

UNITED STATES DISTRICT COURT  
DISTRICT OF SOUTH CAROLINA  
COLUMBIA DIVISION

PURE FISHING, INC., an Iowa Corporation,	)	Civil Action No. 3:10-cv-2140-CMC
	)	
	)	
Plaintiff,	)	OPINION AND ORDER
	)	
v.	)	
	)	
NORMARK CORPORATION, a Minnesota Corporation, d/b/a RAPALA,	)	
	)	
Defendant.	)	

**INTRODUCTION**

‘Plaintiff Pure Fishing, Inc. (“PFI”) is the owner of United States Patent No. 5,749,214 (‘214 patent). The ‘214 patent, in general terms, describes and claims a process for increasing the tenacity of a braided fishing line made from gel spun polyolefin (“GSP”) material, by stretching the braided line under heat. PFI alleges that certain Sufix brand fishing lines sold by Defendant Normark Corporation (“Normark”) are manufactured for Normark by Yao I Fabric Co., Ltd. (“Yao I”) using a process that infringes claims 1, 4, and 5 of PFI’s ‘214 patent. PFI employee Roger Cook is listed as the sole inventor of the ‘214 patent.

Normark filed a motion for summary judgment seeking a ruling that the ‘214 patent is invalid as a matter of law on four grounds:

1. Normark argues that the asserted claims of the ‘214 patent are invalid under 35 U.S.C. § 102(f) because Roger Cook did not invent the subject matter of the patent claims.
2. Normark argues that the asserted claims of the ‘214 patent are invalid under 35 U.S.C. § 102(b), because PFI used the claimed process to make commercial products, referred to by the parties as the 1995 Fireline Fused products, more than one year before it filed the application that led to the ‘214 patent.

3. Normark argues that the asserted claims of the '214 patent are invalid under 35 U.S.C. § 102(b) because AlliedSignal's Canadian Patent No. 1,276,065 ("Dunbar") anticipates the asserted claims.

4. Normark argues that the asserted claims are invalid as obvious under 35 U.S.C. § 103.

Normark also seeks summary judgment on three additional grounds: (1) Normark seeks partial summary judgment of non-infringement, arguing that the accused products manufactured for Normark beginning in June 2010 do not literally infringe the asserted claims; (2) Normark seeks summary judgment on PFI's claim for willful infringement, arguing that Normark has credible defenses and summary judgment is therefore warranted under *In re Seagate Tech., LLC*, 497 F.3d 1360, 1371 (Fed. Cir. 2007) (*en banc*); and (3) Normark seeks summary judgment on PFI's damages claim, asking the court to rule that PFI has no admissible evidence of damages. Normark also moved *in limine* to exclude the testimony of PFI's damages expert, Hugh Penny.

PFI filed two motions for summary judgment. First, PFI seeks partial summary judgment on the question of infringement, arguing that the manufacturing process used by Yao I before June 2010 literally infringed the asserted claims. Second, PFI seeks summary judgment on Normark's inequitable conduct counterclaim, arguing that there are no genuine issues of material fact regarding materiality and intent.

After filing these motions, the parties filed a stipulation that resolved the infringement issues. Dkt. No. 217. The parties' stipulation made moot PFI's motion for partial summary judgment as to infringement, Dkt. No. 216, and also made moot that part of Normark's motion for summary judgment seeking partial summary judgment on the issue of infringement (Part VIII of the "Statement of Facts" and Part VI of the "Argument" sections of Dkt. No. 211-1).

The court grants Normark's motion for summary judgment in part. The court finds that claims 1, 4, and 5 of the '214 patent are invalid as a matter of law for three reasons. First, the asserted claims are invalid under 35 U.S.C. § 102(f), because Roger Cook is not the inventor of the asserted claims. Second, the asserted claims are invalid under 35 U.S.C. § 102(b), because PFI used the claimed process to make the 1995 Fireline Fused products more than one year before it filed the application that led to the '214 patent. Third, the asserted claims are also invalid as obvious under 35 U.S.C. § 103. The court denies Normark's motion for summary judgment that the Dunbar patent anticipates the asserted claims.

Based on these rulings, the court holds that the issue of willful infringement is moot; in the alternative the court holds that Normark is entitled to summary judgment on the issue of willfulness because PFI cannot satisfy the objective prong of the *Seagate* test. The court does not reach Normark's motion for summary judgment on the issue of damages or Normark's motion to exclude the testimony of Hugh Penny, because those motions are moot in light of the court's ruling on invalidity. Finally, the court denies PFI's motion for summary judgment on Normark's inequitable conduct counterclaim.

