

United States District Court,
District of Columbia.

INTEX RECREATION CORP,
Plaintiff.

v.

METALAST, S.A. SOCIEDAD UNIPERSONAL,
Defendant.

No. CIV.A. 01-1213(JDB)

Feb. 12, 2003.

Alleged infringer brought action against holder of patent for swimming pool ladder, seeking declaratory judgment that its product did not violate patent and that patent was invalid and unenforceable. Following hearing, the District Court, Bates, J., held that "uninterrupted inner surfaces" meant smooth, uniform, or containing no irregularities.

Ordered accordingly.

Typically, prosecution history will not overcome the ordinary meaning of the patent claim language to one skilled in the art unless it is clear and unequivocal.

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John E. Curtin, Fairfax, VA, Martin G. Raskin, Joshua L. Raskin, Steinberg & Raskin, PC, New York, NY, Counsel for Defendant/Counter-claimant.

MEMORANDUM OPINION

BATES, District Judge.

This matter is before the Court on the issue of claim construction relating to a patent on a swimming pool ladder. Plaintiff Intex Recreation Corp. ("Intex") and defendant Metalast, S.A., Sociedad Unipersonal ("Metalast") take opposing views on the meaning of a key term employed in the claim language of the patent, and thus on the scope of the patent. A hearing on claim construction was held on October 11, 2002, pursuant to *Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 116 S.Ct. 1384, 134 L.Ed.2d 577 (1996).

The Court has considered the claim language and its context, relevant dictionary definitions, the claim prosecution history, and expert testimony offered by the parties. As explained below, the Court concludes

that the ordinary meaning of the disputed term-"uninterrupted inner surfaces"-to one skilled in the relevant art is "smooth" or "uniform."

BACKGROUND

Metalast is a Spanish corporation that is the claimed owner of U.S. Patent No. 5,547,041 ("the '041 patent") for a ladder. Compl. para. 2. Intex sells a swimming pool ladder that Metalast asserts infringes this patent; Metalast has accordingly requested Intex to cease the manufacture and sale of its swimming pool ladder, and to withdraw the ladder from store inventories. Compl. para. 7.

In response, Intex filed this action on June 4, 2001, seeking a declaratory judgment pursuant to 28 U.S.C. s. 2201 that the '041 patent has not been infringed by Intex, and that the '041 patent is invalid and unenforceable. FN1 The parties have framed the claim construction issue for the *Markman* hearing through the submission of claim charts, expert reports and depositions, legal memoranda, and the claim history of the '041 patent.

FN1. There is apparently a parallel infringement action brought by Metalast pending in another court.

LEGAL STANDARDS

[1] [2] Claim construction is a question of law for the Court. *Markman*, 517 U.S. at 384, 116 S.Ct. 1384; *accord* *Cybor Corp. v. FAS Techs.*, 138 F.3d 1448, 1456 (Fed.Cir.1998) (en banc); *Texas Digital Sys., Inc. v. Telegenix, Inc.*, 308 F.3d 1193, 1201 (Fed.Cir.2002). The Federal Circuit has made it very clear that the starting point for claim construction analysis must be the language of the disputed claim provision. "We begin claim construction analysis with the ordinary meaning of the disputed claim term." *Inverness Medical Switzerland v. Warner Lambert Co.*, 309 F.3d 1373, 1378 (Fed.Cir.2002); *accord* *Texas Digital Sys.*, 308 F.3d at 1206; *Interactive Gift Express, Inc. v. Compuserve, Inc.*, 256 F.3d 1323, 1331 (Fed.Cir.2001) ("In construing claims, the analytical focus must begin and remain centered on the language of the claims themselves"); *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed.Cir.1996). Hence, the Federal Circuit has stressed that:

The terms used in the claims bear a "heavy presumption" that they mean what they say and have the ordinary meaning that would be attributed to those words by persons skilled in the relevant art.

Texas Digital Sys., 308 F.3d at 1202; *CCS Fitness, Inc. v. Brunswick Corp.*, 288 F.3d 1359, 1366 (Fed.Cir.2002).

[3] [4] [5] It is, of course, "the person of ordinary skill in the field of the invention through whose eye the claims are construed." *Multiform Desiccants, Inc. v. Medzam, Ltd.*, 133 F.3d 1473, 1477 (Fed.Cir.1998). And although the starting point is the claim language, which normally is given its ordinary meaning, the inquiry cannot stop there, particularly if the claim specification or prosecution history may provide a different meaning for the claim term. *See Kraft Foods, Inc., v. Int'l Trading Co.*, 203 F.3d 1362, 1366 (Fed.Cir.2000). A technical term will generally be assigned the ordinary meaning that it would be given by one skilled in the art, unless "it is apparent from the patent and the prosecution history that the inventor used the term with a different meaning." *Phillips Petroleum v. Huntsman Polymers*, 157 F.3d 866, 871 (Fed.Cir.1998) (quoting *Hoechst Celanese Corp. v. BP Chemicals Ltd.*, 78 F.3d 1575, 1578 (Fed.Cir.1996)).

[6] [7] Deviation from the ordinary meaning of claim terms requires clear evidence, however.

