

United States Court of Appeals for the Federal Circuit

03-1349

VANDERLANDE INDUSTRIES NEDERLAND BV
and VANDERLANDE INDUSTRIES, INC.,

Appellants,

v.

INTERNATIONAL TRADE COMMISSION,

Appellee,

and

SIEMENS DEMATIC CORP. and
RAPISTAN SYSTEMS ADVERTISING CORP.,

Intervenors.

John M. DiMatteo, Willkie Farr & Gallagher LLP, of New York, New York, argued for appellants. With him on the brief were Art C. Cody and Mary M. Manning.

Michael K. Haldenstein, Attorney, Office of the General Counsel, United States International Trade Commission, of Washington, DC, argued for appellee. With him on the brief were Lyn M. Schlitt, General Counsel and James M. Lyons, Deputy General Counsel.

Terence J. Linn, Van Dyke, Gardner, Linn & Burkhart, L.L.P., of Grand Rapids, Michigan, argued for intervenors. With him on the brief was Daniel Van Dyke. Also on the brief were V. James Adduci II and Sarah E. Hamblin, Adduci Mastriani & Schaumberg, L.L.P., of Washington, DC. Of counsel were Jerry B. Blackstock and Leslie B. Zacks, Hunton & Williams LLP, of Atlanta, Georgia; W. Scott Creasman, Powell, Goldstein, Frazer & Murphy LLP, of Atlanta, Georgia; and Steven E. Adkins, Adduci, Mastriani & Schaumberg, L.L.P., of Washington, DC.

Appealed from: United States International Trade Commission

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DECIDED: May 3, 2004

Before MICHEL, GAJARSA, and LINN, Circuit Judges.

MICHEL, Circuit Judge.

Vanderlande Industries Nederland BV and Vanderlande Industries, Inc. appeal the decision of the United States International Trade Commission (“ITC”) holding that the two companies violated section 337 of the Tariff Act of 1930, 19 U.S.C. § 1337, by, inter alia, importing for sale in the United States sortation systems that fell within claims 1 and 4 of U.S. Patent No. 5,127,510 (“510 patent”). In the Matter of Certain Sortation Sys., Parts Thereof, and Prods. Containing Same, USITC Investigation No. 337-TA-460 (Feb. 19, 2003) (“Comm’n Op.”); (Oct. 22, 2002) (“ALJ Op.”). Appellants challenge the TC’s rulings on infringement (including claim construction) and on equitable estoppel. We affirm.

BACKGROUND

I. Private Parties

Appellant Vanderlande Industries Nederland BV is a Netherlands corporation with its principal place of business in the Netherlands. Vanderlande Industries Nederland BV designs and manufactures sortation systems (explained infra) and sortation-system components in the Netherlands, and exports these products to the United States or sells the products for export to the United States.

Appellant Vanderlande Industries, Inc. is a Delaware corporation with its principal place of business in Marietta, Georgia. Vanderlande Industries, Inc. imports, sells, and installs in the United States sortation systems and sortation-system components manufactured by Vanderlande Industries Nederland BV.

Intervenor Siemens Dematic Corp. is a New York corporation with its principal place of business in Grand Rapids, Michigan. Siemens manufactures and sells sortation systems in the United States. Siemens is the exclusive licensee of the '510 patent.

Intervenor Rapistan Systems Advertising Corp. is a Delaware corporation with its principal place of business in Grand Rapids, Michigan. Rapistan is a wholly-owned subsidiary of Siemens. Rapistan is the owner by assignment of the '510 patent.

II. Procedural History

On June 25, 2001, Siemens and Rapistan (together, "Siemens/Rapistan") filed a complaint with the ITC pursuant to section 337 of the Tariff Act of 1930, 19 U.S.C. § 1337, asserting that Vanderlande Industries Nederland BV and Vanderlande Industries, Inc. (together, "Vanderlande") had engaged in unfair methods of competition and unfair acts in violation of the statute. In particular, Siemens/Rapistan alleged that "in connection with the importation, sale for importation, and sale within the United States after importation of certain sortation systems, parts thereof, and products containing same that are manufactured by Vanderlande," ALJ Op. at 2, Vanderlande had infringed twenty-seven claims of the '510 patent.

On July 19, 2001, the ITC issued a notice of investigation that was subsequently published in the

Federal Register on July 25, 2001. 66 Fed. Reg. 38741 (July 25, 2001). On May 16, 2002, an ITC administrative law judge (“ALJ”) issued an initial determination that terminated the investigation with respect to twelve of the asserted claims, leaving fifteen claims for adjudication. This initial determination subsequently became a final ITC determination. On June 4-17, 2002, the ALJ held an evidentiary hearing on the remaining issues in the investigation. On October 22, 2002, the ALJ issued an initial determination holding, *inter alia*, that: (1) Vanderlande had infringed claims 1 and 4 of the ’510 patent, (2) Vanderlande had not infringed the remaining asserted claims of the ’510 patent, and (3) Siemens/Rapistan was not equitably estopped from asserting the ’510 patent against Vanderlande.