The court issued an oral ruling via telephone on October 5, 2012. Pursuant to Local Rule 7.10, the court requested that counsel for Normark draft a proposed order, and provided detailed instructions both as to the content and procedures for submission and comment. The court allowed a period for PFI to comment on the proposed order. The court now enters this Order after independent review and consideration of the comments made by the parties.

## STATEMENT OF RELEVANT FACTS

### I. THE PARTIES

PFI is an Iowa corporation with operations in Iowa and South Carolina. PFI was formerly known as Berkley, Inc. Normark is a Minnesota corporation and a subsidiary of Rapala VMC Corporation. In June 2008, Rapala VMC acquired the rights to the Sufix brand from Yao I, and Normark began selling Sufix lines in the United States. Dkt. No. 211-65 at 1, ¶¶ 3-4.

### II. THE FISHING LINE MARKET AND SUPERLINE PRODUCTS

The parties' submissions indicate that there are three categories of fishing line: monofilament, fluorocarbon, and "Superlines." The Superlines are made from very strong materials, either the GSP materials that are a subject of the '214 patent, or Kevlar. The first Superlines were introduced by 1993. Kavesh Exs. 17, 18 (Dkt. Nos. 211-19 and 211-20). That spring, a professional bass fisherman won a tournament using a Superline, creating considerable industry buzz. Kavesh Ex. 18, p. 47 (Dkt. No. 211-20 at 4). By fall 1993, many companies had introduced braided GSP Superlines. *Id.*, p. 50 (Dkt. No. 211-20 at 7); Foote dep. at 11-12, 28-29 (Dkt. No. 211-30 at 3-6).

Most Superlines are made from GSP. Kavesh Exs. 17, 18 (Dkt. Nos. 211-19 and 211-20). AlliedSignal, Inc., now Honeywell International, Inc. ("AlliedSignal"), and DSM (formerly Dutch State Mines) supply the GSP used to make Superlines. AlliedSignal's product is called Spectra, and DSM's is called Dyneema. The 1993 Superlines were very strong, much thinner than comparable monofilaments, and very sensitive (because the material has little stretch, a fisherman can "feel" the fish taking the hook). Kavesh Ex. 18 at pp. 47-48 (Dkt. No. 211-20 at 4-5). SafariLand's Spiderwire product was the early market leader, achieving millions of dollars in sales. van Gorp dep. at 208-09 (Dkt. No. 211-33 at 80-81). PFI had two early Superline products, Gorilla Braid and Ultra Max, and PFI eventually acquired the Spiderwire brand as

well. Meyer 30(b)(6) dep. at 10 (Dkt. No. 211-32 at 3). According to the parties, the 1993 Superlines were not heat stretched after braiding.

PFI introduced its Fireline Fused product (“1995 Fireline Fused”) in 1995. Reynolds Ex. 20 (Dkt. No. 211-45). The 1995 Fireline Fused was “fused”, meaning the braided yarns were at least partially melted together. Normark contends that the 1995 Fireline Fused product invalidates claims 1, 4, and 5, while PFI disputes that contention. According to PFI, it did not introduce a product covered by the ‘214 patent until 1999. Reynolds Ex. 13 (Dkt. No. 211-38). PFI currently sells several brands that are covered by the ‘214 patent. Reynolds Ex. 12, p. 2 (Dkt. No. 211-37 at 3). PFI also sells two braided Superlines that are not heat stretched. Meyer dep. at p. 40-41 (Dkt. No. 211-31 at 3-4).