[I]n redefining the meaning of particular claim terms away from the ordinary meaning, the intrinsic evidence must "clearly set forth" or "clearly redefine" a claim term so as to put one reasonably skilled in the art on notice that the patentee intended to so redefine the claim term.

Bell Atlantic Network Services, Inc. v. Covad Communications Group, 262 F.3d 1258, 1268 (Fed.Cir.2001). It is only when it appears that the inventor assigned a meaning to the words in a claim different than their ordinary and accustomed meaning that a court can adopt that other meaning. *See* Frank's Casing Crew v. PMR Technologies, 292 F.3d 1363, 1374 (Fed.Cir.2002). One situation warranting defining terms of a claim contrary to their ordinary meaning is where a patentee acts "as his own lexicographer" and specifically defines terms with an unconventional meaning such that "a reasonable competitor or one reasonably skilled in the art [is put] on notice that the patentee intended to so redefine that claim term." *Elektro Instr. v. O.U.R. Scientific Int'l*, 214 F.3d 1302, 1307 (Fed.Cir.2000) (quoting *Process Control Corp. v. HydReclaim Corp.*, 190 F.3d 1350, 1357 (Fed.Cir.1999)); *accord* *Kraft Foods*, 203 F.3d at 1366.

[8] [9] In interpreting disputed claim terms, courts "should look first to the intrinsic evidence of record, *i.e.*, the patent itself, including the claims, the specification, and if in evidence, the prosecution history." *Vitronics Corp.*, 90 F.3d at 1582; *accord* *Allen Engineering Corp. v. Bartell Industries, Inc.*, 299 F.3d 1336, 1344 (Fed.Cir.2002); *Teleflex, Inc. v. Ficosa N. Am. Corp.*, 299 F.3d 1313, 1324-25 (Fed.Cir.2002). Hence, if the meaning of the term used in the claim is sufficiently clear from the intrinsic evidence, that meaning shall apply; extrinsic evidence may be considered only where the claim language remains genuinely ambiguous after consideration of the intrinsic evidence. *Frank's Casing Crew*, 292 F.3d at 1374; *Bell & Howell Doc. Mgmt. Prods. Co. v. Altek Sys.*, 132 F.3d 701, 705-06 (Fed.Cir.1997).

[10] [11] The Federal Circuit has repeatedly, and recently, stressed that "dictionaries ... are particularly useful resources to assist the court in determining the ordinary and customary meanings of claim terms." *Texas Digital Sys.*, 308 F.3d at 1202; *accord* *Inverness Medical*, 309 F.3d at 1378; *Teleflex*, 299 F.3d at 1325. "Dictionaries are always available to the court to aid in the task of determining meanings that would have been attributed by those of skill in the relevant art to any disputed terms used by the inventor in the claims." *Texas Digital Sys.*, 308 F.3d at 1202; *see also* *Vitronics Corp.*, 90 F.3d at 1584 n. 6. Dictionaries are considered to be objective resources providing a reliable source of information as to the ordinary meaning of terms, and hence "the presumption in favor of a dictionary definition will be overcome [only] where the patentee, acting as his or her own lexicographer, has clearly set forth an explicit definition of the term different from its ordinary meaning." *Texas Digital Sys.*, 308 F.3d at 1204. If, however, there are several possible dictionary meanings of the disputed claim term, then the "objective and contemporaneous record provided by the intrinsic evidence" must be consulted to assist the court in determining which meaning was intended by the inventor. *Id.* at 1203; *Renishaw PLC v. Marposs Societa' per Azioni*, 158 F.3d 1243, 1250 (Fed.Cir.1998); *Inverness Medical*, 309 F.3d at 1378-79.

[12] [13] Dictionary definitions, then, are valuable resources to be used by a court at any time to assist in determining the ordinary meaning of claim language. *See* *Texas Digital Sys.*, 308 F.3d at 1202; *Vanguard Prods. Corp. v. Parker Hannifin Corp.*, 234 F.3d 1370, 1372 (Fed.Cir.2000) ("A dictionary is not prohibited extrinsic evidence, and is an available resource of claim construction."); *Vitronics Corp.*, 90 F.3d at 1584 n. 6 (judges are free at any time to consult dictionaries when construing claim terms). Another important aspect of the intrinsic evidence that a court may consult is the drawings in a patent case, which can be used as an aid in the interpretation of the claims because drawings may graphically support the proper

interpretation of the claim language. *See Desper Products v. QSound Labs, Inc.*, 157 F.3d 1325, 1333 (Fed.Cir.1998).

[14] [15] [16] The claim prosecution history of the patent may also be important to consider. "This history contains the complete record of all the proceedings before the Patent and Trademark Office, including any express representations made by the applicant regarding the scope of the claims." *Vitronics*, 90 F.3d at 1582; *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 980 (Fed.Cir.1995), *aff'd*, 517 U.S. 370, 116 S.Ct. 1384, 134 L.Ed.2d 577 (1996). However, it is crucial that the claim language and other intrinsic evidence including dictionary definitions must first be consulted:

Consulting the written description and prosecution history as a threshold step in the claim construction process, before any effort is made to discern the ordinary and customary meanings attributed to the words themselves, invites a violation of our precedent counseling against importing limitations into the claims.