On December 11, 2002, the ITC issued a notice of its decision to review, at the commission level, the ALJ’s rulings on two issues: (1) the construction of a term found in independent claim 30 and dependent claims 33 and 35, and (2) equitable estoppel. With the exception of these two issues, the ALJ’s determinations were adopted by the commission and thus became final ITC determinations. On January 27, 2003, the ITC issued a notice of violation of section 337 and a limited exclusion order. The notice of violation indicated that the commission had decided to modify the ALJ’s analyses of the two issues on review, but that the commission had reached the same ultimate conclusions on these issues, *i.e.*, noninfringement and no equitable estoppel. The limited exclusion order applied to “[s]ortation systems, and shoes and slats thereof, covered by claims 1 or 4 of U.S. Patent No. 5,127,510 that are manufactured abroad and/or imported by or on behalf of Vanderlande” with the exception of “sortation system parts for use as spare parts at the [United Parcel Service] Hub 2000 facility in Louisville, Kentucky.”^[1] On February 19, 2003, the ITC issued the commission’s opinion, which provided a more detailed explanation of the January 27, 2003 notice of violation and limited exclusion order.

Vanderlande timely appealed to our court, which has jurisdiction pursuant to 28 U.S.C. § 1295 (a)(6). We heard argument on March 5, 2004.

III. Nature of the Technology

This case addresses “sortation systems,” mechanical equipment used to sort items. The typical sortation system has a main conveyor belt and a number of spurs that branch off the main belt; the

parties liken a conveyor belt and its spurs to a highway and its off-ramps. In “positive-sorter” systems, certain devices mechanically push items off the main conveyor belt onto the appropriate spur. At issue in this case are “shoe-type” positive sorters. In a shoe-sorter system, the main conveyor belt is made up of a series of “slats,” and a “shoe” (or “diverter shoe”) rides on top of each slat. The shoes mechanically push items across the slats and onto the appropriate spur.

One difficulty with shoe sorters is that when a shoe pushes an item along the slat, the item generates forces that react against the shoe. These reaction forces tend to flip the shoe over and to rotate the shoe sideways. The patent-in-suit, the ’510 patent, discloses technology designed to minimize the effects of these reaction forces and promote ease of glide of shoes across slats.

IV. ’510 Patent

The title of the ’510 patent is “Modular Diverter Shoe and Slat Construction.” The specification of the ’510 patent states:

BACKGROUND OF THE INVENTION

This invention relates to a conveyor sortation system and in particular to a positive displacement sortation system in which diverting shoes travelling with the conveyor surface laterally diverts [sic] packages onto selected spur lines. . . .

[In shoe-sorter systems,] [t]he diverting motion applies reaction forces to the shoes tending to rotate the shoes about their vertical axis as well as about the long axis of the slats. These forces, of course, increase with heavier packages and those having a high coefficient of friction with the slats. These difficulties are aggravated by a desire to provide ever-increasing line speeds, which require greater ease of gliding between the shoe and the slats. Efforts to provide structural support to resist the reactive forces tend to be at odds with ease of glide.

SUMMARY OF THE INVENTION

The present invention provides a sortation system which is capable of very high line speeds without excessive line noise by utilizing unique slats and diverter shoes, which are capable of rapid and smooth gliding along the slats while resisting reactionary forces. . . .

The invention is embodied in a sortation system in which each of the slats is defined by a wall having a planar upper portion that defines the conveyor surface in combination with diverter shoes having a support portion including a substantially continuous glide surface that surrounds the slat and has substantially the same configuration as the outer surface of the slat. In a preferred embodiment, the slat has a parallelogram cross-section and bearing means are defined between at least one edge of each slat and an engaging portion of the glide surface of the diverter shoe. The bearing

means is provided by an enlarged radius surface at the slat edge. Such bearing means are preferable [sic] provided at diagonally opposite slat edges in order to better resist reaction forces about the axis of the slat.

A lateral stabilizing means is additionally provided between each slat and an engaging portion of the glide surface of the corresponding diverter shoe in order to resist vertical axis reaction forces. The lateral stabilizing means is preferably a T-shaped outward extension of one portion of the slat engaging a mating portion of the shoe glide surface.

'510 patent, col. 1, ll. 9-13, 34-43, 46-50, 56-68, col. 2, ll. 1-9.

Figures 1-3 and 8-9 from the '510 patent are set out on the following pages. Figure 1 is a view from above a sortation system, depicting diverter shoes moving across slats (from the top of the figure towards the bottom). The diverter shoes are at 28, and the slats are at 22. Figure 2 is a cross-sectional view of three slats surrounded by three diverter shoes. Figure 3 depicts a cross-section of a single slat, without a shoe surrounding it.