### **III. THE ‘214 PATENT**

PFI applied for the ‘214 patent on October 4, 1996, and it issued on May 12, 1998. The ‘214 patent claims a process for increasing tenacity in a braided GSP fishing line, by stretching the braided line under heat. “Tenacity” is essentially strength per unit area. The patent states that “DYNEEMA [GSP] yarn can be used to make braided fishing lines exhibiting low stretch as well as high toughness,” but notes that a braid’s strength is not equal to the sum of the strength of the braid’s yarns because of inefficiency introduced by the braiding process:

Braiding, however, introduces its own form of vulnerability into the resulting line because the braid strength is generally not the sum or average of either the individual yarn strengths or the individual filament strengths of the multifilament yarn. One explanation is that most braiding equipment does not impart a uniform load to all yarns or filaments in the braid. The braid pattern inherently leaves gaps between the yarns and filaments, and will lay the yarns in a pattern with a particular relative angle. As stress is applied, filaments with the highest as-braided stress will bear substantial load alone until they either fail or elongate sufficiently for the remaining filaments to contribute to the load-bearing burden. With low stretch materials like the gel spun polyolefins, the most stressed filaments will generally break before

sufficient elongation has occurred to allow the remaining filaments to substantially bear the stress. The result is a reduced efficiency in the strength of the line or a weakened line (due to broken filaments) after stress.

Reynolds Ex. 1, col. 1, l. 48-64 (Dkt. No. 211-26). This efficiency problem is the only one noted by the '214 patent. The patent states that heat stretching the braid addresses this problem by distributing "the load-bearing function more evenly among filaments and yarns in the braid." *Id.*, col. 2, l. 18-19.

The Ryan Patent (U.S. Patent No. 5,351,373) issued two years before the '214 application. Ryan describes heat stretching synthetic fishing lines to address the same efficiency problem described in the '214 patent, and refers to that problem as "translational efficiency." Ryan Col. 1, l. 18-49 (Dkt. No. 211-8). Roger Cook and PFI's expert, Egbert van Gorp, conceded that the Ryan Patent describes using heat stretching to solve the same translational efficiency problems of a braided line described by the '214 patent. Cook dep. at 40-41 (Dkt. No. 211-29 at 18-19); van Gorp dep. at 59-61 (Dkt. No. 211-33 at 7-9).

As noted above, PFI claims that Normark's manufacturer, Yao I, has manufactured certain Suffix fishing line products using a process that infringes Claims 1, 4, and 5 of the '214 patent. These claims recite:

Claim 1: A process for increasing tenacity in a twisted or braided fishing line made of gel spun polyolefin yarns, said process comprising stretching a braided or twisted line of 3-64 gel spun polyolefin yarns, wherein each yarn is within the range from about 20 denier to about 1000 denier, at a temperature within the range from about 110°C. to about 150°C. and at a total draw ratio within the range from about 1.0 to about 2.0.

Claim 4: A process according to claim 1 wherein said stretching comprises stretching said line at a total draw ratio within the range from about 1.05 to about 1.5.

Claim 5: A process according to claim 4 wherein said stretching comprises stretching said line at a total draw ratio within the range from about 1.1 to about 1.4.

#### IV. GLOSSARY OF KEY TERMS

Several terms used in the patent are important to understanding the '214 patent and the issues in this case. Those terms are defined here:

- Break Load Strength (Break Load): The force it takes to break a line. Describing a fishing line as a “20 lb. test line” means it should not break until at least 20 pounds of force is applied. Kavesh ¶ 5 (Dkt. No. 211-2 at 2).
- Denier: The weight in grams of 9000 meters of material. For a given material, the larger the denier, the thicker the line (i.e. the greater the cross-sectional area). Kavesh ¶ 6 (Dkt. No. 211-2 at 2); Reynolds Ex. 1, Col. 3, l. 60 (Dkt. No. 211-26).
- Tenacity: Break load divided by denier, typically expressed as grams per denier (gpd). Kavesh ¶ 7 (Dkt. No. 211-2 at 2); Reynolds Ex. 1, col. 1, l. 62 (Dkt. No. 211-26). Because it is a ratio, stretching can increase tenacity even if break load strength decreases, as long as the denier decreases more than the break load decreases. Kavesh ¶ 7 (Dkt. No. 211-2 at 2).
- Draw Ratio: The '214 patent defines draw ratio as “the ratio of the output velocity to the input velocity of rollers acting on the line.” Normark’s expert, Dr. Sheldon Kavesh, explained that the '214 patent’s definition describes a nominal draw ratio, as it does not take slippage into account; an “effective draw ratio” is the ratio of the denier of the line before drawing to the denier after drawing. Kavesh ¶ 8 (Dkt. No. 211-2 at 2).
- Total Draw Ratio: The product of individual draw ratios in a multi-stage process, which is calculated by multiplying the individual draw ratios. Reynolds Ex. 1, col. 3, l. 58-60 (Dkt. No. 211-26).
- Yarn: Defined by the '214 patent to include “fiber, multifilament assembly, or tow.” Reynolds Ex. 1, col. 3, l. 44-45 (Dkt. No. 211-26). Yarn is also the term AlliedSignal and DSM use to describe their GSP Spectra and Dyneema products. Kavesh ¶ 10 (Dkt. No. 211-2 at 2-3). Each yarn is made up of multiple filaments, which are the smallest units. *Id.*; *see also* Reynolds Ex. 1, col. 3, l. 46 (Dkt. No. 211-26).