Texas Digital Sys., 308 F.3d at 1204; *see Generation II Orthotics, Inc. v. Medical Technology, Inc.*, 263 F.3d 1356, 1367 (Fed.Cir.2001) (lower court should have construed claim limitation as controlled by ordinary and customary meaning provided by medical dictionary before importing a more limited embodiment). Hence, prosecution history cannot be used to limit the scope of a claim unless that was the clear intent of the applicant: "It is inappropriate to limit a broad definition of a claim term based on prosecution history that is itself ambiguous." *Inverness Medical*, 309 F.3d at 1382; *see also Schwing GmbH v. Putzmeister Aktiengesellschaft*, 305 F.3d 1318, 1324 (Fed.Cir.2002); 5A *Chisum on Patents* s. 18.03[2][d] (Matthew Bender 2001).

[17] [18] Courts are free to examine extrinsic evidence as well even if the patent documentation itself may appear clear. *See Pitney Bowes, Inc. v. Hewlett-Packard Corp.*, 182 F.3d 1298, 1308 (Fed.Cir.1999). Nonetheless, whether in the form of testimony or other materials, "extrinsic evidence cannot be used to contradict the established meaning of the claim language." *Gart v. Logitech*, 254 F.3d 1334, 1340 (Fed.Cir.2001); *accord Texas Digital Sys.*, 308 F.3d at 1212; *Vitronics*, 90 F.3d at 1584 (extrinsic evidence, and particularly expert testimony, "may not be used to vary or contradict the claim language"). Of course, testimony from experts in the relevant field, including one of ordinary skill in the art of that field, may be useful to assist the court in understanding technical terms and issues, reviewing the patent and its prosecution history, and even discerning the ordinary meaning of the claim terms. *See Markman*, 52 F.3d at 981; *TechSearch, L.L.C. v. Intel Corp.*, 286 F.3d 1360, 1377 (Fed.Cir.2002).

ANALYSIS

[19] The parties agree that the claim construction in this case turns on the meaning of three words: "uninterrupted inner surfaces." This term appears both in Claim 1 of the '041 patent and in the abstract of the patent. Claim 1 describes a ladder comprising two rigid uprights and "at least one rung extending horizontally between said two uprights and having apertures defined by sleeves having uninterrupted inner surfaces for receiving therethrough said rigid uprights." Def. Cl. Construction Br., Ex. 1 ('041 patent, p. 3). The abstract similarly states: "A rung is provided having apertures defined by sleeves having uninterrupted inner surfaces, for receiving therethrough the uprights." *Id.* at p. 1.

[20] The parties also agree on the basic parameters and framework for the Court's analysis of the claim interpretation for the '041 patent, as established in Federal Circuit decisions and described above. Each urges the Court to examine the intrinsic evidence initially, including the claim language, the specification,

any drawings, the prosecution history, as well as ordinary dictionary definitions to assist in interpreting the claim language, and lastly to consult the available extrinsic evidence, including expert testimony. Intex places primary reliance on what it asserts is the clear, ordinary meaning of the claim language, as confirmed by dictionary definitions and its expert witness, Jon Ver Halen. Metalast, on the other hand, emphasizes the prosecution history and the reading of that history by its expert, Joseph Schmerler. The parties agree that the meaning of the claim language to one skilled in the art is controlling. *See, e.g., Multiform Desiccants*, 133 F.3d at 1477. Intex asks the Court to keep in mind that the Federal Circuit and other courts stress that what is most important in claim construction is the concept of notice—courts must discern what the claims in the patent mean to one reasonably skilled in the art so as to put a reasonable competitor on notice as to the precise scope and meaning of the claims.

The parties further agree that "uninterrupted inner surfaces" is not a term of art having a specialized meaning to those having expertise in either ladder or swimming pool design and construction. Likewise, "uninterrupted inner surfaces" is not specifically defined in the specification of patent '041. Hence, this is not a case where the patentee has acted as his own lexicographer and expressly provided the meaning of the relevant claim term. The threshold task for the Court, then, is to determine the ordinary meaning to one skilled in the art of the words "uninterrupted inner surfaces" as used in the context of the '041 patent claim. Although the parties agree on the issue and the analytical path to its resolution, they differ significantly with respect to the suggested result. Intex staunchly contends that the ordinary meaning of the term "uninterrupted inner surfaces" is smooth, uniform, or containing no irregularities (hereinafter "smooth"). Metalast counters that, in the context of the '041 patent and its prosecution history, the term can only mean unitary or one-piece (hereinafter "unitary").

1. The Claim Language

Several observations seem particularly pertinent with respect to the claim language under consideration. First, neither of the competing constructions of the term "uninterrupted inner surfaces" urged by the parties is totally implausible, although for the reasons that will be discussed, the Court concludes that "smooth" is the more plausible construction. Viewing the three words in isolation, an uninterrupted surface would appear to be one having no gaps, splits, protrusions, ridges, or recesses—*i.e.*, a surface that is smooth and uniform. Although somewhat less plausible, an uninterrupted surface could also be one that is unitary—*i.e.*, in a single piece with no seam or connection joining parts together, as those too might be said to constitute "interruptions" to the surface. As explained further below, however, when sources such as dictionaries, drawings, and expert testimony are consulted, there is some confirmation that the ordinary meaning of "uninterrupted inner surfaces" to one skilled in the art (of either ladder or swimming pool ladder design) is smooth and uniform.

