NOTE: This disposition is nonprecedential.

United States Court of Appeals for the Federal Circuit

OTTO BOCK HEALTHCARE LP,
Plaintiff-Appellant,

v.

ÖSSUR HF AND ÖSSUR AMERICAS, INC.,
Defendants-Appellees.

2013-1650

Appeal from the United States District Court for the Central District of California in No. 13-CV-0891, Judge Cormac J. Carney.

Decided: February 18, 2014

BRIAN R. MATSUI, Morrison & Foerster, LLP, of Washington, DC, argued for plaintiff-appellant. With him on the brief was DEANNE E. MAYNARD. Of counsel on the brief was CHARLES S. BARQUIST, of Los Angeles, California.

BRENTON R. BABCOCK, Knobbe, Martens, Olson & Bear, LLP, of Irvine, California, argued for defendants-appellees. With him on the brief was NICHOLAS M. ZOVKO.

Before LOURIE, DYK, and WALLACH, *Circuit Judges.*

LOURIE, *Circuit Judge.*

Otto Bock HealthCare LP ("Otto Bock") appeals from the decision of United States District Court for the Central District of California denying a motion for a preliminary injunction against Össur HF and Össur Americas, Inc. ("Össur") because Otto Bock is unlikely to succeed on the merits of its infringement claim. *Otto Bock HealthCare LP v. Össur HF and Össur Ams., Inc.*, No. 13-CV-00891, 2013 WL 4828791 (C.D. Cal. Aug. 22, 2013). Because the district court did not abuse its discretion in view of the construed claim terms, we affirm.

BACKGROUND

Otto Bock owns U.S. Patent 6,726,726 (the "'726 patent"), which is directed to an apparatus and method for managing residual limb volume in an artificial limb. '726 patent col. 1 ll. 15–18. The claimed invention prevents volume loss in the amputee's residual limb that results from weight-bearing forces placed on that limb. *Id.* The '726 patent describes a vacuum socket for amputees that incorporates, *inter alia*, a liner, a single socket, and a vacuum source to draw the residual limb into firm and total contact with the socket. *Id.* col. 4 ll. 39–60. The '726 patent further incorporates by reference U.S. Patent Application 09/534,274 (the "'274 application"), which discloses a combination multi-chamber piston/cylinder pump and shock absorber to maintain the vacuum. *Id.* col. 13 ll. 7–8.

Claim 1 is exemplary and reads as follows:

> 1. In an artificial limb for amputees who have a residual limb, an apparatus for managing residual limb volume, wherein application of a vacuum prevents loss of residual limb volume due

> to weight-bearing pressures and locks the residual limb to the artificial limb without causing swelling of the residual limb, the apparatus comprising:
>
> (a) a flexible liner having a cavity with a volume less than that of the residual limb, whereby the liner is tensioned into a total contact relationship with the residual limb;
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> (b) a single socket with a volume and shape to receive a substantial portion of the residual limb and the liner, the socket having a cavity adapted to receive the residual limb and the liner;
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> (c) a vacuum source connected to the socket cavity between the liner and the socket, wherein application of the vacuum source to the socket cavity draws the residual limb and liner into firm and total contact with the socket, thereby locking the residual limb to the socket without causing swelling of the residual limb into the socket;
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> (d) a *seal means* for sealing the socket cavity;
>
> (e) a *means to maintain a vacuum* in the socket cavity, in the presence of some air leakage past the seal means; and
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> (f) further comprising a thin sheath between the liner and the socket, to assist the even distribution of vacuum in the cavity about the liner;
>
> wherein application of the vacuum source of the socket cavity prevents the loss of residual limb volume due to weight-bearing pressures.

'726 patent col. 14 ll. 35–65 (emphases added). Claims 6, 9, 15, and 18, which are dependent, also require a "seal means" and a "means to maintain a vacuum." *Id.* col. 15 l.

9–col. 16 l. 8. Those claim limitations are crucial to this appeal.

