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

MCDAVID, INC., and STIRLING MOULDINGS LIMITED,	)	
Plaintiffs,	)	
v.	)	No. 08 C 6584
NIKE USA, INC.,	)	
Defendant.	)	

MEMORANDUM OPINION AND ORDER

JAMES F. HOLDERMAN, Chief Judge:

Plaintiffs McDavid, Inc. and Stirling Mouldings Limited ("Stirling") (collectively "McDavid") initiated this action on November 17, 2008, against their competitor defendant Nike USA, Inc. ("Nike") for infringement of U.S. Patent No. 6,743,325 ('325 Patent) based on Nike's importation of certain foam padded sportswear garments manufactured in Taiwan. The case was originally assigned to Senior United States District Judge Suzanne B. Conlon and reassigned to this court on July 24, 2009. After the parties presented their positions on the meaning of certain disputed claim terms in the '325 Patent, this court issued its claim construction opinion on September 17, 2009. (Dkt. No. 137.) The court denied McDavid's motion for a preliminary injunction on January 14, 2010 (Dkt. No. 170). McDavid appealed and on October 13, 2010, the Federal Circuit affirmed this court's denial of McDavid's motion for a preliminary injunction. *See McDavid Knee Guard, Inc. v. Nike USA, Inc.*, No. 2010-1171, 397 Fed. App'x 655 (Fed. Cir. Oct. 13, 2010). Meanwhile, while McDavid's appeal was pending, Stirling on May 25, 2010, obtained a reissue of the '325 Patent: U.S. Patent No. RE41,346 ('346 Patent). On July 28, 2010, the court granted McDavid leave to amend its complaint to assert a claim against Nike for infringement of the '346 Patent. (Dkt. No.

267.) Disclosures and discovery proceeded consistent with this district's Local Patent Rules.

On August 17, 2011, the court denied McDavid's motion for summary judgment on claims 22-23 of the '346 Patent, granted Nike summary judgment of non-infringement as to all claims of the '346 Patent based on literal infringement, and granted Nike summary judgment of non-infringement as to claim 1 of the '346 Patent under the doctrine of equivalents. (Dkt. No. 344.) On September 13, 2011, Stirling obtained a second reissue of the '325 Patent: U.S. Patent No. RE42,689 ('689 Patent). The court again granted McDavid leave to amend its complaint to assert claims against Nike for infringement of the '689 Patent. (*See* Dkt. No. 355.)

Pending before the court is Nike's "Motion for Summary Judgment of Invalidity," in which it contends that Claims 1-4, 6-8, 13 and 22-25 of the '346 Patent and Claims 15, 17, 19, 20, 22, 24, 26, 30, 31, 33, 34, 36, and 38-40 of the '689 Patent are invalid. (Dkt. No. 454.) For the reasons explained below, Nike's motion is granted with respect to the asserted claims of the '689 Patent and denied with respect to the asserted claims of the '346 Patent.

BACKGROUND

The '689 Patent, like the '346 Patent,[1] discloses a method of manufacturing a flexible material for use in protective padded apparel, such as the kind used for protection of an individual's body when playing sports. '689 Patent, col.1 ll.37-39. The material conforms to the body of the wearer because it is flexible in all three dimensions. *Id.* at col.2 ll.57-59. Due to this increased flexibility, the material is more comfortable to wear and can accommodate the wearer's movements better than previous conventional materials. *Id.* at col.2 ll.59-61.

[1] In light of the court's holding that Nike has waived its arguments that Claims 1-4, 6-8, 13 and 22-25 of the '346 Patent are invalid, *see infra* Part II, the court's description focuses on the '689 Patent.

The disclosed invention achieves the benefit of increased flexibility by including a layer of separate, spaced apart elements (usually made of foam) bonded to one or sometimes two substrates (usually made of fabric). *Id.* at col.2 ll.52-66. As the specification explains, making the foam elements separate and spaced apart "facilitates flexing of the substrate to form a curved surface and enables the material to flex in all directions without 'locking up' or preventing movement in a particular direction." *Id.* at col.2 ll.64-67.

To make the manufacture of the invention feasible, the '689 Patent discloses a method for efficiently bonding the foam elements in a spaced apart relationship to the fabric substrates. *Id.* at col.2 ll.37-48. For example, in the preferred embodiment, a sheet of foam is coated with an adhesive that activates when heat is applied. *Id.* at col.4 ll.14-16. That sheet of foam is cut into the separate elements by a cutter arranged into a grid. *Id.* at col.4 ll.32-34. After cutting, the cutter acts as a jig that holds the foam elements in place while the excess material from between the elements is removed, a fabric substrate is placed over the elements, the substrate is heated to activate the adhesive, and the elements are bonded to the substrate. *Id.* at col.4 ll.35-41. As the specification explains, "[i]t will be appreciated that in this embodiment, the cutter grid acts as a jig, holding the elements in placed while the substrate layer is applied." *Id.* at col.4 ll.41-43. In some embodiments, the elements are then held by the first fabric substrate while the second fabric substrate is bonded to the other side of the elements. *Id.* at col.6 ll.21-29.

Claim 1 of the '346 Patent (which matches claim 1 of the '325 Patent) recites the process:

> A method of manufacturing a flexible material comprising the steps of
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> providing a sheet of a resilient material;
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> 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
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> 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.

'346 Patent col.6 ll.35-48.

Much of this litigation to this point has focused on the definition of the word "jig" in that claimed process. McDavid's infringement theories regarding the '325 Patent and the '346 Patent depend on the court finding that, in the accused process, the excess foam material from which the foam elements are cut can act as the "jig" that holds the cut elements in place during bonding. (*See* Dkt. No. 345, at 18.) On September 17, 2009, however, the court construed the 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." (Dkt. No. 137, at 9 (emphasis added); *see also* Dkt. No. 345, at 6-8.) That definition excludes the excess foam material from the definition of a jig, a fact that formed the basis of the court's summary judgment that Nike does not literally infringe claim 1 of the '346 Patent. (Dkt. No. 345, at 18.)

