

IN THE UNITED STATES DISTRICT COURT  
FOR THE NORTHERN DISTRICT OF ILLINOIS  
EASTERN DIVISION

MCDavid KNEE GUARD, INC.,	)	
an Illinois corporation, and	)	
STIRLING MOULDINGS LIMITED,	)	
an English corporation,	)	
	)	Civil Action No. 08-CV-6584
Plaintiffs,	)	
	)	
v.	)	
	)	
NIKE USA, INC., an Oregon corporation	)	
	)	
Defendant.	)	

MEMORANDUM OPINION AND ORDER  
CONSTRUING DISPUTED CLAIM TERMS

JAMES F. HOLDERMAN, Chief Judge:

McDavid Knee Guard and Stirling Moulding Limited (collectively “McDavid”) filed this lawsuit against Nike USA, Inc. (“Nike”), alleging that Nike infringed Stirling Moulding Limited’s U.S. Patent No. 6,743,325 (“‘325 patent”) which patents a method of manufacturing “flexible material . . . suitable for providing protective war [sic] for human and animal bodies.” (‘325 patent, Abstract.)

The ‘325 patent contains fourteen independent and dependent claims. The parties presented in their opening claim construction briefs four claim terms of the ‘325 patent for judicial construction. Three of those claim terms, “jig,” “spaced separate elements” and “making one side of the plurality of spaced separate elements to stand proud of the surface of a jig,” are used in all of the ‘325 patent’s claims. The fourth claim term, “coated,” is found only in claims 8 and 9, and the parties have now agreed that the claim term “coated” means “a layer of adhesive is applied,” (Dkt.

94, Def. Resp. Claim Construction Br. 1 n.1) which this court adopts. Each of the three remaining disputed claim terms is construed by the court as set forth below.

### BACKGROUND

The '325 patent, which is titled "Flexible Material," was issued to David Stirling Taylor (inventor) and assigned to his company, Stirling Moulding Limited, on June 1, 2004. Stirling Moulding Limited granted an exclusive license to McDavid Knee Guard, Inc. on June 30, 2005 to, among other things, make, use and sell products created by the '325 manufacturing method within the sporting goods field of use. The abstract for the '325 patent describes the invention as:

A flexible material [that] includes a plurality of separate resilient elements joined to a flexible, resiliently stretchable substrate. Such a material is suitable for providing protective wear [sic] for human and animal bodies. Preferably, the elements includes [sic] a foam material such as a closed cell polyethylene foam and the substrate includes a knitted fabric. In an advantageous embodiment, a second flexible substrate is bonded over the elements to sandwich them between the two layers of substrate.

('325 patent, Abstract.) The Field of the Invention section of the '325 patent describes the invention as relating "to a method of manufacturing a flexible material suitable, primarily, for use as a flexible protective material to protect for human and animal bodies." (*Id.* at col. 1:16-19.)

The flexible material created by the manufacturing method described in the '325 patent allows the material to more easily conform to the body of the wearer because it is flexible in all three dimensions. (*Id.* at col. 2:37-39.) Due to this increased flexibility, the material is more comfortable to wear and can accommodate movement better than conventional materials. (*Id.* at col. 2:39-42.) At the time that the '325 patent's application was filed with the U.S. Patent and Trademark Office ("PTO") in July 2000, the type of conventional protective material and wear that was on the market was molded to fit a particular part of a person's body and was produced in different sizes to fit

different uses. (*Id.* at col. 1:33-36.) In addition, this conventional protective material would often restrict a person's movement if worn near or over a person's joints. (*Id.* at col. 1:37-38.) Thus, the objective of the '325 patent was to overcome the drawbacks of then-existing materials through the production of material which offered increased flexibility and movement, and lended itself to a variety of uses. (*See generally id.* at col. 1:23-67, 2:1-16.)

Claim 1 of the '325 patent, which is the primary independent claim, states:

I claim:

1. A method of manufacturing a flexible material comprising the steps of
  - providing a sheet of a resilient material;
  - cutting the sheet into a plurality of spaced separate elements using a cutter which is pressed into the sheet to cut therethrough;
  - making one side of the plurality of spaced separate elements to stand proud of a surface of a jig provided to hold the elements in place; and
  - bonding a flexible resiliently stretchable substrate to one side of the separate elements by heating the substrate either to activate an adhesive applied between said one side of the separate elements and the substrate or to weld the separate elements to the substrate.

