

**IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF KANSAS**

**MARK A. FREEMAN and
TIMOTHY K. STRINGER,**

Plaintiffs,

v.

Case No. 02-2249-JWL

GERBER PRODUCTS COMPANY,

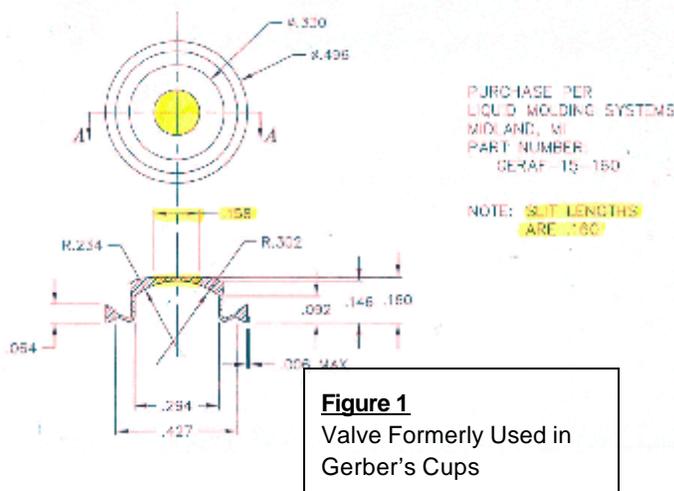
Defendant.

MEMORANDUM AND ORDER

Plaintiffs Mark A. Freeman and Timothy K. Stringer own United States Patent No. 5,186,347 (the '347 patent), which is a patent for a spill-proof closure used in dispensing liquid beverages. They allege that sippy cups sold by the defendant Gerber Products Company infringe certain claims of the '347 patent. The court has already issued a Memorandum and Order construing the disputed claim limitations of the '347 patent. *See generally Freeman v. Gerber Prods. Co.*, 357 F. Supp. 2d 1290 (D. Kan. 2005). The matter is now before the court on Gerber's Motion for Summary Judgment of Non-Infringement (Doc. 108). For the reasons explained below, Gerber's motion is granted in part and denied in part. Specifically, it is granted with respect to infringement under the doctrine of equivalents and it is denied with respect to the issue of literal infringement.

STATEMENT OF MATERIAL FACTS

In this lawsuit for infringement of the '347 patent, the only independent claims at issue are claims 7 and 14. Those claims describe a controllable valved closure for use in dispensing a beverage from a container. In simple terms, the closure generally consists of a beverage container lid with a spout, a valve structure that attaches to the inner surface of the spout, and, within that valve structure, a thin membrane with slit(s) that open and close to control the flow of fluid through the valve and out the spout. The claim limitations currently at issue are the aspects of 7(e) and 14(e) which claim "a thin membrane having attachable means for attaching said thin membrane to an inner surface of said closure" and the aspects of 7(f) and 14(f) which claim "a slit through" or a "disjoined portion within" "a planar section of said thin membrane." Plaintiffs amended claim limitations 7(f) and 14(f) during patent prosecution by adding the words "a planar section of" to clearly define their invention over United States Patent No. 4,496,062 to Coy.



Gerber's spill-proof cups have a screw-on lid with an integrally formed drinking spout and a silicone valve made by Liquid Molding Systems (LMS) to control the fluid flow. Gerber has used two versions of the LMS valve in its cups. Both the current version of the valve and the lower pressure version formerly used in

some of Gerber's cups are fairly and accurately depicted in Gerber's engineering drawings which are set forth in Figures 1 and 2. In both versions, the valve structure is made from a flexible silicone rubber and has a retaining flange integrally formed about its base. The valve membrane is generally dome shaped and has an intersecting pair of slits through its center. Both versions of the valve share the same general design and operate in the same way. For ease of reference, the court has highlighted in yellow the section of the membrane where the intersecting slits are located.

