United States District Court, S.D. Indiana, Indianapolis Division.

INDIANA MILLS & MANUFACTURING, INC,

Plaintiff.

v.

DOREL INDUSTRIES, INC. and DOREL JUVENILE GROUP, INC, Defendants.

No. 104CV01102LJMWTL

May 18, 2005.

Background: Patentee brought action against alleged infringer of its patent for a child safety seat.

Holdings: Following *Markman* hearing, the District Court, McKinney, J., held that:

- (1) "affixed" as used in patent meant "secured," rather than "attached";
- (2) corresponding structure for "adjusting means" referred to in patent was cam member and bar, or a bottom wall, cam bar and bar, that were described in the patent;
- (3) "cam member" as used in patent meant an eccentrically revolving part with a radial bearing surface; and
- (4) "bar" as used in patent meant a part that was longer than it was wide.

Ordered accordingly.

4,660,889. Construed.

A. James Richardson, Lawrence A. Steward, Sanders N. Hillis, Brinks Hofer Gilson & Lione, Indianapolis, IN, Samuel Ellet Shehadeh, Timothy Quinn Delaney, Brinks Hofer Gilson & Lione, Chicago, IL, for Plaintiff.

Gregory Andrew Duff, Jay G. Taylor, John F. Prescott, Jr., Michael A. Swift, Ice Miller, Indianapolis, IN, for Defendants.

ORDER ON CLAIM CONSTRUCTION

MCKINNEY, Chief Judge.

On April 28, 2005, the Court held a hearing to assist it with construction of the claim language of the patent at issue in this infringement suit, U.S. Patent No. 4,660,889 (the " '889 patent"). Guided by the Supreme Court's opinion in Markman v. Westview Instruments, Inc., 517 U.S. 370, 388-90, 116 S.Ct. 1384, 134 L.Ed.2d 577 (1996) (" Markman II "), and by the Federal Circuit's opinion in Markman v. Westview Instruments, Inc., 52 F.3d 967 (Fed.Cir.1995) (" Markman I "), the claim construction rendered herein will not be a "tentative one" subject to change upon receipt of additional information and evidence, but a definitive one based on all of the evidence of record at this point in the litigation. *See* Int'l Comm. Mat'ls, Inc. v. Ricoh Co., Ltd., 108 F.3d 316, 318-19 (Fed.Cir.1997) (noting that district court performed a "tentative construction" of the claim language to facilitate a decision of the preliminary injunction issue). The parties in this cause, plaintiff, Indiana Mills & Manufacturing, Inc. ("IMMI"), and defendants, Dorel Industries, Inc. and Dorel Juvenile Group, Inc. (defendants collectively "Dorel"), have narrowed the disputed terms of the claims at issue, independent claims 8 and 11. Having been fully advised by the parties

of their relative positions, the Court will discuss the relevant legal rules and application of those rules to the patent in dispute.

I. CLAIM CONSTRUCTION STANDARDS

- [1] [2] When construing the '889 patent's claims, the Court must determine the meaning of the language used before it can ascertain the scope of the claims plaintiff, IMMI, alleges are infringed. *See* Markman I, 52 F.3d at 979. In doing so, the Court's interpretive focus is not the subjective intent of the parties employing a certain term, but the objective test of what one of ordinary skill in the art at the time of the invention would have understood the term to mean. *See* id. at 986. When the Court undertakes its duty to construe the claims, it first must look to the intrinsic evidence: the asserted and unasserted claims, the specification, and the prosecution history. *See* Ecolab, Inc. v. Envirochem, Inc., 264 F.3d 1358, 1366 (Fed.Cir.2001); Watts v. XL Sys. Inc., 232 F.3d 877, 882 (Fed.Cir.2000); Desper Prods. Inc. v. QSound Labs, Inc., 157 F.3d 1325, 1333 (Fed.Cir.1998) (citing Vitronics Corp. v. Conceptronic, Inc., 90 F.3d 1576, 1581 (Fed.Cir.1996)); Markman I, 52 F.3d at 979. Most of the time, such evidence will provide sufficient information for construing the claims. *See* Vitronics, 90 F.3d at 1583.
- [3] [4] The patent claims should " 'particularly point out and distinctly clai[m] the subject matter which the applicant regards as his invention.' "Markman II, 517 U.S. at 373, 116 S.Ct. 1384 (citing 35 U.S.C. s. 112). During claim construction, the appropriate starting point for the Court's inquiry is always the words of both the asserted and unasserted claims. See Elkay Mfg. Co. v. Ebco Mfg. Co., 192 F.3d 973, 977 (Fed.Cir.1999); Pitney Bowes, Inc. v. Hewlett-Packard Co., 182 F.3d 1298, 1305 (Fed.Cir.1999); Comark Comms., Inc. v. Harris Corp., 156 F.3d 1182, 1186 (Fed.Cir.1998); Vitronics, 90 F.3d at 1582; see also Renishaw PLC v. Marposs Societa' per Azioni, 158 F.3d 1243, 1248 (Fed.Cir.1998). It is the claims, not the written description, that define the scope of the patent and accordingly, the patentee's rights. See Laitram Corp. v. NEC Corp., 163 F.3d 1342, 1347 (Fed.Cir.1998); Markman I, 52 F.3d at 970-71. As the Federal Circuit has noted, "[c]ommon words, unless the context suggest otherwise, should be interpreted according to their ordinary meaning." Desper Prods., 157 F.3d at 1336 (citing York Prods., Inc. v. Central Tractor Farm & Family Ctr., 99 F.3d 1568, 1572 (Fed.Cir.1996)). See also Ecolab, 264 F.3d at 1366; Johnson Worldwide Assocs., Inc. v, Zebco Corp., 175 F.3d 985, 989 (Fed.Cir.1999); Renishaw, 158 F.3d at 1249, Further, when there are several common meanings for a term, "the patent disclosure serves to point away from the improper meanings and toward the proper meaning." Renishaw, 158 F.3d at 1250. Accord Desper Prods., 157 F.3d at 1336 (stating that the context of the claims can be found in the specification and drawings).
- [5] [6] A claim term will not be given a common dictionary meaning, however, if such a reading would be nonsensical in light of the patent disclosure, or specification. *See* Renishaw, 158 F.3d at 1250. Accordingly, the correct claim construction is also the one that "stays true to the claim language and most naturally aligns with the patent's description of the invention." Id. That description, or specification, serves an important purpose. In it, the patentee must provide a written description of the invention that would allow a person of ordinary skill in the art to make and use the invention. *See* Markman I, 52 F.3d at 979. The applicable statute requires that "[t]he specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains ... to make and use the same" 35 U.S.C. s. para. 112, para. 1. *See also* Johnson Worldwide Assocs., 175 F.3d at 993. Therefore, to discover the correct meaning of a disputed claim term, the Court must refer to the specification's description of the invention.
- [7] [8] [9] In addition, a patentee may be his or her own lexicographer and use terms in a manner different from their ordinary meaning. *See* Johnson Worldwide Assocs., 175 F.3d at 990; Vitronics, 90 F.3d at 1582. If the patentee chooses to do that, he or she must clearly state the special definition in the specification or file history of the patent. *See* id. The specification then serves as a dictionary when it defines terms, either expressly or by implication, that are used in the claims. *See* id. Therefore, it is also important to review the specification to discern whether the patentee has used a term in a way that is inconsistent with its ordinary meaning. *See* id. However, the specification should be used to clarify unclear claim terms, not to "trump the clear meaning of a claim term." Comark, 156 F.3d at 1187 (citing E.I. du Pont de Nemours & Co. v. Phillips Petroleum, 849 F.2d 1430, 1433 (Fed.Cir.1988)).