U.S. Patent July 7, 1992 Sheet 1 of 6 5,127,510

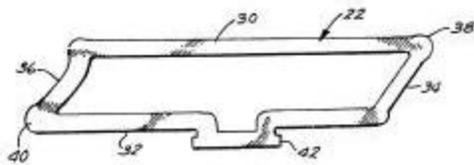


Fig. 3.

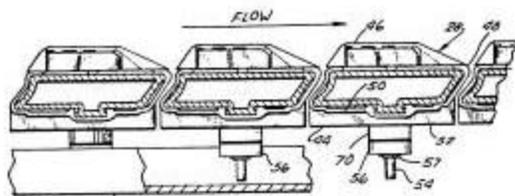


Fig. 2.

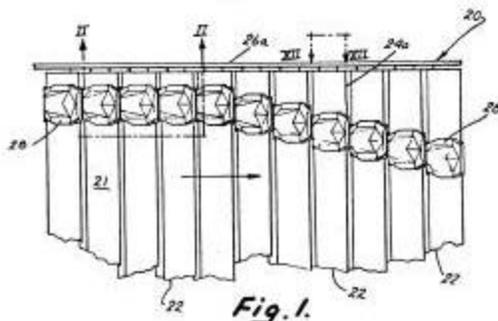


Fig. 1.

Figures 8-9 show different angles of a “support member,” the bottom part of the diverter shoe. The “diverter member,” the top part of the diverter shoe, is mounted on the support member; the diverter member is not depicted in figures 8-9.

U.S. Patent July 7, 1992 Sheet 4 of 6 5,127,510

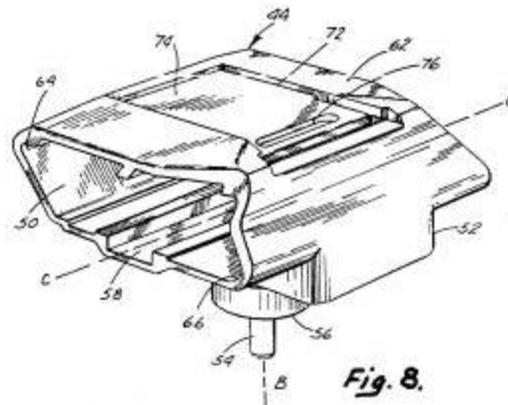


Fig. 8.

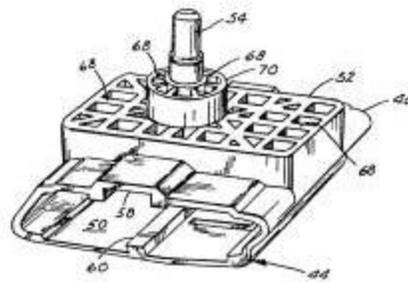


Fig. 9.

Claims 1 and 4 state:

1. In a conveying system having a longitudinally moving conveying surface defined by the uppermost ones of a plurality of slats connected at opposite ends in spaced relation with each other to a pair of endless chains; a plurality of diverter shoes each moveably mounted on one of said slats for lateral movement with respect to said conveying surface; and track means engaging said diverter shoes for imparting a lateral force to move said diverter shoes laterally to displace product positioned on said conveying surface, wherein the improvement comprises:

end of said slats being defined by a wall formed as a right cylinder including an outer surface having a planar upper portion defining said conveying surface; and each of said diverter shoes having a support portion including a substantially continuous glide surface surrounding said wall, said glide surface having substantially the same configuration as said outer surface of said slat.

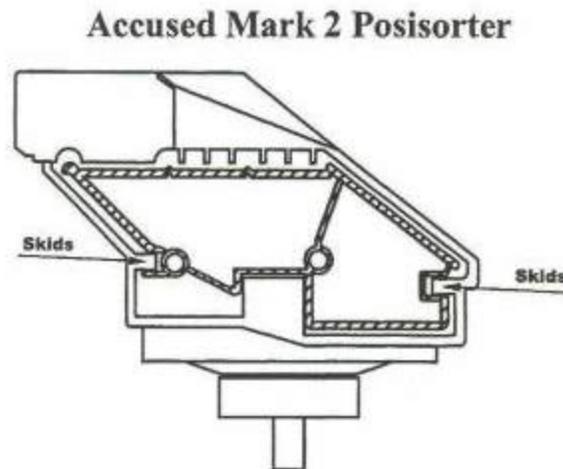
...

4. The conveying system in claim 1 wherein each of said slats is formed by extrusion.

d. at col. 6, ll. 6-25, 31-32 (emphases added).

V. Accused Product

The accused product is Vanderlande's Mark 2 Posisorter. The Mark 2 Posisorter is a shoe-sorter system. The diagram below depicts a cross-sectional view of the Mark 2 Posisorter's diverter shoe on a slat, with the candy-striped line indicating the outer boundary of the slat: [2]



DISCUSSION

Vanderlande challenges the ITC's determination of infringement of claims 1 and 4 of the '510 patent and the ITC's rejection of Vanderlande's defense of equitable estoppel. In analyzing these issues, we review the ITC's factual findings under the substantial-evidence standard, and we review the ITC's legal determinations *de novo*. See, e.g., Honeywell Int'l, Inc. v. Int'l Trade Comm'n, 341 F.3d 1332, 1338 (Fed. Cir. 2003).