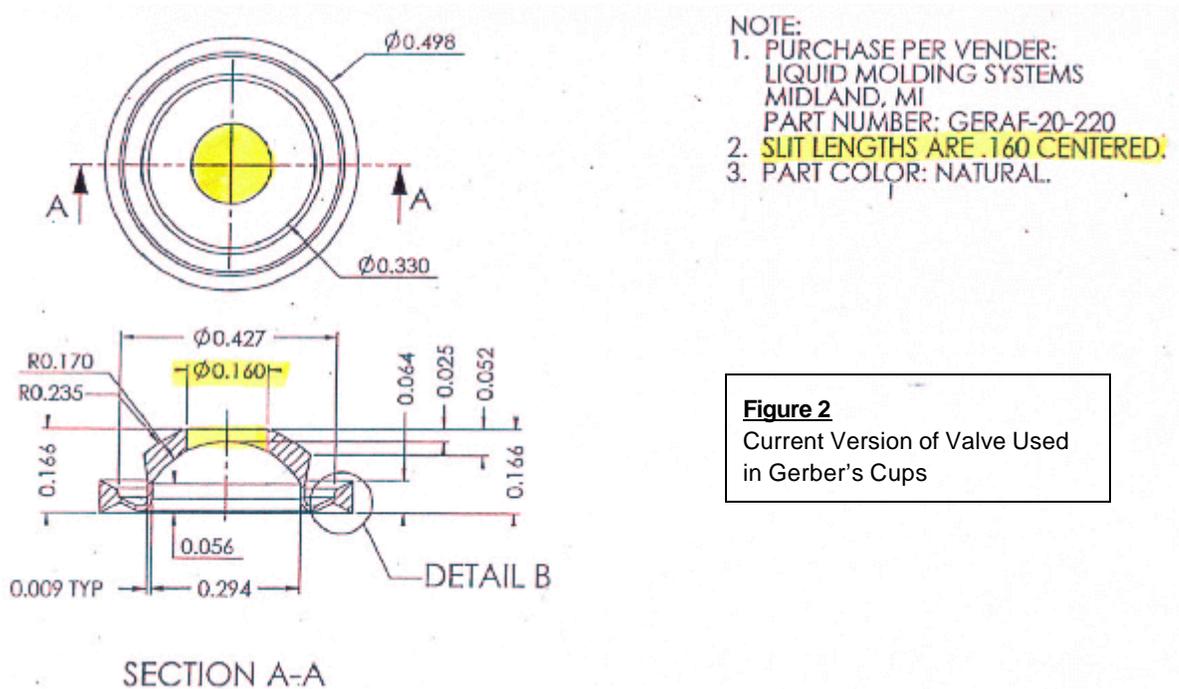


Figure 2
 Current Version of Valve Used
 in Gerber's Cups

Also, attached as Exhibit B-4 to Gerber's motion for summary judgment is a true and correct Gerber valve assembly.

The parties have submitted competing declarations on the issue of the shape of the membrane at the location of the slits. On the one hand, the declaration of plaintiffs' expert,

Robert Sorem, Ph.D., states that the valve “includes a slit through a portion of the valve membrane that is relatively flat.” On the other hand, the declaration of Becky Bachman, who is with Gerber and was involved in the design of Gerber’s cups, states that the domed section of the valve does not have a flat section and that the slits extend through the apex of a continuously arched section of the valve.

Gerber sells two styles of lids that use the valve. One is a cartridge-style valve and the other is a welded-style valve. An engineering drawing of the cartridge-style valve is set forth below. In the cartridge-style valve, the valve membrane is mounted in a valve assembly which



is removable from the spout. The valve assembly has an integrally molded spout flange around its base. A friction fit is formed between the exterior surface of the valve assembly and the inner surface of the cup lid. The spout flange around the base of the valve assembly serves as a valve holder that abuts a flange within the spout when the valve assembly is inserted into the lid for use. Gerber has

obtained United States Patent No. 5,890,621, which is directed to the Gerber cartridge-style valve. That patent discloses that the valve assembly may be mounted in a valve cartridge attached to an inner surface of the lid by a friction fit. It also discloses that the valve may be attached directly to the lid by a snap fit.

Gerber seeks summary judgment on two grounds. First, Gerber argues that the valve membrane in its cups is dome shaped and therefore does not have the planar section required by claim limitations 7(f) and 14(f). Second, Gerber argues that the valve in its cartridge-style

cups is not held in place in the lid by virtue of a ridge-and-groove interlocking snap fit structure required by claim limitations 7(e) and 14(e).

SUMMARY JUDGMENT STANDARD

Summary judgment is appropriate if the moving party demonstrates that there is “no genuine issue as to any material fact” and that it is “entitled to a judgment as a matter of law.” Fed. R. Civ. P. 56(c). In applying this standard, the court views the evidence and all reasonable inferences therefrom in the light most favorable to the nonmoving party. *Spaulding v. United Transp. Union*, 279 F.3d 901, 904 (10th Cir. 2002). A fact is “material” if, under the applicable substantive law, it is “essential to the proper disposition of the claim.” *Wright ex rel. Trust Co. v. Abbott Labs., Inc.*, 259 F.3d 1226, 1231-32 (10th Cir. 2001) (citing *Adler v. Wal-Mart Stores, Inc.*, 144 F.3d 664, 670 (10th Cir. 1998)). An issue of fact is “genuine” if “there is sufficient evidence on each side so that a rational trier of fact could resolve the issue either way.” *Adler*, 144 F.3d at 670 (citing *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 248 (1986)).