[10] [11] Claims must be read in light of the specification. *See* Markman I, 52 F.3d at 979. However, limitations from the specification may not be read into the claims. FN1 *See* Comark, 156 F.3d at 1186; *see also* Laitram, 163 F.3d at 1347. In particular, the Court should not limit the invention to the specific examples or preferred embodiment found in the specification. *See* Texas Instruments, Inc. v. United States Int'l Trade Comm'n, 805 F.2d 1558, 1563 (Fed.Cir.1986); *see also* Comark, 156 F.3d at 1186. Therefore, the "repetition in the written description of a preferred aspect of a claim invention does not limit the scope of an invention that is described in the claims in different and broader terms." Laitram, 163 F.3d at 1348. *See also* Electro Med. Sys. v. Cooper Life Sciences, Inc., 34 F.3d 1048, 1054 (Fed.Cir.1994).

FN1. An exception to this rule applies when the claim is written in a means- or step-plus-function format under 35 U.S.C. s. 112, para. 6. The rules of claim construction relative to those types of claims are discussed later herein.

[12] [13] Interpreting the meaning of a claim term "is not to be confused with adding an extraneous limitation appearing in the specification, which is improper." Laitram, 163 F.3d at 1348 (quoting Intervet Am., Inc. v. Kee-Vet Lab., Inc., 887 F.2d 1050, 1053 (Fed.Cir.1989)). An extraneous limitation is a limitation added "wholly apart from any need to interpret what the patentee meant by particular words and phrases in the claim." Hoganas AB v. Dresser Indus., Inc., 9 F.3d 948, 950 (Fed.Cir.1993). *See also* Renishaw, 158 F.3d at 1249. Although there is a fine line between reading a claim in light of the specification and reading a limitation from the specification into the claim, the Court must look cautiously to the specification for assistance in defining unclear terms. *See* Watts, 232 F.3d at 882; Comark, 156 F.3d at 1186-87.

[14] [15] The third source of intrinsic evidence is the '889 patent's prosecution history. *See* Desper Prods., 157 F.3d at 1336-37; Vitronics, 90 F.3d at 1582. "Prosecution history is an important source of intrinsic evidence in interpreting claims because it is a contemporaneous exchange between the applicant and the examiner." Desper Prods., 157 F.3d at 1336-37. In a patent's prosecution history the Court will find a complete record of the proceedings before the PTO leading to issuance of the patent. *See* Vitronics, 90 F.3d at 1582. The prosecution history contains both express representations made by the patentee concerning the scope of the patent, as well as interpretations of claim terms that were disclaimed during the prosecution. *See* id. at 1582-83; *see also* Ecolab, 264 F.3d at 1368; Elkay Mfg., 192 F.3d at 978; Southwall Tech. Inc. v. Cardinal IG Co., 54 F.3d 1570, 1576 (Fed.Cir.), *cert. denied*, 516 U.S. 987, 116 S.Ct. 515, 133 L.Ed.2d 424 (1995). Although the prosecution history is useful for understanding claim language, it "cannot enlarge, diminish, or vary the limitations in the claims." Markman I, 52 F.3d at 979 (quotations omitted).

[16] [17] [18] [19] In some cases, it may be necessary for the Court to consult extrinsic evidence to aid it in construing the claim language. See Pitney Bowes, 182 F.3d at 1308; Vitronics, 90 F.3d at 1584, Extrinsic evidence is any evidence outside of the patent and prosecution history, "including expert and inventor testimony, dictionaries, and learned treatises." Markman I, 52 F.3d at 980. See also Pitney Bowes, 182 F.3d at 1308. It may be used to assist the Court's understanding of the patent, or the field of technology. See Markman I, 52 F.3d at 980-81. However, "courts [should] not rely on extrinsic evidence in claim construction to contradict the meaning of claims discernible from thoughtful examination of the claims, the written description, and the prosecution history-the intrinsic evidence." Pitney Bowes, 182 F.3d at 1308 (emphasis in original) (citing Vitronics, 90 F.3d at 1583). Judges are not usually "conversant in the particular technical art involved," or capable of reading the patent specification and claims as one skilled in the art might. See Markman I, 52 F.3d at 986; see also Pitney Bowes, 182 F.3d at 1308-09. Therefore, "consultation of extrinsic evidence is particularly appropriate to ensure that [the Court's] understanding of the technical aspects of the patent is not entirely at variance with the understanding of one skilled in the art." Pitney Bowes, 182 F.3d at 1309. When the Court relies on extrinsic evidence to assist with claim construction, and the claim is susceptible to both a broader and a narrower meaning, the narrower meaning should be chosen if it is the only one clearly supported by the intrinsic evidence. See Digital Biometrics v. Identix, 149 F.3d 1335, 1344 (Fed.Cir.1998). It is entirely proper for the Court to accept and admit extrinsic evidence, such as an expert's testimony, to educate itself, but then base its construction solely on the intrinsic evidence. See Mantech Envt'l Corp. v. Hudson Envt'l Services, Inc., 152 F.3d 1368, 1373 (Fed.Cir.1998).