('325 patent, col. 6:34-48.)

### LEGAL STANDARDS

Claim construction is a matter of law for a court to determine. *Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 390 (1996). In construing patent claim terms, a court is to adopt the viewpoint of a person of ordinary skill in the field of invention and determine how that person would define the disputed claim language at the time of the invention. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1324 (Fed. Cir. 2005); *see also On Demand Mach. Corp. v. Ingram Indus., Inc.*, 442 F.3d 1331, 1337-38 (Fed. Cir. 2006). When interpreting the meaning of patent claim terms, a district

court is to look first to the intrinsic evidence, e.g., the claims themselves, the specification, the prosecution history, and the prior art cited within the patent, giving the greatest weight to the patent's claim language and specification. *Phillips*, 415 F.3d at 1314-18. A court may also consider extrinsic evidence such as expert testimony, treatises, and dictionaries when appropriate, but extrinsic evidence "is less significant than the intrinsic record in determining the legally operative meaning of claim language." *Id.* at 1315, 1320-21.

The words of a patent claim are generally given the ordinary and customary meaning used by a person of ordinary skill in the pertinent art at the effective date of filing with the PTO. *Id.* at 1312-13. A claim term's ordinary and customary meaning, however, will not apply if the specification reveals that the inventor of the patented product or process ascribed a different meaning to a term other than its ordinary meaning or if the intrinsic evidence contains an intentional disclaimer or disavowal of the claim scope. *Id.* at 1316-17. Additionally, though the preferred embodiments can shed light on the intended scope of the claims, the claims generally are not limited to the preferred embodiments in the specification. *Id.* at 1323; *AstraZeneca AB v. Mut. Pharm. Co.*, 384 F.3d 1333, 1340 (Fed. Cir. 2002).

When construing claim terms, a patent should be read in a way that renders the entire patent internally consistent, if at all possible. *Sinorgchem Co. v. U.S. Int'l Trade Comm'n*, 511 F.3d 1132, 1145 (Fed. Cir. 2007). A claim term should be considered in the context of the entire patent, including the specification, and not just in the context of the particular claim that contains the disputed term. *Phillips*, 415 F.3d at 1313-14.

## ANALYSIS

### I. Disputed Patent Claim Term “Jig”

McDavid’s proposed construction for the claim term “jig” is “the structure for holding the elements in place and standing proud while the substrate layer is applied thereto.” (Dkt. No. 97, Pl. Rebuttal Mem. Claim Construction 8.) Nike argues that a “jig” should be defined as “a tool used to hold and locate a material upon which work is performed, specifically the spaced separate elements, during production operations – it is not part of the work piece, including excess work piece material.” (Dkt. No. 94, Def. Resp. Claim Construction Br. 11.) The primary dispute of the parties as to the claim term “jig” centers on whether the excess material between the spaced separate elements may serve as the jig or whether a separate tool – different from the material upon which work is performed – must be used during the patented manufacturing process. The court agrees with Nike that the claim term “jig” as used in the ‘325 patent is a different device from the material upon which work is performed during the patented manufacturing process.

Courts cannot broaden or narrow the claims of a patent or give the patentee something different than the patentee originally described. *Texas Instruments, Inc. v. U.S. Int’l Trade Comm’n*, 988 F.2d 1165, 1171 (Fed. Cir. 1993). The court first looks to the ‘325 patent’s claim language and specification for guidance regarding the appropriate meaning of the word “jig.” The ‘325 patent’s claim language and specification consistently refer to a jig in terms of its function: as “provided to hold the elements in place” during the manufacturing process. (‘325 patent, col. 4:5-6; 4:29-31; 5:63-64; 6:42-43.) In fact, both sides to this case agree that the “jig” is something that holds the elements in position during the manufacturing process.