I. Infringement

On infringement, Vanderlande contests the ITC's infringement analysis of two limitations that are recited in claim 1 and incorporated by reference in claim 4: "glide surface surrounding said [slat] wall" and "glide surface having substantially the same configuration as said outer surface of said slat."

A. "Glide Surface Surrounding Said [Slat] Wall"

Vanderlande challenges the ITC's construction of the claim limitation "glide surface surrounding said [slat] wall." Vanderlande contends that this claim limitation refers to an inner surface of a diverter shoe that contacts the outer surface of the slat on all sides. So construed, Vanderlande does not infringe claims 1 and 4, as it is undisputed that the inner surface of the Mark 2 Posisorter's diverter shoe only contacts the outer surface of the slat on three sides, and does not contact the top of the slat. The ITC rejected Vanderlande's argument as to contact, determining that the limitation at issue actually did not require any contact at all:

[T]he term "glide surface" in claim 1 [and incorporated by reference in claim 4] is merely a two-dimensional surface and does not imply any points of contact or non-contact between the inner surface of the diverter shoe and the outer surface of the slat wall. Points of contact or non-contact between the glide surface and the slat wall are not claimed features of this element of claim 1. . . . All that matters to being a "glide surface," really, is whether the inner surface of the Mark 2 Posisorter shoe (i) moves over or along the surface of the slat in a smooth, effortless manner without pivoting or rolling; and (ii) is two-dimensional. There is no factual dispute that the Mark 2 Posisorter shoe's inner surface possesses these characteristics. Ergo, the inner surface of the Mark 2 Posisorter constitutes a "glide surface" as that term is used in claim 1.

ALJ Op. at 120-21.

We review the ITC's claim construction de novo. Honeywell, 341 F.3d at 1338. We seek to determine what a person of ordinary skill in the art would understand the claims to mean "in light of the intrinsic evidence of record, including the written description, the drawings, and the prosecution history, if in evidence." Teleflex, Inc. v. Ficoso N. Am. Corp., 299 F.3d 1313, 1324 (Fed. Cir. 2002). While extrinsic evidence can shed useful light on the relevant art -- and thus better allow a court to place itself in the shoes of a person of ordinary skill in the art -- the "intrinsic evidence is the most significant source of the legally operative meaning of disputed claim language." Vitronics Corp. v. Conceptronic, Inc., 90 F.3d 1576, 1582 (Fed. Cir. 1996). Indeed, a "court should look first to the intrinsic evidence of record," id., to determine if the patentee "expressly define[d] terms used in the claims or . . . define[d] terms by implication," Dow Chem. Co. v. Sumitomo Chem. Co., Ltd., 257 F.3d 1364, 1373 (Fed. Cir. 2001).

The critical term in the limitation "glide surface surrounding said [slat] wall" is "glide surface," as the parties agree that the ITC correctly construed "surrounding" to mean "to extend on all sides; to

encircle; to enclose on all sides to cut off communication or retreat.” ALJ Op. at 69. The written description’s most detailed discussion of the term “glide surface” is in the context of the explanation of the preferred embodiment:

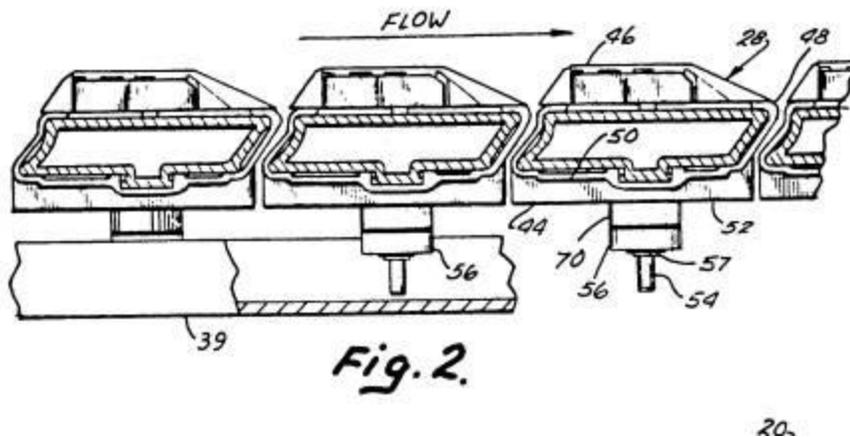
Each diverting shoe 28 includes a support member 44 and a diverting member 46 mounted to the support member (FIG. 2). Support member 44 includes a glide portion 48 having a continuous glide surface 50 having substantially the same configuration as the outer surface of slat 22 for gliding movement along the slat. . . . Continuous surface 50 includes a channel 58 surrounding projection 42 of the slat such that the projection rides within the channel (FIGS. 8, 9, and 11). Continuous surface 50 additionally includes a support rib 60 which engages top wall 30 of the slat to support an upper wall 62 of the support member. Continuous surface 50 additionally includes an enlarged radius forward upper corner 64 and an enlarged radius lower rear corner 66, in which enlarged radius corners 38 and 40 of the slat, respectively, ride. This arrangement provides bearing engagement between the enlarged radius corners of the slat and the corresponding corners of surface 50 to resist reaction forces tending to rotate the shoes about the axis of elongation of the slat. . . .

