

United States District Court,
N.D. Illinois, Eastern Division.

SUNCAST CORP,
Plaintiff.

v.
AVON PLASTICS INC,
Defendant.

No. 97C178

Sept. 28, 1999.

MEMORANDUM OPINION AND ORDER

HIBBLER, J.

Plaintiff, Suncast Corporation ("Suncast"), brought this action against defendant, Avon Plastics, Inc. ("Avon"), alleging infringement of its U.S. Patent 5,501,036 (" '036 patent") pursuant to 35 U.S.C. s. 271(a). Avon counterclaimed seeking a declaratory judgment that: 1) Suncast's patent is invalid under 35 U.S.C. s. 102(g) because Avon invented the patented design first; and 2) Suncast's patent is invalid because of Suncast's inequitable conduct. Suncast moves for partial summary judgment on both of Avon's counterclaims. Avon filed a cross motion for summary judgment on non-infringement. For the reasons stated below, the court denies Suncast's motion for partial summary judgment on prior invention and grants Suncast's motion for partial summary judgment on inequitable conduct. The court denies Avon's cross-motion for summary judgment on non-infringement.

I. BACKGROUND FN1

FN1. The court draws the information contained in this section from the parties' summary judgment pleadings. The facts contained in this section have not been disputed unless otherwise specified. For ease of identification and citation, the parties briefs will be referred to as "Pl. Memo. Prior Invention," "Pl. Memo. Inequitable Conduct," "Pl. Memo. Non-Infringement," "Def. Memo. Prior Invention," "Def. Memo. Inequitable Conduct," and "Def. Memo. Non-Infringement." Citations to declarations, 12(M) statements, and 12(N) statements will be similarly identified.

Suncast and Avon both manufacture plastic lawn edging. Homeowners typically use lawn edging to create a barrier between different parts of the landscape and to help restrict the growth of grass and other plants, such as along walkways or flower beds. "[T]he common method of storing lawn edging is by rolling the product into a coil." U.S. Patent No. 5,501,036, at col. 1, lines 41-42. According to Suncast, prior to the introduction of the patent-in-suit, coiled lawn edging was typically packaged in a carton or sheath for shipping and storage. This type of packaging had several disadvantages: 1) the product could not be stored

outside; 2) the product could not be viewed by the customer; 3) the packaging increased production costs; and 4) the packaging led to increased consumer waste.

Suncast asserts that the cartonless lawn edging sold prior to the '036 patent was inferior because it could not be securely stacked and shipped. Suncast's assertion is based on lawn edging that was coiled and secured with "simple banding." The edging was purportedly inferior because the simple banding "[did] not provide for uniform stacking as one side of the coiled product lack[ed] sufficient material for support and [could] lead to dangerous stacking conditions." U.S. Patent No. 5,501,036, at col. 1, lines 46-49. Hence, Suncast and Avon sought to develop a marketable cartonless lawn edging product. That innovation lies at the heart of this controversy.

A. The Patent

Suncast received U.S. patent 5,501,036, entitled "Even-Coil Edging for Cartonless Packaging," for a type of plastic lawn edging that could be securely shipped and stored in coils without the need for a carton. Secure, even coiling was achieved via the anchoring portion of the device which has opposing blades that align and interlock when the edging is coiled. *See* U.S. Patent No. 5,501,036, Abstract. When the edging is uncoiled and inserted into the ground, the opposing blades act as an anchor to keep the edging in place. FN2

FN2. The independent patent claims are quoted and discussed fully below.

Prosecution History

Suncast made an Invention Disclosure for the '036 patent in September 1993. In the disclosure the inventors identified Avon's product, the Master Mark Patio Pack, under the section of the Invention Disclosure entitled "Prior Art- Identify Any Competitive Product, Patent, or Publication Related to Invention." Def. Memo. Inequitable Conduct, Ex. 3, at 2-4. Suncast attached a sales brochure describing the Patio Pack in the disclosure. The brochure included two pictures of lawn edging that coiled without the use of external carton packaging. The photographs showed that the coils were bound by straps. The brochure also indicated that the Patio Pack edging had a symmetrical, triangular anchor. The brochure stated that the product's packaging "is designed to allow the product to be viewed more easily by the consumers, as well as to allow the store to display these products outside," and that the products "are ideal for situations where outside display or storage is a must." Def. 12(N) Response Inequitable Conduct, para. 9. The parties dispute whether these remarks refer to stackability and coil stability. The brochure did not describe any "tongue and groove" interlocking device for securing the coils.

The Master Mark Patio Pack product was commercially available prior to the filing of Suncast's patent application. Suncast purchased a sample of the Patio Pack between 1992 and 1993, prior to writing its Invention Disclosure.

Suncast filed its patent application on December 13, 1993. When Suncast prosecuted the '036 patent it did not submit the Patio Pack brochure to the Patent and Trademark Office ("PTO"). The brochure was not mentioned in the patent or its history. However, Suncast's patent prosecution disclosed a cartonless design that used banding:

Simple banding of the edging does not provide for uniform stacking as one side of the coiled product lacks sufficient material for support and can lead to dangerous stacking conditions. In instances where an

anchoring component is incorporated into the barrier, the anchor can cause a further inequity when the edging device is placed into a coiled state causing the edging to shift or otherwise remain unstable during storage and shipping. In instances where only banding straps are used, the poor support on one side of the edging product prevents safe stacking requiring extra care and material for both storage and shipping.

U.S. Patent No. 5,501,036, col. 1, lines 46-56. Suncoast did not define "simple banding." The parties dispute whether Avon's Patio Pack product used this simple banding and whether it suffered from the same defects that Suncoast described in its patent. Avon claims that Suncoast did not disclose any particular product. Instead, Suncoast described its own failed experiment, in which it tested its own products, not Avon's. Def. 12(N) Response Inequitable Conduct, para. 4.

On December 9, 1994, in its Office Action, the PTO rejected all of Suncoast's patent claims as being anticipated by another patent—the King patent. The King patent was for an underground water piping system. The product was coiled around a reel and enclosed in a carton for storage and shipping. The PTO also rejected Suncoast's claims as unpatentable over King in view of another patent, Wienand. "Wienand teaches a tongue and groove plastic shape which produces a weldment of elements when joined." Def. Memo. Inequitable Conduct, Ex. 7, at 6.

On March 13, 1995, Suncoast amended its application and requested reexamination. Suncoast argued in favor of patentability. Suncoast focused its argument on the cartonless and even-coil/stackability benefits of its invention. Pl. Response to Def. 12(N) Inequitable Conduct, para. 12. It amended claims one through nine to include language stating that the lawn edging could be "stored without external packaging." Def. 12(N) Statement Inequitable Conduct, para. 15.

Suncoast distinguished its product from the King patent by explaining that, unlike the King product, Suncoast's barrier eliminated "packaging by use of the blades which are integrated into a lower portion of a barrier having an upper portion that operates for proper spacing when coiled." Def. Memo. Inequitable Conduct, Ex. 7, at 4. Suncoast distinguished the teachings of Wienand on the basis that Suncoast was not joining dissimilar shapes to accomplish the cartonless coiling. "The primary design factor is the spacing between the upper portion of the barrier so that when the coil is wound, the barrier is spaced apart equally between the top and bottom portion." *Id.*, Ex. 7, at 6. Further, "[u]nique to the Applicant's invention, and to which the patent application is directed, is the ability to ship the device in a coiled fashion without the need for external packaging." *Id.*, Ex. 7, at 5.

The parties dispute the implications of Suncoast's response. Avon argues that Suncoast was stating that its invention was unique because of its cartonless design, even though Suncoast was aware of Avon's cartonless product. Suncoast asserts that its response argued uniqueness based on the cartonless design combined with even-coiling/stackability.

After re-examining Suncoast's application, the PTO withdrew all rejections and allowed all of the amended claims. In the Examiner's Reasons for Allowance, the Examiner stated that "[t]he prior art of record fails to show or suggest a grass edging device that is stored without external packaging and adapted for use adjacent to the border of walks and plant beds ... whereby the grass edging device is stored without external packaging by securing the blade to the receptacle means...." Def. Memo. Inequitable Conduct, Ex. 8, at 3. The PTO issued patent '036 to Suncoast on March 26, 1996.

Avon claims that its Master Mark Patio Pack products were shipped and stored in a cartonless, coiled

fashion. Def. 12(N) Statement Inequitable Conduct, para. 14. Suncast asserts that it had no knowledge of this when it prosecuted its patent. Pl. Response to Def. 12(N) Statement Inequitable Conduct, para. 14. Suncast also argues that Avon's product had a "tendency to coil unevenly and could not be stably stacked." Id. Therefore, it suffered from the same problems as those products that Suncast disclosed in its patent.