McDavid acknowledges the correctness of the definition contained in *Merriam-Webster's Collegiate Dictionary* which defines the term "jig" as "a device used to maintain mechanically the correct positional relationship between a piece of work and the device or between parts of work during assembly." (See Dkt. No. 67, Pl. Claim Construction Mem. 8); *Merriam-Webster's Collegiate Dictionary* 673 (11th ed. 2005). Although this definition conforms to the use of the claim term "jig" in the '325 patent, it does not fully resolve the term's ambiguity. The question remains whether the material upon which work is performed in the patented manufacturing process, including the excess material created by cutting the resilient material into spaced separate elements, could also serve as a "jig." The court finds that after reviewing both the intrinsic evidence and the dictionary definition that neither the material upon which work is performed nor any parts of that material would qualify as a "jig" according to the plain and ordinary meaning of the word as it would be understood by a person of ordinary skill in the art in July 2000.

The plain language of the '375 patent teaches that a "jig" is a device or tool that is introduced to the patented manufacturing process to perform the function of holding the elements in place. It is not a by-product of the process such as the excess material that remains after the cutting step forms the elements. Indeed, in the '325 patent a jig is never referred to as excess material, nor is the excess material ever referred to as a jig. Instead, in claim 1, a "jig" is referred to as something that is "provided" after a sheet of resilient material is provided to create the spaced separate elements. ('325 patent, col. 6:42-43.) The term "provided" ordinarily means "to supply or make available." *Merriam-Webster's Collegiate Dictionary* 1001 (11th ed. 2005). The court agrees with Nike that the term "provided" in the claims of the '325 patent suggests that the "jig" will be supplied in a separate step during manufacture. Proper claim construction mandates that every word have a

meaning. *See Foremost in Packaging Sys. v. Cold Chain Tech.*, 485 F.3d 1153, 1156 (Fed. Cir. 2007). A court should not disregard a word as if it was not included in a patent’s claim language at the risk that that disregarded word may change what the patentee claimed. *See Texas Instruments*, 988 F.2d at 1171. Consequently, to conclude that a “jig” could be part of the material referred to in the first step of the claimed manufacturing method set forth in claim 1 of the ‘325 patent would require the court to ignore the presence of the word “provided” in claim 1.

The relevant extrinsic evidence also weighs in favor of excluding the excess material in the construction of the claim term “jig.” Although the Federal Circuit emphasizes that intrinsic evidence is the most significant source for claim construction, district courts are authorized when necessary to consider extrinsic evidence, which includes expert and inventor testimony. *Phillips*, 415 F.3d at 1317. As a result, the court has considered the extrinsic evidence for more guidance as to how a person of ordinary skill in the art would define the term “jig.” Mr. Beall, McDavid’s expert, testified that he was unaware of any definitions of “jig” which include the material upon which work is performed. (Beall Dep. 30:1-4, June 9, 2009, attached as Ex. M to Hill Decl.) In addition, Dr. Brookstein, Nike’s expert, stated that a person of ordinary skill in the art would not understand a “jig” as part of the work material. (Brookstein Decl. ¶ 20.) Consequently, the extrinsic evidence indicates that a “jig” is traditionally considered a tool that is different than the material on which the manufacturing process is performed.

As support for its proposed construction, McDavid argues that because the term “jig” is limited in other claims, under the doctrine of claim differentiation “jig” should be given a broad meaning in claim 1. *See SunRace Roots Enter. Co., Ltd. V. SRAM Corp.*, 336 F.3d 1298, 1303 (Fed. Cir. 2003). For example, claim 2, which is dependent on claim 1, describes “using a cutter, which

acts as the jig” (‘325 patent, col. 6:50-51), whereas claim 1 simply discloses “a jig provided to hold the elements in place,” (*id.* at col. 6:42-43). While the court agrees that the term “jig” is not limited to a cutter under the doctrine of claim differentiation, this doctrine does not allow an expansion of the definition of “jig” beyond what a person of ordinary skill in the art would understand. Thus, the doctrine of claim differentiation does not support McDavid’s broad interpretation of the claim term “jig.”