Second, and importantly, the term "uninterrupted inner surfaces" does not appear in isolation, but rather in the context of the other language of Claim 1. It is clear that while the entire term "uninterrupted inner surfaces" modifies the preceding noun "sleeves," the word "uninterrupted" itself applies to and modifies only "inner surfaces," not "sleeves." A review of the words themselves (and their placement) strongly suggests, then, that the *surface* of the sleeves must be uninterrupted (and hence smooth), not that the sleeves must be uninterrupted (and hence arguably unitary). *See Teleflex*, 299 F.3d at 1324-25 ("The words used in the claims are interpreted in light of the intrinsic evidence of record, including the written description, ... [to] provide context and clarification about the claim terms."); *Pitney Bowes*, 182 F.3d at 1311 (term must be read to correspond to meaning in context). Metalast's position that "uninterrupted inner surfaces" means unitary or one-piece would be more convincing if "uninterrupted" directly modified "sleeves," suggesting

that the sleeves must be a single piece. Even then, Metalast's position ultimately is really that the ladder rungs (having sleeves at each end) are to be unitary or one-piece. That interpretation is even further from the actual words as used in the claim, in which uninterrupted modifies surfaces, not sleeves, and certainly not ladder rungs. As it is, however, the words of the claim suggest that it is only the inner surfaces of the sleeves that must be uninterrupted, which is more consistent with the idea of smooth inner surfaces than with unitary inner surfaces. Indeed, the latter construction does not make much sense when one thinks of a surface, rather than the item itself, being of a single piece. The meaning Metalast suggests could certainly be more directly achieved through a different placement of the words employed.

Similarly, the phrase "for receiving therethrough said rigid uprights" immediately following the term "uninterrupted inner surfaces" appears to the Court to supply some explanation of why the sleeves are designed with uninterrupted inner surfaces. That explanation—to enable the ladder uprights to be received readily through the sleeves in the rungs—makes sense if the inner surface of the sleeve is smooth (without protrusions, gaps, or recesses). In other words, if the sleeves have smooth inner surfaces, then that will facilitate sliding the uprights through them, whether or not the sleeves are unitary. On the other hand, sleeves that are unitary or one-piece might still not facilitate easy receipt of uprights, if the sleeves have protrusions, gaps or recesses rather than smooth inner surfaces.

Finally, construing the term "uninterrupted inner surfaces" to mean smooth rather than unitary is also consistent with the additional language throughout Claim 1 discussing the separate split sleeve, which has both a "split," a "recess," and a "protrusion." Hence, the sleeves in the rungs are differentiated from the split sleeves, which have gaps and protrusions, by the term "uninterrupted inner surfaces," meaning without gaps, protrusions or recesses (i.e., smooth).

One other piece of intrinsic evidence—the drawings that are part of the '041 patent—supports the position that "uninterrupted inner surfaces" is best construed as smooth or uniform. Figure 1 depicts the sleeve at the end of a rung, and shows the "inner surface" of the sleeve as smooth. Likewise, the axial cut-out in Figure 2, which the patent characterizes as "illustrat[ing] an *elevational* cross-section of the attachment of the rung to the upright," Def. Cl. Constr. Br., Ex. 1 at p. 3, depicts the inner surface of the sleeve (at 9) as smooth, but, in contrast, depicts the two parts of the upright with gaps, recesses and protrusions. Hence, the drawings are consistent with an interpretation of the claim language as requiring smooth inner surfaces on the sleeves that are part of the ladder rungs.

In sum, the Court concludes that the ordinary meaning of "uninterrupted inner surfaces" to one skilled in the art is considerably more likely to be "smooth" than "unitary," given the words employed, their context, and the accompanying drawings. Certainly, there are more explicit and direct ways to explain that rungs with sleeves at each end are to be unitary or one-piece, if that was the inventor's intent. Metalast's construction would make the word "inner" entirely superfluous, since under its construction there is nothing meaningful about having the *inner* surface of the rung sleeves "uninterrupted" or unitary. Intex's construction of "uninterrupted inner surfaces" as meaning smooth or uniform is consistent with both the words employed and the context, because an inner surface of the sleeves without gaps, protrusions, or recesses is important to facilitating the smooth receipt of the ladder uprights through the sleeves. Therefore, an interpretation of the language "uninterrupted inner surfaces" in Claim 1 of the '041 patent to mean smooth or uniform is, the Court concludes, the ordinary meaning to one skilled in the art. As discussed below, other available evidence supports that interpretation, although the prosecution history of the '041 patent points somewhat in the direction of Metalast's interpretation that "uninterrupted inner surfaces" means unitary or one-piece sleeves.