Further, the Federal Circuit has taken special note of the use by courts of a specific type of extrinsic evidence: dictionaries. In its Vitronics opinion, the court explained that although technical treatises and dictionaries are extrinsic evidence, judges are free to consult these resources at any time in order to get a better understanding of the underlying technologies. 90 F.3d at 1584 n. 6. The Vitronics court stated that judges may rely on dictionaries when construing claim terms as long as the dictionary definition does not contradict the definition found in, or ascertained by, a reading of the patent. Id.

At least one claim term disputed by the parties is written in means-plus-function format pursuant to 35 U.S.C. s. 112, para. 6. Claim elements of the '889 patent that are written in a means-plus-function format under 35 U.S.C. s. 112, para. 6 require special rules of construction. When a patentee uses such an element, he or she is subject to the following statutory provision:

[a]n element in a claim for a combination may be expressed as a means ... for performing a specified function without the recital of structure, material, or acts in support thereof, and such claim shall be construed to cover the corresponding structure, material, or acts described in the specifications and equivalents thereof.

35 U.S.C. s. 112, para. 6. *See also* Mas-Hamilton Group v. LaGard, Inc., 156 F.3d 1206, 1211 (Fed.Cir.1998).

[20] [21] For an element in a means-plus-function format, the "means" term "is essentially a generic reference for the corresponding structure disclosed in the specification." Chiuminatta Concrete Concepts v. Cardinal Indus., 145 F.3d 1303, 1308 (Fed.Cir.1998). *See also* Mas-Hamilton Group, 156 F.3d at 1211 (quoting Chiuminatta Concrete Concepts, 145 F.3d at 1308). By using this format, a patentee is allowed to claim a function without expressing all of the possible means of accomplishing that function. *See* O.I. Corp. v. Tekmar Co., 115 F.3d 1576, 1583 (Fed.Cir.1997). "The price that must be paid for use of that convenience is limitation of the claim to the means [or acts] specified in the written description and equivalents thereof." Id.

[22] [23] Thus, a claim expressed in means-plus-function language constitutes an exception to the rule that prohibits reading limitations from the specification into the claims. *See* Valmont Indus., Inc. v. Reinke Mfg. Co., 983 F.2d 1039, 1042 (Fed.Cir.1993). For example, when dealing with a means-plus-function claim, specific alternative structures to accomplish the function mentioned in the specifications, and equivalents thereto, delineate the scope of the patent claim. *See* Mas-Hamilton Group, 156 F.3d at 1211; Serrano v. Telular Corp., 111 F.3d 1578, 1583 (Fed.Cir.1997). The alternative structures must be specifically identified, not just mentioned as possibilities, in order to be included in the patent claim's scope. *See* Fonar Corp. v. Gen. Elec. Co., 107 F.3d 1543, 1551 (Fed.Cir.), *cert. denied*, 522 U.S. 908, 118 S.Ct. 266, 139 L.Ed.2d 192 (1997).

Having set forth the proper claim construction standards, the Court construes the disputed terms as follows:

II. DISCUSSION

IMMI has asserted that Dorel infringes claims 8 and 11 of the '889 patent. Those claims read:

8. A child restraining device for mounting in a vehicle, comprising:

a child seat having a seat support upon which the child may sit and back support against which the child may rest against;

a harness movably mounted to said child seat and including a front restraining portion positionable in front of the child with first lock means mounted on said front restraining portion, said harness including a belt affixed thereto being located beneath said seat support with said belt extending forwardly through said seat to and in front of said seat support;

second lock means mounted to said seat in front of said seat support and engageable with said first lock means to removably secure said harness to said seat; and

a belt adjustor mounted to said seat in front of said seat support with said adjustor including adjusting means frictionally receiving said belt being operable to hold said belt once said belt is pulled manually through said adjustor to tighten said harness and also being operable to release said belt to loosen said harness upon manual operation of said adjustor.

* * * * * *

11. A child restraining device for mounting in a vehicle comprising:

a seat having a seat support and a back support;

harness means positionable in front of a child sitting in said seat for holding said child securely in said seat;

first locking means attached to said harness means for removably securing said harness means to said said [sic] seat;

second locking means mounted to said seat for receiving and lockingly engaging said first locking means; and

a belt adjustor mounted to said seat for tensionably adjusting the proximity of said harness means relative to said child when said first and second locking means are engaged said belt adjustor including a manually operated cam member and bar designed to frictionally receive and hold stationary a portion of said harness means, said cam member being pivotably adjustable to bias said belt against said bar to release said harness means.

U.S. Patent No. 4,660,889, Apr. 28, 1987, col. 7, *ll*. 50-68 to col. 8, *ll*. 40-60 (" '889 Patent"). The parties have narrowed the disputed terms to these four: in claim 8, the parties dispute the meaning of the terms "affixed" and "adjusting means frictionally receiving said belt being operable to hold said belt once said belt is pulled manually through said adjustor to tighten said harness and also being operable to release said belt to loosen said harness upon manual operation of said adjustor;" in claim 11, the parties dispute the meaning of the terms "cam member" and "bar" as used to describe the belt adjustor. The Court addresses each disputed claim term in turn.

A. CLAIM 8

1. " Affixed "

[24] IMMI contends that the term "affixed" in claim 8 means "attached or secured." IMMI argues that this construction gives the term "affixed" it ordinary meaning and comports with the way the term is used in the context of the '889 patent. Dorel argues for a different construction; Dorel contends that the term "affixed" in the '889 patent means "attached, united, or connected as an associated part in any physical manner." Dorel avers that using only "attached or secured" to define "affixed" is insufficiently definite and includes more common definitions for the word than intended by the context of the '889 patent.

The Court finds that term "affixed" in claim 8 of the '889 patent means "secured." First, the Court looks at the term as it is used in the claims. "Affixed" is used first in unasserted claim 6: "said abdominal pad is located in front of said seat with said first fastening means *affixed* thereto at said first end" '889 Patent, col. 7, *ll.* 27-29 (emphasis added). Although in claim 6, "affixed" describes securing a fastening means, in claim 8, "affixed" describes securing a belt included as part of the harness. Claim 8 states, in relevant part, "said harness including a belt *affixed* thereto being located beneath said seat support with said belt extending forwardly through said seat to and in front of said seat support." Id. col. 7, *ll.* 58-62. Both claim 6 and claim 8 use the term in the same context, however, to describe the connection of two parts.

