity, the patentee cannot assert that he lacked the words to describe the subject matter in question. The doctrine of equivalents is premised on language's inability to capture the essence of innovation, but a prior application describing the precise element at issue undercuts that premise. In that instance the prosecution history has established that the inventor turned his attention to the subject matter in question, knew the words for both the broader and narrower claim, and affirmatively chose the latter.

Id. at 734-735. In other words, the prosecution history of a patent, as the public record of the patent proceedings, serves the important function of identifying the boundaries of the patentee's property rights. Once a patentee has narrowed the scope of a patent claim as a condition of receiving a patent, the patentee may not recapture the subject matter surrendered.

In order for prosecution history estoppel to apply, however, there must be a deliberate and express surrender of subject matter. See Southwall Tech., Inc. v. Cardinal IG Co., 54 F.3d 1570, 1580 (Fed. Cir. 1995).

During prosecution of the '021 patent, the examiner rejected claim 23 as anticipated by a Pinchasik patent application. (D.I. 233, Ex. 25) According to the examiner, a figure in Pinchasik disclosed the subject matter in claim 23. (Id. at JFH 192) The examiner attached to the rejection a modified Pinchasik figure, referencing where the limitations of claim 23 could be found. (Id. at JFH 195) The examiner and patentee had an interview. (Id. at JFH 203) The patentees then added the following language to claim 23: "[W]herein the first expansion strut of the first expansion strut pair in the first expansion column has a longitudinal axis offset from a longitudinal axis of the first expansion strut of the second expansion strut pair in the second expansion column." (Id. at JFH 208) According to the patentees, their invention had "a first expansion strut of a first expansion strut pair in a first expansion column that has a longitudinal axis which is offset from a longitudinal axis of the first expansion strut of the second expansion strut pair in a second expansion column," a structure not taught or suggested by Pinchasik. (Id. at JFH 209)

After the amendment the examiner rejected all the claims due to double patenting. The examiner explained that Patent Application No. 08/824,142 claimed expansion columns "wherein the first column loop slots are non-parallel or non-collinear to the second column loop slots. The application also claims that the first expansion strut in the first expansion column is circumferentially offset from a corresponding second expansion strut of the second expansion column." (Id. at JFH 217) The patentees filed a terminal disclaimer and their claims issued as the '021 patent. (Id. at JFH 225-26)

In this case, the court finds that there has not been a clear surrender of subject matter. The patentees' statements in response to the rejection dealt with what the prior art did not disclose, as opposed to what their invention did not include, and it is not clear that they gave up any subject matter with these statements. Likewise, it is not clear that the associated amendment narrowed the claim, as opposed to making the claim more clearly state what the invention was. See Pall Corp. v. Micron Separations, Inc., 66 F.3d 1211, 1220 (Fed. Cir. 1995) ("[W]hen claim changes or arguments are made in order to more particularly point out the applicant's invention, the purpose is to impart precision, not to overcome prior art . . . , such prosecution is not presumed to raise an estoppel"). Therefore, the court finds that prosecution history estoppel does not apply and

Cordis' motion for summary judgment is denied with respect to infringement by equivalents.

V. CONCLUSION

For the reasons stated, BSC's motions for summary judgment that the LIBERTE stent does not infringe the '762 patent (D.I. 219, 225) are denied. Cordis' motion for summary judgment of infringement (D.I. 226) is denied. Cordis' motion for summary judgment of noninfringement of the '021 patent (D.I. 216) is denied. An order consistent with this memorandum opinion shall issue.

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 v.) Civ. No. 03-027-SLR
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 BOSTON SCIENTIFIC CORPORATION)
 and SCIMED LIFE SYSTEMS, INC.,)
)
 Defendants.)

O R D E R

At Wilmington this *31* day of June, 2005, consistent with
the memorandum opinion issued this same date;

IT IS ORDERED that:

1. BSC's motion for summary judgment that the LIBERTE
stent does not infringe the '762 patent (D.I. 219) is denied.
2. BSC's motion for summary judgment of noninfringement of
claims 9, 12, 19 and 22 of the '762 patent (D.I. 225) is denied.
3. Cordis' motion for summary judgment of infringement
(D.I. 226) is denied.
4. Cordis' motion for summary judgment of noninfringement
of the '021 patent (D.I. 216) is denied.



United States District Judge