2. Dictionary Definitions

Relying on several dictionary definitions, Intex suggests that "interrupted" means "discontinuous," "not uniform," or lacking "continuity or uniformity," and that "uninterrupted" means "having undisturbed continuity" or "continuing without interruption" or "continuous." See *American Heritage Dictionary* (2d ed.1985); <http://www.Dictionary.com>; *Webster's New Twentieth Century Dictionary* (2nd ed.); *Webster's Third New Int'l Dictionary* (1993). That comports, according to Intex, with the definition of "smooth" as "having a surface free from irregularities, roughness or projections" or "having no obstructions" or "having a continuously even surface" or "even and uninterrupted in flow"; it would also seem to comport with a definition of "uniform" as "marked by a lack of variation [or] change in form." *American Heritage Dictionary* (2nd ed.1985); *Webster's Third New Int'l Dictionary* (1993). Moreover, synonyms of "uninterrupted" include "smooth" and "uniform." See *Roget's Int'l Thesaurus* (4th ed.1995). Again, this evidence is consistent with an interpretation of "uninterrupted inner surfaces" as meaning "smooth" or "uniform."

Metalast's initial response was primarily to caution that dictionary definitions should be relied upon sparingly, and cannot substitute for or overcome the meaning of claim terms evident from the specification, drawings and prosecution history. Metalast also argues-more strenuously in supplemental briefing-that the very same dictionary definitions cited by Intex are consistent with Metalast's proposed claim interpretation as well, noting that synonyms for "uninterrupted" include "joined," "unbroken," and "seamless." See *Roget's Int'l Thesaurus* (4th ed.1995). Metalast's argument, then, is essentially that a dictionary definition is of limited value and cannot overcome the clear meaning Metalast believes is furnished by the prosecution history of the '041 patent.

[21] Recent Federal Circuit decisions, however, clarify that dictionaries are "particularly useful resources" for the court to employ at any time to ascertain the ordinary meaning of claim terms. *Texas Digital Sys.*, 308 F.3d at 1202. They are objective, reliable sources of information shedding light on the meaning that those skilled in the art would normally attribute to the disputed language. *Id.* at 1202-03; see also *Inverness Medical*, 309 F.3d at 1378. Rather than the analytical construct urged by Metalast, in which a dictionary definition is a disfavored means to overcome a meaning supplied by the claim prosecution history, the Federal Circuit instead requires clear, explicit direction in the claim specification or prosecution history to overcome "the presumption in favor of a dictionary definition." *Texas Digital Sys.*, 308 F.3d at 1204. Here, as explained below, the Court does not agree that the prosecution history is so unequivocal as to overcome the ordinary meaning of "uninterrupted inner surfaces" as being smooth. The dictionary definitions of "interrupted" as "not uniform" or "discontinuous" and of "uninterrupted" as "continuous" or "having undisturbed continuity" comport well with dictionary definitions of "smooth" as "having a surface free from irregularities, roughness or projections" or "having a continuously even surface" or "even and uninterrupted in flow" and of "uniform" as "marked by a lack of variation [or] change in form." Indeed, these definitions of "smooth" confirm that it is a descriptive term that is particularly appropriate when speaking of a surface, as is the case here. Those definitions support the conclusion, therefore, that the ordinary meaning of "uninterrupted," particularly in the context in which it is used in the '041 patent claim, is smooth, uniform or free from protrusions.

Thus, these dictionary definitions tend to support Intex's view that "uninterrupted inner surfaces" means smooth or uniform inner surfaces. Although Metalast contends that the dictionary definitions are equally supportive of a proposed construction of the term as unitary or one-piece, the Court disagrees. Rather, the

dictionary definitions are more consistent with an interpretation of "uninterrupted inner surfaces" as meaning smooth or uniform, and hence provide support for that construction as drawn, in the first instance, from the claim language and context itself.

3. Expert Testimony of Jon Ver Halen

[22] The primary extrinsic evidence presented by the parties is expert testimony. Intex offers Jon Ver Halen, a well-qualified expert in ladder design, construction and analysis, to assist the Court in reviewing the term "uninterrupted inner surfaces" to determine its meaning to one skilled in the art. Ver Halen's expert testimony, as clarified by Intex's counsel at the *Markman* hearing, is based solely on the claim language, specifications and drawings of the '041 patent, not on the prosecution history (which Ver Halen never reviewed). The Court finds that Ver Halen is very well qualified in the field of ladder analysis and design, which is the relevant "art" for the '041 patent, and that his opinion that the proper construction of "uninterrupted inner surfaces" is smooth or uniform is persuasive and therefore of value to the Court, even though it ignores the prosecution history altogether.FN2

FN2. Intex also offers the expert opinion of a patent attorney, Robert Greene Sterne. Counsel for Intex clarified at the *Markman* hearing that, although Mr. Sterne has offered an opinion on claim construction, Intex does not "need" it, which the Court takes to mean that Intex is not relying on Mr. Sterne's testimony on claim construction. In any event, the Court will not consider it, given that Mr. Sterne is not one skilled in the art and the view of a patent attorney on claim interpretation is improper. *See Endress + Hauser, Inc. v. Hawk Measurement Sys., Inc.*, 122 F.3d 1040, 1042 (Fed.Cir.1997) ("this court has on numerous occasions noted the impropriety of patent lawyers testifying as expert witnesses").