Although both parties suggest that "affixed" means "attached," the term "attached" also appears in the

claims, and a close reading thereof reveals a slightly different meaning for "attached" than "affixed." Claim 6 contains both terms and where it describes the first fastening means being "affixed" to the abdominal pad, it describes the connection between the belt of the harness and a rigid bar at the back of the seat as "attached." Id. col. 7, *ll*. 30-34. Asserted claim 11 uses "attached" similarly to describe the connection between the locking means and the harness. Id. col. 8, *ll*. 56-48. Claim 7 also uses "attached" to describe the connection between the belts of a harness to a rigid bar at the back of the seat. Id. col. 7, *ll*. 41-44. But, claim 7 used the phrase "fixedly fastened" to describe the connection between one end of the belts to the seat, similarly to the "affixed" fastening means in claim 6 and the "affixed" belt to the harness in asserted claim 8. *Compare* id. col. 7, *ll*. 38-41, to id. col. 7, *ll*. 28-30, and id. col. 7, *ll*. 58-60. Moreover, the phrase "fixedly fastened" in claim 7 is the most similar term to "affixed" and used in the most similar way. Clearly "fixedly fastened" connotes a more permanent connection than that conveyed by the term "attached." In other words, the term "affixed" means "secured," where the term "attached" means connected in some way, but may be more easily removed than something that is "secured."

The Court cannot agree with Dorel that the claims support a definition for "affixed" that specifically denotes "united ... as an associated part" United connotes two parts joined to become one piece, which is not necessarily excluded by the claims, but seems to unduly limit them. The language of the claims suggest that more than one piece is contemplated, and that those pieces need not be only one piece. Further, "secured" is broad enough to include "united ... as an associated part," but not as narrowing. Moreover, as just discussed, the construction "secured" best describes the use of the term "affixed" in all the claims in which it is used.

A construction for "affixed" that connotes "secured" is also consistent with the other intrinsic evidence in the specification. One of the references to "affixed" in the specification simply repeats the usage in claim 8 to describe the attachment of a belt to the harness. See id. col. 2, ll. 16-17. The other two references to "affixed" in the specification refer to a connection of the belt to the seat or the bar at the back of the seat. See id. col. 1, ll. 20-23 ("[t]he opposite ends of the belts extend rearwardly of the seat and are attached to a moveable bar in turn have a forwardly projecting belt with an opposite end affixed to the seat"); id. col. 3, ll. 39-43 ("Fixedly secured to bar 25 between the belts is a third belt 32 having one end 33 affixed to the bar with the opposite end extending through slot 19"). Again, this usage is similar to the way the term is used in claim 8, and the way the most similar term, "fixedly fastened," is used in claim 7.

The parties point to no evidence that the prosecution history would change the construction of the term "affixed" as it is commonly used in the claims and the specification, nor did the Court find any.

For the foregoing reasons, the Court finds that the proper construction for the term "affixed" is "secured."

2. " Adjusting Means " FN2

FN2. The parties do not dispute that this term is a "means-plus-function" term that should be interpreted according to 35 U.S.C. s. 112, para. 6, and the Court does not disagree.

[25] The next term disputed by the parties is the structure for the "adjusting means." The entire element of claim 8 reads: "adjusting means frictionally receiving said belt being operable to hold said belt once said belt is pulled manually through said adjustor to tighten said harness and also being operable to release said belt to loosen said harness upon manual operation of said adjustor." '889 Patent,col. 7, *l*. 68, to col. 8, *l*. 6. The parties appear to agree that the "adjusting means" of claim 8 performs three functions: 1) to frictionally receive the belt; 2) to hold the belt to tighten the harness; and 3) to release the belt to tighten it. The Court agrees that these are the functions performed by the "adjusting means" of claim 8.

However, the parties disagree about the structures disclosed that correspond to these functions. At the hearing IMMI asserted that the structure that corresponds to the functions of the "adjusting means" is that which appears in Figure 5, and that is described by the following passage:

a cam member having a pivot axis and being pivotally mounted by the pin to the frame and including an outwardly projecting rigid handle and an inwardly projecting belt engaging rough surface, and a helical

spring extending spiraling around the pin and located between the pin and the cam member, the spring including one end engaged with the pin and an opposite end engaged with the cam member normally urging the cam member to pivot moving the rough surface against the belt holding the belt against the area of contact and immovable between the rough surface and the bar but being yieldable to allowing the handle to be pivoted moving the rough surface away from the bar to allow the belt to be moved.

Id. col. 1, *l.* 63, to col. 2, *l.* 8. In its written memoranda, IMMI includes additional figures and additional descriptions for the structure of the "adjusting means," *see* Pl.'s Cl. Constr. Br. at 10-12, however, the description quoted above is the broadest description of the relevant structure that IMMI proposes. IMMI contends that this broader description is proper because it was not disclaimed during prosecution. *See* Pl.'s Cl. Constr. Resp. at 5-6 (citing Omega Eng'g, Inc. v. Raytek Corp., 334 F.3d 1314, 1325-26).

Although Dorel agrees that the most important figure to depict the "adjusting means" is Figure 5, Dorel contends that the correct place to look for the structure that performs the functions of the "adjusting means" is found in all portions of the specification that describe Figure 5, but not the portion that IMMI points to, which is the summary of the invention. *See*, *e.g.*, Joint Claim Constr. Chart, Dorel's Constr. (citing the structure shown in Figures 4 and 5, and described at column 3, line 65 to column 4, line 58); Hr. Tr. at 54-56. In addition, Dorel contends that the relevant structure is limited by the prosecution history in which the inventors made specific changes to unasserted claim 1 before the patent examiner allowed claim 1 to issue. *See* Defs.' Initial Cl. Constr. Br. at 13-16 (citing Alpex Computer Corp. v. Nintendo Co., 102 F.3d 1214 (Fed.Cir.1996)). In summary, the parties argument centers around whether the broader structural description cited by IMMI was disclaimed during prosecution of the '889 patent.