Claims 1 and 10 recite a "seal means for sealing the socket cavity," and claims 1 and 11 recite a "means to maintain [a] vacuum in the [socket] cavity. '726 patent col. 14 l. 55–col. 15 l. 50. Claims 6 and 18 depend from Claims 1 and 10, respectively, and further limit the "seal means" to an "annular seal." *Id.* col. 15 l. 9–col. 16 l. 17. Claims 9 and 15 depend from claims 1 and 11, respectively, and further limit the "means to maintain a vacuum" to a "weight-actuated vacuum pump." *Id.* col. 15 l. 20–col. 16 l. 7.

Össur makes mechanical vacuum pump prosthetic products, including the Iceross Seal-In® V liner and Unity™ vacuum suspension module. *Otto Bock*, 2013 WL 4828791 at *2. The Iceross Seal-In® V liner compensates for the volume fluctuations and shape changes of an amputee's residual limb by expanding and exerting pressure against the interior socket wall. A "dual-seal" mechanism prevents the outer surface of the Iceross Seal-In® V liner from fully contacting the sockets, resulting in varying levels of pressure from the liner against the socket. Össur's Unity™ module uses a heel-actuated membrane to create a vacuum. The Unity™ module in combination with the Iceross Seal-In® V liner can be used to create an artificial limb for amputees.

Otto Bock sued Össur for infringement of claims 6, 9, 15, and 18 of the '726 patent by importing, selling, and offering for sale and use in the United States the following combination of Össur products: (1) the Iceross Seal-In® V liner; (2) the Re-Flex Rotate Foot or Re-Flex Shock; and (3) the Unity™ vacuum pump module and valve (collectively the "Accused Products"). *Id.* at *2. Otto Bock moved for a preliminary injunction. *Id.* at *1.

The district court construed the two means-plus-function claim limitations pursuant to 35 U.S.C. § 112, ¶ 6

and found that Otto Bock was unlikely to succeed on the merits of its infringement claim.* *Id.* at *3–6. Agreeing with Otto Bock's expert Dr. Gard, the court construed "seal means" as an annular seal with a narrow ring around the liner that has a rectangular cross-section. *Id.* The court then concluded that Otto Bock failed to clearly show that Össur's Seal-In® V liner's membrane seal performed the sealing function in substantially the same way as the annular seal disclosed in the '726 patent. *Id.* at *4.

Next, the district court construed "means to maintain a vacuum." *Id.* The court noted that the "weight-actuated vacuum pump" limitation in claims 9 and 15 might cover an indefinite number of structures, but found that the term should be informed by the written description's disclosure that a vacuum-maintaining means may take the form of a "weight-actuated vacuum pump as disclosed in [the '274 application]." *Id.* at *5. The court then concluded that Össur's Unity™ module and the weight-actuated vacuum pump as disclosed in the '274 application were neither structurally identical nor equivalent. *Id.* at *5–6.

Accordingly, the district court found that Otto Bock was unlikely to prevail in showing that Össur's accused products satisfied the "seal means" limitation in claims 6, 9, 15, and 18 and the "means to maintain a vacuum" limitation in claims 6, 9, and 15 because Össur's products used a different seal means and did not use a piston/cylinder pump as a means to maintain a vacuum. *Id.*

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* Paragraph 6 of 35 U.S.C. § 112 was replaced with newly designated § 112(f) when § 4(c) of the Leahy-Smith America Invents Act ("AIA"), Pub. L. No. 112-29, took effect on September 16, 2012. Because this case was filed before that date, we will refer to the pre-AIA version of § 112.

at *6. The court thus denied Otto Bock's motion for a preliminary injunction. *Id.*

Otto Bock appealed. We have jurisdiction pursuant to 28 U.S.C. § 1295(a)(1).

DISCUSSION

We review a grant or denial of a preliminary injunction for abuse of discretion. *Amazon.com, Inc. v. Barnesandnoble.com, Inc.*, 239 F.3d 1343, 1350 (Fed. Cir. 2001). An abuse of discretion is only established if "the court made a clear error of judgment in weighing relevant factors or exercised its discretion based upon an error of law or clearly erroneous factual findings." *Sanofi-Synthelabo v. Apotex, Inc.*, 470 F.3d 1368, 1374 (Fed. Cir. 2006). We address claim construction as a matter of law, which we review without deference. *See Cybor Corp. v. FAS Techs., Inc.*, 138 F.3d 1448, 1456 (Fed. Cir. 1998) (en banc).