McDavid filed the application that became the '689 Patent on December 18, 2009 (three months after the court's claim construction decision), and the '689 Patent issued on September 13, 2011. (Dkt. No. 457 ("Def.'s SMF") ¶ 24.) The priority date of the '689 Patent is April 23, 2002, the date the application of the '325 Patent was filed. *See* 35 U.S.C. § 252. Unlike claim 1 of the '346 Patent, none of the claims of the '689 Patent include a limitation requiring that a jig hold the cut

elements in place.[2] Instead, the claims use the passive voice to require that the elements are "held," but do not specify the subject performing the holding. Claim 22 of the '689 Patent is representative:

> A method of manufacturing a flexible resiliently compressible material, the method comprising:
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> providing a first resiliently stretchable fabric substrate;
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> cutting a sheet of resiliently compressible foam with a cutting grid that goes completely through the foam to provide an array of a plurality of separate individual resiliently compressible elements in a spaced apart relationship, the individual elements having a top surface and a bottom surface in an array of top surfaces and bottom surfaces and which top surfaces and bottom surfaces are flat;
>
> providing a second resiliently stretchable fabric substrate;
>
> contacting the top surfaces and the bottom surfaces of the plurality of resiliently compressible elements with the first and second resiliently stretchable fabric substrates;
>
> *holding the resiliently compressible elements* in spaced relation in an array created by the cutting grid after the cutting grid cuts the resiliently compressible foam; and
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> bonding the top and bottom surfaces of compressible elements to the first and second resiliently stretchable fabric substrates while *the elements are held* in a spaced apart relation with spaces of about 2 mm between the elements, the bonding selected from the group consisting of adhesively bonding and welding, the fabric substrates not bonded to each other in the spaces of about 2 mm and to provide the flexible resiliently compressible material with the elements being distributed between the substrates at a density of from about 250 to about 8000 elements/m^2.

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[2] Among the asserted claims of the '689 Patent, only claim 36 and the claims that depend from it even mention the term "jig." Claim 36 recites that "the array of compressible elements [created by cutting the foam sheet with a cutter are] standing proud in a grid which acts as a jig." '689 Patent, col.10 ll.8-9. Claim 36 does not require that the jig hold the elements in place during bonding, however. Like the other asserted claims of the '689 Patent, claim 36 does not specify the instrument that performs the "holding" function. *See id.* at col.10 ll.10-13 (reciting "holding the resiliently compressible elements . . . after cutting the resiliently compressible foam"); *id.* at col. 10 ll.16-19 (reciting "bonding [the elements to the substrates] while the elements stand proud in the grid and are held"). Claim 36, like the other asserted claims of the '689 Patent, is thus also broad enough to read on an embodiment in which the excess material left after cutting holds the elements in place for bonding.

‘689 Patent col.8 ll.19-47 (emphasis added). By claiming only that the elements are “held” by *something*, but without specifying the subject, the asserted claims of the ‘689 Patent, unlike claim 1 of the ‘346 Patent, all read on an embodiment in which the excess material left after the foam elements are cut holds the elements in place during bonding.[3]

Nike’s “Motion for Summary Judgment of Invalidity” (Dkt. No. 454) now contends (among other arguments) that all asserted claims of the ‘689 Patent are invalid because the ‘689 Patent fails to satisfy the written description and enablement requirements of 35 U.S.C. § 112 by omitting from its specification any description of using excess material to hold elements during bonding.

LEGAL STANDARD

A grant of summary judgment is proper “if the movant shows that there is no genuine dispute as to any material fact and the movant is entitled to judgment as a matter of law.” Fed. R. Civ. P. 56(a); *see also Celotex Corp. v. Catrett*, 477 U.S. 317, 322-23 (1986). “In deciding a motion for

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[3] In a motion for “Claim Construction of US Patent No. RE 42,689” (Dkt. No. 483), filed on the same day as Nike’s motion for summary judgment of invalidity, McDavid requested that the court construe the terms “are held” and “holding” in the ‘689 Patent “according to their plain and ordinary meaning which can include holding or being held by excess material.” (Dkt. No. 484, at 12-13.) Nike’s motion for summary judgment of invalidity disputes that construction of the terms “held” and “holding.” (Dkt. No. 456, at 7 & n.3.) After the motions were filed, but not yet briefed, the court, rather than requesting separate briefing on claim construction, instructed the parties that “[i]f there are issues with regard to claim construction . . . you can go ahead and present your material with regard to that [in the briefing on the motion for summary judgment of invalidity] and . . . I will address it within the context of the motion for summary judgment . . . .” (Dkt. No. 513 (“6/26/12 Trans.”), at 5:23-6:6.) In its subsequent briefing on the summary judgment motion, Nike restates its opposition to construing the terms “holding” and “are held” to include using excess material as the holding instrument. (Dkt. No. 514, at 4 n.1; *see also* Dkt. No. 523, at 2 n.1.) Nike does not present any arguments in support of its interpretation, however, so its argument for an alternative construction is waived. Accordingly, the court construes the terms “holding” and “are held” to include using the excess material left after the elements are cut out of the foam to hold the elements in place during bonding. *See Phillips v. AWH Corp.*, 415 F.3d 1303, 1323 (Fed. Cir. 2005) (en banc) (“[A]lthough the specification often describes very specific embodiments of the invention, we have repeatedly warned against confining the claims to those embodiments.”).

summary judgment, '[t]he evidence of the nonmovant is to be believed, and all justifiable inferences are to be drawn in his favor.'" *Boston Scientific Corp. v. Johnson & Johnson*, 647 F.3d 1353, 1361 (Fed. Cir. 2011) (alteration in original) (quoting *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 255 (1986)). "Because issued patents are presumed valid, 35 U.S.C. § 282, a party seeking to invalidate a patent must submit clear and convincing evidence of invalidity." *Id.* Although "'[c]ompliance with the written description requirement is a question of fact,' this issue is 'amenable to summary judgment in cases where no reasonable fact finder could return a verdict for the non-moving party.'" *Atl. Research Mktg. Sys., Inc. v. Troy*, 659 F.3d 1345, 1353 (Fed. Cir. 2011) (alteration in original) (quoting *PowerOasis, Inc. v. T–Mobile USA, Inc.*, 522 F.3d 1299, 1307 (Fed. Cir. 2008)). "Whether a claim satisfies the enablement requirement of 35 U.S.C. § 112, ¶ 1 is a question of law . . . based on underlying facts" and therefore appropriate for determination on summary judgment. *Sitrick v. Dreamworks, LLC*, 516 F.3d 993, 999 (Fed. Cir. 2008).