The Court finds that the corresponding structure for the "adjusting means" is: a cam member and bar, or a bottom wall, cam bar and bar, that are described in the patent at '889 patent, col. 1, ll. 55-57, col. 1, ll. 63-68 to col. 2, ll. 1-8, and at col. 3, ll. 65-68 to col. 4, ll. 1-58, and Figures 3-5, or their equivalents. The Court starts with the disclosures in the specification that describe the structure to perform the functions of the "adjusting means." In the summary of the invention, the specification describes "a device for adjusting a belt" that includes:

a wall with a slot and a pair of upstanding brackets secured thereto, a bar mounted to and extending between the brackets and having a flat surface definingan area of contact, a belt extending along the wall and then against the bar at the area of contact ... a mounting pin mounted to and extending between the brackets and being spaced from the wall, a cam member having a pivot axis and being pivotably mounted by the pin to the frame and including an outwardly projecting rigid handle and an inwardly projecting belt engaging rough surface, and a helical spring extending spiraling around the pin and located between the pin and the cam member, the spring including one end engaged with the pin and an opposite end engaged with the cam member normally urging the cam member to pivot moving the rough surface against the belt holding the belt against the area of contact and immovable between the rough surface and the bar but being yieldable allowing the handle to be pivoted moving the rough surface away from the bar to allow the belt to be moved.

Id. col. 2, ll. 55-68 to col. 3, ll. 1-8. It is only the cam member and bar, as described by this passage, that "frictionally receives the belt," "hold[s] the belt," and "release[s] the belt." This description clearly requires that the "adjusting means" have "a bar ... having a flat surface defining an area of contact," id. col. 2, ll. 55-57, and a pivoting, spring loaded "cam member" such that the spring

normally urg[es] the cam member to pivot moving the rough surface against the belt holding the belt against the area of contact [provided by the bar] and immovable between the rough surface and the bar but being yieldable allowing the handle to be pivoted moving the rough surface away from the bar to allow the belt to be moved.

Id. col. 2, *ll*. 2-8. It is the cam member's rough surface that holds the belt against the bar, and is also operable to release the belt. This passage also describes the bar as having an "area of contact" such that it receives the belt.

Another, description of the "adjusting means" structure is disclosed in columns 3 and 4. In that description, a "bottom wall **49** includes an opening **52**" that forms an opening through which the belt is received. Id. col. 3, *l*. 68 to col. 4, *ll*. 1-25. The "cam bar" and "bar" then "hold[s] the belt to prevent motion between the belt and the adjuster." Id. col. 4, *ll*. 24-28. Similarly to the other description, this portion of the specification teaches that the "cam bar" is pivotally mounted, with "a knurled surface ... to allow the belt to be adjustably moved." Id. col. 4, *ll*. 37-41. In addition, the patent teaches that the "cam bar" is eccentric in that "[t]he top ridges are positioned a radial distance closer to the pivot axis of the cam bar as compared to the ridges located at the bottom end **67**" but are positioned such that the belt may still pass between the cam bar and bar, holding the belt in place. Id. col. 4, *ll*. 47-58. Moreover, the "cam bar" is spring loaded such that the ridges of the cam bar traps the belt between the "cam bar and bar **55**." Id. col. 4, *ll*. 41-51. These parts and surfaces all help "to frictionally receive the belt," "to hold the belt," and "to release the belt."

Having reviewed the parts of the specification to determine the structure that corresponds to the functions of "adjusting means," the Court turns to Dorel's argument that the patentees disclaimed the broader structural description in favor of the second description that requires a bottom wall as part of the structure. The Court finds that the broader structural description was not disclaimed during prosecution of the '889 patent as to claim 8. Prosecution history is relevant to claim construction. *See* Alpex Computer, 102 F.3d at 1220. However, disavowal by a patentee must be both clear and unmistakable. Omega Eng'g, 334 F.3d at 1326. The prosecution history for the '889 patent shows that the patent examiner allowed claim 8 without objection. However, the patent examiner rejected claim 1, based on a combination of references, Knox, U.S. Patent No. 4,118, 833 ("Knox"), Roberts, German Patent No. 2059321 ("Roberts"), and Prete, Jr., FN3 U.S. Patent No. 3,678,542 ("Prete, Jr."). Specifically, the patent examiner stated:

FN3. The patent examiner misspelled "Prete" as "Perte," in his discussion, but it is clear from the file wrapper that the intended reference is "Prete." The patent applicants continued the error in their amendment after the first action.

Claim 1 is rejected under 35 U.S.C. 103[sic] as being unpatentable over Knox in view of Roberts (German patent No. 2,059,321), both of record and Perte, Jr. [sic], newly cited. Knox discloses a device for adjusting a belt including a bracket and a belt extending along the walls of said bracket through an angle of one hundred and eighty degrees. It would be obvious to provide the Knox devices with a cam member having a handle as taught by member 197 Roberts and provide the cam member with a helical spring as taught by Perte, Jr. [sic].

The '889 applicants then amended claim 1 to distinguish their invention from the cited prior art: The Examiner has rejected claim 1 under s. 103 stating that Knox discloses a device for adjusting a belt including a bracket and a belt extending along the walls of said bracket through an angle of one hundred and eighty degrees, and that it would be obvious to provide the Knox device with a cam member having the handle of Roberts and the cam member with helical spring of Perte, Jr. [sic] Claim 1 has been amended to demonstrate and particularly point out that the invention of amended claim 1 is not unpatentable under s. 103 over Knox in view of Roberts and Perte, Jr. [sic] because the Examiner's combination of Knox, Roberts and Perte, Jr. [sic] does not produce the device for adjusting a belt as recited in applicant's amended claim 1. The invention of amended claim 1 includes a "belt extending along said wall, then diverging away from the plane of said wall toward said bar and then against said bar at said area of contact and around said bar through a maximum angle of one hundred and eighty degrees with said belt then extending through said slot and away from said frame." The belt in Knox passes under cross-bar 18, over cross-bar 17, around cross-bar 16, backwards to and around cross-bar 31, forwards to and around cross-bar 16 passing between cross-abr 16 and itself, back over cross-bar 17 and finally over cross-bar 18. Knox does not show a wall extending orthogonally between two upstanding brackets with the belt passing along the wall, then diverging away from the plane of the wall to and around a bar through a maximum angle of one hundred and eighty degrees. The devices of Roberts and Perte, Jr. [sic] also do not show such a device. Further, no combination of the Knox device with springs and cams from Roberts or Perte, Jr. [sic] will produce or suggest the device of amended claim 1. Therefore, applicant respectfully submits that amended claim 1 is in condition for allowance.