## V. THE PRIOR ART

Normark submitted evidence, which PFI did not dispute, establishing that the use of heat stretching to increase tenacity has been known for decades. Kavesh ¶ 11 (Dkt. No. 211-2 at 3). Before PFI's patent, DSM and AlliedSignal used heat stretching to increase tenacity and reduce the denier of their Dyneema and Spectra yarns. Kavesh ¶ 12 (Dkt. No. 211-2 at 3). The use of heat stretching to improve braided structures, including braided fishing lines made from synthetic materials, was also well known before the '214 patent. Kavesh ¶¶ 14-19 (Dkt. No. 211-2 at 3-4). Before the '214 patent, PFI itself heat stretched both its nylon monofilament fishing lines and its braided Dacron fishing lines. Cook dep. at 79-80 (Dkt. No. 211-29 at 25-26); Foote dep. at 54-55 (Dkt. No. 211-30 at 10-11). Two prior art references merit discussion: 1) DSM's Hogenboom patent, and 2) AlliedSignal's Dunbar patent.

### A. DSM's Hogenboom Patent

DSM's Patent No. 5,176,862 ("Hogenboom") issued January 5, 1993. Hogenboom describes heat stretching a GSP rope to increase tenacity. Hogenboom defines "rope" as "rope, cord, cable, string and similar structures." Kavesh Ex. 5, col. 1, l. 10-12 (Dkt. No. 211-7). Hogenboom teaches heat-stretching parameters that are within the ranges claimed by the '214 patent a 140°C temperature and 5-23% elongation percentages. *Id.*, Examples II, III, IV, XI and IX; RC 167-68. Hogenboom's elongation percentages of 5% and 23% are the same as draw ratios of 1.05 and 1.23, and thus are within the scope of the draw ratios claimed in claims 1, 4, and 5 of the '214 patent. Cook dep. at 166-167, 206-07 (Dkt. No. 211-29 at 39-40, 49-50).

Though Hogenboom's teachings are broadly applicable to "string," PFI notes that Hogenboom's examples stretch rope, while the '214 patent claims "fishing line." Hogenboom heat stretched a 425,000 denier rope. Cook dep. at 169-70 (Dkt. No. 211-29 at 42-43). Claim 1 of the '214 patent claims heat stretching a fishing line of up to 64,000 denier.



Cook testified that it would be easier to heat stretch his claimed fishing line than Hogenboom's rope. Cook also testified that, once it is known that one could use heat stretching to increase the tenacity of a rope, the use of heat stretching to increase the tenacity of a braided fishing line is an expected result:

Q. Now, back to this question of Hogenboom's disclosure of stretching the rope and your disclosure of stretching a fishing line, albeit a pretty darn big one. Would you expect there to be any I'm trying to think of the right way to ask this. Using heat to stretch the fishing line is easier than using heat to stretch the rope; right? Because of the heat transfer issue?

A. Yes.

Q. So one would expect once you know that you can heat stretch a rope to increase tenacity that you could heat stretch a braided fishing line to increase tenacity you would expect that; correct?

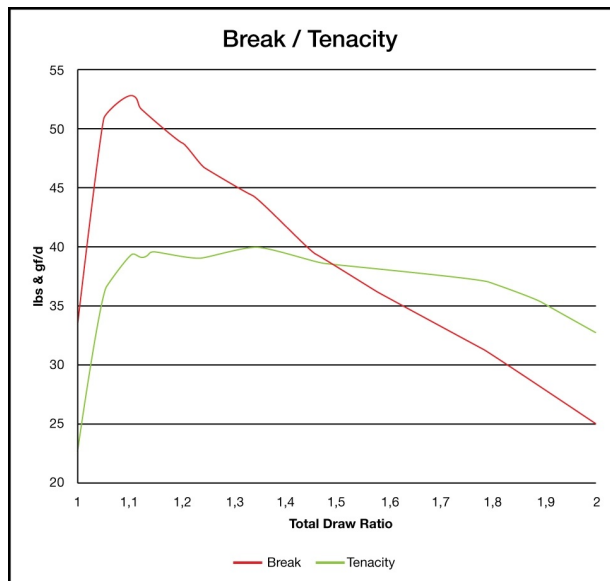
A. Yes.