The court similarly finds that certain prior art on which McDavid relies does not demonstrate that a jig may include the material upon which work is performed. In its brief, McDavid identifies several patents, including U.S. Patent Nos. 4,127,692 (“‘692 patent”) and 3,492,808 (“‘808 patent”), which refer to certain items acting as jigs. (*See* Dkt. No. 97, Pls.’ Rebuttal Mem. Claim Construction 11.) For example, the ‘692 patent references a “coating” which acts as a jig, and the ‘808 patent discusses a “hole wall” which acts as a jig. (‘692 patent, col. 3:7-9; ‘808 patent, col. 4:50-52.) According to McDavid, these references demonstrate that the term “jig” can mean any structure that holds the elements in place, including a part of the material upon which work is performed. Neither of these patents, however, indicates that these items are jigs, but simply that they perform a jig-like function. Moreover, the fact that the ‘692 and ‘808 patents specifically identify a part of the material upon which work is performed as acting as a jig suggests that a person of ordinary skill in the art would not understand that the term “jig,” under its plain and ordinary meaning, would normally encompass the material upon which work is performed. Notably, unlike the ‘692 and ‘808 patents, the ‘325 patent does not indicate that the material upon which work is performed could act as a jig. Thus, the prior art does not support McDavid’s argument that an item that performs the function of a jig necessarily is a jig.



Lastly, McDavid's proposed construction includes an additional limitation that a "jig" is a "structure for holding the elements in place *and standing proud while the substrate layer is applied thereto.*" This additional language is unnecessary in construing the term "jig" because subsequent claim language states that the "jig" facilitates standing proud and bonding. ('325 patent, col. 6:42-45); *see Linear Tech. Corp. v. U.S. Int'l Trade Comm'n*, 566 F.3d 1049, 1056 (Fed. Cir. 2009) (excluding proposed additional language from the court's final construction because the proposed language was clear from the remaining claim language). This limitation, therefore, is superfluous and not included in the court's construction.

Therefore, for the reasons stated above, the court construes the '325 patent claim term "jig" to mean "a device or tool that is different from the material on which the manufacturing work is performed that holds the elements created by the patented manufacturing process in the correct position during the manufacturing process."

## II. Disputed Patent Claim Term "Spaced Separate Elements"

McDavid proposes that the court define "spaced separate elements" as "separate and spaced apart." (Dkt. No. 67, Pls.' Claim Construction Mem. 6.) Nike argues that the proper construction for "spaced separate elements" is "the elements are not contiguous; they are detached from one another with an open space between each element and any adjacent element(s)." (Dkt. No. 95, Def.'s Resp. Claim Construction Br. 3.) The crux of the debate between the parties in this case centers upon whether "open space" between each element is required. The plain language of the claims, along with other intrinsic evidence, indicates that the phrase "spaced separate elements" refers to the elements as distinct components (separate) and defines their location in relation to one

another (spaced); the claim term does not appear to contemplate the presence of any specific distance between the elements.<sup>1</sup>

Reading the ‘325 patent’s claim language, specification and written description in a manner that renders the ‘325 patent internally consistent, it is clear that the distinct pieces of foam that are cut from a sheet of resilient material are referred to as the “spaced separate elements” both before and after the removal of any excess material between the elements and while a device such as a jig or cutter holds the elements in place. For example, claim 1 refers to “making one side of the plurality of spaced separate elements to stand proud of a surface of a jig provided to hold the elements in place.” (‘325 patent, col. 6:41-43.) This language indicates that the elements are “spaced separate elements” while the jig described in the manufacturing process remains in place and, therefore, before there is unoccupied open space between elements. Additionally, claim 4 discloses a manufacturing method “wherein any excess resilient material located between the plurality of spaced separate elements is retained in the cutter.” (*Id.* at col. 6:58-60.) Claim 4, therefore, illustrates that (1) the elements are formed by the cutting step to become “spaced separate elements” while the excess material remains located between them, and (2) the material may remain in the cutter while the cutter is serving as a jig to hold the elements in place and is located between the spaced separate elements. In contrast, claim 12 refers to “the narrow strips of material being removed to leave the plurality of spaced separate elements spaced from one another” (*Id.* at col. 8:5-6), suggesting that the elements remain “spaced separate elements” after the jig and the excess material are removed.