DISCUSSION

Nike argues that all asserted claims of the '689 Patent are invalid because they fail to comply with the written description and enablement requirements of 35 U.S.C. § 112, ¶ 1, and that they improperly broaden claims more than two years after issuance in violation of 35 U.S.C. § 251. In addition, Nike contends that claims 15, 22, and 26 of the '689 Patent are invalid under the rule against recapture of 35 U.S.C. § 251. Finally, Nike asserts that all asserted claims in both the '346 Patent and the '689 Patent are invalid because the patentee failed to submit a declaration supporting the errors corrected during reissue as required by 37 C.F.R. § 1.175(a)(1). The court will begin by addressing the invalidity of the asserted claims of the '689 Patent under 35 U.S.C. § 112, ¶ 1.

I. Invalidity of the '689 Patent Under 35 U.S.C. § 112, ¶ 1.

A. The Statute and Case Law of Enablement and Written Description

The first paragraph of 35 U.S.C. § 112 provides that for every patent:

> The 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, or with which it is most nearly connected, to make and use the same . . . .

The Federal Circuit has recently reconfirmed that the first paragraph of § 112 contains two separate requirements: a written description requirement and an enablement requirement. *Ariad Pharm., Inc. v. Eli Lilly & Co.*, 598 F.3d 1336, 1344 (Fed. Cir. 2010) (en banc) ("We . . . read the statute to give effect to its language that the specification 'shall contain a written description of the invention' and hold that § 112, first paragraph, contains two separate description requirements: a 'written description [i] of the invention, *and* [ii] of the manner and process of making and using [the invention']." (alteration in original)). The enablement requirement tests whether "one skilled in the art, after reading the specification, could practice the claimed invention without undue experimentation." *Sitrick*, 516 F.3d at 999. By contrast, the written description requirement tests whether "the disclosure of the application relied upon reasonably conveys to those skilled in the art that the inventor had possession of the claimed subject matter as of the filing date." *Ariad Pharm.*, 598 F.3d at 1351. As that language suggests, both requirements test the adequacy of the specification's disclosure of the invention, but they do so in different ways.

First, enablement tests whether the specification provides sufficient information to allow *one of skill in the art* to practice the invention. Because a person of skill in the art already possesses substantial knowledge about the field, the disclosure need not explain the practice of the invention from scratch. *Falko-Gunter Falkner v. Inglis*, 448 F.3d 1357, 1365 (Fed. Cir. 2006) ("'[A] patent need not teach, and preferably omits, what is well known in the art.'" (quoting *Spectra-Physics, Inc.*

v. Coherent, Inc., 827 F.2d 1524, 1534 (Fed. Cir. 1987))); *Atmel Corp. v. Info. Storage Devices, Inc.*, 198 F.3d 1374, 1382 (Fed. Cir. 1999) ("[I]t makes no sense to encumber the specification of a patent with all the knowledge of the past concerning how to make and use the claimed invention."). Instead, to be sufficiently enabling, the disclosure need describe only what is new about the invention in sufficient detail so that one of skill in the art can combine the disclosure with the knowledge already known in the field and have enough information to practice the invention without undue experimentation. *See United States v. Telectronics, Inc.*, 857 F.2d 778, 785 (Fed. Cir. 1988) ("The test of enablement is whether one reasonably skilled in the art could make or use the invention from the disclosures in the patent coupled with information known in the art without undue experimentation."). Accordingly, evidence from outside of the specification about the level of knowledge of a person of skill in the art is directly relevant to the issue of enablement. *Info. Storage Devices*, 198 F.3d at 1382 ("Paragraph 1 permits resort to material outside of the specification in order to satisfy the enablement portion of the statute . . . .").

The focal point of the written description requirement, by contrast, is not the person of skill in the art, but instead the inventor. The ultimate policy interest of the requirement is to ascertain the state of mind of the inventor—specifically, whether "the inventor actually invented the invention claimed"[4] at the time of the application relied upon to establish priority—to ensure that the inventor is entitled to a monopoly over the claimed invention. As in many other contexts,[5] however, the law

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[4] *Ariad Pharm.*, 598 F.3d at 1351.

[5] For example, the law of contracts does not inquire into the contracting parties' subjective mental states to determine if they have actually assented to the formation of a contract, instead inquiring only into whether they have "manifested" assent through their words or actions. *See* Restatement (Second) of Contracts § 17 cmt. c (1981). The analogy is particularly apt to the extent one views a patent as a contract between the government and the inventor. *See Markman v.*

recognizes that it is often difficult to ascertain the subjective state of mind of the inventor. *See Markman*, 52 F.3d at 985 ("No inquiry as to the subjective intent of the applicant or PTO is appropriate or even possible in the context of a patent infringement suit."). Instead of inquiring into the inventor's actual state of mind, therefore, the test simplifies the inquiry by requiring only "an objective inquiry into the four corners of the specification from the perspective of a person of ordinary skill in the art." *Ariad Pharm.*, 598 F.3d at 1351. In other words, the only evidence that can establish the inventor's state of mind is the material that the inventor disclosed in the specification. *See id.* at 1352 ("[I]t is the specification itself that must demonstrate possession."). The written description inquiry thus focuses primarily on the contents of the specification, in contrast to the enablement inquiry's focus on the information in the specification *plus* the background knowledge of a person of skill in the art.