B. Avon's Device

Avon manufactures a plastic lawn edging product, U.S. Patent No. 5,519,970 (" '970 patent"), that Suncast alleges infringes claims one and nine of its '036 patent. Avon's patent was issued on May 28, 1996. Like Suncast edging, Avon's lawn edging is designed to be securely stored in coils without external packaging. The '970 patent abstract describes it as follows:

Plastic extruded landscape edging is disclosed which consists of an elongated body member, a top rail member extending, longitudinally along the top portion of the body member and an anchor member extending longitudinally along the bottom portion of the body member and projecting laterally outward from each side thereof. A tongue member is formed on one side of the anchor member and a groove is formed on one side of the anchor member and a groove sized to receive the tongue member is formed in the opposite side of the anchor member, both of which extend longitudinally over its length. The tongue member and groove are mutually engageable when adjacent portions of the edging are disposed in side by side relation, such as when a length of the edging is coiled for packaging purposes, thus retaining the edging in side by side relation.

U.S. Patent 5,519,970. The edging has a symmetrical, triangular anchor. A tongue is formed on one side of the triangle and a groove is formed on the other side. When the edging is coiled these two pieces interlock to secure the coils in place. It is disputed whether the tongue and groove provide anchoring above and beyond the triangular anchor. Avon asserts, based on the '970 patent language and its expert's testing, that only the triangular structure acts as an anchor, not the tongue and groove. Def. 12(M) Statement Non-Infringement, para. 6, 7. Suncast avers that the tongue and groove are available for anchoring because they "extend outwardly from the barrier ... in a nonvertical manner." Suncast relies on the declaration of one of the '036 patent inventors, Vogler, to support this assertion. Vogler avers that Avon's claim is "contrary to the laws of physics" because anything that extends in a nonvertical manner when placed in the ground will interfere with vertical movement. Vogler Decl. Non-Infringement para. 6. The parties also dispute whether the tongue and groove are formed in the triangular structure or in the vertical barrier. Def. 12(M) Statement Non-infringement, para. 9, 10; Pl. 12(N) Statement Non-infringement, para. 9, 10.

Development of Avon's Device

The earliest evidence of Avon's invention is from 1990. Avon produced a letter it wrote to John Sumners, Avon's attorney, on October 15, 1990. The letter discussed the facts surrounding lawn edging and its installation. *See* Pl. Memo. Prior Invention, Ex. 5. Avon's chief executive officer and co-inventor of the accused device, Mark Thomas Reum, testified in his affidavit that the tongue and groove feature was conceived in 1990. Mark Reum Decl. para. 4. The first drawing was made in January 1991 and, Avon contends, it included every feature of Avon's device at issue and the accompanying '970 patent. *See id.* at para. 5. Avon's president, Nick Demuth, testified in his affidavit that he made several drawings of a lawn edging device having an interlocking tongue and groove feature through at least the end of 1993. Def. Memo. Prior Invention, Exs. 9-12, 15-18. Avon sent a 1991 drawing to a toolmaker to make a prototype. Mark Reum testified that the prototype did not meet specification because "[i]t was not detailed enough to function properly." Mark Reum Dep. at 24-25.

Avon asserts that it did eventually produce a sample lawn edging product that could be coiled, but it did not satisfy Avon's quality standards for commercial production. *See* Def. Memo. Prior Invention, Ex. 14; Mark Reum Decl. para. 9. Mark Reum testified that "[f]rom 1992 on [Avon] struggled with tooling to perfect this product." FN3 Mark Reum Dep. at 41. Between June and October 1993, several drawings were made for use by tooling vendors in an attempt to construct working prototypes of the invention. *See* Def. Memo. Prior Invention, Ex. 11, 12, 15, 16, 17, 18; Demuth Decl. Prior Invention para. 5-6. Avon asserts that it was unable to get successful tooling of the design. Avon tested the product by coiling it, *id.* at 111-112, but Mark Reum stated "our downstream tooling let us down in regards to producing a product that looked like the print." FN4 *Id.* at 112. A below-ground tongue and groove product was finally offered for sale in the fall of 1995. Mark Reum Dep. 45, 112-113. The product was perfected in 1996. Mark Reum Dep. at 41.

FN3. The parties dispute the meaning of this testimony.

FN4. Avon's Exhibits 19, 20, and 21 evidencing tooling invoices, time logs of tooling vendors, and patent attorney consultation are inadmissible because Avon failed to authenticate them.

Avon filed an application with the PTO on June 1, 1994 and the '970 patent was issued on May 28, 1996.

II. STANDARD OF REVIEW

Summary judgment is appropriate when "the pleadings, depositions, answers to interrogatories, and admissions on file, together with the affidavits, if any, show that there is no genuine issue as to any material fact and that the moving party is entitled to a judgment as a matter of law." Fed.R.Civ.P. 56. "The burden of establishing entitlement to summary disposition is with the movant, with due consideration to the burden of proof." *Scripps Clinic & Research Found. v. Genetech, Inc.*, 927 F.2d 1565, 1571 (Fed.Cir.1991). The evidence is considered in the light most favorable to the nonmovant and all justifiable inferences are resolved in the nonmovant's favor. *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 255 (1986). However, the nonmovant "must do more than simply show that there is some metaphysical doubt as to the material facts." *Matsushita Elec. Indus. Co., Ltd. v. Zenith Radio Corp.*, 475 U.S. 574, 586 (1986). Rather, the nonmovant must produce "specific facts showing that there is a genuine issue for trial." Fed.R.Civ.P. 56(e).

III. NON-INFRINGEMENT

Suncast asserts that Avon infringes claims 1, 2, 4, 6, and 9 of its '036 patent.FN5 Avon moves for summary judgment on the issue of noninfringement, declaring that its product does not infringe the '036 patent either literally or under the doctrine of equivalents. The plaintiff in a patent infringement case bears the burden of proving by a preponderance of the evidence that every limitation of one or more claims is met by the accused device, either literally or by the doctrine of equivalents. *See Perkin-Elmer Corp. v. Westinghouse Elec. Corp.*, 822 F.2d 1528, 1532-33 (Fed.Cir.1987); *SmithKline Diagnostics, Inc. v. Helena Laboratories Corp.*, 859 F.2d 878, 889 (Fed.Cir.1988). Thus, to defeat Avon's motion, Suncast must show that "the evidence is such that a reasonable jury could return a verdict for [Suncast]." *See Anderson*, 477 U.S. at 248. It is with these principles in mind that the court turns to Avon's motion.

FN5. Claims 2, 4, and 6 depend on independent claim 1. *See* U.S. Patent No. 5,501,036.

The court's infringement analysis involves two steps: 1) construction of the asserted '036 patent claims as a question of law to ascertain their meaning and scope; and 2) comparison of the construed claims to the Avon device as a question of fact. *See Bai v. L & Wings, Inc.*, 160 F.3d 1350, 1353 (Fed.Cir.1998).

A. Claim Construction

In construing a claim, the court must first consider the intrinsic evidence: the claim, the specification, and the prosecution history. *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed.Cir.1996). "Words in a claim are generally given their ordinary and customary meaning...." *Id.* If one of ordinary skill in the art can interpret that evidence unambiguously, the court should look no further. *Id.* at 1583. However, if the intrinsic evidence is ambiguous as to the breadth or meaning of the claim, the court may consider extrinsic evidence, such as expert testimony. *Bell & Howell Document Management Prods. Co. v. Altek Systems*, 132 F.3d 701, 705-06 (Fed.Cir.1997). Extrinsic evidence is excluded generally so as to effect the notice (and reasonable reliance) function of patent law. To learn what has been removed from the public domain, the public must look solely to the language of the patent, the specification, and the prosecution history, so courts should do the same. *Vitronics*, 90 F.3d at 1583.

For purposes of the current summary judgment motion, the parties contest the interpretation of several key elements of claims one and nine of the '036 patent. Claim One states:

A grass edging device that is stored without external packaging and adapted for use adjacent borders of walks and plant beds comprising:

a length of flexible plastic material having a longitudinally extending upper body portion and a vertical barrier of nominal thickness depending therefrom, said vertical barrier having a blade extending perpendicular to a side surface of said barrier along a bottom portion thereof and a receptacle means disposed on an opposite side surface of said barrier for use when said device is placed into a coiled position whereby said grass edging device is stored without external packaging by securing said blade to said receptacle means, said blade and receptacle means are available for anchoring said device to the earth in an uncoiled position.

Claim nine states:

A grass edging device that is stored without external packaging and adapted for use adjacent borders of walks and plant beds comprising:

a length of flexible extruded thermoplastic having a longitudinally extending body portion defining a circular transverse cross section along an upper portion thereof and a vertical barrier depending therefrom with a first outwardly extending blade disposed on a first side of said barrier and a second and third spaced apart outwardly extending blade disposed on a second side of said barrier, whereby said device is stored in a coiled position by placement of said first outwardly extending blade in between said second and third blades on said second side for use in maintaining said barrier in a common plane while in a coiled position wherein said blades are available for anchoring said barrier to the earth when said device is uncoiled.