The moving party bears the initial burden of demonstrating an absence of a genuine issue of material fact and entitlement to judgment as a matter of law. *Spaulding*, 279 F.3d at 904 (citing *Celotex Corp. v. Catrett*, 477 U.S. 317, 322-23 (1986)). In attempting to meet that standard, a movant that does not bear the ultimate burden of persuasion at trial need not negate the other party’s claim; rather, the movant need simply point out to the court a lack of evidence

for the other party on an essential element of that party's claim. *Adams v. Am. Guar. & Liab. Ins. Co.*, 233 F.3d 1242, 1246 (10th Cir. 2000) (citing *Adler*, 144 F.3d at 671).

Once the movant has met this initial burden, the burden shifts to the nonmoving party to "set forth specific facts showing that there is a genuine issue for trial." *Spaulding*, 279 F.3d at 904 (citing *Matsushita Elec. Indus. Co. v. Zenith Radio Corp.*, 475 U.S. 574, 587 (1986)); *see also Anderson*, 477 U.S. at 256; *Celotex*, 477 U.S. at 324. The nonmoving party may not simply rest upon its pleadings to satisfy its burden. *Anderson*, 477 U.S. at 256; *Eck v. Parke, Davis & Co.*, 256 F.3d 1013, 1017 (10th Cir. 2001). Rather, the nonmoving party must "set forth specific facts that would be admissible in evidence in the event of trial from which a rational trier of fact could find for the nonmovant." *Mitchell v. City of Moore*, 218 F.3d 1190, 1197-98 (10th Cir. 2000) (quoting *Adler*, 144 F.3d at 671). To accomplish this, the facts "must be identified by reference to an affidavit, a deposition transcript, or a specific exhibit incorporated therein." *Adams*, 233 F.3d at 1246.

Finally, the court notes that summary judgment is not a "disfavored procedural shortcut"; rather, it is an important procedure "designed 'to secure the just, speedy and inexpensive determination of every action.'" *Celotex*, 477 U.S. at 327 (quoting Fed. R. Civ. P. 1).

ANALYSIS

For the reasons explained below, the court concludes that the record reflects a genuine issue of material fact regarding whether the intersecting pair of slits in the Gerber valve membrane literally infringe claim elements 7(f) and 14(f) by virtue of being located within a planar section of the membrane. The record also reflects a genuine issue of material fact regarding whether the differences between the valve assembly structure in Gerber's cartridge-style cups and the ridge-and-groove structure disclosed in the '347 patent are insubstantial and, consequently, the Gerber valve assembly may literally infringe claim elements 7(e) and 14(e) by constituting equivalent structure for performing the recited means of attaching the thin membrane to an inner surface of the lid. The court finds that Gerber is, however, entitled to summary judgment on infringement under the doctrine of equivalents because of plaintiffs' narrowing amendments made during prosecution history to distinguish the '347 valve membrane over Coy.

A. Claim Limitations 7(f) and 14(f): Shape of the Membrane Where the "Slit" or "Disjoined Portion" is Located

Determining whether a claim has been infringed requires a two-step analysis. *Boss Control, Inc. v. Bombardier Inc.*, 410 F.3d 1372, 1376 (Fed. Cir. 2005). First, the court must properly construe the claim to determine its scope and meaning. *Id.* In this case, the court has already construed claim limitations 7(f) and 14(f) to mean a slit through or a disjoined portion within "the section of the thin membrane that has a flat, two-dimensional quality." *Freeman v. Gerber Products Co.*, 357 F. Supp. 2d 1290, 1313 (D. Kan. 2005). With these claim

limitations already construed as a matter of law, then, the court will proceed to the second step of the infringement analysis.

In step two, the court compares the properly construed claims to the accused device or process. *Boss Control*, 410 F.3d at 1376. “To prove infringement, the patentee must show that the accused device meets each claim limitation, either literally or under the doctrine of equivalents.” *Playtex Prods., Inc. v. Procter & Gamble Co.*, 400 F.3d 901, 906 (Fed. Cir. 2005). Here, Gerber contends that its valve membrane does not infringe claim limitations 7(f) and 14(f) because its membrane is generally dome shaped, not flat, and the intersecting slits are located through the apex of the dome.¹ Gerber seeks summary judgment of no literal infringement and no infringement under the doctrine of equivalents. “Infringement, whether literal or under the doctrine of equivalents, is a question of fact.” *Boss Control*, 410 F.3d at 1376; *accord Nazomi Communications, Inc. v. Arm Holdings, PLC*, 403 F.3d 1364, 1367 (Fed. Cir. 2005).

