United States Court of Appeals for the Federal Circuit

05-1280, -1281, -1282

ADVANCED CARDIOVASCULAR SYSTEMS, INC.
and GUIDANT SALES CORPORATION,

Plaintiffs-Appellees,

v.

MEDTRONIC VASCULAR, INC. and MEDTRONIC USA, INC.,

Defendants-Appellants.

MEDTRONIC VASCULAR, INC.,

Plaintiff-Appellant,

v.

BOSTON SCIENTIFIC CORPORATION and
BOSTON SCIENTIFIC SCIMED, INC. (formerly known as Scimed Life Systems, Inc.),

Defendants-Appellees,

and

MEDINOL LTD.,

Defendant-Appellee.

MEDTRONIC VASCULAR, INC.,

Plaintiff-Appellant,

v.

BOSTON SCIENTIFIC CORPORATION and
BOSTON SCIENTIFIC SCIMED, INC. (formerly known as Scimed Life Systems, Inc.),

Defendants-Appellees.

DECIDED: May 26, 2006

Before MAYER, LOURIE, and BRYSON, Circuit Judges.

PER CURIAM.

Medtronic Vascular, Inc. and Medtronic USA, Inc. (collectively "Medtronic") appeal the final judgments of the United States District Court for the District of Delaware. Medtronic seeks review of (1) a grant of summary judgment of non-infringement in favor of Advanced Cardiovascular Systems, Inc. and Guidant Sales Corp. (collectively "ACS") and a finding that its state law claims are barred by the statute of limitations, Medtronic Vascular, Inc. v. Advanced Cardiovascular Systems, Inc., 98-CV-80 (D. Del. Feb. 2, 2005); (2) a grant of summary judgment of non-infringement in favor of Boston Scientific Corp., Boston Scientific Scimed, Inc. (collectively "BSC"), and Medinol, Ltd. ("Medinol"), Medtronic Vascular, Inc. v. Boston Scientific Corp., 98-CV-478 (D. Del. Feb. 2, 2005); (3) a grant of summary judgment of non-infringement in favor of BSC, Medtronic Vascular, Inc. v. Boston Scientific Corp., 04-CV-34 (D. Del. Feb. 2, 2005). We affirm.

Medtronic owns U.S. Patent No. 5,292,331 ("'331 patent"), which recites a stent device. It also owns U.S. Patent Nos. 5,674,278 ("'278 patent"), 5,879,382 ("'382 patent"), and 6,344,053 ("'053 patent"), which recite various stent devices and methods for delivery and manufacture of a plurality of those devices. In the three actions above, Medtronic sued ACS, BSC, and Medinol for infringement of all four patents. Medtronic also sued ACS under various state law claims, including misappropriation of trade secrets, breach of contract, actual fraud, unjust enrichment, and unfair competition. After issuing its three claim construction orders (the substance of all of which is identical), the trial court granted summary judgment of non-infringement as to all defendants, and found all of Medtronic's state law claims barred by the statute of limitations. Medtronic appeals these judgments, and challenges the trial court's claim construction of "stent," "circular member," "stent member," "ring," and "endovascular support member."[*] Moreover, it seeks review of the trial court's finding that the

[*] Representative claims from the '331 and '053 patents, in pertinent part, provide for:

> 1. A stent for implantation within a vessel within the human body comprising a plurality of N substantially straight segments of wire-like material, each segment having a first and second ends wherein the first end of a first segment is connected to the first end of a second segment, the second end of the second segment is connected to the second end of the third segment, the first end of the third segment is connected to the first end of the fourth segment, and so on until the second end of the Nth segment is connected to the second end of the first segment . . . .

'331 patent, col. 7, ll. 1-11 (emphasis added).

> 1. A balloon-expandable stent comprising:
> a plurality of generally sinusoidally-shaped, plastically deformable rings . . .

"substantially straight segments" of each stent are connected only at their "ends" by "peaks" or "turns," and that the "peaks" or "turns" may not have any additional elements. See, e.g., Medtronic Vascular, Inc. v. Advanced Cardiovascular Systems, Inc., 98-CV-80, slip op. at 6-9 (D. Del. Jan. 5, 2005) ("Claim Construction Order"). Beginning with claim construction, we address each of the challenged determinations in turn, and find no error in them.

Claim construction is a question of law that we review de novo. Vitronics Corp v. Conceptions, Inc., 90 F.3d 1576, 1578 (Fed. Cir. 1996). We construe claim language in accordance with its ordinary meaning, as defined by a person having ordinary skill in the art. See Phillips v. AWH Corp., 415 F.3d 1303, 1311-19 (Fed. Cir. 2005) (en banc). This inquiry is informed by the context of the entire patent, including the specification and the other claims, and, where relevant, the prosecution history. Id. The trial court construed "stent" as "a device implanted to maintain the patency of a vessel." Claim Construction Order, slip op. at 2. Medtronic argues that it erred by improperly incorporating a functional limitation into the construction, i.e., maintaining patency of a vessel. We disagree. The invention is described as an "endovascular support device." E.g., '331 patent, col. 3, l. 21 (emphasis added). In addition, the specification explicitly states that stents are devices "for mechanically keeping the affected vessel open." Id.