The court will address only the contested elements of these claims.

The claims are open-ended because of the term "comprising" in both preambles, which state: "A grass edging device that is stored without external packaging and adapted for use adjacent borders of walks and plant beds *comprising*" (emphasis added). The term "comprising" "is a term of art used in claim language which means that the named elements are essential, but other elements may be added and still form a construct within the scope of the claim." *Genentech, Inc. v. Chiron Corp.*, 112 F.3d 495, 501 (Fed.Cir.1997) (citations omitted). Avon, therefore, will not escape a finding of infringement merely by adding elements to the patented claims.

Avon first asserts that the "nominal thickness" of the vertical barrier should be read to mean "thin." Suncast did not dispute this language in its response. Avon's interpretation comports with ordinary usage, so the court will accept that interpretation.

Avon next asserts, citing the dictionary and the patent figures, that the term "blade" in claims one and nine must be interpreted to mean a broad, flat structure. Suncast does not quarrel with this interpretation. However, Avon attempts to further limit the definition of "blade" by looking to the specifications and dependent claim seven. The specification states that the blades are approximately one inch and three-quarter inches. *See* U.S. Patent 5,501,036, col. 3, lines 25-32. Suncast disputes this interpretation, arguing that the claim has no width requirement for the blade and that the width requirements described in claim seven cannot limit claim one. The Federal Circuit has consistently stated that limitations appearing in the specification will not be read into the claim. *See Intervet America, Inc. v. Kee-Vet Laboratories, Inc.*, 887 F.2d 1050, 1053 (Fed.Cir.1989). Although the specification can be used to define a term that is already in the claim, *Ethicon Endo-Surgery, Inc. v. United States Surgical Corp.*, 93 F.3d 1572, 1578 (Fed.Cir.1996), Avon's interpretation adds a term, exact width, that extends beyond the limitations of the claim. It is sufficient that one of ordinary skill in the art interprets the word "blade" to mean a broad, flat structure, specifically a shape limitation. The structure could come in a variety of widths and still meet this requirement. Avon's interpretation, requiring a minimal width, unnecessarily limits the claim.

Avon further disputes the interpretation of the phrase "blade extending perpendicular to a side surface of said barrier along a bottom portion thereof" in claim one. Avon contends that this language means that the blade must be attached directly to the side of the vertical barrier and not from a structure attached to the barrier, such as an anchor. Suncast argues that the claim language does not require the blade to be in direct contact with the vertical barrier. Avon avers that this cannot be so because the word "perpendicular" implies a direct connection. The plain meaning of the word "perpendicular" is "standing at right angles to the plane of the horizon: exactly upright" or "being at right angles to a given line or plane." *Webster's Ninth New Collegiate Dictionary* ("Webster's") 876 (1985). By definition an angle is "a corner" or "the figure formed by two lines extending from the same point." *Id.* at 85. Thus, "perpendicular" does imply a connection between the blade and a side surface of the barrier. Avon cites the prosecution history to further support this interpretation. In the prosecution of the patent, Suncast stated that the blade was "integrated into a lower portion of the barrier." Def. Memo. Non-Infringement, Ex. I. "Integrate" means to unite with something else. *Webster's* at 628. Contrary to Suncast's contention, Avon's use of the specification and prosecution history does not add limitations to the claim. Rather, the citations help define terms that are already in the claim, a perfectly acceptable practice according to the Federal Circuit. *Ethicon Endo-Surgery*, 93 F.3d at 1578. Accordingly, one of ordinary skill in the art would interpret "a blade extending perpendicular to a side surface" to mean that the blade was directly connected, at a right angle to one of the barrier's side surfaces.

Avon asserts that the claim also requires the blade to extend from the bottom of the vertical barrier based on the language "along a bottom portion thereof." The claim language does not warrant such a narrow reading.

The figures in the patent even include an alternative embodiment of the edging that does not place the blades at the very bottom of the barrier, but in roughly the bottom third of the vertical barrier. *See* U.S. Patent No. 5,501,036, Fig. 3. Thus, "bottom portion" does not necessitate that the blades be attached at the very bottom or the end of the vertical barrier.

Next Avon asserts that the phrases "outwardly extending blade disposed on a first side of said barrier" in claim one and "a second and third spaced apart outwardly extending blade disposed on a second side of said barrier" in claim nine require a direct connection between the blade and the vertical barrier. Suncast disputes this interpretation, asserting that "outwardly extending" does not require a direct connection. Suncast does not provide an alternative definition of the terms. The claim language does not state "extending from" the barrier. Rather it states, more generally, "outwardly extending" and "disposed on a ... side" of the barrier. "Dispose" means "to arrange" or "to place." *Webster's*, at 365. Thus, the blade is arranged on a side of the barrier, but this does not necessarily mean directly attached. The phrase "outwardly extending" does not imply a connection. "Extend" merely means "reach" or "to stretch out in distance." *Id.* at 439. So the phrase suggests that the blades project away from the barrier. But they do not necessarily originate from the barrier.

Avon looks to the figures in the patent, which show the blades as being in direct contact with the barrier, and the prosecution history, in which Suncast told the PTO that the "blades are integrated into a lower portion of the barrier," to support its interpretation. Def. Memo. Non-Infringement, Ex. I. However, Avon seeks to add an extraneous limitation that is not necessary for the claim language by requiring the blade to extend *from* the barrier. The prosecution history and the specification cannot be used to read limitations into a claim. *See Intervet America, Inc.*, 887 F.2d at 1053. Accordingly, the claim language does not require the blade to extend directly from the barrier.

Finally, the parties contest the significance of the phrase "available for anchoring said device to the earth" in claims one and nine. In claim one, the claim states that the blade and receptacle means are available for anchoring, and in claim nine, the claim states that the first blade extending on one side of the barrier and the second and third blades extending on the other side of the barrier are available for anchoring. Suncast argues that the phrases are part of the "whereby" clause and as such, are not claim limitations.FN6 "Whereby" clauses that merely describe characteristics inherent in the claimed invention generally do not limit a claim. *See Texas Instruments, Inc. v. U.S. International Trade Comm'n*, 988 F.2d 1165, 1171-72 (Fed.Cir.1993). However, Avon avers that the anchoring characteristic is not inherent in the claimed invention because a structure could meet the limitations of claims one or nine and yet still not provide any anchoring. Avon does not explain how this could be true. Instead, Avon asserts that Suncast added the language after its claims were initially rejected and further contends that the Patent Office Examiner relied on, *inter alia*, the presence of an anchoring limitation in his reasons for granting the patent. Def. Memo. Non-Infringement, Ex. J. Avon's argument sheds no light on the dispute because the Examiner's memorandum documenting his reasons for allowing the patent describe the invention's anchoring ability in a "whereby" clause as well.FN7 Avon also points to the language of the specification which states that "the opposing blades shown on each embodiment provide uniform anchoring of the device into the earth.... Conversely, the use of opposing blades provides the added benefit of providing equal anchoring support on each side of the barrier so as to lessen the twisting effect." U.S. Patent No. 5,501,036, Col. 3, lines 46-48. Avon also asserts that no other anchoring structure is described.

FN6. The claims state, in part, "whereby said ... blade and receptacle means [or 'said blades' in claim nine] are available for anchoring...." U.S. Patent No. 5,501,536.

FN7. In fact, the Examiner used language very similar to the patented claims. He describes the invention as a grass edging device:
comprising a vertical barrier of nominal thickness having a blade extending perpendicular to a side surface of the barrier along a bottom portion thereof and a receptacle means disposed on an opposite side surface of the barrier for use when the device is placed into a coiled position whereby the grass edging device is stored without external packaging by securing the blade to the receptacle means, the blade and receptacle means for anchoring the device to the earth in an uncoiled position....

Def. Memo. Non-Infringement, Ex. J.

Avon's argument fails to show that the anchoring qualities are not inherent in the structure. The clause at issue merely describes the result of arranging the blade and the vertical barrier as recited in claims one and nine and placing the device in the earth: the blades provide anchoring because they lie perpendicular to the barrier and are covered in earth. Pl. Memo. Non-Infringement, Ex. E, Johnson Depo. at 129-30, 133; id., Ex. C, Vogler Decl. Non-Infringement para. 7. Thus, the anchoring characteristic is inherent to the described structure and the "whereby" clause does not contain any additional limitations.

B. Infringement Analysis

For Suncast to prevail on infringement at trial, Avon's device must contain each claim of the '036 patented invention either literally or equivalently. *See Dawn Equipment Co. v. Kentucky Farms, Inc.*, 140 F.3d 1009, 1014 (Fed.Cir.1998) (citation omitted). These inquiries are extremely fact intensive. Thus, the Federal Circuit cautions that the court "should approach a motion for summary judgment on ... infringement with great care." *Cole v. Kimberly-Clark Corp.*, 102 F.3d 524, 528 (Fed.Cir.1996).