Cook dep. at 174 (Dkt. No. 211-29 at 44).

PFI's expert, Egbert van Gorp, agrees with Cook regarding Hogenboom, and also agrees that it would be an "expected result" to use heat stretching to increase tenacity. van Gorp dep. at 144-46 (Dkt. No. 211-33 at 55-57), van Gorp dep. at 55-63, 74-75 (Dkt. No. 211-33 at 3-11, 21-22). Van Gorp testified that it was known from Hogenboom (and from the Ryan patent discussed above in Part III) that one could achieve an increased break load, and therefore increase tenacity, by using heat stretching to address braiding inefficiencies. van Gorp dep. at 58-61 (Dkt. No. 211-33 at 6-9). According to van Gorp, this expected result occurs during the early stage of drawing, as the stretching process "pulls" the yarns to more evenly distribute the load. van Gorp dep. at 58 (Dkt. No. 211-33 at 6).

Van Gorp created a graph, based on the '214 patent examples, showing a significant increase in the break load and tenacity up to a draw ratio of between 1.1 and 1.2. Reynolds Ex. 11, p. 2

(Dkt. No. 211-36 at 3); *see* van Gorp dep. at 63-70 (explaining graph) (Dkt. No. 211-33 at 11-18). The graph is reproduced below.



According to van Gorp, the increase in tenacity at this initial stretching stage is an expected result that “everybody skilled in the art knew.” van Gorp dep. at 72-74, 141 (Dkt. No. 211-33 at 19-21, 54).

Van Gorp also testified that, in his opinion, the ‘214’s ability to continue to increase tenacity past that initial stage of drawing was new and not obvious. van Gorp dep. at 76-82, 135 (Dkt. No. 211-33 at 23-29, 53). The ‘214 patent’s claims, however, cover a broad range of draw

ratios, including this initial stage of drawing (including the lowest possible draw ratio, 1.01).

*See* Claim 1.

Van Gorp's testimony on this point is as follows:

Q. In your report on Page 7, this is Exhibit 56 now, I wanted to ask you about the fourth paragraph of the report, and specifically the first sentence you say: In the view of a person skilled in the art at the time the invention was made, it could be expected that also with braided fishing lines, the break load could be increased initially. Do you see that sentence in your report?

A. Yes.

Q. Can you explain to me what you mean by that?

A. Given, for instance, the teaching of the Hogenboom patent, if you have a braided structure, there is you are losing strength in the sense that there is translational efficiency, and by drawing or stretching a braided structure, you therefore can expect that the strength will go up.

Q. And you can expect that tenacity will go up?

A. Because the denier also will go down, it will go up the tenacity will go up.

\* \* \*

Q. And what you are saying is by stretching the braid, this four-yarn braid that we are positing, you could expect to increase the strength of the braid because you are basically pulling some of that inefficiency to distribute the load more evenly across those yarns, correct?

A. Yes.

Q. And that was something that was known before the Cook patent?

A. That is the teaching of the Hogenboom patent also, so, yeah.

van Gorp dep. at 55-59 (Dkt. No. 211-33 at 3-7). Van Gorp also testified that the Ryan patent teaches using heat stretching to increase translational efficiency (and therefore tenacity), explaining that that was an "expected result" true for "any kind of line." van Gorp dep. at 60-63

(Dkt. No. 211-33 at 8-11). Van Gorp further stated that “if you heat stretch a braided structure made of Dyneema, you are going to get an increase in the break load at some initial phase of drawing,” and that this was an “expected result” in light of Hogenboom or Ryan. van Gorp dep. at 74-75 (Dkt. No. 211-33 at 21-22).

**B. AlliedSignal’s Dunbar Patent**

AlliedSignal’s Dunbar patent, which Normark contends anticipates the asserted claims of the ‘214 patent, describes heat stretching braided GSP yarns to increase tenacity. Dunbar’s Example 7 describes heat stretching an 8-yarn GSP braid at 140.5°C, at draw ratios of 1.16-1.33, to increase tenacity by 20-35%. The starting yarn denier is 1190. Kavesh ¶ 21 (Dkt. No. 211-2 at 4-5) and Ex. 7, p. 8-9, 17 (Dkt. No. 211-9 at 11-12, 20).