1. Literal Infringement

The engineering drawings of Gerber’s valve membrane reveal that the membrane contains an intersecting pair of slits at the center of the membrane. In the formerly used older version of the valve, the membrane was relatively thicker around the edges and tapered into a

¹ Gerber’s arguments do not distinguish between claim limitations 7(f) and 14(f) inasmuch as 7(f) claims “a slit through” whereas 14(f) claims “a disjoined portion within” the thin membrane. Rather, Gerber’s arguments focus on whether the intersecting pair of slits are located in a “planar section of” the thin membrane. The court therefore will confine its analysis to the same issue and will hereinafter simplify its references to the “slit through” or “disjoined portion within” the thin membrane as the “slits through” the thin membrane.

thinner membrane in the center. In the newer version of the valve, the membrane appears to be more rounded and not as proportionally thick around the outside perimeter. The critical aspect of both versions of the valve – the shape of the membrane where the intersecting slits are located – is similar. In both versions, the membrane is essentially flat on one surface and slightly curved on the other.

Gerber admits that the section of the membrane through which the slits are located has one flat surface. But, Gerber nonetheless contends that because the other surface is curved the membrane does not have a flat, two-dimensional quality. Gerber argues that the relevant section of the membrane valve is arched and three dimensional. According to the deposition testimony of Timothy Socier, an individual with Liquid Molding Systems who helped develop Gerber’s valve, the shape of the membrane and its thickness ratio are critical to proper functioning of the valve. Thus, Gerber contends that the valve does not have a two-dimensional quality because all three dimensions are crucial to its operation.²

² Gerber also briefly mentions in its reply brief that the Federal Circuit in *Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005) (en banc), overruled the *Texas Digital Systems, Inc. v. Telegenix, Inc.*, 308 F.3d 1993 (Fed. Cir. 2002), “dictionary first” approach to claim construction in favor of increased emphasis on the intrinsic record. The court understands that Gerber did not raise this issue in its initial brief because *Phillips* came out nearly three months after Gerber filed its motion for summary judgment. But, even so, the court will not consider this argument at this procedural juncture for two reasons. First, Gerber raised the argument in its reply brief. The proper procedural vehicle for this argument is a motion to reconsider the court’s *Markman* ruling. Second, Gerber does not explain how the Federal Circuit’s ruling in *Phillips* should change the court’s construction of the disputed claim limitations in the ‘347 patent. The court assures the parties that it has re-evaluated its *Markman* ruling in light of *Phillips* and the court does not believe that its claim construction analysis ran afoul of the principles announced in *Phillips* in any respect. In *Phillips*, the Federal Circuit eschewed “heavy reliance on the dictionary divorced from the intrinsic evidence.” 415 F.3d at 1321. In

In response, plaintiffs argue that a reasonable jury could conclude that the section of the membrane through which the slits are located has a flat, two-dimensional quality. Plaintiffs argue that Gerber is focusing too much on the membrane as a whole rather than on the fact that the membrane needs to be planar only where the slits are located. In support of this argument, plaintiffs have submitted a declaration from their expert, Dr. Robert Sorem. Dr. Sorem opines that the shape of the membrane is defined by a two-dimensional coordinate system with the slit going through the thickness of that two-dimensional surface whereas the thickness is defined by the third dimension. According to Dr. Sorem, Gerber's argument views the profile of the membrane as it would appear if cut through by an intersecting plane and, to one of ordinary skill in the art, this definition "is clearly for a 'cross-section,' not a 'section'" whereas one of ordinary skill in the art would construe the term "'section' to be synonymous with 'portion' or 'part.'"

Viewing the evidence in the light most favorable to plaintiffs, the court finds that they have raised a genuine issue of material fact regarding whether Gerber's valve membrane literally infringes the "planar section of" claim limitation. This finding rests on an examination of the engineering drawings set forth above as well as a visual examination of the valve

this case, the court certainly relied on dictionary definitions in construing the claims, but it by no means did so divorced from the intrinsic record. Rather, the court construed the claims in a manner that was consistent with the intrinsic record as well as the ordinary meanings of words. Thus, absent more meaningful argument from Gerber on this issue, the court is unpersuaded that its *Markman* ruling is contrary to *Phillips*.

membrane contained in Gerber's sippy cup.³ Although the entire valve membrane is generally dome shaped, only the section of the valve membrane where the intersecting slits are located must be planar, or have a flat, two-dimensional quality. At that particular section of the membrane, one surface appears to be entirely flat. And, with respect to the other surface which is curved, the degree of curvature appears to be minuscule. Perhaps most significantly, this relatively flat portion of the membrane stands in sharp contrast to the significantly more curved perimeter of the membrane. Comparatively, the perimeter of the membrane appears to be three-dimensional whereas the center of the membrane appears to have a flat, two-dimensional quality. Thus, a reasonable trier of fact could conclude that the relevant section of the membrane has a planar, or flat, two-dimensional quality. Accordingly, Gerber's motion for summary judgment on the basis of literal non-infringement of this claim limitation is denied.