1. Literal Infringement

A device literally infringes a patent claim only if *every* limitation of the construed claim is present in the device. *See Perkin-Elmer*, 822 F.2d at 1532; *Litton Systems Inc. v. Honeywell Inc.*, 140 F.3d 1449, 1454 (Fed.Cir.1998).

Avon first asserts that claims one and nine are not infringed because the tongue and groove structures in the accused device are not "blades" as required by the Suncast patent. According to Avon, the tongue and groove structures are not broad, as required by the claim. As construed, the claims do not have a minimum width requirement. Thus, Suncast insists that the structures infringe the patent. There is a genuine issue of fact as to whether the tongue and groove are "blades" under claims one or nine of the patent.

Avon contends that its device's triangular anchor does not satisfy the "vertical barrier of nominal thickness" requirement because the anchor is not thin and it is not vertical. It is triangular. Thus, Avon claims it is not part of the vertical barrier. Suncast disputes this, but offers little evidence to support a different interpretation. An examination of the Avon edging shows that the anchor is not thin or of nominal thickness. The parties have not provided sufficient evidence to resolve this factual dispute as a matter of law.

Next Avon argues that its device does not infringe claim one of the patent because it does not satisfy the element that requires the blades to be "perpendicular to a side surface of the barrier." The court construed this language to mean that the blade must be attached directly to the barrier. Avon asserts that neither the tongue nor the groove connect directly to the vertical barrier. Rather, they extend from opposing, angled-

sides of the triangular anchor located at the bottom of the vertical barrier. The court cannot resolve this issue as a matter of law because the fact issue regarding whether the triangular anchor constitutes a side surface must first be resolved.

Avon makes a similar argument for noninfringement of claim nine. Avon asserts that its edging does not satisfy the "outwardly extending" element of claim nine because the tongue and groove do not extend directly from the barrier; they extend from the anchor. As construed, claim nine does not require the tongue and groove to outwardly extend *from* the barrier. Rather, the tongue and groove must reach out in that direction. The language does not imply direct connection, as discussed previously. Suncast asserts that the tongue and groove satisfy the "outwardly extending" limitation. According to Suncast, the tongue and groove are placed on opposite sides of the barrier to allow alignment when the device is coiled. Suncast supports its assertion with a physical sample of the accused product. *See* Pl. Memo. Non-Infringement, Ex. A. Other than that, the parties produced little evidence to resolve whether the tongue and groove of the accused device satisfy this limitation as construed. The court cannot determine based on this evidence whether the edging literally infringes claim nine. Hence, an issue of material fact remains.

Avon further asserts that the device does not infringe the patent-in-suit because the tongue and groove are not "available for anchoring." As construed, the claims do not include an anchoring limitation. However, based on the whereby clause, availability for anchoring is an inherent characteristic of the patented device. Thus, that quality might be relevant to our analysis under the doctrine of equivalents as discussed below, but it is not a necessary element for literal infringement.

Avon's motion for summary judgment declaring no literal infringement is denied because of several genuine issues of material fact.

2. Doctrine of Equivalents

Next the court must determine, as a question of fact, whether Avon's device infringes under the doctrine of equivalents. *See Warner-Jenkinson Co. v. Hilton Davis Chem. Co.*, 117 S.Ct. 1040, 1053 (1997). Under this doctrine, even if Avon's device does not literally infringe every element of claims one and nine, it could still be found to infringe the '036 patent if the accused device "performs substantially the same function in substantially the same way to achieve substantially the same result" as the claimed invention. *See Graver Tank & Mfg. Co. v. Linde Air Products Co.*, 339 U.S. 605, 608-609 (1950). The doctrine focuses on the function of a given element in order to prevent competitors from pirating the essence of an invention while narrowly avoiding the literal language of the claims. *See Laitram Corp. v. Cambridge Wire Cloth Co.*, 863 F.2d 855, 856-57 (Fed.Cir.1988). It is intended to prevent a competitor from making merely insubstantial changes, but is not intended to punish legitimate "designing around" the patent claims. *See London v. Carson Pirie Scott & Co.*, 946 F.2d 1534, 1538 (Fed.Cir.1991).

To assess infringement under the doctrine of equivalents, courts apply an "element-by-element analytical framework for infringement." *Litton Systems*, 140 F.3d at 1454. Under this framework, "the doctrine of equivalents must be applied to individual elements of the claim, not to the invention as a whole." *Warner-Jenkinson*, 117 S.Ct. at 1049; *see Litton Systems*, 140 F.3d at 1454. The functional equivalent of every limitation must be found in the accused device or there is no infringement. *Pennwalt Corp. v. Durand-Wayland, Inc.*, 833 F.2d 931, 937 (Fed.Cir.1987).

Essentially, Avon does not dispute that its edging performs the same function and achieves the same results

as Suncast's edging. Instead, Avon disputes that its edging performs the function in substantially the same way. Avon argues that the differences, either individually or collectively, between the Avon product and the Suncast claims are substantial and, therefore, do not support a finding of equivalence. First, Avon argues that the tongue and groove structures are formed in the triangular anchor, not the vertical barrier, and therefore, they do not extend outwardly from or perpendicularly to the vertical barrier as the claims require. Suncast, responds that this is irrelevant to equivalence analysis, since the tongue and groove perform the same function in substantially the same way as the opposing blades described in the '036 patent, that is, they serve to align the coils in a single plane for secure storage and shipping. Accordingly, there is, at the very least, a question of fact as to whether the tongue and groove are equivalent to the opposing blades in the '036 patent.

Second, Avon avers that the Suncast patent requires blades whereas the Avon device uses tongues and grooves that do not qualify as blades. Here, Avon is arguing more from a literal infringement perspective than from the functional perspective required under the doctrine of equivalence. The tongue and groove do not literally have to be blades to infringe the patent, as long as the tongue and groove perform the same function in substantially the same way as the blades. The fact that the tongue and groove are not as broad as the commercial version of the '036 patented device is not dispositive. As discussed above, a reasonable jury could find that the tongue and groove are equivalent to the blade and receptacle means discussed in the '036 patent claims.

Third, Avon asserts that the tongue and groove do not provide anchoring, whereas the '036 patent claims require that the blade and receptacle means serve to anchor the device in the earth. Avon points to the specification and the prosecution history to support its contention that the blade and receptacle means in the patented invention provide the sole means of anchoring the device in the earth. Def. Memo. Non-Infringement, Ex. R; Johnson Decl. Non-Infringement para. 1. In contrast, the Avon product has a triangular anchor and the tongue and groove do not serve as the primary anchor. Avon's expert, Chad Johnson, performed resistance testing on the device and concluded that the structures were not available for anchoring. Johnson compared the force required to remove the accused device from the soil as designed to the force required to remove it when the groove was filled with silicone (or epoxy as Suncast contends) and concluded that there was no appreciable difference. *Id.* Thus, he surmised the tongue and groove were not available for anchoring. *Id.*

Suncast argues that, regardless of the presence of the additional triangular anchor, the tongue and groove are available for anchoring, as required by the patent. Suncast's inventor, Vogler, testified in his affidavit that the Johnson testing was flawed because it did not take into account the anchoring provided by the flat, horizontal surface of the tongue and groove.FN8 Vogler Aff. para. 7. In a summary judgment motion, it is not appropriate for the court to weigh conflicting evidence, *see Pfaff v. Wells Elecs., Inc.*, 5 F.3d 514, 519 (Fed.Cir.1993), and in general a "district court should approach a motion for summary judgment on the fact issue of infringement with great care." *Cole*, 102 F.3d at 528. On consideration of the evidence and the pleadings, several issues of material fact persist as to infringement of claims one and nine. Consequently, summary judgment as to noninfringement under the doctrine of equivalents is denied.

FN8. Avon's challenge to the Vogler testimony as inadmissible scientific testimony is overruled. Vogler's opinion was supported by personal knowledge of the Avon and Suncast products and an analysis of Johnson's testimony.

IV. INVALIDITY OF THE '036 PATENT

Avon seeks to have Suncast's patent declared invalid because of inequitable conduct and prior invention. Suncast's patent enjoys a statutory presumption of validity. 35 U.S.C. s. 282. Therefore, Avon, as the party alleging invalidity, must prove invalidity by clear and convincing evidence. *Bausch & Lomb, Inc. v. Barnes-Hind/Hydrocurve, Inc.*, 796 F.2d 443, 446 (Fed.Cir.1986); *RCA Corp. v. Applied Digital Data Sys. Inc.*, 730 F.2d 1440, 1444 (Fed.Cir.1984). "Clear and convincing evidence is evidence that produces an abiding conviction that the truth of a factual contention is highly probable." *Recycling Sciences International Inc., v. Gencor Industries, Inc.*, No. 95 C 736, 95 C 4422, 1999 WL 160060,*3 (N.D.Ill. March 12, 1999) (*citing* *Buildex Inc. v. Kason Indus., Inc.*, 849 F.2d 1461, 1463 (Fed.Cir.1988) (citations omitted). However, Avon need not prove its case to survive summary judgment. It need only present sufficient evidence to raise a genuine issue of fact as to whether there was inequitable conduct or prior invention. *See generally Anderson, supra.*

A. Inequitable Conduct

Suncast moves for partial summary judgment on Avon's inequitable conduct counterclaim. Avon alleges inequitable conduct in that Suncast failed to disclose prior art, *i.e.*, a brochure that described Avon's "Patio Pack" lawn edging product, during Suncast's prosecution of the '036 patent. The Patio Pack brochure disclosed a lawn edging product that did not require external packaging. Bands held the lawn edging in coils for shipping and storage. Avon contends that the Patio Pack was the only prior art known to be cartonless. Avon argues that by failing to disclose this brochure, Suncast was able to assert to the PTO that its product was uniquely cartonless.