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<sup>1</sup> The specification summarizing the invention does provide some specific dimensions regarding the preferred distribution and density of the elements. One embodiment described in the ‘325 patent recognizes that “the elements comprise cubes of side 12 mm spaced apart by 2mm.” (‘325 patent, col. 2:66-67.)

Moreover, the patentee's inclusion of "spaced from one another" in claim 12 would be superfluous if open space between the elements was necessary throughout the claimed process. As the Federal Circuit has stated: "[a] claim construction that gives meaning to all the terms of the claim is preferred over one that does not do so." *Merck & Co., Inc., v. Teva Pharm. USA, Inc.*, 395 F.3d 1364, 1372 (Fed. Cir. 2005); *see also Electa Instrument. S.A. v. O.U.R. Sci. Int'l, Inc.*, 214 F.3d 1302, 1307 (construing claim language so as to avoid rendering a claim limitation to be superfluous). Therefore, for the term "spaced separate elements" to be used consistently throughout the '325 patent and for all the patent's claim language to have a meaning, unoccupied open space between the spaced elements may occur but is not required by the claim term "spaced separate elements." In addition, the parties have not identified, and the court has not found, any references in the specification or in the remaining intrinsic evidence contradicting the court's construction.

In arguing against McDavid's proposed construction, Nike has identified some dictionary definitions indicating that an open space is required for items to be "spaced." (*See* Dkt. No. 94, Def.'s Resp. Claim Construction Br. 11.) For example, *Merriam-Webster's Collegiate Dictionary* defines "spaced" as "to place at intervals or arrange with spaces between . . . to leave one or more blank spaces." *Merriam-Webster's Collegiate Dictionary* 1194 (11th ed. 2005). While this definition suggests that open space is possible, "to place at intervals" indicates that open space is not required.

Nike also contends that "open space" is necessary because the ultimate product produced by the method disclosed in the '325 patent must include elements with open space between them to function optimally. Although the specification and figures 1 and 3 of the '325 patent indicate the presence of space which creates a hollow channel between the elements in the completed product,

the '325 patent only claims the method for creating the flexible material. It does not claim the flexible material. Therefore, the final product may have specific dimensions of open space between the elements, as the specification states ('325 patent, col. 2:64-67), but this unoccupied open space need not be present at all times during the patented process.

In construing the patent claim term “spaced separate elements,” Nike also asks the court to look to extrinsic evidence, including the statements of Mr. Taylor (the inventor) (Taylor Dep. 78:3-6, 78:14-79:3, June 2, 2009, attached as Ex. C to Hill Decl.), Mr. Beall (an expert for McDavid) (Beall Dep. 30:1-4, June 9, 2009, attached as Ex. M to Hill Decl.) and Dr. Brookstein (an expert for Nike) (Brookstein Decl. at ¶ 16). Even though extrinsic evidence should not be relied upon to determine the meaning of a disputed claim term when the patent’s claims, specification, and prosecution history resolve the ambiguity, *Vitronics*, 90 F.3d at 1583, as is the circumstance here, the inventor’s and the expert’s statements which Nike presents refer to the finished product, not the patented manufacturing method protected by the '325 patent.

As a result, the court construes “spaced separate elements” to mean “distinct components that do not come in contact with each other, once they are formed in the patented manufacturing process.”

### III. Disputed Patent Claim Term “Making One Side of the Plurality of Spaced Separate Elements to Stand Proud of the Surface of a Jig”

McDavid argues that the contested phrase means “making one side of each of the elements to stick out from the surrounding surface of a jig.” (Dkt. No. 67, Pl. Claim Construction Mem. 8.) Nike, however, suggests that “causing one side of each of the spaced separate elements to be raised above the surface of the jig during bonding” is the appropriate construction. (Dkt. No. 94, Def.