PFI argues that there are three distinctions between Dunbar Example 7 and claims 1, 4, and 5 of the ‘214 patent. First, PFI notes that the starting denier of the yarns in Example 7 is 1190, greater than the “about 1,000” limitation for the yarns claimed in the ‘214 patent. van Gorp dep. at 125-26 (Dkt. No. 211-33 at 46-47), Cook dep. at 177-79 (Dkt. No. 211-29 at 45-47). Second, PFI argues that the ‘214 patent claims are limited to what its expert calls a “fully-drawn” yarn, which he defines as having a tenacity of 30 gpd or greater. van Gorp dep. at 79 (Dkt. No. 211-33 at 26). Third, PFI argues that the term “fishing line” in claim 1’s preamble is a claim limitation. PFI and its expert further contend that even though Claim 1 describes a 64 yarn by 1000 denier braid, such a braid would not be a “fishing line,” van Gorp dep. at 113 (Dkt. No. 211-33 at 39), and that the “fishing line” of the ‘214 patent claims should be limited to recreational fishing lines with a maximum break load of 250 lbs. van Gorp dep. at 243-46 (Dkt. No. 211-33 at 83-86). Based on that definition, PFI contends that Dunbar’s Example 7 does not result in a “fishing line” and thus differs from the ‘214 patent claims.

With respect to the yarn denier limitation, Normark argues that the claims are not limited to the “starting denier” of the yarn. Normark’s expert Dr. Kavesh testified that Dunbar Example 7 discloses heat stretching with yarn deniers at and below 1000 denier within the parameters of claims 1, 4, and 5, because the yarn denier reduces below 1000 during the process. Kavesh ¶ 23 (Dkt. No. 211-2 at 5-6). PFI and its expert dispute Dr. Kavesh’s argument, arguing that interpreting the ‘214 patent’s claims to reach a process in which yarns are reduced to 1000 denier at any point in the process would distort the meaning of the claims. Dkt. No. 244 at 28-29 (pp. 23-24).

Concerning the “fully-drawn yarns” issue, Normark points out that the ‘214 patent claims and specification do not use the term “fully-drawn yarns.” van Gorp dep. at 85 (Dkt. No. 211-33 at 31). The ‘214 patent also states that the yarns of the invention have “a tenacity of at least 15 g/ denier,” below van Gorp’s “fully-drawn” definition. Reynolds Ex. 1, col. 2, l. 38-39 (Dkt. No. 211-26). Normark notes that Dunbar Example 7’s yarn is similar, as it has a 29 gpd tenacity, Kavesh Ex. 7, p. 17 (Dkt. No. 211-9 at 20), and also notes that Dunbar discloses other yarns with deniers below 1000 and tenacities above 30 gpd, on the same page of the Dunbar patent as Example 7. *Id.* PFI’s expert van Gorp concedes that, if one substitutes one of those yarns, Example 7 would then match the ‘214 patent claims. van Gorp dep. at 129-131 (Dkt. No. 211-33 at 50-52).

Finally, with respect to PFI’s “fishing line” argument, Normark’s primary response is that the claim itself defines the claimed braided line as having up to 64 yarns of up to “about 1,000” denier each. Normark also points to inconsistencies in van Gorp’s testimony and his inability to define specific yarn and denier parameters for the claim. *See* Dkt. No. 211-1 at 15-16, 33 (pp. 9-10, 27).

## **VI. EVIDENCE CONCERNING NORMARK'S ARGUMENT THAT COOK IS NOT THE TRUE INVENTOR**

PFI's interrogatory answers state that Cook conceived the invention claimed in the '214 patent claims at least as early as October 5, 1994. Reynolds Exs. 13-18 (Dkt. Nos. 211-38 through 211-43). In his deposition, Roger Cook testified to the same conception date: October 5, 1994. Cook dep. at 10-11, 32-34 (Dkt. No. 211-29 at 3-4, 12-14).