There is no discussion between the inventors and the patent examiner about claim 8, because the examiner

had already allowed that claim.

Dorel contends that because the disclaimer about claim 1 is about the structure of the device for adjusting a belt taught in that claim, and only one adjustor is taught by the specification, the structure for the "adjusting means" of claim 8 must be limited to the structure of claim 1. Dorel relies on the Federal Circuit's opinion in Alpex for its position. In Alpex, the Federal Circuit limited the corresponding structure of the asserted claims based upon a disclaimer by the patentee about the corresponding structure of another non-asserted claim. However, the limitation in both the asserted and non-asserted claims in that case was the same: "means ... for generating a video signal." Def.'s Exh. 3, Prosecution History of U.S. Patent No. 4,026,555, U.S. Patent No. 4,026,555, at col. 18, *ll.* 26-27 & col. 20, *ll.* 10-13. In light of that fact, and in light of the proper way to construe means-plus-function terms generally, the Alpex court determined that "[s]tatements made during the prosecution relating to structures disclosed in the specification are certainly relevant to determining the meaning of the means-plus-function limitations of the claims at issue." Alpex Computer, 102 F.3d at 1220. Moreover, the disclaimer made by the patentee about the structure was a global one that clearly applied to the entire invention, not just a single embodiment. *See* id. at 1219 (quoting the prosecution history where the inventors distinguished its "display system" from the prior art without reference to a specific claim).

In the instant case, the specification reveals two structures for the "adjusting means" of claim 8: one that describes a cam member and bar combination in which the bar has a flat surface that defines an area of contact for the belt and one that describes a bottom wall in addition to a cam member and bar combination in which the bar is separate from the bottom wall. Compare '889 Patent, col. 1, ll. 55-68 to col. 2, ll. 1-8, with id. col. 3, ll. 65-68 to col. 4, ll. 1-58. There is nothing in the language of claim 8 that would seem to limit the "adjusting means" to the second, and more limiting, structure. Moreover, unlike in Alpex where the same limitation appeared in both the asserted and unasserted claims, there is no "adjusting means" in claim 1. Claim 1 teaches a device for adjusting a belt, it does not teach a child restraint device with an "adjusting means" component. The absence of the same limitation cautions against holding the patentee's disclaimer as to claim 1 applicable to claim 8. See Omega Eng'g, 334 F.3d at 1331 (rejecting the application of prosecution disclaimer as to a specific term in claims in which that term does not appear). This is particularly true in this case where the patent examiner allowed claim 8 prior to any disclaimer of structure in claim 1. In other words, the prosecution history of claim 8 is not linked to the prosecution history of claim 1, as the patentability of the claims are not tied together. Furthermore, because claim 8 was allowed prior to the patentee's disclaimer with respect to claim 1, the application of a disclaimer to claim 8 is far from "clear and unmistakable" as the patentee only references claim 1 in its disavowal of the prior art.

For the foregoing reasons, the Court finds that the structure that performs the functions of the "adjusting means" is: a cam member and bar, or a bottom wall, cam bar and bar, that are described in the '889 patent at col. 1, *ll*. 55-57, col. 1, *ll*. 63-68 to col. 2, *ll*. 1-8, and at col. 3, *ll*. 65-68 to col. 4, *ll*. 1-58, and Figures 3-5, or their equivalents.

B. CLAIM 11

Although the parties' briefs discuss the two disputed terms of claim 11, "cam member" and "bar," separately, at the hearing, IMMI's expert, Dr. J. Brian P. Williamson ("Dr.Williamson"), testified that to one of ordinary skill in the art of mechanical engineering, a "cam member" and "bar" is understood to be a combination of parts that forms a "locking cam." FN4 Hr. Tr. at 29-30, Williamson Dir. Although Dorel did not take exception to the term "locking cam" to describe the part described by the terms "cam member" and "bar" in claim 11, it did question the apparently sudden difference between IMMI's written presentation of its proffered claim construction and its expert's testimony at the hearing. However, Dr. Williamson's declaration clearly expresses this concept and the Court may use IMMI's expert testimony on the subject of a locking cam to educate itself. *See* Markman I, 52 F.3d at 980-81 (describing the proper use of expert testimony in claim construction).

FN4. Dr. Williamson also opined in his report that the cam disclosed by the '889 patent is a "locking cam" rather than the more common definition for the cam of a "cam-and-follower" mechanism. Williamson Decl. para.para. 38-39.

The Court turns now to construction of "cam member" and "bar" in claim 11.

1. " Cam Member "

[26] IMMI contends that "cam member" means "a projecting part of an eccentrically revolving piece of machinery that has a radial bearing surface." IMMI Cl. Constr. Br. at 13. In contrast, Dorel argues that "cam member" has a more specific definition:

a member eccentrically mounted for rotation about a center of rotation so that as the cam member is rotated, the distance from the center of rotation to the surface of the cam member varies along a fixed line directed from the center of rotation to a stationary bar s that the cam member can engage the bar and frictionally receive and hold a portion of the harness means against the bar.

Defs.' Initial Cl. Constr. Br. at 20. The Court finds that "cam member" means: an eccentrically revolving part with a radial bearing surface.

The Court starts with the use of the term in the claims. In claim 11, "cam member" is used in conjunction with "bar" to describe a part of the belt adjustor of a child restraining device: "said belt adjustor including a manually operated cam member and bar designed to frictionally receive and hold stationary a portion of said harness means, said cam member being pivotably adjustable to bias said belt against said bar and to release said harness means." '889 Patent, col. 8, *ll.* 55-60. This claim clearly expresses the idea that the cam member pivots, or revolves. Moreover, it also indicates that the cam member must be used to bias, or force or clamp, the belt against the bar. These part attributes are also consistent with the use of the term in the other claims of the '889 patent. *See* id. col. 5, *ll.* 62-68 to col. 6, *ll.* 1-8; col. 6, *ll.* 23-36; col. 6, *ll.* 56-68 to col. 7, *ll.* 1-12; col. 8, *ll.* 19-33; col. 9, *ll.* 3-9; col. 9, *ll.* 14-15; and col. 10, *ll.* 6-10. Although IMMI seems to imply that the term "cam member" in claim 11 differs from the use of that term in other claims because in claim 11 "cam member" is used in conjunction with "bar," the Court finds no reason in the language of the claim 11 or the remainder of the patent to construe the term "cam member" differently for claim 11 than it would in any of the other claims of the patent.