2. *Infringement Under the Doctrine of Equivalents*

"Infringement under the doctrine of equivalents occurs when a claimed limitation and the accused product perform substantially the same function in substantially the same way to obtain substantially the same result." *Business Objects, S.A. v. Microstrategy, Inc.*, 393 F.3d

³ Gerber urges the court to disregard Dr. Sorem's declaration because his opinion "is nothing more than a collection of unsupported assertions and conclusory opinions that cannot create a genuine issue of material fact as to whether the Gerber valve meets the 'planar section' limitation in Claims 7 and 14." The court will not address this argument because the court finds that, even in the absence of Dr. Sorem's opinion, a genuine issue of material fact exists on this issue. The court does, however, find Dr. Sorem's opinions to be of interest. If Gerber wishes to challenge the admissibility of his opinions it should properly raise the issue by filing a limine or *Daubert*-type motion prior to trial.

1366, 1374 (Fed. Cir. 2005). The court has no difficulty concluding that, if plaintiffs are entitled to the benefit of the doctrine of equivalents, they have raised a genuine issue of material fact regarding whether the Gerber valve infringes this claim limitation. At the location of the slits in the valve membrane, the Gerber valve membrane appears to perform substantially the same function as the membrane in the '347 valve (to regulate the flow of fluid from the beverage container) in substantially the same way (by opening and closing the slits in the membrane) to obtain substantially the same result (to prohibit the flow of fluid when the slits are closed and to allow the flow of fluid when the slits are open). Indeed, Gerber does not dispute this but instead argues that plaintiffs are barred from relying on the doctrine of equivalents because of prosecution history estoppel. Gerber contends that plaintiffs cannot rely on the doctrine of equivalents because they added the language "a planar section of" to overcome prior art, Coy.

"The doctrine of equivalents allows the patentee to claim those insubstantial alterations that were not captured in drafting the original patent claim but which could be created through trivial changes." *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.*, 535 U.S. 722, 733 (2002) ("*Festo*"). Under the doctrine, an element in the accused device is equivalent to a claim limitation if their differences are insubstantial. *Honeywell Int'l, Inc. v. Hamilton Sundstrand Corp.*, 370 F.3d 1131, 1139 (Fed. Cir. 2004), *cert. denied*, 125 S. Ct. 2928 (2005). Prosecution history estoppel, however, bars the patentee from asserting equivalents if the scope of the claim has been narrowed by amendment during prosecution. *Festo*, 535 U.S. at

733-34, 736 (“Estoppel arises when an amendment is made to secure the patent and the amendment narrows the patent’s scope.”). The rationale is that

[w]hen . . . the patentee originally claimed the subject matter alleged to infringe but then narrowed the claim in response to a rejection, he may not argue that the surrendered territory comprised unforeseen subject matter that should be deemed equivalent to the literal claims of the issued patent. . . .

A rejection indicates that the patent examiner does not believe the original claim should be patented. While the patentee has the right to appeal, his decision to forgo an appeal and submit an amended claim is taken as a concession that the invention as patented does not reach as far as the original claim.

Id. at 733-34. Consequently, a narrowing amendment gives rise to a rebuttable presumption that the patentee surrendered any subject matter between the amended claim as originally filed and claims allowed by the Patent and Trademark Office (PTO). *Id.* at 741.

In this case, as discussed in detail in the court’s prior order, when plaintiffs originally applied for the patent in 1991, claim element 7(f) claimed “a slit through said thin membrane” and 14(f) claimed “a disjointed portion within said thin membrane.” *Freeman v. Gerber Prods. Co.*, 357 F. Supp. 2d 1290, 1308-09 (D. Kan. 2005). On June 24, 1992, the PTO examiner conducted a telephone interview with Mr. Freeman. *Id.* at 1309. During that interview, the examiner requested and received authorization from Mr. Freeman to add the additional language “a planar section of” to these claim elements. *Id.* The examiner interview summary record describes the general nature of what was agreed to during the interview as: “Agreed upon Examiner’s Amendment to clearly define over Coy.” *Id.* Thus, based on the prosecution history, a presumption arises that plaintiffs have surrendered all subject matter between any membrane with a slit through or disjointed portion within it and any membrane in which the slit

or disjoined portion is located through or within a planar section of the membrane. In other words, plaintiffs have presumptively surrendered all membranes in which the slit or disjoined portion is located through or within a non-planar section of the membrane.