Ver Halen correctly states that no definition is provided in the '041 patent for the term "uninterrupted inner surfaces"; hence, he has turned to the patent drawings, which he assumes partially display the "inner surfaces" of the sleeves in Figure 1. He concludes, or more specifically "speculates," from his review of the drawings "that 'uninterrupted inner surfaces' means 'smooth,' *i.e.*, having a constant radius along its length." Pl. Cl. Constr. Br., Ex. F, p. 2 para. 7. Intex argues that Ver Halen's expert testimony is rooted in his expertise in ladder design, and that he is the only proper expert in the relevant art. Although the Court is persuaded that Ver Halen is qualified in a relevant art (ladder analysis and design) and that he has provided a valuable review of assistance to the Court in determining the meaning of "uninterruptedinner surfaces" to one skilled in the art, certain weaknesses in his opinion cannot be disregarded. He admits that he can only "speculate as to the meaning of" the term, and "that any person skilled in the art of ladder design would have to guess what the Patent means in Claim 1 when it claims 'sleeves having uninterrupted inner surfaces'." *Id.*, para. 6. Even his review based on the drawings is far from unequivocal: "Based on these incomplete and inexact views of the surface of the 'sleeve', I can speculate that 'uninterrupted inner surfaces' means 'smooth', *i.e.*, having a constant radius along its length." *Id.* para. 7. And, of course, he did not review the prosecution history. Hence, although certainly supportive of Intex's position, Ver Halen's expert testimony is far from conclusive.

4. The Prosecution History

[23] To combat Intex's argument that the ordinary meaning of the term "uninterrupted inner surfaces" to one skilled in the art is smooth or uniform, which is buttressed by both dictionary definitions and the expert testimony of Ver Halen, Metalast turns to the prosecution history of the '041 patent as explained by its expert witness. Metalast's position that the claim language "uninterrupted inner surfaces," when viewed in

the context of the prosecution history, can only mean unitary or one-piece is, in fact, bolstered by its expert testimony (based largely on the prosecution history). As an important part of the intrinsic evidence available to the Court, the prosecution history can be significant in assisting the Court to discern the proper interpretation of the claim language. *See, e.g., Vitronics*, 90 F.3d at 1582-83. Typically, however, prosecution history will not overcome the ordinary meaning of the claim language to one skilled in the art unless it is clear and unequivocal. *See Inverness Medical*, 309 F.3d at 1382.

As originally submitted, the '041 patent did not contain the term "uninterrupted inner surfaces." Following rejection by the patent examiner, however, an attorney for the patent applicant submitted revised claim language and accompanying remarks designed to obtain approval, in part by distinguishing the '041 patent from a predecessor, the Full patent. It is these remarks by the patent attorney addressing the Full patent that constitute the prosecution history on which Metalast places great reliance:

The rungs in the Full patent are in the form of two plates 1 which are secured to the ropes or uprights by bolts 5. Each plate 1 has semi-circular recesses 2 in which clamps 8 are set, see col. 2 lines 73-77, which would not constitute the sleeve 9 defined by claim 1 of the present invention.

In the present invention the rungs have apertures defined by sleeves 9 having uninterrupted inner surfaces for receiving therethrough rigid uprights. The sleeve 9 of the rung slides over the split sleeve 5, which is axially aligned around the rigid upright 1 and engaged by recess 3 and protrusion 8, so as to position the rung along the length of the rigid upright 1.

In the Full patent clamps 8 are provided with encircling grooves 9 and shoulders 10 for receiving the plates 1. In order to secure the plates 1 to the rope additional securing i.e. other than the groove 9, is required by way of bolts 5. See col. 2 line 98-103.

Applicants submit that assembly of the Full ladder would be far from simple when compared to the simple construction and arrangement achieved by the present invention, which has fewer parts and which parts merely fit together in a manner sufficient to secure the ladder in an assembled condition, without the need for additional bolting.

Pl. Cl. Constr. Br., Ex. C (United States Patent File History, M00674).

5. Expert Testimony of Joseph Schmerler

To explain its position based on this prosecution history, Metalast relies on an assessment by its expert witness, Joseph Schmerler, who has a degree in mechanical engineering and extensive experience in the design and construction of swimming pools, and what he characterizes as "related equipment including pool ladders." Schmerler has acted as a consultant on matters relating to various aspects of swimming pools and is well-qualified in the art of above-ground swimming pools.

There is some dispute as to the relevant art regarding the '041 patent. Intex's expert, Ver Halen, is an expert in the design, testing, specifications and construction of various kinds of ladders. Metalast's expert, Schmerler, is an expert in swimming pools and, to some degree, a purported expert in "related equipment," including swimming pool ladders. Each party asks the Court to exclude the other side's expert. The Court declines to do so.