That is not to say that evidence extrinsic to the specification is completely irrelevant to the written description inquiry. To the contrary, the written description inquiry "is a question of fact," the outcome of which "will necessarily vary depending on the context." *Id.* at 1351 (citations omitted). Evidence from outside the specification is thus relevant, for "the level of detail required to satisfy the written description requirement varies depending on the nature and scope of the claims and on the complexity and predictability of the relevant technology." *Id.* While the enablement

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Westview Instruments, Inc., 52 F.3d 967, 984-85 (Fed. Cir. 1995) (en banc) ("The analogy of a patent to a contract may appear to some extent to be an appropriate way of describing the circumstances surrounding the issuance of a patent."), *aff'd*, 517 U.S. 370 (1996). In both cases, of course, the law's disregard for the subjective state of mind of the litigants only extends so far. Just as a contract may be held invalid upon a showing of fraud, a patent may be held unenforceable upon a showing of inequitable conduct, which requires an inquiry into the subjective state of mind of the inventor. *Engel Indus., Inc. v. Lockformer Co.*, 946 F.2d 1528, 1533 (Fed. Cir. 1991) ("A holding of inequitable conduct requires, *inter alia*, proof of intent to deceive or mislead . . . .").

inquiry considers whether the invention is adequately described by the specification *plus* the background knowledge of one skilled in the art, the written description inquiry considers whether the invention is adequately described by the specification *considered in the context of* background information about the invention and the relevant field of technology.

An example will perhaps clarify the practical importance of that difference. Consider a hypothetical method claim added as part of an amendment or reissue application comprising the steps A, B, and C. In the hypothetical claim, steps A and B are novel and unfamiliar to one of skill in the art. Step C, by contrast, is well known. The claim will likely be enabled if the specification describes how to complete steps A and B, even if it does not mention step C, because the hypothetical facts support the finding that a person of skill in the art would understand without undue experimentation that step C must be appended to steps A and B to practice the invention. In other words, the steps described in the specification (A and B) are added to the knowledge that a person of skill in the art would apply to the invention without performing undue experimentation (C) to obtain the scope of enablement (A, B, and C).

By contrast, to satisfy the written description requirement, steps A, B, and C all must appear in the specification to indicate that the inventor actually thought of combining steps A, B, and C. The fact that step C is already well known in the field is context indicating that step C need not be described to the same extent as steps A and B, but the specification must at least sufficiently demonstrate that the inventor conceived of step C as part of the invention. If the specification fails to mention step C at all, the claimed invention will not be adequately described, even if one of skill

in the art could figure out to use step C as part of the invention without undue experimentation.[6] *See Ariad Pharm.*, 598 F.3d at 1348 ("[T]he [written description] analysis compares the claims with the invention disclosed in the specification, and if the claimed invention does not appear in the specification . . . the claim . . . fails regardless [of] whether one of skill in the art could make or use the claimed invention."); *id.* at 1352 ("[R]equiring a written description of the invention plays a vital role in curtailing claims that do not require undue experimentation to make and use, and thus satisfy enablement, but that have not been invented, and thus cannot be described.");*Univ. of Rochester v. G.D. Searle & Co.*, 358 F.3d 916, 921 (Fed. Cir. 2004) (explaining that an invention may be enabled, but not described, "when enablement of a closely related invention A that is both described and enabled would similarly enable an invention B *if* B were described"); *Vas-Cath Inc. v. Mahurkar*, 935 F.2d 1555, 1563-64 (Fed. Cir. 1991) ("The purpose of the 'written description' requirement is broader than to merely explain how to 'make and use'; the applicant must also convey with reasonable clarity to those skilled in the art that, as of the filing date sought, he or she was in possession *of the invention.*").

Because that distinction will not come into play in every case, however, it is plain that "written description and enablement often rise and fall together." *Ariad Pharm.*, 598 F.3d at 1552.

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[6] Note that if the example involved an identical original claim in this situation, the written description requirement would likely be met because "[o]riginal claims are part of the specification and in many cases will satisfy the written description requirement." *Crown Packaging Tech., Inc. v. Ball Metal Beverage Container Corp.*, 635 F.3d 1373, 1380 (Fed. Cir. 2011). Thus, the mere mention of C in the claim itself would likely satisfy the written description requirement. There are nonetheless other situations in which original claims may fail to meet the written description requirement. *See Ariad Pharm.*, 598 F.3d at 1349 ("Although many original claims will satisfy the written description requirement, certain claims may not. For example, a generic claim may define the boundaries of a vast genus of chemical compounds, and yet the question may still remain whether the specification, including original claim language, demonstrates that the applicant has invented species sufficient to support a claim to a genus.").

In the hypothetical example above, the invention would meet both the enablement and written description requirements if the specification explicitly and adequately described all three steps A, B, and C, regardless of the state of the field or the level of knowledge of a person of skill in the art. The first consideration in applying both the law of enablement and written description is therefore to determine whether the specification expressly describes each element of the claimed invention, an analysis to which this court now turns.

B. The Specification of the '689 Patent

An examination of the specification of the '689 Patent, which is identical to the specification of the '325 Patent, reveals that it does not expressly disclose the use of excess material to hold the foam elements in place during bonding to the fabric substrate. It is undisputed that the preferred embodiment of the '689 Patent refers to only the use of the cutter acting as a jig to hold the elements in place during bonding. *See* '689 Patent col.4 ll.23-25 ("[A] cutter which acts as the jig . . . to hold the elements in place while the substrate layer is applied thereto."); *id.* at col.4 ll.42-44 ("It will be appreciated that in this embodiment, the cutter grid acts as a jig, holding the elements in placed [sic], while the substrate layer is applied."). McDavid contends that the court should nonetheless find an express disclosure of the use of excess material to hold the elements in place in the alternative embodiments of the specification.

First, McDavid points to the alternative embodiment disclosing that "[i]f the flexible material is to be cut into large pieces, in particular large irregularly shaped pieces, then these pieces may be assembled into a specially constructed jig to hold them into place before application of the substrate." *Id.* at col.4 ll.43-47; *see also id.* at col.6 ll.6-10 ("If the foam 10 is to be cut into large pieces, in particular large irregularly shaped pieces such as may be suitable for use in an equestrian

jacket, then these pieces may be assembled into a specially constructed jig to hold them into place before application of the fabric substrate 14."). McDavid contends, consistent with the testimony of David Taylor, the inventor of the '689 Patent (Dkt. No. 508 ("Pl.'s SMF") ¶ 5), that the "specially constructed jig" can be made out of the same foam material from which the elements are cut. There are two problems with McDavid's argument. First, the court has already construed the claim term "jig" to be "a device or tool that is *different from the material on which the manufacturing work is performed*." (Dkt. No. 137, at 9 (emphasis added).) A "specially constructed jig" is no different, and so cannot be made out of the excess foam material. Second, even assuming that the specially constructed jig could be made out of foam, it would not be made out of the "excess" foam grid left after the elements are cut from the foam, as McDavid's infringement theories require. Instead, the specification teaches that the jig is "specially constructed," implying that it is put together piece by piece, not left over from the excess foam, which typically would remain in one piece after cutting.