’510 patent, col. 3, ll. 26-51. As this passage and the accompanying drawings make plain, “contiguous glide surface 50” is the inner surface of the diverter shoe.

In the preferred embodiment, the glide surface contacts the outer surface of the slat at various points; these points of contact resist the reaction forces that are generated when the diverter shoe pushes an item across the slat. At the upper-left corner and the bottom-right corner of the slat, the slat engages the glide surface’s “enlarged radius forward upper corner 64 and . . . enlarged radius lower rear corner 66.” Id. at col. 3, ll. 44-45. In the drawings of the preferred embodiment, both the upper-right and bottom-left corners of the slat also appear to make contact with the glide surface. On the top of the slat, the slat engages the glide surface’s “support rib 60.” Id. at col. 3, l. 41. On the bottom of the slat, a projection off the slat rides within the glide surface’s “channel 58.” Id. at col. 3, l. 38. The above-referenced parts of the glide surface are depicted (without the slat) in figure 8:[\[3\]](#)



But in the preferred embodiment, the glide surface also has regions that do not contact the slat. Indeed, regions of noncontact are found on every side of the slat, as can be discerned on close inspection of figure 2:



Vanderlande acknowledges that the glide surface in the preferred embodiment has regions that do not contact the slat, but emphasizes that the glide surface includes at least some contact with every side of the slat. Vanderlande's argument is accurate with respect to the preferred embodiment, which includes not only midsection contact points on the top and bottom of the slat, but also contact points at the corners of the slat.

But the "Summary of the Invention" (quoted at length supra) expressly contemplates other embodiments, stating that the invention includes embodiments with contact "between at least one edge

[i.e., corner] of each slat and an engaging portion of the glide surface of the diverter shoe.” *Id.* at col. 1, ll. 65-66 (emphasis added). Moreover, while the “Summary of the Invention” describes a midsection contact point on the bottom of the slat, it does not describe a midsection contact point on the top of the slat. In short, the “Summary of the Invention” teaches that the invention embraces glide surfaces that do not contact the slat on all sides, e.g., a glide surface with contact points only on the bottom of the slat and one corner of the slat. While such glide surfaces may not be optimal -- indeed, the “Summary of the Invention” emphasizes that it is preferable to have bearing means at “diagonally opposite slat edges in order to better resist reaction forces about the axis of the slat,” *id.* at col. 2, ll. 1-2 -- they do fall within the disclosure of the invention, indicating that the patent requires a broader meaning of “glide surface” than the one pressed by Vanderlande.

Vanderlande argues that statements of Siemens/Rapistan to the European Patent Office (“EPO”) during the prosecution of a European counterpart to the ’510 patent support Vanderlande’s contention that a glide surface must contact the slat on all sides. In the prosecution to which Vanderlande refers, the EPO initially rejected the patent application in view of a prior-art reference, a shoe sorter that used “skids” to stabilize the shoe on the slat. In this prior-art shoe sorter, the skids were located below the top wall of the slat. Siemens/Rapistan argued to the EPO examiner that if the skids themselves were considered to be the “glide surface,” the glide surface would not “surround” the slat as required by the Siemens/Rapistan application:

In Claim 1 of the present [European] application, the slat is defined by a wall which has an upper portion defining the conveying surface, and the wall is surrounded by a glide surface of the diverter shoe. This does not appear to be the case in [the prior art reference]. In annex 1 of the official communication, the Examiner indicated that the planar upper portion [i.e., the top wall of the slat] . . . is surrounded by the skids, but this does not appear to be the case, because the planar upper portion is above the skids.

ALJ Op. at 65 (citations omitted). As the ALJ properly determined, the “distinctions in [Siemens/Rapistan’s] counterargument to the EPO have nothing to do with whether or where the ‘glide surface’ contacts the slat.” *Id.* at 68.

The extrinsic evidence likewise fails to show that those skilled in the relevant art would

understand a “glide surface” as having contact on all sides. At the evidentiary hearing before the ALJ, the expert witness for Siemens/Rapistan and the inventors named on the ’510 patent testified that the term “glide surface” had no independent meaning in the art of sortation systems. Vanderlande did not present any evidence to the ITC that the term “glide surface” had any meaning in this art.^[4] Instead, Vanderlande argued to the ITC, and contends on appeal, that the term has an “ordinary meaning” that requires contact. The linchpin of Vanderlande’s argument is a definition of the noun form of “glide” found in a general-usage dictionary: “a device for facilitating the movement of something; esp.: a circular usu. metal button attached to the bottom of furniture legs to provide a smooth surface.” Merriam Webster’s Collegiate Dictionary (10th ed. 1998). Vanderlande places particular weight on the illustrative example of the button on the bottom of a furniture leg, emphasizing that the furniture-leg button completely contacts both the furniture leg and the floor.