By charging inequitable conduct, Avon essentially alleges that Suncast procured the patent in issue by fraud upon the PTO. Avon alleges that Suncast violated the duty of candor imposed on patent applicants by the PTO. The duty of candor requires Suncast to provide the examiner with any information that it knows is material to the prosecution of the '036 patent. 37 C.F.R. s. 1.56 (1999).

If proven, inequitable conduct renders the Suncast patent invalid and, consequently, extinguishes any claims of infringement. *See, e.g., Ever-Wear, Inc. v. Wieboldt Stores, Inc.*, 427 F.2d 373, 376 (7th Cir.1970) (invalid patents cannot be infringed). This is a severe remedy and, accordingly, the claim must be supported by clear and convincing evidence. *Fox Indus., Inc. v. Structural Preservation Systems, Inc.*, 922 F.2d 801, 803 (Fed.Cir.1990); *FMC Corp. v. Manitowic Co., Inc.*, 835 F.2d 1411, 1415 (Fed.Cir.1987). More specifically, "one who alleges a 'failure to disclose' form of inequitable conduct must offer clear and convincing proof of: (1) prior art or information that is material; (2) knowledge chargeable to applicant of that prior art or information and of its materiality; and (3) failure of the applicant to disclose the art or information resulting from an intent to mislead the PTO." *Molins PLC v. Textron, Inc.*, 48 F.3d 1172, 1178 (Fed.Cir.1995) (*citing* *FMC Corp. v. Manitowoc Co.*, 835 F.2d 1411, 1415 (Fed.Cir.1987). Allegations of withholding information must meet thresholds of materiality and intent, which are both factual issues. *Halliburton Co. v. Schlumberger Tech. Corp.*, 925 F.2d 1435, 1439 (Fed.Cir.1991). Once they are established, the court must balance these elements to determine whether inequitable conduct took place. *J.P. Stevens & Co. v. Lex Tex Ltd.*, 747 F.2d 1553, 1560 (Fed.Cir.1984). Accordingly, Avon must show that the Patio Pack brochure was material to the '036 patent prosecution and that Suncast intended to deceive the PTO by not including it in its submission.

The issue of inequitable conduct is not amenable to summary judgment if the facts of materiality or intent

are reasonably disputed. *KangaROOS U.S.A., Inc. v. Caldor, Inc.*, 778 F.2d 1571, 1577 (Fed.Cir.1985).

1. Materiality

It is undisputed that Suncast was aware of the Patio Pack as prior art. Suncast included the Patio Pack in its Invention Disclosure but did not include it in its application to the PTO. Thus, the question is whether the disclosure of the Patio Pack as prior art was material information. The regulations provide that:

[I]nformation is material to patentability when it is not cumulative to information already of record or being made of record in the application, and

(1) It establishes, by itself or in combination with other information, a prima facie case of unpatentability of a claim; or

(2) It refutes, or is inconsistent with, a position the applicant takes in:

(i) Opposing an argument of unpatentability relied on by the Office, or

(ii) Asserting an argument of patentability.

37 C.F.R. s. 1.56(b) (1993); *Molins*, 48 F.3d at 1179, n. 8 (materiality rule became applicable to patent activities occurring after March 16, 1992). A long line of Federal Circuit case law supplements these regulations. The Federal Circuit held:

information is 'material' when there is a substantial likelihood that a reasonable examiner would have considered the information important in deciding whether to allow the application to issue as a patent. However, an otherwise material reference need not be disclosed if it is merely cumulative of or less material than other references already disclosed.

Elk Corp. of Dallas v. GAF Building Materials Corp., 168 F.3d 28, 31 (Fed.Cir.1999) (internal and external citations omitted); *see also Scripps Clinic & Research Foundation v. Genentech, Inc.*, 927 F.2d 1565, 1582 (Fed.Cir.1991) (references that are cumulative to those included in the patent application are not material).

Suncast contends that it did not include the Patio Pack as prior art in its submission to the PTO because it was cumulative and thus, not material. FN9 According to Suncast, the application disclosed simple banded edging, like the Patio Pack, and its drawbacks that the Suncast invention overcame. Thus, Suncast asserts, including the Patio Pack brochure would have been redundant. The '036 patent disclosed the following:

FN9. Suncast also asserts that the inclusion of the Patio Pack in the Invention Disclosure has no legal significance because the Invention Disclosure had a broader definition of prior art in that it defined prior art as "any competitive product, patent, or publication related to invention." When Avon questioned Suncast's inventor, Vogler, about this in his deposition Vogler testified that he did not know why the Patio Pack was not discussed in the patent application. Def. Memo. Inequitable Conduct, Ex. 2, at 124. In its defense, Suncast explained that Vogler was not a lawyer and did not know the significance of the decision to withhold the direct Patio Pack reference from the patent application. This dispute sheds little light on the question whether the Patio Pack disclosure would have been cumulative. It merely shows that Suncast knew of the prior art but it does not indicate whether or not Suncast properly withheld it.

Simple banding of the edging does not provide for uniform stacking as one side of the coiled product lacks sufficient material for support and can lead to dangerous stacking conditions. In instances where an anchoring component is incorporated into the barrier, the anchor can cause a further inequity when the edging device is placed into a coiled state causing the edging to shift or otherwise remain unstable during storage and shipping. In instances where only banding straps are used, the poor support on one side of the edging product prevents safe stacking requiring extra care and material for both storage and shipping. Thus, current practice is to use a corrugated carton or the like sleeve to prevent uncoiling as well as provide the necessary support storage required for stacking purposes.

U.S. Patent No. 5,501,036, col. 1, lines 46-56. Suncoast asserts that this disclosure of prior art encompasses the Patio Pack product because the Patio Pack had the same characteristics and problems as the disclosed prior art.

The Patio Pack's materiality rides on whether it fits within Suncoast's description of prior art, *i.e.*, could it be safely stacked and shipped without a carton? If the Patio Pack could not be safely stacked and shipped without a carton, it fits squarely within the disclosure of prior art. In that case, including a description of the Patio Pack would have been cumulative. *See* *Scripps Clinic*, 927 F.2d at 1582.

Avon argues that Suncoast's disclosure of prior art does not cover the Patio Pack. First, Avon claims that it does not know that Suncoast meant by "simple banding." Avon's claim is disingenuous. Avon referred to the same technique in its '970 patent, but it simply referred to the practice as "tying ... at a plurality of points." The reference to simple banding is not ambiguous.

Second, Avon attempts to distinguish the Patio Pack from the disclosed prior art based on the shape of the Patio Pack's anchor. Avon asserts that the '036 patent disclosure referred to products that have an anchoring component only on one side of the vertical barrier that creates inequity when the edging is coiled. In contrast, the Patio Pack has a symmetrical, triangular anchor that does not fall within the description of an asymmetrical anchor that would suffer from "poor support on one side." Thus, Avon contends the Patio Pack is dissimilar to the described prior art. Although Avon points to these differences in the anchors, Avon tellingly does not argue that its product did not suffer from the same problems. Rather, Avon argues that Suncoast did no testing on the product to determine if it did indeed suffer from instability. Suncoast claims that it did examine the Patio Pack and found that its coils did not create an even surface to allow stacking. *See* Pl. Inequitable Conduct Reply Memo., Ex. F, at 135. Although it could have easily done so, Avon produced no evidence to indicate that the Patio Pack could be securely and safely stacked and shipped without a carton. Thus, Avon has produced no evidence to suggest that the Patio Pack would refute or be inconsistent with the position Suncoast took in its patent prosecution.

To bolster its claim, Avon points to Suncoast's response to the Office Action. Initially the examiner rejected all of Suncoast's claims. Suncoast then amended each of its claims to indicate that no external packaging was required. Suncoast argued that its invention was patentable, in part, because "[u]nique to the Applicant's invention, and to which the patent application is directed, is the ability to ship the device in a coiled fashion without the need for external packaging." Def. Memo. Inequitable Conduct, Ex. 7, at 5. Avon asserts that this was a misrepresentation because the Patio Pack brochure directly contradicts the statement. Thus, Suncoast could not have made the uniqueness argument if the brochure had been disclosed. Avon points to the patent language- "[t]hus, the current practice is to use a corrugated carton"-as evidence of Suncoast's intent to lead the PTO examiner into believing that cartonless packaging was not prior art.