Schmerler's expert report defines the relevant art as "the design and construction of above-ground pools and related equipment." Def. Cl. Constr. Br., Ex. 8 (Expert Report of Joseph Schmerler, p. 2). Although not perfectly clear, the Court finds that the relevant art here involves more the design of ladders and less the design of swimming pools and related equipment. The dispute revolves around language in the '041 patent that addresses how the rungs, or steps, of a ladder are attached and connected to the uprights of the ladder. The construction of the claim term-"uninterrupted inner surface"-in no way depends on the fact that this ladder is mainly for use in a swimming pool; what the ladder is attached to is ancillary to the proper construction of the disputed term. While the patent does note that the ladder is to be used mainly for swimming pools, it also explicitly states that it can be used for other functions, and emphasizes a focus on how the rungs are attached to the uprights:

This invention refers to a ladder and, more particularly, to the means for attachment of the rungs to the upright. Although this ladder can be constituted in any manner and applied to differing functions, it has been designed mainly to be used in swimming pools.

Def. Cl. Constr. Br., Ex. 1 ('041 Patent, p. 3 col. 1). Moreover, the '041 patent is contrasted with the Full patent for a "ship's ladder." *See id.* at Ex. 6 (Full patent). Thus, the Court deems the relevant "art" here to involve the design of ladders more than the design of swimming pools and related equipment.

Given this relevant art, the Court finds that Intex's expert, Ver Halen, is more qualified to offer expert testimony than Metalast's expert, Schmerler. Ver Halen has experience and expertise in the design, specifications, standards, and construction of various ladders. His experience includes working on national standardizing committees involving the testing and design of ladders, including serving on the steering committee for establishing ladder safety codes. Moreover, he has been involved with ladder stability research, accident prevention, and occupational safety issues involving ladders. *See* Def. Cl. Constr. Br. Ex. 10 (Ver Halen Expert Report). Schmerler, in contrast, has extensive expertise related to swimming pools, and experience in various equipment related to swimming pools, but limited direct experience with ladders. *See id.*, Ex. 8 (Schmerler Expert Report). Indeed, neither his report nor his rebuttal report mentions his expertise or qualifications to offer expert testimony on ladders, beyond the broadly worded experience working with swimming pools and related equipment.

The Court nonetheless finds Schmerler's testimony somewhat relevant and helpful to the Court. In his deposition, Schmerler testified that he had analyzed ladders in a number of lawsuits involving injuries from above-ground swimming pool accidents, where he tested stress levels of pool ladders. While the Court concludes that Schmerler's relevant expertise is not as extensive as Ver Halen's, the Court is not prepared to exclude him as an expert witness.

Compounding the difficulty here is that the words at issue-"uninterrupted inner surfaces"-are not technical terms of art used in the design of ladders or even swimming pool ladders. Expert testimony, therefore, may be of limited assistance. *See* *Howes v. Medical Components, Inc.*, 814 F.2d 638, 643 (Fed.Cir.1987) (ordinary words in claims that "are not technical terms of art" do not require expert evidence). Furthermore, these three disputed words in the '041 patent were added by a patent attorney, not an expert, who had not even consulted the original Spanish-language patent he was attempting to rewrite after the examiner rejected his initial submission. *See* Pl. Cl. Constr. Br., Ex. D (Dep. of Holman, pp. 63-80). Hence, the value of expert testimony here may be limited. *See* *Markman*, 517 U.S. at 387, 116 S.Ct. 1384 ("[I]t often becomes necessary that [judges] should avail themselves of the light furnished by experts relevant to the significance of such words and phrases. The judges are not, however, obliged to blindly follow such testimony.")

(quoting Walker, *Patent Laws* s. 189, at 173); McNulty v. Taser Int'l, Inc., 217 F.Supp.2d 1058, 1062 (C.D.Cal.2002) ("Extrinsic evidence, such as expert testimony ... is received at the discretion of the court and is not controlling.").

Metalast argues from the prosecution history that the patent applicant, through its attorney, was faced with rejection of the claims as anticipated by the Full patent. Therefore, the applicant focused on the difference between the rungs of the Full ladder, which are formed by two plate-like members with apertures formed by two semi-circular surfaces or recesses assembled by bolts, and the rungs of the '041 ladder, which are formed as a unitary member with apertures formed by a single unitary inner surface of the sleeves. According to Metalast and Schmerler, the '041 patent claims were amended to clarify that the sleeves of the rung (which defined the tubular apertures) have "uninterrupted inner surfaces," as contrasted to the tubular apertures of the Full patent rungs formed by joining and bolting the surfaces of two separate semi-circular recesses (*i.e.*, an "interrupted" surface).

The amendment remarks lend some support to this assessment, since the two-piece formation of the Full patent rungs requiring bolts for assembly is juxtaposed with "the present invention [in which] the rungs have apertures defined by sleeves 9 having uninterrupted inner surfaces for receiving therethrough rigid uprights." What holds this proposed interpretation together is the emphasis in the amendment on "the simple construction and arrangement achieved by the present invention, which has fewer parts" than the Full ladder and no "need for additional bolting." Metalast correctly observes that Intex's interpretation that "uninterrupted inner surfaces" means "smooth inner surfaces" would not by itself advance this distinction from the Full ladder-simple construction with fewer parts and no bolts-that is emphasized in the amendment to the '041 patent. On the other hand, sleeves with inner surfaces that are unitary or one-piece would, in Metalast's view, result in a ladder that is easy to assemble. Both Schmerler and Ver Halen generally agree on this last point.