Vanderlande’s reliance on this illustrative example from a general-usage-dictionary definition is unpersuasive, for several reasons. First, Vanderlande misapprehends the proper role of general-usage (as opposed to technical, art-specific) dictionaries in claim construction. Claims are to be construed from the vantage point of a person skilled in the relevant art. To the extent that this artisan would understand a claim term to have the same meaning in the art as that term has in common, lay usage, a general-usage dictionary can be a helpful aid to claim construction. But where evidence -- such as expert testimony credited by the factfinder, or technical dictionaries -- demonstrates that artisans would attach a special meaning to a claim term, or, as here, would attach no meaning at all to that claim term (independent of the specification), general-usage dictionaries are rendered irrelevant with respect to that term; a general-usage dictionary cannot overcome credible art-specific evidence of the meaning or lack of meaning of a claim term. Cf. Dow Chem., 257 F.3d at 1373 (“We have previously cautioned against the use of non-scientific dictionaries, ‘lest dictionary definitions . . . be converted into technical terms of art having legal, not linguistic significance.’” (quoting Multiform Desiccants, Inc. v. Medzam, Ltd., 133 F.3d 1473, 1478 (Fed. Cir. 1998))). As the ITC properly determined in this case:

Vanderlande’s effort to attribute to the term “glide surface” the ordinary dictionary definition of the word “glide” alone is misplaced. Vanderlande did not present any evidence outside of the dictionary definition of the word “glide” to show that “glide surface” has an ordinary meaning in the material handling industry or in the sortation

industry. By contrast, [Siemens/Rapistan] demonstrated, through its expert witnesses having personal experience in the material handling and diverter sortation field, that “glide surface” does not have an ordinary meaning, and the [ITC] Staff agreed with this view.

ALJ Op. at 61 (citations omitted).

Second, even if general-usage dictionaries could be useful in circumstances like these, the definition of the noun “glide” cited by Vanderlande -- “a device for facilitating the movement of something” -- concerns only one word in a two-word claim term and is vague, abstract, and fails to connote a particular structure. Indeed, Vanderlande does not even rely on the definition itself, but rather on an extrapolation from the illustrative example of the furniture-leg button. Vanderlande’s argument rests on a long series of tenuous assumptions: the word “glide” in the claim term “glide surface” is based on the noun form, not the verb form; the characteristics of the illustrative example of the furniture-leg button necessarily obtain with respect to all glides; therefore every “glide surface” must have the characteristics of the furniture-leg button; therefore a glide surface surrounding a three-dimensional structure -- like a conveyor-belt slat -- must contact this structure on all sides just as the button contacts the floor. Vanderlande’s shaky syllogism cannot overcome the uncontroverted testimony regarding the lack of ordinary meaning of “glide surface” in the art of sortation systems.

Third, in any event Vanderlande’s dictionary argument is entirely eclipsed by the ’510 patent’s written description, which provides detailed, art-specific examples of glide surfaces, not only in the preferred embodiment but also in the express contemplation of other embodiments, including embodiments in which the glide surface does not contact every side of the slat. See Dow Chem., 257 F.3d at 1373 (stating that “any definition found in or ascertained by a reading of the intrinsic evidence may not be contradicted by any meaning found in dictionaries”). As noted above, the “intrinsic evidence is the most significant source of the legally operative meaning of disputed claim language,” Vitronics, 90 F.3d at 1582, and this is particularly true where, as here, the written description provides definite and readily discernible guidance as to the intended meaning of a structural claim term. Indeed, it is doubtful whether any extrinsic evidence could contradict or overpower the meaning evident from the written description here, and certainly Vanderlande’s furniture-leg button cannot do so.

Vanderlande argues that its construction of “glide surface” is buttressed by the content of a mediation statement prepared by Siemens/Rapistan in connection with the mediation of a prior litigation. The content of this mediation statement, which would be inadmissible in a patent suit in federal district court, see Federal Rule of Evidence 408 (“Evidence of conduct or statements made in compromise negotiations is . . . not admissible.”), was at most a theory advanced in a proceeding to mediate a separate litigation, upon which we place little -- if any -- weight in claim construction, cf. Beckson Marine, Inc. v. NFM, Inc., 292 F.3d 718, 726 (Fed. Cir. 2002) (“[L]itigation theories -- to the extent not expressed in claim language, the patent specification, or the prosecution history -- do not affect claim scope.”). In any event, we have considered the mediation statement (which the parties marked as confidential) and believe it is ambiguous with regard to the claim-construction issue at hand.