McDavid next argues that dependent claim 4 of the original '325 Patent provides express disclosure of using excess material to hold the foam elements. *See Crown Packaging Tech.*, 635 F.3d at 1380 ("Original claims are part of the specification and in many cases will satisfy the written description requirement."). Dependent claim 4 specifies the method of claim 1 "wherein any excess resilient material located between the plurality of spaced separate elements is retained in the cutter." As McDavid's expert, Glenn Beall, stated in his July 26, 2012, declaration, claim 4 discloses an embodiment in which the elements are "held in place by both the cutter and excess material during the first bonding operation." (Dkt. No. 511 ("Beall Decl.") ¶ 15 (emphasis added).) According to Mr. Beall, that alternative embodiment discloses the use of the excess material to hold the cut elements. Mr. Beall states that the same embodiment is disclosed by two statements in the

specification. (Beall Decl. ¶¶ 11, 14, 21.) The first, in context, reads as follows:

> Advantageously, the resilient sheet is cut into a plurality of separate elements using a cutter which acts as the jig after cutting through the resilient material to hold the elements in place while the substrate layer is applied thereto. Preferably, the cutter is adapted so that said one side of each, now cut, element are [sic] made to stand proud of the surface of the cutter grid. The sheet material may spring back slightly after cutting to accomplish this. *Alternatively, means, such as ejectors, are provided to achieve this effect.*

'689 Patent col.4 ll.24-29 (emphasis added). The second states that "[i]n an alternative method, ejectors are disposed in the cutter grid to eject the elements, leaving any waste material behind in the cutters." *Id.* at col.6 ll.3-5. According to Mr. Beall, both of those statements also disclose the same embodiment in which the elements are held by both the cutter acting as a jig and the excess material.

As Mr. Beall's own statements indicate, however, even in this alternative embodiment, the elements are not held solely by the excess material. (*See* Beall Decl. ¶ 14 ("The excess material thus *assists in* holding the cut elements in position . . . ." (emphasis added)); *id.* ¶ 16 ("[I]n this alternative disclosed embodiment, the excess material surrounds the cut elements and thereby performs the function of holding the elements in place during bonding, *along with the cutter blades.* (emphasis added)).) Common sense, moreover, suggests that the cutter is the actual instrumentality performing the holding function. After cutting the elements from the excess material, the cutter must logically be in between the elements and the excess material. Indeed, Mr. Beall's sketch of the alternative embodiment shows that to be the case. (*See* Beall Decl. ¶ 16.) Moreover, because the cutter must be rigid to perform the cutting function, the cutter can perform the function of holding the elements in place regardless of whether the excess material is on the side of the cutter blade opposite the elements. Even if the excess material remains in the cutter, therefore, the cutter itself

is actually performing the holding function, and the excess material is merely extraneous.

Moreover, Mr. Beall's statement that the alternative embodiment describes the excess material holding the elements during bonding is conclusory, for he does not explain how, in light of the practical difficulties with his statement, the excess material plays any role in holding the elements in place. The court thus need not accept his statement as true for the purpose of summary judgment. *Sitrick*, 516 F.3d at 1001 ("Conclusory expert assertions cannot raise triable issues of material fact on summary judgment."). Accordingly, the court concludes that the specification of the '689 Patent does not expressly describe the use of excess material to hold the elements in place during bonding.

C. Enablement

As described above, however, the asserted claims of the '689 Patent may still be enabled if the knowledge of a person of skill in the art supplies enough of the missing information to make or use the invention without undue experimentation. On that point, Mr. Beall opines that "it was well known in the art to use excess material to hold a workpiece in place during manufacturing." (Beall Decl. ¶ 22; *see also* Pl.'s SMF ¶¶ 6, 10.) In support of that opinion, Mr. Beall points to five different patents and one trade publication, all of which precede the priority date of the '689 Patent, that describe the use of excess material to hold elements after cutting. (Dkt. No. 300, ¶¶ 29-31.) As one patent for a method of toy manufacturing teaches:

> The figure portions with their gates are not separated or removed from waste portions of the sheet immediately after being cut, but several sheets thus cut with the same figure elements and arranged identically are then assembled in face to face relation as shown in Figure 2 and secured together in any suitable way as by adhesive applied to their confronting faces. . . .
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> . . . . By permitting the cut figures to remain unseparated and the waste material to remain in position until after the figure elements have been built up to the

> desired thickness and dried they are held sufficiently rigidly in their initially cut positions so as to insure proper registry of the elements in the several sheets, to prevent warping or distortion in handling and during drying or setting of the adhesive, and to produce in the step product, such as shown in Figure 3, a sufficiently rigid structure to permit further handling and manufacturing operations to be performed thereon without danger of displacing the figure elements from their original relative positions.