The district court's denial of a preliminary injunction as unlikely to succeed on the merits was premised in part on its interpretation of the limitations "seal means" and "means for maintaining a vacuum" as claimed in Otto Bock's '726 patent. To construe a claim limitation, the trial court must determine the meaning of any disputed words from the perspective of one of ordinary skill in the pertinent art at the time of filing. *Phillips v. AWH Corp.,* 415 F.3d 1303, 1313 (Fed. Cir. 2005) (en banc). Although it is unacceptable to import limitations into a claim from the written description, "the specification 'is always highly relevant to the claim construction analysis. Usually, it is dispositive; it is the single best guide to the meaning of a disputed term.'" *Id.* at 1315 (quoting *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996)).

In order to establish infringement of a means-plus-function term, a patentee must show that "the relevant

structure in the accused device perform[s] the identical function recited in the claim and [is] identical or equivalent to the corresponding structure in the specification." *Odetics, Inc. v. Storage Technology Corp.*, 185 F.3d 1259, 1267 (Fed. Cir. 1999) (citations omitted).

I. Seal Means

Otto Bock argues that the term "seal means" in claims 6, 9, 15, and 18 of the '726 patent is defined broadly in the dependent claims and the written description as "an annular seal between the liner and the socket." Össur responds that the patent expressly links "a narrow ring with a rectangular cross section" to the function of "sealing the socket activity," a more narrow interpretation.

We agree with Össur that the '726 patent expressly links two structures, namely, the polyurethane sleeve and an annular seal, to the function of "sealing the socket cavity." '726 patent col. 6 ll. 49–54; col. 12 ll. 55–58; col. 13 ll. 24–41. No other structures are described in the written description for performing the sealing function. Our focus, therefore, is on the construction of "annular seal."

The '726 patent depicts an "annular seal" as a narrow ring with a rectangular cross-section around the liner in figures 17, 18, and 20. "The annular seal . . . is adapted to sealingly engage the suspension sleeve 86, producing a seal against the vacuum in cavity 62 at the point of contact with the suspension sleeve 86." *Id.* col. 13 ll. 27–31. In another embodiment, "the annular seal 140 does not make contact with the suspension sleeve 86, but rather makes contact with the inner wall 63 of the socket 60, and makes a seal at that point." *Id.* col. 13 ll. 35–38. These two passages, in combination with figures 17, 18, and 20, make clear that the "annular seal" is properly construed as a narrow ring with a rectangular cross-section.

Although dependent claims 6 and 18 recite "wherein the seal means further comprises an annular seal between the liner and the socket," those claims do not stand alone. *Phillips*, 415 F.3d at 1315. The claims must be interpreted in light of the written description, which requires a more narrow interpretation of the term "annular seal." The district court thus did not err in construing the term "means for sealing" to mean a narrow ring around the liner that has a rectangular cross-section.

Össur's Seal-In® V liner does perform the function of sealing the socket cavity; however, the disclosed annular seal in the '726 patent and the Seal-In® V liner are not structurally identical to the "seal means" as disclosed. The Seal-In® V liner's membrane seal is not structurally identical to the annular seal disclosed in the '726 patent because, unlike in the patent, the membrane seal (1) has a wide band of contact with the socket; (2) has two narrow seal rings on the exterior surface; (3) has pliable blades on the interior surface; (4) has chamfered edges; and (5) is bonded to a recess in the liner.

The Seal-In® V liner's membrane is also not structurally equivalent to the annular seal disclosed in the '726 patent. First, the membrane seal's "dual-sealing mechanism" performs the sealing function in a substantially different manner from the smooth-surface annular seal disclosed in the patent. Össur's membrane seal does not completely press against the socket's interior wall; rather, the two outer seal rings press against the interior wall of the socket. *Otto Bock*, 2013 WL 4828791 at *3. According to Otto Bock's expert, Dr. Gard, other portions of the membrane seal's wide surface, however, "may not press against the socket, and further may not touch the socket wall at all." *Id.* Second, the interior blades cause the Seal-In® V liner's membrane seal to perform the sealing function differently. Dr. Gard found that "when a force is exerted to pull the liner out of a socket, the blades expand outwardly, which in turn creates extra pressure of the

seal wall against the socket wall, thereby making it more difficult to lose suspension of the liner." *Id.* The district court thus did not clearly err in finding that the Seal-In® V liner's membrane seal does not perform the sealing function in substantially the same way as the annular seal disclosed in the '726 patent.