We conclude that a “glide surface” is a diverter shoe’s inner surface that has some contact, but not necessarily complete contact, with the outer surface of the slat, and that need not contact all sides of the slat. We note that our construction of “glide surface” is different from the ITC’s construction, which did not require any contact at all. We believe the ITC’s definition was overly broad. Indeed, the ITC’s definition could conceivably embrace “no-contact” technologies far beyond the patent’s disclosure, such as a glide surface that rides above the slat on air currents, or a glide surface that is magnetized to repel the outer surface of the slat.

Returning to the claim limitation as a whole, we conclude that “glide surface surrounding said [slat] wall” refers to a glide surface (as just defined) that completely encircles the slat. This construction embraces Vanderlande’s Mark 2 Posisorter, whose diverter shoe’s inner surface has some contact, but not complete contact, with the outer surface of the slat, and which completely encircles the slat.

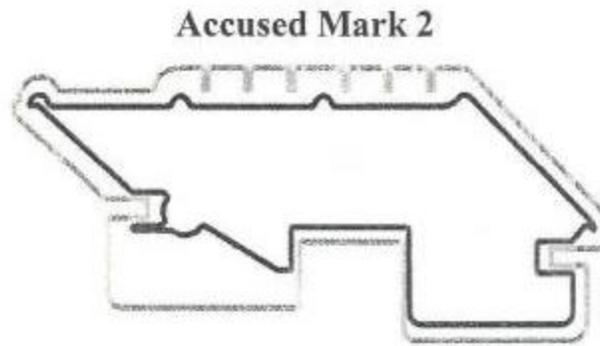
B. “Glide Surface Having Substantially the Same Configuration as Said Outer Surface of Said Slat”

Vanderlande’s second infringement challenge is aimed at the ITC’s infringement analysis of the limitation “glide surface having substantially the same configuration as said outer surface of said slat.” Vanderlande argues error because the ITC failed to construe this limitation, and asserts that the proper

construction is “that the glide surface of the shoe must largely, but not necessarily wholly, resemble the configuration of the outer surface of the slat in every, or largely every, relevant respect.”

Vanderlande’s argument suffers from several defects. First, this claim limitation was not in dispute when the ALJ construed the claims, and thus there was no reason for the ALJ to set out a formal construction. See, e.g., U.S. Surgical Corp. v. Ethicon, Inc., 103 F.3d 1554, 1568 (Fed. Cir. 1997) (stating that “[c]laim construction is a matter of resolution of disputed meanings” (emphasis added)). Second, the ALJ was plainly attentive to the critical words “substantially the same configuration,” stating that “a claim term like ‘substantially’ is considered to be a ‘broadening usage’ that ‘must be given reasonable scope’; such words ‘must be viewed by the decisionmaker as they would be understood by persons experienced in the field of the invention.’” ALJ Op. at 129 (citations omitted); see Optical Disc Corp. v. Del Mar Avionics, 208 F.3d 1324, 1334 & n.4 (Fed. Cir. 2000) (finding no reversible error where the district court “did not articulate a construction of the claims” but did “inferentially set forth its view of the scope of the claims” (emphasis added)). Third, Vanderlande fails to demonstrate any meaningful distinction between the construction it now presses and the ALJ’s discussion of the effect of the word “substantially.” In short, we find no error in the ITC’s implicit claim construction.

Vanderlande’s real grievance is not with the ITC’s implicit claim construction, but with the application of this construction to the Mark 2 Posisorter. Vanderlande argues that the differences between the glide surface of the diverter shoe in the Mark 2 Posisorter and the outer wall of the slat in the Mark 2 Posisorter are sufficiently great that the Mark 2 Posisorter falls outside the scope of this claim limitation. The diagram below depicts a cross-sectional view of the Mark 2 Posisorter’s diverter shoe’s glide surface (the outer line in the diagram) and the slat’s outer wall (the inner line in the diagram): [5]



While the shape of the inner surface of Vanderlande's diverter shoe is not identical to the shape of the outer surface of the slat, we believe that substantial evidence supports the ITC's finding that the Mark 2 Posisorter has a "glide surface having substantially the same configuration as said outer surface." The ITC's finding is "supported by 'such relevant evidence as a reasonable mind might accept as adequate to support a conclusion.'" Oak Tech., Inc. v. Int'l Trade Comm'n, 248 F.3d 1316, 1325 (Fed. Cir. 2001) (quoting Finnigan Corp. v. Int'l Trade Comm'n, 180 F.3d 1354, 1362 (Fed. Cir. 1999)).