According to Suncast, it is the combination of cartonless packaging and stability/stackability features that make the Suncast invention unique, not simply the cartonless packaging. The claimed invention achieves its stability and stackability features with the tongue and groove design. In contrast, Suncast contends, the Patio Pack does not have a tongue and groove and its brochure makes no mention of the stability or stackability benefits of the design. The brochure teaches only that banding can be used instead of corrugated sheaths, but it does not discuss how stability and stackability can be achieved, the key elements of the '036 patent. Thus, Suncast argues, the Patio Pack is not material, and there is no evidence that it would have been precluded from making its arguments for patentability if the Patio Pack had been disclosed to the PTO. Although Avon argues that the brochure did address stackability and stability, the court sees no reference to either of these qualities in the Patio Pack brochure.FN10 Thus, there is not a substantial likelihood that a reasonable patent examiner would find the disclosure of the Patio Pack brochure to be important in analyzing the patent application. *See Elk Corp. of Dallas*, 168 F.3d at 31.

FN10. The brochure states:

This packaging is designed to allow the product to be viewed more easily by the consumers, as well as to allow the store to display these products outside.... These products are ideal for situations where outside display or storage is a must.

Def. Memo. Inequitable Conduct, Ex. 3, at 4; Def. Inequitable Conduct 12(N) Response, para. 9.

Avon goes to great lengths to poke holes in Suncast's description of prior art but Avon offers no evidence to show that the description did not encompass the Patio Pack. In fact, Avon's own statements in support of its '970 patent describe the prior art in much the same way that Suncast did. Avon made substantially similar statements regarding the problems with simple banded-edging, including those with symmetrical anchors.FN11 In the '970 patent Avon essentially admits that the Patio Pack product had the same problems that Suncast described in its '036 patent application in relation to simple banding. Avon made no mention of the Patio Pack in its cartonless lawn edging patent application.

FN11. In the '970 patent Avon asserted that:

[T]he irregular cross-sectional profile of virtually all landscape edging is inherently problematic in attempting to maintain the material in a compact coil, and the problem is compounded with the relatively large circular top rail and relatively large triangular anchoring member. This profile does not lend itself to coil or strip packaging that relies on a stable interrelationship between adjacent portions of the edging.

* * *

In view of this, the customary approach to packaging landscape edging is in coils of predetermined length that are sheathed in cardboard....

Tying the formed coil at a plurality of points would be far less expensive from both the standpoints of materials and labor, but for the reasons discussed above the instability of the coil does not lend itself to such packaging.

U.S. Patent No. 5,519,970, at col. 2, lines 43-54, 54-65.

Avon argues that the '970 patent is irrelevant because Avon did not assert uniqueness based on cartonless packaging. Avon misses the point. The evidence is not relevant based on the arguments made in the '970 patent, but rather to confirm that Suncast was indeed correct when it asserted that prior art using banding, including the Patio Pack, suffered from instability. On this point, the '970 patent is highly probative as to materiality of the Patio Pack. It suggests that the most pertinent prior art in the field was before the

examiner, despite Avon's contentions. *See Halliburton Co. v. Schlumberger Tech. Corp.*, 925 F.2d 1435, 1440 (Fed.Cir.1991) (prior art was not material when it was less pertinent than cited art or cumulative).

As the party asserting inequitable conduct, Avon must come forward at summary judgment with evidence that the undisclosed information was material. *See Matsushita Elec. Indus. Co., Ltd.*, 475 U.S. at 586 (the nonmovant "must do more than simply show that there is some metaphysical doubt as to the material facts"). Mere arguments will not suffice. Avon has not come forward with evidence to meet the threshold level of materiality. "Although the premises of inequitable conduct require findings based on all the evidence, a procedure that may preclude summary determination, a motion for summary judgment may be granted when, drawing all reasonable factual inferences in favor of the non-movant, the evidence is such that the non-movant can not prevail." *ATD Corp. v. Lydall, Inc.*, 159 F.3d 534, 547 (Fed.Cir.1998) (internal citation omitted). Based on the evidence and reasonable inferences in Avon's favor, the court concludes that the Patio Pack was not material prior art because it was cumulative to prior art already considered by the PTO. Thus, no duty to disclose arose. Accordingly, Suncast's motion for summary judgment on inequitable conduct is granted.

2. Intent

In addition to establishing the materiality of the brochure, Avon must prove that Suncast intended to mislead or deceive the PTO. "Direct proof of wrongful intent is rarely available but may be inferred from clear and convincing evidence of the surrounding circumstances." *Labounty Manufacturing Inc. v. United States International Trade Commission*, 958 F.2d 1066, 1076 (Fed.Cir.1992). Intent is most often proven "by a showing of the acts, the natural consequences of which are presumably intended by the actor." *Molins*, 48 F.3d at 1180 (citation omitted). A review of the evidence, including that of good faith, must indicate sufficient culpability of Suncast. *Baxter Int'l, Inc. v. McGaw Inc.*, 149 F.3d 1321, 1329 (Fed.Cir.1998). In particular, at the summary judgment stage, the court must decide "whether the evidence respecting culpable intent makes the fact reasonably inferable either way, or whether the evidence is so one-sided that the factual issue of intent may be decided as a matter of law." *Paragon Podatry Laboratory, Inc. v. KLM Laboratories, Inc.*, 984 F.2d 1182, 1190 (F.3d Cir.1993) (citation omitted). At this stage of the proceedings, Avon has to provide enough evidence of Suncast's deceptive intent to show that a genuine dispute of material fact exists for resolution at trial.

Avon claims that Suncast intended to deceive the PTO by withholding the Patio Pack brochure and asserting to the PTO that its product was uniquely cartonless when it knew that the Patio Pack edging was cartonless. To support its claim, Avon points to Suncast's response to the Office Action. Initially the examiner rejected all of Suncast's claims. Suncast then amended each of its claims to indicate that no external packaging was required. Suncast argued that its invention was patentable, in part, because "[u]nique to the Applicant's invention, and to which the patent application is directed, is the ability to ship the device in a coiled fashion without the need for external packaging." Def. Memo, *Inequitable Conduct*, Ex. 7, at 5. Avon asserts that this was a misrepresentation because the Patio Pack brochure directly contradicts the statement. Thus, Suncast could not have made the uniqueness argument if the brochure had been disclosed. Avon points to the patent language-"[t]hus, the current practice is to use a corrugated carton"-as evidence of Suncast's intent to lead the PTO examiner into believing that cartonless packaging was not prior art. In *LaBounty*, the Federal Circuit held that culpable intent could be inferred where the patentee withheld prior art and made arguments that could not have been made if the art had been disclosed. *LaBounty*, 958 F.2d at 1076. The same inference could be made here because Suncast's statement suggests that cartonless edging was not then being marketed.

Suncast was aware of the Patio Pack as prior art. Vogler testified that he was aware of the cartonless Patio Pack product by September 28, 1993 and that he had purchased a sample of it some time between 1992 and 1993. Def. Memo Inequitable Conduct., Ex. 2, at 122, 135. Vogler also testified that his co-inventor was aware that the Patio Pack was being used and shown or sold to people. *Id.*, Ex. 2, at 85. Suncast also circulated internal memoranda that identified the Patio Pack as a cartonless product. *See* Def. Memo. Inequitable Conduct, Ex. 1, at 1, 4. When asked why the brochure was withheld from the patent examiner, Vogler stated "I don't know." Def. Inequitable Conduct Memo., Ex. 2, at 124.

Suncast contends that there was no intent to deceive the Patent Office and that its statements were truthful. Suncast explained that Vogler is not a lawyer and would not necessarily know the legal reasons for not disclosing the brochure. Suncast asserts that this does not amount to evidence of deceptive intent. Moreover, relying on *Akron Polymer Container Corp. v. Exxel Container, Inc.*, 148 F.3d 1380, 1384 (Fed.Cir.1998), Suncast asserts that it disclosed banded edging, like the Patio Pack, in its patent application and, therefore, there can be no intent to mislead or deceive the PTO. In *Akron Polymer*, the Federal Circuit held that a party cannot be held to have intended to deceive the PTO if it disclosed the information to the patent examiner. *Id.* Suncast disclosed banded edging in its application and Suncast asserts that this disclosure encompasses the Patio Pack product. Avon has not argued that the problems Suncast identified in the patent do not apply to the Patio Pack product. Rather, Avon argues that Suncast did no testing on the product to determine if it did indeed suffer from instability. Suncast claims that it did examine the Patio Pack and found that its coils did not create an even surface to allow stacking. *See* Pl. Inequitable Conduct Reply Memo., Ex. F, at 135.