There is arguably some force, then, to Metalast's assessment of the prosecution history of the '041 patent. Interpreting "uninterrupted inner surfaces" to mean a sleeve having a unitary or one-piece inner surface, rather than two separate inner surfaces that must be bolted together, advances the goal of simple construction and fewer parts identified in the '041 amendment to distinguish the Full ladder. An interpretation of "smooth" inner surfaces would not necessarily achieve that purpose and distinguish the '041 ladder from the Full ladder. Intex responds by emphasizing in the '041 amendment the patent attorney's discussion of recesses and shoulders, which are interruptions, concluding that the purpose was to eliminate such recesses and shoulders and thereby create a smooth inner surface for ease of sliding, which is in fact also simpler than the Full ladder. Although this assessment of the prosecution history is also plausible, the Court concludes that the better reading is that proposed by Metalast and its expert, Schmerler, who actually reviewed the prosecution history.FN3

FN3. Intex's expert, Mr. Ver Halen, did not review the prosecution history, but the Court does not find this fatal to his ability to provide expertise of assistance to the Court. *See* ID Security Systems Canada, Inc. v. Checkpoint Systems, Inc., 198 F.Supp.2d 598, 619 (E.D.Pa.2002) ("The Court concludes that [the expert's] failure to review the prosecution history of the '270 patent is not fatal to his testimony. The starting point for claim interpretation is the language of the claims.").

However, the Court does not conclude that the prosecution history urged by Metalast is so clear and unequivocal that it can overcome what the Court has already found is the ordinary and customary meaning

of the claim term "uninterrupted inner surfaces" to one skilled in the art. *See* Inverness Medical, 309 F.3d at 1382. The more persuasive reading of the prosecution history may be that it focuses on distinguishing the '041 patent claim from the Full patent in terms of the simplicity of construction and number of parts, but there is also a plausible reading that it focuses on ease of sliding (*i.e.*, smooth surfaces without protrusions), which is likewise a simpler construction. More importantly, the relevant prosecution history is subject to some inherent doubt given that it was provided by a patent attorney attempting to overcome the examiner's rejection, but who did not rely on the original Spanish-language patent and cannot remember what he meant in any event. *See* Pl. Cl. Constr. Br., Ex. D (Dep. of Holman, pp. 63-80). All things considered, the Court does not find this prosecution history to be so unambiguous as to provide a basis for the claim construction Metalast seeks, and absent clear, unambiguous prosecution history indicating a contrary intent, the ordinary meaning of the claim term must prevail. *See* Inverness Medical, 309 F.3d at 1382; Schwing GmbH, 305 F.3d at 1324; 5A *Chisum on Patents* s. 18.03[2][d].FN4

FN4. To the extent that dictionary definitions provide more than one possible meaning for "uninterrupted," the prosecution history of the '041 patent may be useful in discerning which meaning was intended by the inventor. *See* Texas Digital Sys., 308 F.3d at 1203; Inverness Medical, 309 F.3d at 1378-79. Again, however, the history must clearly demonstrate another meaning in order to overcome the ordinary meaning. *See* Inverness Medical, 309 F.3d at 1379, 1382.

6. Summary

It is not necessarily enough, then, that Metalast may have the better of the argument with respect to the prosecution history. Although the Court concludes that Metalast presents a more plausible explanation of the prosecution history, it is not so clear and unequivocal as to overcome the ordinary meaning of the claim language to one skilled in the art of either ladder construction and design or swimming pool equipment construction and design. That ordinary meaning, based on the claim language, context and drawings, as well as dictionary definitions, and confirmed by the extrinsic evidence of Ver Halen's expert testimony, is that "uninterrupted inner surfaces" means smooth or uniform inner surfaces of the sleeves located at the ends of the ladder rungs of the '041 patent. As explained above, that interpretation would seem to make considerably more sense to one skilled in the art, given the language employed and its context.

CONCLUSION

For the foregoing reasons, the Court concludes that the ordinary and customary meaning of the claim term "uninterrupted inner surfaces" in the '041 patent is "smooth," "uniform" or "having no protrusions" as established by the claim language, context and drawings, and confirmed by dictionary definitions and credible expert testimony. Although the claim prosecution history is ambiguous as to the proper construction of that term, given the circumstances of that history it is not so unequivocal as to permit a different meaning than "smooth" or "uniform" to be assigned to the term "uninterrupted inner surfaces."

ORDER

Upon consideration of the issue of the proper claim construction of U.S. Patent No. 5,547,041 ("the '041 patent"), it is this *12th* day of February, 2003, hereby

ORDERED that, for the reasons stated in the Court's Memorandum Opinion issued on this date, the term "uninterrupted inner surfaces" in the '041 patent shall be construed as meaning "smooth" or "uniform" inner

surfaces.

IT IS FURTHER ORDERED that a scheduling conference is set for February 26, 2003 at 9:30 a.m. in Courtroom 21.

D.D.C.,2003.

Intex Recreation Corp. v. Metalast, S.A. Sociedad Unipersonal

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