The parties do not dispute that the "cam member" revolves eccentrically, or it has an axis that is not at the center; a definition for "cam member" that includes such a term is supported by the dictionary definitions of some "cams." For example, the Webster's II New Riverside Dictionary, published in 1984, defines cam as "[a]n eccentric wheel mounted on a rotating shaft and used to produce variable or reciprocating motion in another engaged or contacted part." Although the Court finds that this definition describes a "cam and follower" mechanism, the specification of the '889 patent teaches that the "cam member" of the patent is characterized by the same eccentricity as a cam-and-follower mechanism. The specification states:

The cam bar includes a through hole **60** within which is positioned a helical spring **61** (FIG.6) and a pin **62**. The pin extends centrally through the helical spring and has a slot **63** at one end to receive on end **64** of the spring with the opposite end **15** of the spring extending into a hole **65** provided in the cam bar. The helical spring is installed with the opposite ends in slot **63** and hole **65** so that the plurality of ridges **66** provided on the inner end of the cam bar are forced against the belt trapping the belt between the cam bar and bar **55**. The top ridges are positioned a radial distance closer to the pivot axis of the cam bar as compared to the ridges located at the bottom end **67** thereby preventing the cam bar from completely pivoting counterclockwise as viewed in FIG. **5** to move completely above bar **55**.

'889 Patent, col. 4, *ll*. 41-56. Moreover, both experts proffered by IMMI indicate that the plain meaning of "cam" in the context of the '889 patent to one of ordinary skill in the art is an eccentrically revolving part. Karvelis Decl. para. 19a; Williamson Decl. para. 39.

Another dictionary definition of cam seems to further describe the shape of the "cam member." Webster's Third New International Dictionary, published in 1981, defines cam as "a curved wedge, movable about an axis, used for forcing or clamping two pieces together." This definition of cam gives shape to the part that moves eccentrically in the '889 patent. Like in this definition of "cam," the "cam member" of the '889 patent

is used to force or clamp two pieces together, the belt and the bar. *See*, *e.g.*, '889 Patent, col. 8, *ll*. 56-60 ("said belt adjustor including a manually operated cam member and bar designed to frictionally receive and hold stationary a portion of said harness means, said cam member being pivotably adjustable to bias said belt against said bar"). Moreover, there is no dispute that the cam member disclosed by the '889 patent is movable about an axis. Furthermore, as discussed by Dr. Williamson in his declaration:

In a 'locking-cam' the surface is eccentric to the axis as in the cam-and-follower mechanism described above. But now the rotary motion is restricted--usually to not more than half a revolution; and as the working surface of a locking-cam is thus limited, the cam itself may be reduced, so that its cross-section becomes only a sector of a circle

Williamson Decl. para. 39. In other words, at least one surface of the cam is radial-the working surface-the other surface need not be radial. This finding is consistent with the teaching of claim 11 itself where the patent states that the "cam member" there described is "manually operated" such that it holds "a portion of said harness means, said cam member being pivotably adjustable to bias said belt against said bar and to release said harness means," which implies that one end of the "cam member" is manually operated while the other does the work. Id. col. 8, *ll*. 56-60. Similarly, the other descriptions of the cam member in the claims either imply or require that one surface is a radial working surface and the other is not. *See* id. col. 5, *ll*. 62-65; id. col. 6, *ll*. 23-25; id. col. 6, *ll*. 56-59, id. col. 8, *ll*. 19-23; id. col. 9, *ll*. 3-9; id. col. 10, *ll*. 5-9.

The Court declines to adopt Dorel's more limited construction because it imports limitations for "cam member" from claim 11 that may or may not be applicable to the remainder of the claims. Dorel seeks to include in the definition of "cam member" a definition of eccentric: "a member eccentrically mounted for rotation about a center of rotation such that as the cam member is rotated, the distance from the center of rotation to the surface of the cam member varies along a fixed line directed from the center of rotation to a stationary bar" However, as just delineated by the Court, the term "cam" itself connotes something that is eccentric, or that has something with its axis off-center. The Court finds it unnecessary to further define the axis relative to the bar because the use of the term "cam member and bar" in the claims makes it clear where the eccentric axis of rotation must be located. See, e.g., id. col. 8, ll. 58-60 ("said cam member being pivotably adjustable to bias said belt against said bar ..."). Furthermore, Dorel's definition improperly limits the term "cam member" by adding the requirement that the cam member "engage the bar and frictionally receive and hold a portion of the harness against the bar." Some of the claims of the '889 patent require the "cam member" to engage a belt, not the harness. See, e.g., col. 8, ll. 19-33. Therefore, a limitation in the definition of "cam member" that requires it to interact with only the harness is improper.

For the foregoing reasons, the Court finds that "cam member" means: an eccentrically revolving part with a radial bearing surface.

2, " Bar "

[27] The parties also dispute the term "bar" in claim 11. IMMI contends that "bar" means: "barrier, obstruction, or any object that hinders, obstructs or prevents." Pl.'s Cl. Constr. Br. at 15. IMMI argues that the patent teaches that the bar serves only to block the full rotation of the cam member so as to trap the belt between the cam member and bar. According to IMMI the shape of the bar is immaterial so long as it obstructs the movement of the cam member.

In contrast, Dorel contends that "bar" means:

an elongated piece of metal or other solid material, of simple and uniform cross-sectional dimensions extending between the adjustor side brackets, separate and apart from, and parallel to, the bottom wall, such that the belt passes along the bottom wall then diverges away from the plane of the bottom wall to and around the bar through a maximum of one hundred and eighty degrees.

Defs.' Initial Cl. Constr. Br. at 22. Dorel argues that any definition for "bar" is limited by the patentees' disclaimer of different structures during prosecution of the '889 patent. Specifically, Dorel avers that the patentees limited the configuration of the "bar" in all the claims of the '889 patent to one that is separate and

apart from the bottom wall of the adjustor to overcome the patent examiner's prior art objection to claim 1.