II. Means to Maintain a Vacuum

Otto Bock argues that the term "means to maintain a vacuum" in claims 6, 9, and 15 of the '726 patent is defined in the dependent claims and the written description as "a weight-actuated vacuum pump" and that the claims therefore encompass all weight-actuated vacuum pumps. Otto Bock also asserts that *Atmel Corp. v. Info Storage Devices*, 198 F.3d 1374 (Fed. Cir. 1999), forecloses the use of a patent application incorporated by reference to add structure to a means-plus-function claim. Appellant Br. 31–32. Össur responds that the only structure described in the written description of the patent is "a weight actuated vacuum pump and shock absorber as disclosed in [the '274 application]."

We agree with Össur. The parties do not dispute that the key structure at issue is the "weight-actuated vacuum pump" as claimed in claims 9 and 15 and as further disclosed in the specification in combination with an incorporation by reference to the '274 application. *Id.* at *4. Although it is true that claims 9 and 15 do not refer to the '274 application, "[those] claims, of course, do not stand alone." *Phillips*, 415 F.3d at 1315. The only reference in the specification to the term states: "To maintain the vacuum in the cavity, either a regulator means 80, a vacuum reservoir 110, *or a weight-actuated vacuum pump and shock absorber as disclosed in [the '274 application]*, may be employed." '726 patent col. 13 ll. 5–8 (emphasis added). And all of the claims must be interpreted in light of the written description, which requires an interpretation that includes the '274 application.

Further, Otto Bock's reliance on *Atmel* is misplaced. *Atmel* only foreclosed the use of the content of a nonpatent publication incorporated by reference to add structure to a means-plus-function claim. *Atmel*, 198 F.3d at 1382. *Atmel* did not purport to include U.S. patent applications. In fact, 37 C.F.R. 1.57(d) specifically envisions using a U.S. patent application incorporated by reference to define structure for the purpose of 35 U.S.C. § 112, ¶ 6. The court thus did not err in using the '274 application's incorporation by reference to construe the term "means for maintaining a vacuum" to mean a "weight-actuated vacuum pump as disclosed in [the '274 application]."

In view of this claim construction, we further agree with the analysis of the district court that the structures of Össur's Unity™ module and the weight-actuated vacuum pump as disclosed in the '274 application are neither identical nor equivalent. The structures are not identical because the vacuum pump disclosed in the '274 application has a piston/cylinder module that is integrated into the pylon of the prosthetic limb, '274 application col. 7 ll. 5–17, whereas the Unity™ module attaches to the foot module and has no piston and no preexisting air chamber. *Otto Bock*, 2013 WL 4828791 at *5.

The two structures are not equivalent because they maintain the vacuum in different ways. The pump disclosed in the '274 application draws air out of the socket cavity by using the amputee's body weight to force a piston downward within a cylinder against a chamber of compressed air. *Id.* col. 14 ll. 55–col. 15 l. 4. The Unity™ module, in contrast, draws air from the socket cavity by using heel pressure to pull apart two blades located on the foot module, thereby deforming an elastic membrane that has zero, or near-zero, air chamber volume in its undeformed state. *Otto Bock*, 2013 WL 4828791 at *5. The district court thus did not clearly err in finding that the structure of the Unity™ module was not identical or

equivalent to the structure of the weight-actuated vacuum pump disclosed in the '274 application.

CONCLUSION

Because the Accused Products do not satisfy either the "seal means" or "means to maintain a vacuum" limitations of the '726 patent as properly construed, Otto Bock is unlikely to establish infringement of asserted claims 6, 9, 15, and 18. We therefore conclude that the district court did not abuse its discretion in denying preliminary injunctive relief. Thus, the decision of the district court denying the motion for a preliminary injunction is affirmed.

AFFIRMED