U.S. Patent No. 1,839,889 p.2 ll.6-14, 36-51 (filed Apr. 9, 1930). Mr. Beall also states that, because using excess material for holding is common, a person of skill in the art could practice the method of the claims of the '689 Patent after only a few hours of experimentation. (Beall Decl. ¶¶ 28-29.) Viewing those facts in the light most favorable to McDavid, as the court must on summary judgment, the court concludes that a reasonable jury could find that holding elements in place with excess waste material during bonding was well known in the art before the priority date of the '689 Patent. Nike next contends, however, that a person of skill in the art nonetheless would not necessarily be enabled to use the excess material to perform the holding function in this particular context. (Dkt. No. 456, at 6; Dkt. No. 514, at 4-6; Dkt. No. 523, at 4-7.) Specifically, Nike points out that the test is not whether a person of skill in the art would know how to use excess material to hold the elements in the abstract, but instead whether he knows how to use excess material to hold the elements to complete the claim step of "bonding the top and bottom surfaces of compressible elements to the first and second resiliently stretchable fabric substrates while the elements are held in a spaced apart relation with spaces of about 2 mm between the elements."[7] According to Nike,

[7] That language appears in claims 15 and 22 of the '689 Patent. '689 Patent col.7 ll.60-64; col.8 ll.37-41. Nike's argument here applies only to claims 15 and 22 of the '689 Patent, along with their dependent claims. The other independent claims of the '689 Patent, claims 26 and 36, do not include a limitation requiring bonding the "top *and* bottom surfaces" of the elements to the "first *and* second" fabric substrates "*while* the elements are held," but instead provide for bonding only one of the surfaces to one of the substrates to create a "fabric/element combination," and then bonding the second surface to the second substrate in a subsequent step. '689 Patent col.9 ll.5-18, col.10

if that limitation allows excess material to hold the elements, the limitation requires that the excess material hold the elements in place while *both* the top and bottom surfaces are bonded to the two fabric substrates. If that is the case, however, Nike contends that neither the claims nor the rest of the specification disclose how to remove the excess material from between the two substrates. Thus, the excess material will remain between the two fabric substrates after bonding, eliminating the spaces between the elements that are essential to the flexibility of the finished material. Accordingly, Nike argues that using excess material to hold the elements in place during bonding is not enabled.

McDavid responds that the "bonding" limitation in claims 15 and 22 of the '689 Patent does not require the excess material to hold the elements while both the top and bottom surfaces are bonded to the fabric substrates. (Dkt. No. 507, at 6-7; Dkt. No. 522, at 5-8.) Instead, McDavid asserts that the bonding limitation reads on a process in which the excess material holds the elements during bonding of one of the surfaces to one of the fabric substrates. The excess material is then removed prior to bonding the second fabric substrate to the other surface, just as the jig is removed prior to bonding the second substrate in the preferred embodiment. *See* '689 Patent col.4 ll.38-40, col.6 ll.1-2. The elements are still "held" however, because the first fabric substrate holds the elements in place during bonding of the elements to the second fabric substrate. According to McDavid, the "bonding" limitation is therefore enabled.[8]

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ll.16-30. Accordingly, they do not suffer from the alleged lack of enablement of a step bonding both sets of surfaces and substrates at the same time, while the elements are held by excess material.

[8] Although neither party raises the issue, even under McDavid's reading there is an additional question about whether the elements would be bonded while the elements "are held in a spaced apart relation." Previously, the court construed the "bonding" limitation's requirement that the elements "are held in a spaced apart relation" to require empty space between the elements. (Dkt. No. 450, at 7-10.) If the excess material is holding the elements, however, not all of the space between the elements is empty. Nonetheless, the specification plainly discloses and enables a process by which

In essence, the parties disagree over an issue of claim construction. Nike contends that the elements are not "held" unless they are held by the same apparatus while each of the steps in the "bonding" limitation is completed. By contrast, McDavid asserts that "the elements are held" allows different apparatuses to perform the holding function at each step, so long as the elements are always held by something. The court finds McDavid's reading of the bonding limitation more convincing. First, the relevant phrase in the "bonding" limitation is a passive construction without a subject ("the elements are held"). It thus does not explicitly impose any requirements regarding the apparatus that must do the holding. Second, the specification makes plain that the elements need not be held by the same apparatus during bonding of both surfaces to the fabric substrates. *See Phillips*, 415 F.3d at 1315 ("[T]he specification 'is always highly relevant to the claim construction analysis. Usually, it is dispositive; it is the single best guide to the meaning of a disputed term.'" (citation omitted)). Instead, the specification teaches in one embodiment that the cutter is removed prior to bonding the second substrate. *See* '689 Patent col.4 ll.38-40, col.6 ll.1-2. The specification teaches that the elements are nonetheless still held in place because they are already bonded to the first fabric substrate when the cutter is removed. *See id.* col.6 ll.26-29 ("[A]fter the foam cubes bonded to a first layer of fabric have been removed from the cutter, a second layer of fabric is placed over the exposed surface of the elements and pressed with a heated platen to effect a bond."). At no point does the specification teach that the cutter continues to hold the elements in place during bonding of both fabric substrates. Accordingly, the court holds that the "bonding" limitation in claims 15 and

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the top of the elements stand proud of the surrounding jig that holds them in place, thus creating sufficient empty space between the elements to satisfy the bonding limitation. *See* '689 Patent col.4 ll.24-29. The court holds that a person of skill in the art could apply that teaching to a situation in which the excess material holds the elements, so the requirement of spaces between the elements during bonding is enabled in this context.

22 of the '689 Patent allows different apparatuses to hold the elements in place during different phases of the bonding process, so long as the elements are always held. Moreover, if the excess material is the holding instrument, a person of skill in the art would know after reading the specification how to practice those claims by removing the excess material in between the bonding of the first and second fabric substrates. The use of excess material to hold the elements in place during bonding is thus fully enabled, so the court concludes that Nike is not entitled to summary judgment that the '689 Patent is invalid for lack of enablement.

D. Written Description

Unlike the enablement requirement, however, the written description requirement cannot be satisfied merely by plugging any gaps in the specification with the knowledge of one of skill in the art. *See supra* Part 1A. That is because "a description that merely renders the invention obvious does not satisfy the requirement." *Ariad Pharm.*, 598 F.3d at 1352 (citing *Lockwood v. Am. Airlines, Inc.*, 107 F.3d 1565, 1571-72 (Fed. Cir. 1997)). Instead, the specification must provide "sufficient detail that one skilled in the art can clearly conclude that the inventor invented the claimed invention as of the filing date sought." *Lockwood*, 107 F.3d at 1572; *see also id.* at 1571-72 ("Entitlement to a filing date does not extend to subject matter which is not disclosed, but would be obvious over what is expressly disclosed. It extends only to that which is disclosed."). The court has already concluded that the specification of the '689 Patent does not refer to the use of excess material to hold the elements during bonding. *See supra* Part I.B. Thus, even if the use of excess material was obvious to one of skill the art, Mr. Taylor failed to explicitly disclose that he actually invented a process including the use of excess material for holding.