Plaintiffs, then, can rebut this presumption by demonstrating that (1) the alleged equivalent was unforeseeable at the time of the narrowing amendment, (2) the rationale underlying the narrowing amendment bore no more than a tangential relation to the equivalent at issue, or (3) there was some other reason why the patentee could not reasonably have been expected to describe the alleged equivalent. *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.*, 344 F.3d 1359, 1368 (Fed. Cir. 2003) (en banc) (“*Festo II*”) (citing *Festo*, 535 U.S. at 740-41). Here, plaintiffs argue the second of these grounds – that is, that the narrowing amendment bears no more than a tangential relation to the shape of Gerber’s valve membrane. The primary consideration in determining when an amendment bears only a tangential relation to the equivalent in question is “whether the reason for the narrowing amendment was peripheral, or not directly relevant, to the alleged equivalent.” *Insituform Techs., Inc. v. CAT Constr., Inc.*, 385 F.3d 1360, 1370 (Fed. Cir. 2004) (quoting *Festo II*, 344 F.3d at 1365); accord *Chimie v. PPG Indus., Inc.*, 402 F.3d 1371, 1383 (Fed. Cir. 2005). This inquiry “focuses on the patentee’s objectively apparent reason for the narrowing amendment,” a reason which “should be discernible from the prosecution history record.” *Festo II*, 344 F.3d at 1369.

A narrowing amendment is not tangential where, for example, it is made to avoid prior art that contains the equivalent in question; in that case, the amendment is central to allowing the

claim. *Id.* Whether the patentee has rebutted the presumption of surrender is a question of law for the court. *Id.* at 1367-68.

As the court previously explained in its *Markman* ruling, the reason for the narrowing amendment was to distinguish the '347 patent over Coy by "eliminat[ing] the possibility that the slit could be located at the apex of a V-shaped portion of the thin membrane where two sidewalls converge. Absent this limitation, nothing . . . would prevent the thin membrane from being V-shaped with a slit at its apex that functions as the valve opening." *Freeman v. Gerber Prods. Co.*, 357 F. Supp. 2d 1290, 1309 (D. Kan. 2005). In this amendment, the shape of the membrane at the section through which the slit or disjoined portion passes was directly at issue during prosecution and it is directly relevant to the alleged equivalent. If Gerber's membrane does not literally infringe the '347 patent because the relevant section of the membrane is planar, then the membrane would be considered to be dome shaped or arched. In other words, it would be non-planar. Narrowing the scope of the claim so that it does not encompass a V-shaped membrane with a slit at its apex is not peripheral or tangential to a dome-shaped membrane with a slit at its apex. Rather, the nature of the narrowing amendment reveals that it is directly relevant to such dome-shaped membranes because plaintiffs surrendered their claim to all such non-planar membranes in order to obtain their patent. *See, e.g., Chimie*, 402 F.3d at 1383 (narrowing amendment to address issues raised during prosecution was not tangential to an equivalent having that characteristic).

Plaintiffs' rationale to the contrary is that the amendment was designed to eliminate the possibility that the slit could be located at the apex of a V-shaped portion of a membrane where

two sidewalls converge, and this type of valve bears no relationship to the portion of Gerber's valve membrane that has a flat, two-dimensional quality. This logic is flawed, first and foremost, because if the relevant section of Gerber's membrane has a flat, two-dimensional quality, then that membrane literally infringes the '347 patent and resort to the doctrine of equivalents is unnecessary. Absent a finding of literal infringement, then, plaintiffs are trying to recapture territory that they surrendered during prosecution. Simply because the prior art (the V-shaped membrane in Coy) does not contain the precise alleged equivalent in question (an arch shaped membrane) does not equate to a finding that the arch shaped membrane at issue here is tangential to the purpose of the amendment. *See Chimie*, 402 F.3d at 1383 ("It does not follow . . . that equivalents not within the prior art must be tangential to the amendment.").

Plaintiffs' reliance on *Insituform Technologies, Inc. v. CAT Contracting, Inc.*, 385 F.3d 1360 (Fed. Cir. 2004), is misplaced. *Insituform* involved a patented process for repairing underground pipes without digging them up by impregnating a flexible tube liner with resin via a vacuum cup. The prosecution history involved an amendment which narrowed the patent claim to a single vacuum cup process, *id.* at 1368, thus presumptively eliminating multiple cup processes under the doctrine of equivalents. The Federal Circuit held that *Insituform* rebutted the *Festo* presumption by demonstrating that the narrowing amendment bore no more than a tangential relation to the accused, multiple-cup process. *Id.* The narrowing amendment had been made to distinguish the process over prior art, *Everson*, and *Insituform* demonstrated that "the difference between its process and *Everson* was that its process did not have the disadvantage of the *Everson* process of a large compressor at the end of the liner." *Id.* at 1370.

There was no indication in the prosecution history of any relationship between the narrowing amendment and the multiple cup accused process. *Id.* In *Insituform*, then, the plaintiff demonstrated that the prosecution history revealed that the narrowing amendment was made to distinguish prior art that necessitated a large compressor at the end of the liner. Thus, whether the process was a single-cup process or a multiple-cup process was tangential to the amendment's purpose to avoid a large compressor at the end of the liner. In contrast, in this case the narrowing amendment was made to distinguish the '347 patent over Coy by defining the shape of the membrane at the location of the slit through the membrane and Gerber's alleged equivalent likewise involves the issue of the shape of the membrane at the location of the intersecting slits. Thus, in this case, unlike in *Insituform*, the rationale underlying the narrowing amendment (to define the shape of the membrane at the location of the slit) is directly relevant to the alleged equivalent.