> each ring comprising substantially straight segments oriented generally parallel to a longitudinal axis . . .
>
> > each segment having a first end and a second end, with a first end of a first segment connected to a first end of a second segment by a first turn;
> > . . . .

'053 patent, col. 6, ll. 41-52 (emphasis added).

at col. 2, ll. 17-18. Because the trial court's claim construction is consistent with the specification and the ordinary meaning of the term "stent," we find it to be correct.

We also find that the trial court properly construed "circular member," "stent member," "ring," and "endovascular support member" to have the same meaning as "stent." As the trial court found, none of these terms are present in the specifications. Where they are used in the claims, however, they are employed in a manner analogous to and interchangeable with the term "stent." See, e.g., '331 patent, col. 8, ll. 6-21; '278 patent, col. 6, ll. 53-63; '382 patent, col. 6, ll. 45-57; '053 patent, col. 7, ll. 10-27. Because the claims establish that Medtronic used the challenged terms synonymously with "stent," the trial court's construction is correct.

Next, Medtronic argues that the trial court improperly found that, during the prosecution of the '331 patent, it disclaimed additional elements on the "ends" or "peaks" of the "substantially straight segments" in its stents. It further argues that the trial court improperly applied this "no additional elements" disclaimer against the '278, '382, and '053 patents. We disagree on both accounts.

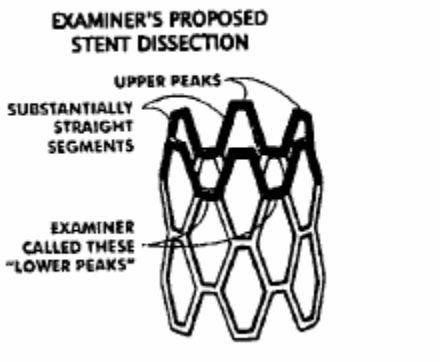
A clear and unmistakable statement of disavowal in the prosecution history may narrow claim scope. See Cordis Corp. v. Medtronic AVE, Inc., 339 F.3d 1352, 1358 (Fed. Cir. 2003). During prosecution of the '331 patent, the inventor, Michael Boneau, argued, inter alia, that his invention was allowable over prior art, i.e., U.S. Patent No. 4,776,337 ("Palmaz"), because the "substantially straight segments" of his stents were connected to form "ends," or, as he called them during prosecution, "peaks." He stated that a "peak" must be "the very top and the very bottom" of a stent. Adding additional elements to the "peaks" would cause those elements to no longer be the peak of a

stent, i.e., the very top or the very bottom. See generally Claim Construction Order, slip op. at 7 n.25. We find these statements to constitute a clear and unmistakable disavowal of additional elements on its stent "ends" or "peaks."

We find no merit in Medtronic's argument that the Patent and Trademark Office Board of Patent Appeals and Interferences' decision, reversing the examiner's rejection of some claims in the '331 patent, precludes our finding such a disavowal. For support, Medtronic cites the following from the board's decision:

> Viewing the stent shown by Palmaz in Fig. 2b as a whole, it is readily apparent that what is depicted is a series of peaks and valleys on each end. We can think of no circumstances under which the artisan, consistent with the appellant's specification, would call the valleys on one end "peaks" and ignore the remaining structure of Palmaz as the examiner apparently proposes to do.

(emphasis in original). It is clear from the above statement that the board rejected the examiner's section-by-section deconstruction of the stent in Palmaz:



Instead, it considered the Palmaz stent as a whole, with "peaks" occurring where "upper peaks" are labeled (and at the bottom of the above diagram). Therefore, the board accepted the notion, at least implicitly, that, although not expressly recited in the claim language, both Palmaz and the invention in the '331 patent have "peaks." Because Boneau clearly stated that the peaks in his invention have no additional elements, the

trial court properly incorporated that limitation into its construction of the ’331 patent. Even if such a broad disclaimer was not necessary to overcome Palmaz,

> there is no principle of patent law that the scope of a surrender of subject matter during prosecution is limited to what is absolutely necessary to avoid a prior art reference that was the basis for an examiner's rejection . . . . [Where patentees surrender more than necessary], we [hold] the patentees to the scope of what they ultimately claim, and we [do] not allow[] them to assert that claims should be interpreted as if they had surrendered only what they had to.