McDavid contends that the written description is nonetheless sufficient because it need not

describe every possible embodiment of the "bonding" limitation, so long as it describes at least one embodiment. (Dkt. No. 507, at 5-7; Dkt. No. 522, at 7-8.) According to McDavid, the specification's description of two embodiments in which a jig holds the elements in place during bonding is sufficient to support all of the claims of the '689 Patent. '689 Patent col. 4 ll.41-44 (cutter acting as a jig); *id.* col.6 l.9 (specially constructed jig). In other words, McDavid argues that the specification supports a broad claim to a genus defined by its function—all methods of holding the elements during bonding—because it explicitly describes two specific ways of performing that holding function. The Federal Circuit explained how to evaluate the written description requirement in such a case in *Ariad*:

> For example, a generic claim may define the boundaries of a vast genus of chemical compounds, and yet the question may still remain whether the specification, including original claim language, demonstrates that the applicant has invented species sufficient to support a claim to a genus. The problem is especially acute with genus claims that use functional language to define the boundaries of a claimed genus. In such a case, the functional claim may simply claim a desired result, and may do so without describing species that achieve that result. But the specification must demonstrate that the applicant has made a generic invention that achieves the claimed result and do so by showing that the applicant has invented species sufficient to support a claim to the functionally-defined genus.[9]

Significantly, although the problem of a broad unsupported genus claim "is particularly acute in the biological arts," *id.* at 1352-53, the Federal Circuit has applied the same standard in other contexts to invalidate generic claims supported by a limited number of specific embodiments. *See,*

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[9] *Ariad Pharm.*, 598 F.3d at 1349. The Federal Circuit made those comments in the context of describing claims that do not satisfy the written description requirement even though they are original claims and thus part of the original specification. *Id.*; *see also supra* note 6. There is no reason, however, that its comments would not also apply to generic amended claims. *See Ariad Pharm.*, 598 F.3d at 1349 ("The written description requirement also ensures that when a patent claims a genus by its function or result, the specification recites sufficient materials to accomplish that function . . . .").

e.g., *Lizardtech, Inc. v. Earth Res. Mapping, Inc.*, 424 F.3d 1336, 1344 (Fed. Cir. 2005) (holding that, in a method for compressing digital images, the disclosure of only one method to achieve a step of the compression does not support a claim that is generic as to the particular method used for that step); *Gentry Gallery, Inc. v. Berkline Corp.*, 134 F.3d 1473, 1475 (Fed. Cir. 1998) (holding that a broad claim allowing the controls on a reclining sofa to be mounted anywhere is not supported by a specification describing only controls mounted on a console); *In re Barker*, 559 F.2d 588, 591 (C.C.P.A. 1977) (holding that a broad claim requiring selecting a backing board having a length at least as long as six shingles is not supported by a specification contemplating only backing boards the length of eight or sixteen shingles). Thus, the Federal Circuit has reiterated the standards for addressing broad genus claims in a recent case involving a computer engineering patent:

> There is no special rule for supporting a genus by the disclosure of a species; so long as disclosure of the species is sufficient to convey to one skilled in the art that the inventor possessed the subject matter of the genus, the genus will be supported by an adequate written description. Whether the genus is supported *vel non* depends upon the state of the art and the nature and breadth of the genus.

Hynix Semiconductor Inc. v. Rambus Inc., 645 F.3d 1336, 1352 (Fed. Cir. 2011) (citation omitted), *cert. denied*, 132 S. Ct. 1540 (2012).

Here, the court holds that McDavid's generic claim to all embodiments in which the "elements are held" is not sufficiently supported by a specification that describes only a jig performing the holding step, because a person of skill in the art would not understand the inventor, Mr. Taylor, to have possessed the broader genus. To be sure, a person of skill in the art would understand from the specification that the inventor possessed the entire genus comprising a jig holding the elements in place. The specification repeatedly teaches the use of a jig to hold the elements in place, and it describes at least two specific jigs that could be used for the purpose. '689

Patent col.4 ll.23-25 (a cutter acting as the jig); *id.* at col.4 ll.42-44 (same); *id.* col.6 l.9 (specially constructed jig).

The specification does not, however, support the broader genus including all possible means of holding the elements. To see why, one must understand the relationship between the two genuses. The narrower jig genus already possesses considerable breadth. The court has defined a jig to be "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." (Dkt. No. 137, at 9; *see also* Dkt. No. 345, at 6-8.) In other words, a "jig" is a device or tool A) that holds and B) that is different from the excess material. The broader claims of the '689 Patent including all means of holding have therefore merely removed "B" from the limitations applicable in the jig genus. In other words, the *only* additional material that the new genus adds is the embodiment in which the excess material holds the elements. Every other device or tool that could possibly hold the elements already falls within the definition of a "jig."

The adequacy of the written description therefore turns on the question of whether the specification would indicate to one of skill in the art that the inventor contemplated, beyond using a jig, that one could use the excess material to hold the elements. The court has already held during claim construction, however, that a person of skill in the art would not have understood a jig to include excess material. (Dkt. No. 137, at 6 ("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."); *see also id.* at 7 (explaining that the available extrinsic evidence, including the testimony of both side's experts,

supports the exclusion of excess material from the definition of a jig).) The specification's description of various jigs to perform the holding step is therefore inadequate. No matter how many different jigs the specification describes, it does not indicate that the inventor thought of using something other than a jig—the excess material—to hold the elements in place.[10]