In sum, plaintiffs have failed to rebut the presumption that they are estopped from attempting to recapture the surrendered territory of non-planar membranes by virtue of having made a narrowing amendment to distinguish the '347 patent over Coy. The Gerber valve membrane, then, either literally infringes the '347 patent by having a flat, two-dimensional quality at the section where the intersecting slits are located or else the relevant section is arch-shaped and therefore does not literally infringe the '347 patent. This is an issue for the trier of fact. But plaintiffs are not entitled to recapture any non-planar membranes, no matter how insubstantially non-planar, under the doctrine of equivalents. Accordingly, Gerber's

motion for summary judgment is granted with respect to the issue of infringement under the doctrine of equivalents.

B. Claim Limitations 7(e) & 14(e): Attachable Means for Attaching the Thin Membrane to the Inner Surface of the Lid

Claim limitations 7(e) and 14(e) claim “means for attaching said thin membrane to an inner surface of said closure.” The court construed these claim limitations to mean “an interlocking snap fit formed by a groove on the exterior of the wall around the perimeter of the thin membrane which abuts and is affixed to a ridge on the interior of the spout.” *Freeman v. Gerber Prods. Co.*, 357 F. Supp. 2d 1290, 1313 (D. Kan. 2005). Gerber contends that it is entitled to summary judgment because its valve lacks the described ridge-and-groove structure forming an interlocking snap fit.

Claim elements 7(e) and 14(e) are means-plus-function limitations permitted by 35 U.S.C. § 112, ¶ 6. “Literal infringement of a § 112, ¶ 6 limitation requires that the relevant structure in the accused device perform the identical function recited in the claim and be identical or equivalent to the corresponding structure in the specification.” *Frank’s Casing Crew & Rental Tools, Inc. v. Weatherford Int’l, Inc.*, 389 F.3d 1370, 1378 (Fed. Cir. 2004) (quoting *Odetics, Inc. v. Storage Tech. Corp.*, 185 F.3d 1259, 1267 (Fed. Cir. 1999)). Structural equivalents under § 112, ¶ 6 are included within literal infringement of means-plus-function claims. *Id.* The court must find both (1) functional identity, and (2) either structural identity or equivalence. *Id.* In this case, identity of function is undisputed. Gerber’s valve assembly as well as the valve disclosed in the patent both perform the recited function of

attaching the thin membrane to the inner surface of the closure (i.e., lid). The structure that performs this function in the Gerber valve assembly, however, clearly is not identical to the valve disclosed in the '347 patent. The patent valve claims a ridge-and-groove structure forming an interlocking snap fit whereas the Gerber valve has a structure with a friction fit and a protruding flange around its base. Thus, the pivotal issue here is whether the valve assembly in Gerber's cartridge-style cups constitutes equivalent structure.

Structures are equivalent under § 112, ¶ 6 if their differences are insubstantial. *Caterpillar Inc. v. Deere & Co.*, 224 F.3d 1374, 1379 (Fed. Cir. 2000). Under a modified version of the function-way-result methodology that applies under the doctrine of equivalents, two structures may be equivalent for purposes of § 112, ¶ 6 if they perform the identical function, in substantially the same way, with substantially the same result. *Frank's Casing*, 389 F.3d at 1378; *Caterpillar Inc.*, 224 F.3d at 1379; *Odetics*, 185 F.3d at 1267 (adopting a modified version of the test developed for the doctrine of equivalents in the context of § 112, ¶ 6 structural equivalency due to the functional identity requirement). The issue of structural equivalence under § 112, ¶ 6 is a question of fact. *Frank's Casing*, 389 F.3d at 1378; *Odetics*, 185 F.3d at 1268.

The court readily concludes that a rational trier of fact could find that the differences between the two valve structures are insubstantial and, consequently, find structural equivalency and literal infringement. Viewing all reasonable inferences in plaintiffs' favor, as the court must at this procedural juncture, it appears that the differences in the structures that attach the thin membrane to the inner surface of the lid appear to be relatively minor and