Norian Corp. v. Stryker Corp., 432 F.3d 1356, 1361-62 (Fed. Cir. 2005) (citing Fantasy Sports Props., Inc. v. Sportsline.com, Inc., 287 F.3d 1108, 1114-15 (Fed. Cir. 2002); Elkay Mfg. Co. v. Ebco Mfg. Co., 192 F.3d 973, 979 (Fed. Cir. 1999)).

We further find that the disclaimer in the ’331 patent applies equally against the ’278, ’382, and ’053 patents. “When multiple patents derive from the same initial application, the prosecution history regarding a claim limitation in any patent that has issued applies with equal force to subsequently issued patents that contain the same claim limitation.” Elkay, 192 F.3d at 980 (citations omitted). This holds even truer where the patentee affirmatively links the meaning of the claims subject to the initial disclaimer with claims in later issued patents. See id. The ’278 and ’382 patents both use the same term “end” to describe the connection between the “substantially straight segments.” Moreover, Medtronic affirmatively linked both patents to the ’331 patent because it argued that its claims there were allowable “for at least the same reasons as the parent application.” Therefore, the disclaimer in the ’331 patent plainly applies against the ’278 and ’382 patents.

With respect to the ’053 patent, Medtronic correctly states that its claims do not all use the term “end” to describe the connection between the “substantially straight

segments." Instead, certain claims use "turn" or "curved member." E.g., '053 patent, col. 6, l. 52. However, because the specification for the '331 patent uses "peaks" and "turns" synonymously, and "turn" and "curved member" are used in the '053 patent claims synonymously with "end," we find that those claims embody the same "peak" or "end" limitation as the '331 patent, i.e., the disclaimer from the '331 patent applies against the '053 patent. Our conclusion is further buttressed by the established rule of claim interpretation that dictates that like terms should be construed consistently across related claims. See Phillips, 415 F.3d at 1314.

Having affirmed the trial court's claim construction, we find no error in its grants of summary judgment in favor of the defendants. With respect to all of the accused devices, when each is viewed as a whole, i.e., as one stent, they do not have the requisite "substantially straight segments" extending across the length of the stent. See Claim Construction Order, slip op. at 6. Because of the absence of this limitation, the accused devices do not infringe any of the patents-in-suit. Indeed, all of Medtronic's patents contain the "substantially straight segment" limitation. Alternatively, however, even if we were to view each section or circular member within the accused devices as an individual stent, thereby effectively avoiding application of the "substantially straight segment" limitation for the purposes of summary judgment, there still can be no infringement under the '278, '382, or '053 patents. Under the deconstructed view of the accused devices, the "end" of each individual section is connected to another section, and, therefore, has additional elements. This causes the devices to fail to satisfy the "no additional elements" limitation, as applied from Boneau's disclaimer during prosecution of the '331 patent. Because prosecution history estoppel applies to this

limitation based on that disavowal, there also cannot be infringement under the doctrine of equivalents. See Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co., Ltd., 535 U.S. 722 (2002).

Finally, the trial court properly found Medtronic's state law claims barred by the statute of limitations. The statute of limitations for theft of trade secrets is "three years [from] the date the misappropriation is discovered or by the exercise of reasonable diligence should have been discovered." Del. Code Ann. tit. 6, § 2006 (2006). The patents-in-suit were initially assigned to Boneau's company Accutrix, which subsequently became ESS. In 1992, ESS sold the Boneau patents to Medtronic's predecessor, AVE. However, in a prior attempt to sell his technology, Boneau confidentially disclosed proprietary information to ACS in 1989 or 1990. We conclude that no reasonable fact-finder could find that reasonable diligence by Medtronic at the time it purchased Boneau's patents, in 1992, would not have uncovered Boneau's attempt to sell his technology to ACS or, ulitimately, revealed the proprietary disclosures. Moreover, because ACS' European patent application for the stent from which Medtronic's trade secret claim arises was published in 1993, and ACS disclosed that stent in the United States in 1994 through publications and at conferences that both ACS and Medtronic attended, Medtronic had, at a minimum, constructive knowledge of the accused devices by 1994. Therefore, because Medtronic had at least constructive knowledge, more than three years before filing suit against ACS in 1998, of all elements necessary to bring a claim for theft of trade secrets, i.e., Boneau's disclosures to ACS and ACS' acts giving rise to the claim, it is now barred from asserting that claim.

With respect to the remaining state law claims, they are subject to a three year statute of limitations period, which runs from the time of the alleged wrongful acts, i.e., about 1989 or 1990. See Del Code Ann. tit. 10, § 8106. However, the limitations period may be tolled if the circumstances or facts surrounding the injury are "inherently unknowable." See Studiengesellschaft Kohle mbH v. Hercules, Inc., 748 F. Supp. 247, 252 (D. Del. 1990). Here, the facts surrounding Medtronic's state law claims were "inherently unknowable," if ever, until 1994 at the latest. Therefore, Medtronic is barred from asserting these claims as well.