Moreover, on summary judgment McDavid has not produced any additional evidence indicating that a person of skill in the art would understand from the specification of the '689 Patent that the inventor possessed the use of excess material. (*See* Dkt. No. 507, at 7-9.) First, McDavid presents the testimony of inventor David Taylor indicating that he subjectively considered using excess material as a holding device at the time of his initial patent application. (Pl.'s SMF ¶ 5.) As explained above, however, that evidence is immaterial if Taylor did not also disclose his ideas in the specification, for "the hallmark of written description is disclosure" and "the test requires an objective inquiry into the four corners of the specification from the perspective of a person of ordinary skill in the art." *Ariad Pharm.*, 598 F.3d at 1351; *see also supra* Part I.A. The rest of McDavid's extrinsic evidence relates to showing that one of skill in the art would have been familiar with using excess material to hold elements generally, and to showing that learning how to use excess material in this context would not require undue experimentation. (Dkt. No. 507, at 8-9.) As explained above, *supra* Part I.A, however, that evidence relates only to the enablement standard, and does not affect the court's written description analysis because "a description that merely renders the invention obvious does not satisfy the requirement." *Ariad Pharm.*, 598 F.3d at 1352 (citing

[10] That conclusion is bolstered by the patent office's rejection during prosecution of the '689 Patent of a claim explicitly proposing the use of excess material to hold the elements in place. The examiner found the claim to lack support in the specification because "[n]one of the examples in the originally filed disclosure suggests: bonding . . . while the elements stand proud of a grid of waste material." (Def.'s SMF ¶ 26.)

Lockwood, 107 F.3d at 1571-72). Accordingly, there is no evidence on which a reasonable jury could base a conclusion that the claims of the '689 Patent meet the written description requirement. Thus, the asserted claims of the '689 Patent are enabled, but do not meet the written description requirement.[11] Accordingly, the court concludes that Nike is entitled to summary judgment that the'689 Patent is invalid for lack of a written description under 35 U.S.C. § 112, ¶ 1.[12]

II. Invalidity of the '346 Patent

The only remaining argument that must be addressed is Nike's contention that the '346

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[11] Despite the en banc opinion in *Ariad*, which compels this result, the Federal Circuit remains divided about whether or not cases exist in which, under the standard of *Ariad*, claims are enabled, but the written description requirement is not met. *See Ariad*, 598 F.3d at 1365 (Rader, J., dissenting-in-part and concurring-in-part) (explaining that it will "rarely, if ever" happen that an invention will be enabled but not described, because "'[i]nventors know when they have made an invention and realize that they must properly disclose it or risk losing it entirely'" (quoting *Univ. of Rochester v. G.D. Searle & Co.*, 375 F.3d 1303, 1312 (Fed. Cir. 2004) (Rader, J., dissenting from denial of rehearing en banc))); *id.* at 1368 (Linn, J., dissenting-in-part and concurring-in-part) ("The language that the majority uses to explain 'possession as shown in the disclosure' not only fails to justify a separate test, it also fails to distinguish the test for written description from the requirements for enablement."). On this view, the Federal Circuit significantly altered the written description requirement in its 1997 decision in *Regents of the Univ. of Cal. v. Eli Lilly & Co.*, 119 F.3d 1559 (Fed. Cir. 1997), when it applied the written description requirement to original claims, because "[b]efore 1997, the written description doctrine served only its original and important purpose of policing new matter violations." *Lizardtech, Inc. v. Earth Res. Mapping, Inc.*, 433 F.3d 1373, 1378 (Fed. Cir. 2006) (Rader, J., dissenting from denial of rehearing en banc). Because the claims of the '689 Patent which the court finds invalid today are all amended claims, of course, they would be equally invalid under the standard for the written description requirement the Federal Circuit articulated prior to *Eli Lilly*. *See id.* ("Under the traditional written description doctrine, which was just another name for the new matter doctrine, the 'possession' test was easily applied. It compared an original filing with a later amendment. The 'possession' test also provided a standard for this comparison, namely 'if the original filing "supported" or showed possession of the new matter at the time of the original filing' then no infraction had occurred." (citation omitted)). In any case, *Ariad* defines the law today, and it is irrelevant for present purposes whether or not it articulates the same written description test that the Federal Circuit applied prior to *Eli Lilly*.

[12] In light of that conclusion, the court need not consider Nike's other arguments that the claims of the '689 Patent are invalid.

Patent is invalid because the patentee failed to submit a declaration supporting the errors corrected during reissue as required by 37 C.F.R. § 1.175(a)(1). McDavid asserts that Nike's argument regarding the insufficiency of the declaration is waived because Nike failed to assert that argument in its invalidity contentions. Nike does not dispute that its original invalidity contentions did not assert that argument, but instead argues that it added the contention when the court granted it leave to supplement its invalidity contentions on February 12, 2012. (Dkt. Nos. 437, 446.) The court's order granting leave to amend, however, plainly stated that "[t]he parties may file supplemental or amended infringement, non-infringement, and invalidity contentions *that relate to the '689 Patent*." (Dkt. No. 446 (emphasis added).) At no point did the court grant Nike leave to amend its invalidity contentions with respect to the '346 Patent. Accordingly, Nike's argument that the '346 Patent is invalid because the patentee failed to submit a declaration supporting the errors corrected during reissue is waived.

CONCLUSION

For the reasons explained above, Nike's "Motion for Summary Judgment of Invalidity" (Dkt. No. 454) is granted in part and denied in part. The court grants Nike summary judgment that all asserted claims of the '689 Patent are invalid. The court denies Nike summary judgment that all asserted claims of the '346 Patent are invalid. Accordingly, "Nike's Motion for Summary Judgment of Non-Infringement" (Dkt. No. 462), Nike's "Motion to Strike Plaintiffs' Reply to Nike's Non-infringement Contentions" (Dkt. No. 473), McDavid's "Motion for Summary Judgment of No Invalidity of U.S. Patent No. RE42,689 Under 35 U.S.C. § 251" (Dkt. No. 470), McDavid's "Motion for Summary Judgment of No Invalidity of U.S. Patent No. RE42,689 Under 35 U.S.C. § 112" (Dkt. No. 477), and McDavid's "Motion for Claim Construction of U.S. Patent No. RE42,689" (Dkt. No.

483) are terminated as moot. To the extent any of the mooted motions address issues related to the '346 Patent, they may be refiled. A status hearing is set for 9/27/12.

ENTER:

JAMES F. HOLDERMAN
Chief Judge, United States District Court

Date: September 19, 2012