Resp. Claim Construction Br. 11-12.) The key disputes involve (1) whether the terms “making” or “causing” should be used and (2) whether “during bonding” should be added to the end of the construed claim-term phrase.<sup>2</sup>

First, the court finds that the term “making” is a common, non-technical word. At least one of the common meanings of the term “making” is “the act or process of . . . causing.” *Merriam-Webster’s Collegiate Dictionary* 751 (11th ed. 2005). The parties have not argued that “making” has a specialized meaning nor does the court believe that it has one. Additionally, other than indicating that the words “making” and “causing” are synonyms in the context of the ‘325 patent, Nike has not explained why the court should construe “making” as “causing.” Accordingly, “making” is used without modification in the court’s construction of the disputed claim language.

Additionally, the parties dispute whether “during bonding” should be included in the construction. Nike argues that the plain language of the claims, the written description, the prosecution history, and the extrinsic evidence all establish that the elements stand proud during bonding because these sources demonstrate that the purpose of the “stand proud” step is to facilitate bonding. However, the court finds that it would be improper to add “during bonding” to the disputed claim language because the plain language of the ‘325 patent indicates that the spaced separate elements may begin standing proud before the bonding step occurs. For example, in one embodiment the patent provides:

The foam is then placed onto a cutter and pressed down with a press so that the cutter cuts through the foam to form a plurality of separate cubes. The press is

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<sup>2</sup> The parties originally seemed to dispute the meaning of “stand proud.” Nike’s original construction stated that the elements must “raise above” the surface of the jig, whereas McDavid contended that the orientation did not matter and that each element must simply stand out from the surface of the jig. In its responsive brief Nike admitted that McDavid’s construction was almost correct, except that it did not include the phrase “during bonding.” (Dkt. No. 95, Def. Resp. Claim Construction Br. 11.) As a result, this court construes “stand proud” to mean “each element *stands out* from the surrounding surface of the jig.”

then removed whereupon owing to its resilient nature, the foam will tend to spring back slightly so that the exposed surface of each cube stands proud to lie above the surface of the cutter. Excess material from between the elements is then removed.

Next, a layer of fabric is placed over the foam and cutter and a heated platen is brought into contact with the fabric. Heat is conducted through the fabric to the foam and activates the adhesive, bonding the fabric to the foam.

(‘325 patent, col. 5:39-52) (internal references to the drawings omitted). The use of “[n]ext” demarcates the standing proud step from the bonding step in the ‘325 patent’s claims, thereby illustrating that the spaced separate elements may stand proud prior to the commencement of bonding. For that reason, requiring that “making one side of the plurality of spaced separate elements to stand proud of the surface of a jig” occur “during bonding” would contradict the express language of the patent.

Nike’s reliance on, *Gemtron Corp. v. Saint-Gobain Corp.*, 572 F.3d 1371 (Fed. Cir. 2009), in its supplemental brief does not support a different result. In *Gemtron*, the patent at issue claimed a refrigerator shelf which was made by inserting a piece of glass into a plastic frame while the plastic frame was temporarily flexible. *Gemtron*, 572 F.3d at 1375. The Federal Circuit affirmed the inclusion of the language, “when glass is being inserted in the frame” in construing a disputed claim term. *Id.* at 1373. This language added an explicit limitation regarding when the plastic frame would be flexible, even though the original claim language included no such restriction. *See id.* at 1377. Nike argues that based on *Gemtron*, the court should include the temporal limitation of “during bonding.” However, based on the court’s determination that adding the phrase “during bonding” in defining the disputed claim language would contradict the express language of the ‘325 patent, the court finds that *Gemtron* is inapposite.

For the foregoing reasons, the court construes the claim term “making one side of the

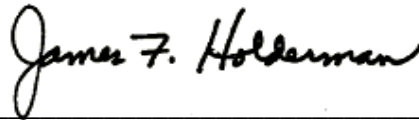
plurality of spaced separate elements to stand proud of the surface of a jig” to mean “making one side of each element stand out from the surrounding surface of a jig.”

CONCLUSION

Based on the reasoning set forth above, the court has fully construed the disputed claim terms of the ‘325 patent.

The parties are encouraged to discuss settlement. This case is set for status at 9:00 a.m. on September 22, 2009 to set further dates on this case.

ENTERED:

A handwritten signature in black ink that reads "James F. Holderman". The signature is written in a cursive style with a large initial 'J'.

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James F. Holderman  
Chief Judge

Dated: September 17, 2009