Avon's own statements in support of its '970 patent support Suncast's contention. When Avon filed its patent application six months after Suncast, it made substantially similar statements regarding the problems with simple banded-edging, including those with symmetrical anchors.FN12 Suncast argues that the statements in the '970 patent confirm that the Patio Pack product had the same problems that Suncast disclosed in its '036 patent application in relation to simple banding. Avon replied that the '970 patent is irrelevant because Avon did not assert uniqueness based on cartonless packaging. However, the evidence is not relevant based on the arguments of the '970 patent, but rather to confirm that Suncast was indeed telling the truth when it asserted that the prior art using banding suffered from instability. On this point, the evidence is highly probative as to the good faith of Suncast's disclosure.

FN12. In the '970 patent Avon asserted that:

[T]he irregular cross-sectional profile of virtually all landscape edging is inherently problematic in attempting to maintain the material in a compact coil, and the problem is compounded with the relatively large circular top rail and relatively large triangular anchoring member. This profile does not lend itself to coil or strip packaging that relies on a stable interrelationship between adjacent portions of the edging.

* * *

In view of this, the customary approach to packaging landscape edging is in coils of predetermined length that are sheathed in cardboard....

Tying the formed coil at a plurality of points would be far less expensive from both the standpoints of materials and labor, but for the reasons discussed above the instability of the coil does not lend itself to such packaging.

U.S. Patent No. 5,519,970, at col. 2, lines 43-54, 54-65.

In view of the evidence presented, including evidence demonstrating good faith, the Court finds that Avon

has not produced clear and convincing evidence of intent by Suncast to deceive the PTO. Since Avon must meet thresholds of intent and materiality to establish a prima facie case of inequitable conduct, its claim must fail. Accordingly, Suncast's motion for summary judgment on Avon's inequitable conduct counterclaim is granted.

B. Prior Invention

Avon claims that Suncast's patent is invalid under 35 U.S.C. s. 102(g) because Avon invented the device first. Suncast moves for summary judgment on Avon's claim. The statute states that a person shall be entitled to a patent unless:

(g) before the applicant's invention thereof the invention was made in this country by another who had not abandoned, suppressed, or concealed it. In determining priority of invention there shall be considered not only the respective dates of conception and reduction to practice of the invention, but also the reasonable diligence of one who was first to conceive and last to practice, from a time prior to conception by the other.

35 U.S.C. s. 102(g). Therefore, generally the first person to reduce an invention to practice has priority as the inventor unless another person shows that he or she first conceived the invention and exercised reasonable diligence to achieve actual or constructive reduction to practice. *Hyatt v. Boone*, 146 F.3d 1348, 1351 (Fed.Cir.1998) (citations omitted). "Priority is a question of law which is to be determined based on underlying factual determinations ." *Price v. Symsek*, 988 F.2d 1187, 1190 (Fed.Cir.1993). Thus, the Court will focus on: 1) the dates of conception for Suncast and Avon; 2) the dates of reduction to practice for each; and 3) if Avon was first to conceive, whether Avon exercised reasonable diligence to achieve reduction to practice.

As the first to file a patent application, Suncast was constructively reduced to practice first. *Cooper v. Goldfarb*, 154 F.3d 1321, 1327 (Fed.Cir.1998) (constructive reduction to practice occurs when the patent application is filed). Consequently, Suncast is presumed to be the prior inventor. *Hyatt*, 146 F.3d at 1351. Therefore, at trial, Avon will not succeed under subsection 102(g) unless, viewed under a rule of reason, there is clear and convincing evidence that Avon's invention satisfies the requirements of subsection 102(g). *Thomson, S.A. v. Quixote Corp.*, 166 F.3d 1172, 1175 (Fed.Cir.1999) (*citing* *Price v. Symsek*, 988 F.2d 1187, 1194-95 (Fed.Cir.1993)).

1. Conception

Both parties dispute the date that the other party conceived its invention.

To have conceived of an invention, an inventor must have formed in his or her mind 'a definite and permanent idea of the complete and operative invention, as it is hereafter to be applied in practice.' ... The idea must be 'so clearly defined in the inventor's mind that only ordinary skill would be necessary to reduce the invention to practice, without extensive research or experimentation.'

Mahurkar v. C.R. Bard, Inc., 79 F.3d 1572, 1577 (Fed.Cir.1996) (citations omitted). Conception means a concrete idea, that is "a specific, settled idea, a particular solution to the problem at hand, not just a general goal or research plan that [the inventor] hopes to pursue." *Burroughs Wellcome Co. v. Barr Laboratories, Inc.*, 40 F.3d 1223, 1228 (Fed.Cir.1994) (citations omitted). Furthermore, the idea must include every feature of the claimed invention. *Sewall v. Walters*, 21 F.3d 411, 415 (Fed.Cir.1994). Consequently, an abstract thought or goal is insufficient to show complete conception. This does not mean that the inventor

must know that his or her invention will work. *Id.* Discovering whether the invention works is part of reduction to practice. *Id.* With this in mind, the court reviews each party's evidence of conception.

a. Suncast's Date of Conception

Suncast asserts, based on the Invention Disclosure, that it conceived in October 1992.FN13 *See* Pl. Memo. Prior Invention, Ex. 2. The Invention Disclosure, under the heading "Invention Conceived" states "October 26, 1992 ("Coil Retainer")." *See* Def. Memo. Prior Invention, Ex. 6. Under the heading "First Sketch or Drawing" it states "July 29, 1993 (Cartonless)." *Id.* The disclosure includes a memorandum by C. Torp written on October 26, 1992 that states, in part, "[f]or a longer term solution we should experiment with the 'coil retainer' bead on edging. This feature could also be considered as a means of connecting edging in an overlap area." *Id.* Four inventors signed the disclosure, along with two witnesses that stated the invention was explained to them. The signatures were all dated September 28, 1993. *Id.*

FN13. Alleged conception must be supported by corroborating evidence. *Burroughs*, 40 F.3d at 1230.

Avon disputes Suncast's claimed conception date. According to Avon, the '036 patent requires one blade on one side of the barrier and two blades on the opposite side of the barrier to act as a receptacle to the first blade when the edging is coiled. Avon argues that the device conceived in October 1992 does not include these elements of the '036 patent claims. Avon asserts that the October 1992 device has a bead and a c-shaped receptacle, creating a "tab lock flat coil stay." Def. Memo. Prior Invention, Ex. 2, at 2, 4; *id.*, Ex. 5, at 4. Thus, Avon claims, the device had no blades. Moreover, Avon avers, Suncast specifically disclaimed this type of device from the patent claims when it told the patent examiner that it did not seek to join dissimilar shapes. *See, id.* Ex. 2, at 6.

To support its interpretation, Avon points out that drawings had been made of this tab lock flat coil stay design on October 26, 1992 and November 23, 1992, yet they were not identified in the Invention Disclosure as the first drawings of the claimed invention. *See id.*, Exs. 2, 6. The Invention Disclosure stated that the first drawing of the invention was not made until July 29, 1993. The reason for this, Avon asserts, is that Suncast abandoned the tab lock design. Suncast inventor, Vogler, testified to that effect:

Q: Now, before July of ", did you make any prototypes of the tab lock flat coil stay design?

A: No

* * *

Q: What was the impediment to accurately prototyping the tab lock flat coil stay design?

A: It couldn't be manually modified or created, which all of the others were.

* * *

Q: So it was basically abandoned at that point in time?

A: As is shown on the sketch, that exact representation was abandoned.

Vogler Depo. at 106. Thus, if the tab lock design is excluded conception would not have occurred in October 1992.

Suncast argues that Avon is reading the '036 patent too narrowly because the tab lock design does satisfy the '036 blade requirements. Vogler's testimony supports that view. He states: "In my opinion, the tab lock flat coil stay on Exhibit 3, S 00016, depicts one flat blade coming out one side of the barrier and two blades coming out on the other side." Vogler Depo. at 52. In addition, Suncast points out that Claim One of the '036 patent does not require two blades on the second side. It requires a "receptacle means" and, thus, the c-shaped receptacle could qualify. Nonetheless, Avon produced sufficient evidence to create a jury question as to when Suncast conceived of its design.

b. Avon's Date of Conception

Avon asserts that it conceived its invention as early as October 1990. Avon's CEO and coinventor of the accused device, Mark Thomas Reum, testified that:

Avon conceived a lawn edging product in 1990 having a tongue and groove feature that is located below the soil line when installed.