insubstantial. In both valves, the thin membrane is mounted into a valve assembly such that the membrane rests essentially perpendicular to the surrounding walls. Those walls form a cylinder shaped valve assembly that, in turn, fits into corresponding cylinder-shaped walls within the spout of the lid. The only difference between the two structures is that the ‘347 valve assembly ultimately performs the function of attaching the thin membrane to the lid by virtue of a ridge-and-groove structure between the two walls whereas the Gerber valve assembly attaches the thin membrane to the lid by a friction fit and a retaining flange between the two walls. Those differences appear to be strikingly insubstantial in light of the otherwise virtually identical manner in which the cylindrical valve assemblies perform the same function. The two valve assemblies appear to perform identical functions (attaching the thin membrane to the interior of the spout) in substantially the same way (by mounting the membrane into a cylinder, inserting the cylinder into the interior of the spout, and utilizing an external protrusion around the valve walls to hold the cylinder in place) with substantially the same result (creating a removable valve assembly that, when inserted, remains affixed within the spout). The friction fit and retaining flange in the Gerber valve does not appear to add anything of significance to the ridge-and-groove structure disclosed in the patent. *See Valmont Indus. v. Reinke Mfg. Co.*, 983 F.2d 1039, 1043 (Fed. Cir. 1993) (change is insubstantial if it, “from the perspective of one of ordinary skill in the art, adds nothing of significance to the structure, material, or acts disclosed in the patent specification”).

The court finds an illustration by the Federal Circuit in *IMS Technology, Inc. v. Haas Automation, Inc.*, 206 F.3d 1422 (Fed. Cir. 2000), to be particularly informative in this case.

In *IMS*, the court gave as an example a claim that includes “means for securing parts A and B together in a fixed relationship.” *Id.* at 1436 n.3. The written description discloses that the parts are secured together by nails. *Id.* The court explained that “[f]or purposes of the invention, it does not matter how parts A and B are secured; nails are not a critical part of the invention.” *Id.* Thus, although a screw is not a nail, a screw constitutes equivalent structure for purposes of § 112, ¶ 6 in the context of the invention. Likewise, in this case, the critical part of the invention is a structure that attaches the thin membrane to the inner surface of the lid. The drawings disclose that this is performed by a cylinder shaped valve that abuts the walls of the spout and is affixed in place by a ridge-and-groove structure. That ridge-and-groove structure, however, is not a particularly critical part of the invention. The critical part of the invention is having some type of structure that holds the thin membrane in the spout to control the flow of fluids. Thus, a rational trier of fact could find that it is insignificant in the context of the invention that the Gerber valve accomplishes this same objective by virtue of a friction fit and a retaining flange rather than a ridge-and-groove structure. *See also id.* (explaining that “a rigid comparison of physical structures in a vacuum may be inappropriate in a particular case” because “when in a claimed ‘means’ limitation the disclosed physical structure is of little or no importance to the claimed invention, there may be a broader range of equivalent structures than if the physical characteristics of the structure are critical in performing the claimed function in the context of the claimed invention”).

The court finds Gerber’s arguments to the contrary to be without merit. Gerber’s primary argument is that the fact that it obtained a patent for its spill-proof cups against which

the '347 patent was cited as prior art is strong evidence of non-equivalency. But the law from the Federal Circuit on this issue is not as clear and categorical as Gerber contends. *Compare Zygo Corp. v. Wyko Corp.*, 79 F.3d 1563, 1570 (Fed. Cir. 1996) (“The nonobviousness of the accused device, evidenced by the grant of a United States patent, is relevant to the issue of whether the change therein is substantial.”), *with Fiskars, Inc. v. Hunt Mfg. Co.*, 221 F.3d 1318, 1324 (Fed. Cir. 2000) (reasoning that “it is well established that separate patentability does not avoid equivalency as a matter of law”); *Atlas Powder Co. v. E.I. du Pont De Nemours & Co.*, 750 F.2d 1569, 1580 (Fed. Cir. 1984) (an improvement in a step of a patented method, even if separately patentable, may not avoid infringement). Suffice it to say that, for purposes of resolving Gerber’s motion for summary judgment, Gerber has by no means carried its burden of demonstrating that it is entitled to judgment as a matter of law on this basis. Gerber’s one-paragraph argument on this issue without any meaningful discussion of how the claims in its patent compare to those of the ‘347 patent does not persuade the court of the significance of the separate patentability of its spill-proof cups. Ultimately, the fact of separate patentability might be relevant and entitled to due weight, but it is not dispositive of noninfringement. *National Presto Industries, Inc. v. West Bend Co.*, 76 F.3d 1185, 1192 (Fed. Cir. 1996) (“Whether a modified device is within the scope of the prior patent . . . depends on the particular facts.”).

Accordingly, Gerber’s motion for summary judgment based on non-infringement of claim elements 7(e) and 14(e) is denied.

IT IS THEREFORE ORDERED BY THE COURT that Gerber's Motion for Summary Judgment of Non-Infringement (Doc. 36) is granted in part and denied in part as set forth above.

IT IS FURTHER ORDERED that within ten days the parties shall meet and confer, submit an updated Report of Parties' Planning Meeting to the magistrate judge, and contact the magistrate judge's chambers to arrange a scheduling conference.

IT IS SO ORDERED this 19th day of September, 2005.

s/ John W. Lungstrum
John W. Lungstrum
United States District Judge