The Court finds that the term "bar" means: a part that is longer than it is wide. Turning to the language of the claims first, the Court finds that the ordinary meaning of "bar" is supported by the use of bar in the claims. For example, claim 11 requires that the "bar," together with the cam member "frictionally receive and hold stationary a portion of said harness means" and that the cam member "bias said belt against said bar." '889 Patent, col. 8, ll. 56-60. If the cam member and "bar" are to hold a portion of the harness, then more than one point of contact is implied, which in turn connotes that the "bar" must have length. This use of the term "bar" is found in many of the claims including claims 1, 2, 3, 9, 12, and 14. See, e.g., id. col. 6, ll. 1-8; col. 6, ll. 29-37; col. 6, ll. 65-68; col. 8, ll. 29-33; col. 9, ll. 3-9; col. 10, ll. 6-9.

Moreover, the term "bar" is used in claims 6 and 7 to describe a different part. Both claims 6 and 7 use "bar" to describe a rigid part to which belts are attached and that form part of the harness means. Claim 6 teaches: "said harness means includes an abdominal pad, said belt, a rigid bar and a pair of belts ... said rigid bar is located behind said seat and is attached to said pair of belts, said belt is attached to said rigid bar" Id. col. 7, *ll*. 26-35. Claim 7 reads similarly: "said harness means includes a rigid bar ... said pair of belts ... are attached to said rigid bar which is located behind said seat, said belt is attached to said rigid bar" Id. col. 7, *ll*. 37-49. This use of the term "bar" also connotes a part that is longer than it is wide; however, it is not a barrier or obstruction as suggested by IMMI, it is more of a support. The specification uses the terms in both of these ways as well. *Compare* col. 1, *ll*. 55-58 and col. 2, *ll*. 3-8, and col. 4, *ll*. 10-58, with col. 3, *ll*. 26-43. In other words, the patent describes two parts that are "bars," one that is used to support or secure the belts or straps of the harness and one that is used as part of the locking cam mechanism. As a result, the Court finds that the proper definition for "bar," as found in claims and the specification, must be broad enough to encompass both uses of the term "bar."

The Court does not agree with Dorel that the prosecution history requires a different result. Dorel argues that the inventors disclaimed a "bar" with a broad definition because they more specifically described the adjustor in claim 1 to overcome the patent examiner's prior art objection. Dorel contends that the inventor's addition of claim 11 after the disclaimer of claim 1 supports a finding that the inventors limited the construction of the term "bar." The prosecution history reads:

The Examiner has rejected claim 1 under s. 103 stating that Knox discloses a device for adjusting a belt including a bracket and a belt extending along the walls of said bracket through an angle of one hundred and eighty degrees, and that it would be obvious to provide the Knox device with a cam member having the handle of Roberts and the cam member with helical spring of Perte, Jr. [sic] Claim 1 has been amended to demonstrate and particularly point out that the invention of amended claim 1 is not unpatentable under s. 103 over Knox in view of Roberts and Perte, Jr. [sic] The invention of amended claim 1 includes a "a [sic] belt extending along said wall toward said bar and then against said bar at said area of contact and around said bar through a maximum angle of one hundred and eighty degrees with said belt then extending through said slot and away from said frame." The belt in Knox passes under cross-bar 18, over cross-bar 17 around cross-bar 16, backwards to and around cross-bar 31, forwards to and around cross-bar 16 passing between cross-bar 16 and itself, back over cross-bar 17 and finally over cross-bar 18. Knox does not show a wall extending orthogonally between two upstanding brackets with the belt passing along the wall, then diverging away from the plane of the wall to and around a bar through a maximum angle of one hundred and eighty degrees. The devices of Roberts and Perte, Jr. [sic] also do not show such a device. Further, no combination of the Knox device with springs and cams from Roberts or Perte, Jr. [sic] will produce or suggest the device of amended claim. Therefore, applicant respectfully submits that amended claim 1 is in condition for allowance.

General amendments have also been made to the specification and to claim 8 for reasons of clarity. Additional claims 11 through 15 have been added and are believed to be allowable for the same reasons which make claims 1 through 10 allowable.

It is therefore believed that the applicant's pending claims 1 through 10 and new claims 11 through 15 are in a condition for allowance and the same is respectfully requested.

Amendment After First Action, at 7-9.

There is nothing in the patentee's disclaimer that directly references a specific definition for the term "bar" that would automatically apply to the term in all the claims. The inventors do distinguish the orientation of the bar, as represented in amended claim 1, from the orientation of similar parts of the prior art, but there is nothing that distinguishes the meaning of the term "bar" in claim 1 from its ordinary meaning. As a result, the disclaimer of the ordinary meaning for the term "bar," whether that is in claim 1 or in claim 11, is neither clear nor unmistakable. *See* Omega Eng'g, 334 F.3d at 1326 (describing the type of disclaimer that may limit claim terms). Likewise, the inventors' addition of claim 11 with the statement that it should be allowed for the same reasons which make claims 1 through 10 allowable is not a clear and unmistakable limitation on the term "bar" in claim 11. Furthermore, although the doctrine of claim differentiation cannot broaden a claim beyond its scope, the application of Dorel's additional limitations to the term "bar" would make claims 12 through 15 equivalent in scope to claim 11 and therefore, superfluous. *See* Dow Chem. Co. v. United States, 226 F.3d 1334, 1341-42 (Fed.Cir.2000). Without more evidence that the inventors intended to limit their invention to the preferred embodiment, the Court is unwilling to limit the construction of the term "bar."

For these reasons, the Court finds that the term "bar" means: a part that is longer than it is wide.

III . CONCLUSION

The Court has construed the disputed terms of the '889 patent as follows:

"affixed" means

"adjusting means" means

"cam member" means

"bar" means

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"secured"

its functions are:

- 1) to frictionally receive the belt;
- 2) to hold the belt to tighten the harness; and
- 3) to release the belt to tighten it;

its corresponding structures are: a cam member and bar, or a bottom wall, cam bar and bar, that are described in the '889 patent at col. 1, *ll*. 55-57, col. 1, *ll*. 63-68 to col. 2, *ll*. 1-8, and at col. 3, *ll*. 65-68 to col. 4, *ll*. 1-58, and Figures 3-5, or their equivalents

"an eccentrically revolving part with a radial bearing surface;" and

a part that is longer than it is wide.