The 1990 lawn edging product included a tongue and groove feature having a projecting portion and a receiving portion on opposite sides of the anchor member to at least partially retain the edging with adjacent edging portions when coiled in a side-by-side manner, and is illustrated in a January 1991 drawing. (Exhibit 9)

Mark Reum Decl. para. 4, 5. Avon produced several items to corroborate his testimony. Avon produced a letter to its attorney discussing a grass edging design in October 1990 that stated, "A further improvement to the Tri-edge design is a locking groove on the flange edge to maintain a flat coil of edging when 'Wound and Bound' on itself. This facilitates a resistance to telescoping of the coil when tightly 'Wound and Bound'." *See* Def. Memo. Prior Invention, Ex. 23. Avon also produced a drawing from as early as January 1991 to support its alleged conception date. *See* Def. Memo. Prior Invention, Ex. 9. Avon's president, Nick Demuth, testified that he prepared drawings "on various embodiments of the tongue and groove invention through at least the end of 1993." Demuth Decl. Prior Invention para. 4, 5. Avon proffered drawings purportedly drawn in January and April of 1993 that closely track the '970 patent device. Def. Memo. Prior Invention, Ex. 10. Avon also proffered drawings of the tongue and groove structure purportedly drawn in June 1993. Def. Memo. Prior Invention, Exs. 11, 12.

Suncast argues that Avon did not conceive until much later than 1990. Suncast avers that Avon could not make its product work until 1995 or 1996. Suncast relies on the deposition testimony of Avon's co-inventor, Mark Reum. Reum testified:

Q: What was occurring between 1993 and 1995 concerning this product with the tongue and groove below the ground level?

A: From 1992 on we struggled with tooling to perfect this product.

Q: That was finally solved with the product that was manufactured in early 1996?

A: Yes.

* * *

Q: When you would create product from your dies between late 1992 and 1995, what kind of testing would you do at Avon of it, if any?

A: Trying to coil the product.

Q: Anything else?

A: Not that I'm aware of.

Q: Was the reason why you made these changes, then, to the dies between late '92 and '95 because the product would not coil up to your specifications?

A: We lacked the necessary downstream equipment to give us a product that looked like the print [drawing].

Q: What do you mean by that?

A: I can show you very nice examples of prints here that show a carefully defined product that in theory should work, and yet, our downstream tooling let us down in regards to producing a product that looked like the print.

* * *

Q: So when you created dies and then brought a product out of it, it did not look like your drawings or operate like you expected it to operate?

A: Yes.

Q: And you didn't reach a point to having a product that operated like you expected it to operate until late 1995?

A: That's correct.

Q: And by "operate", you're talking about this ability to be coiled; is that correct?

A: Correct.

Mark Reum Dep. at 41, 111-113. Suncast asserts that Mark Reum's testimony clearly means that Avon did not produce a working product until 1995. Avon, on the other hand, asserts that Reum meant that the product did not perform up to commercial production standards until 1995, but that it did work before that time period. He indeed said this in his subsequent declaration. Mark Reum Decl. para. 8-10. Mark Reum stated that a working prototype was produced no later than December 1993 and that it "worked for the intended purpose of positioning the tongue into the groove to coil the lawn edging, however, the tooling

technology available to Avon at that time did not sufficiently satisfy Avon's quality standards to begin production in commercial volumes." *Id.* para. 8.

Suncast attempts to distinguish Avon's other evidence of conception. Suncast asserts that the 1990 Summers letter relates to an abandoned patent application from 1989, but fails to explain why this is relevant to the court's analysis. Additionally, although Suncast asserts that the letter was not directed to the horizontal retention of lawn edging coils, the letter's language directly contradicts this assertion. The letter specifically discussed "a locking groove on the flange edge to maintain a flat coil." *Id.*, Ex. 5. Suncast correctly argues that this description lacks the necessary detail to show conception. However, when considered with the drawings and testimony, Avon has shown a clear idea of the invention that creates an issue of fact regarding when conception occurred. Avon's evidence could support a finding that it conceived prior to Suncast.

2. Reduction to Practice

"To show actual reduction to practice, an inventor must demonstrate that the invention is suitable for its intended purpose." *Mahurkar*, 79 F.3d at 1578 (*citing* *Scott v. Finney*, 34 F.3d 1058, 1061 (Fed.Cir.1994)). Citing the Invention Disclosure, Suncast claims that it reduced to practice on August 11, 1993 when its invention was made and tested. Pl. Memo. Prior Invention, Ex. 2. Thus, Avon must show that it reduced its product to practice prior to that date.

Avon claims it reduced its design to practice in late 1993 when it created a working prototype. *See* Def. Memo. Prior Invention, Ex. 14. Avon asserted that the prototype did not meet its commercial quality standards for production so it continued to refine the device, but that the prototype did suit its intended purpose, *i.e.* it retained coiled lawn edging. *See* Mark Reum Decl. para. 9. "[T]here is no requirement that the invention when tested be in a commercially satisfactory stage of development." *King Instr. Corp. v. Otari Corp.*, 767 F.2d 853, 861 (Fed.Cir.1985) (citation omitted). However, it must work for its intended purpose. *Mahurkar*, 79 F.3d at 1578. Suncast argues that the device did not work at all and cites Mark Reum's deposition testimony, quoted extensively above, in which he states that the device did not operate the way they expected it to until 1995. Mark Reum Dep. at 112-113. Clearly, there is a question of fact as to when Avon actually reduced to practice. Even assuming that Avon's assertion is true, Avon still did not reduce to practice before Suncast and Avon does not contend otherwise. Accordingly, for Avon to prevail on its prior invention claim it must show that it not only conceived first, but that it worked toward reduction to practice with reasonable diligence.

3. Reasonable Diligence

Avon is the junior party because it reduced to practice after Suncast. Assuming Avon is able to prove prior conception, Avon must also show reasonable diligence from the date prior to Suncast's conception date through the date that Avon's design was reduced to practice.FN14 *Hyatt*, 146 F.3d at 1351; *Griffith v. Kanamaru*, 816 F.2d 624, 626 (Fed.Cir.1987). Therefore, the critical period is between July 1993, Suncast's alleged conception date (viewing the facts in the light most favorable to the nonmovant, Avon), and June 1, 1994, the date Avon filed its patent application.

FN14. Reasonable diligence is a question of fact. *Bell Telephone Laboratories, Inc., v. Hughes Aircraft Co.*, 564 F.2d 654, 656 (3d Cir.1977), *cert. denied*, 435 U.S. 924 (1978).

Avon asserts that it diligently worked toward reduction to practice beginning no later than June 9, 1993.

Avon proffered several drawings that illustrated a "projecting portion and a receiving portion on opposite sides of the anchor member to at least partially retain the edging" in coils. Mark Reum Decl. para. 6; Def. Memo. Prior Invention, Exs. 9-12, 15-18. Demuth testified that he made drawings of various embodiments of the tongue and groove design during 1993 and the drawings were used by tooling vendors to create prototypes. Demuth Decl. Prior Invention para. 5, 7. Mark Reum testified that he was actually involved in the development of a purportedly working prototype constructed in late 1993. Mark Reum Decl. para. 8; Def. Memo. Prior Invention, Ex. 14. Avon has produced sufficient evidence to establish a question of fact regarding reasonable diligence through 1993 based on the testimony and the drawings. If actual reduction to practice occurred in December 1993, Avon can establish a prima facie case of prior invention.

If actual reduction is found to have occurred in June 1994, when Avon filed its patent application, Avon will not be able to establish a prima facie case because it has not produced evidence of reasonable diligence between December 1993 and June 1994. *See* Griffith, 816 F.2d at 627-628 (finding three months of inactivity while inventor essentially engaged in commercial development showed lack of diligence). Mark Reum testified that Avon "continued to perfect the invention and pursued more advanced tooling techniques for approximately 2 more years to obtain a successor product capable of being manufactured and shipped in commercial volumes while satisfying Avon's quality standards, at which time a refined product was produced." *Id.* at para. 10. Avon filed the parent patent application for the triangular anchor in September 1993. Avon claims that it then prepared a continuation patent application, amended to include the tongue and groove design beginning at least in October of 1993. Avon contends that it worked from October 1993 to June 1994 to perfect the design and to get the continuation application on file. However, Avon offered little to support this contention. Avon offered only general attorney billing records that are inadmissible because they lack supporting affidavits. Consequently, it is questionable whether Avon can demonstrate diligence between December 1993 and June 1994.

Delays "caused by an inventor's efforts to refine an invention to the most marketable and profitable form have not been accepted as sufficient excuses for inactivity." *Id.* at 627. Avon's own testimony shows that its efforts after the purportedly working prototype produced in December 1993 were directed to making the device commercially marketable, an unacceptable excuse for delay. *See id.* Thus, Avon's claim would fail for lack of diligence.

Even under the clear and convincing evidence standard, there are clearly several material issues of fact as to conception and actual reduction to practice that cannot be resolved here as a matter of law. Consequently, summary judgment is denied as to prior invention.

V. CONCLUSION

For the foregoing reasons, Suncast's motion for partial summary judgment as to inequitable conduct is granted; Suncast's motion for partial summary judgment as to prior invention is denied; and Avon's motion for summary judgment as to non-infringement is denied.

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Suncast Corp. v. Avon Plastics, Inc.

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