II. Equitable Estoppel

Vanderlande contests the ITC's rejection of Vanderlande's argument that Siemens/Rapistan was equitably estopped from asserting the '510 patent against Vanderlande. A party raising equitable estoppel as a defense must prove, by a preponderance of the evidence, three elements: "(1) The [patentee], who usually must have knowledge of the true facts, communicates something in a misleading way, either by words, conduct or silence. (2) The [accused infringer] relies upon that communication. (3) And the [accused infringer] would be harmed materially if the [patentee] is later permitted to assert any claim inconsistent with his earlier conduct." A.C. Aukerman Co. v. R.L. Chaides Constr. Co., 960 F.2d 1020, 1041 (Fed. Cir. 1992) (en banc). Vanderlande argues that Siemens/Rapistan misled Vanderlande by not initiating litigation in Europe or the United States before 2001 despite knowing that Vanderlande had contracted to build Mark 2 Posisorters in Europe and the United States, and by

participating in the construction of a United Parcel Service (“UPS”) sortation facility in Louisville, Kentucky (the “Hub 2000” project) in which Vanderlande was installing the Mark 2 Posisorter.

The first element of equitable estoppel requires conduct by the patentee that misleadingly suggests that the patent holder will not assert its rights. But as the ITC found in its commission opinion, Siemens/Rapistan warned Vanderlande of potential infringement on several occasions:

Rapistan clearly warned Vanderlande that it would enforce its U.S. patent rights if the accused product was imported into the United States. Approximately one month before Vanderlande submitted its bid for the Hub 2000 project, Rapistan sent Vanderlande a letter stating that while “[w]e do not have any specific information that Vanderlande Industries is not respecting Rapistan Systems’ rights in the United States . . . [t]his notification is being made in an effort to avoid future disputes.” Rapistan then stated that the Mark 2 Posisorters, as installed in the German UPS facility in Fechenheim “would constitute an infringement of at least [the ’510 patent] if made, used, sold, or offered for sale in or imported to the United States of America.” At that time, alternative sortation systems with other slat and shoe configurations were available which Vanderlande could have used at the Hub 2000 facility. In October of 1998, Rapistan, after meeting with UPS personnel, learned of the [planned] use by Vanderlande of the Mark 2 Posisorter at the Hub 2000 facility. In December of 1998, counsel to Rapistan wrote to Vanderlande proposing that Vanderlande purchase Rapistan’s RS2000 sortation system for use at the Hub 2000 facility so that Vanderlande could “get out from under the potential of a patent infringement.” Thus, Rapistan, once alerted to the [planned] use of the Mark 2 Posisorter at the Hub 2000 facility, put Vanderlande on notice that use of the same slats and shoes as used in the Mark 2 Posisorter at the UPS facility in Fechenheim, Germany would constitute infringement of the claims of the ’510 patent, and that Rapistan intended to enforce that patent. Vanderlande nonetheless decided to import the Mark 2 Posisorters with the accused slats and shoes despite the fact that Rapistan has twice warned that doing so would infringe the ’510 patent.

Comm’n Op. at 14-15 (citations omitted). The warnings of potential infringement described by the commission are precisely the opposite of the sort of conduct needed to give rise to equitable estoppel.

In an attempt to overcome these warnings, Vanderlande contends that the failure of Siemens/Rapistan to initiate litigation until July 2001 gave Vanderlande the false impression that Siemens/Rapistan had abandoned its earlier threats. But we agree with the commission’s rejection of this argument:

Nine months after Rapistan confirmed that the accused shoes and slats were being used at the Hub 2000 facility, Rapistan, as it had twice warned Vanderlande it would do, initiated this investigation. In view of these facts, we do not believe that Rapistan’s inaction was so unreasonable as to be misleading or that Rapistan’s delay in filing

supports an inference that Rapistan did not intend to enforce its patent rights in the United States against Vanderlande.

Id. at 15. Because Vanderlande cannot meet the first element of equitable estoppel, we need not reach the other two elements.

CONCLUSION

We affirm the ITC's decision holding that Vanderlande violated section 337 of the Tariff Act of 1930, 19 U.S.C. § 1337, by, inter alia, importing for sale in the United States the Mark 2 Posisorter. Because we reject Vanderlande's assertions of error by the ITC, we need not reach the alternative arguments for affirmance presented by Siemens/Rapistan.

AFFIRMED.

COSTS

Costs to appellee.

[1] The exception related to the "Hub 2000" facility -- which both Vanderlande and Siemens/Rapistan were involved in constructing -- was based on Siemens/Rapistan's written representations to the United Parcel Service that "this litigation will have no adverse impact on the Hub 2000 facility" and that "spare parts would continue to flow as needed." ALJ Op. at 302.

[2] Vanderlande included this diagram in its briefs to our court, and the other parties do not contest the diagram's accuracy.

[3] Support rib 60 is visible but not numbered in this figure; the support rib is numbered in figure 9, set out supra.

[4] On appeal, Vanderlande asserts that it has found "over 200 patents using the term

[‘glide surface’] to describe a low friction contact surface” and discovered similar results using an Internet search engine. Vanderlande does not state, however, whether these patents and Internet findings are specific to the art of sortation systems. In any event, Vanderlande did not present this evidence to the ITC, and we thus hold any argument based on this evidence to be waived.

[5] Vanderlande included this diagram in its briefs to our court, and the other parties do not contest the diagram’s accuracy.