Cook's notebook corroborates the October 5, 1994 conception date. The notebook has a page labeled "START POST DRAW." The next entry reflects Cook's heat stretching of a Gorilla Braid on October 5, 1994. Reynolds Ex. 26 (Dkt. No. 211-51) and Cook dep. at 33-35 (Dkt. No. 211-29 at 13-15). Cook's October 5, 1994 heat stretching work matches the '214 claims, as his first entry uses a draw ratio of 1.35 and a temperature of 130°C, and notes an increase in tenacity. Reynolds Ex. 26 (Dkt. No. 211-51); Cook dep. at 108-109 (Dkt. No. 211-29 at 36-37). Cook testified that October 5, 1994 was the first time he heat stretched braided GSP lines. Cook dep. at 108-109, 33-35 (Dkt. No. 211-29 at 36-37, 13-15). Cook testified further that his October 5, 1994 notebook entry reflects his "documented record of the first [ ] drawing experiments begun on the super line" and "the date that I began to work on that project and to develop data and information that went into the ['214] patent." Cook dep. at 34 (Dkt. No. 211-29 at 14); *see* Cook dep. at 33-35 (Dkt. No. 211-29 at 13-15).

Normark argues that the evidence shows that this October 5, 1994 conception did not come from Roger Cook. Both DSM and AlliedSignal recommended heat stretching to PFI, and performed heat stretching on PFI's braided fishing lines, before Cook's conception date. According to Normark, Cook's claimed invention was derived from DSM's recommendations to Cook's colleague, Dan Foote. The evidence related to this issue is summarized below.

Roger Cook testified that Dan Foote had responsibility for PFI's Superline products in 1994. Cook dep. at 64, 95-96 (Dkt. No. 211-29 at 24, 29-30). At that time, Foote was the main person working to improve PFI's Superline products, and Cook's work focused on coatings and assisting Foote with some ideas about heat relaxation, a process distinct from heat drawing.<sup>1</sup> Cook dep. at 95-96 (Dkt. No. 211-29 at 29-30).

Foote set up a meeting with AlliedSignal for August 18, 1994, to discuss supply and get technical information from AlliedSignal about improving PFI's Superline products. Foote dep. at 84-86, 92-93 (Dkt. No. 211-30 at 28-33); Kavesh Ex. 19 (Dkt. No. 211-21). Foote wanted to make PFI's Superlines even stronger and thinner, and was focused on seeing if AlliedSignal could supply stronger or thinner yarns. *Id.* These were common concerns for all fishing line manufacturers; as Foote stated: "we weren't the only ones who knew those were valuable properties. . ." Foote dep. at 28-29 (Dkt. No. 211-30 at 5-6).

At the August 1994 meeting, AlliedSignal recommended that PFI heat stretch braided fishing lines. Kavesh ¶ 39 (Dkt. No. 211-2 at 9). Foote indicates that he went to the meeting with AlliedSignal not intending to say anything about heat drawing braided fishing lines.<sup>2</sup> Foote dep. at 103-105 (Dkt. No. 211-30 at 33-35). Foote testified that he was aware of the technique of heat drawing, as that technique had been used on monofilaments and on braided Dacron fishing lines since the 1950s. Foote dep. at 54-55 (Dkt. No. 211-30 at 10-11). Foote testified that he asked AlliedSignal during the August, 1994 meeting whether AlliedSignal could provide a stronger, better fiber. Foote dep. at 105 (Dkt. No. 211-30 at 35).

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<sup>1</sup> The parties and witnesses use the terms "heat stretching" and "heat drawing" interchangeably.

<sup>2</sup>

Foote also indicated that as of the time of the August 1994 meeting with AlliedSignal, PFI was already working on developing its fusion product. Foote dep. at 84-86 (Dkt. No. 211-30 at 28-30).

In response to Foote's inquiry, AlliedSignal indicated that one could obtain the desired result by heat stretching after braiding, and showed Foote an example of a braided fishing line which it had already heat stretched (Foote believes it was probably Spiderwire). Foote dep. at 59-61, 103-106 (Dkt. No. 211-30 at 12-14, 33-36). AlliedSignal owns the Dunbar Patent, already several years old by the time of the August 1994 meeting. AlliedSignal's memorandum following the meeting identified heat stretching the braid as a "low hanging fruit" action item, Kavesh Ex. 20 p. HON 7 (Dkt. No. 211-22 at 4), something Foote confirmed was "obvious to do." Foote dep. at 103-105 (Dkt. No. 211-30 at 33-35).

After the meeting, Foote sent a sample of PFI's braided GSP line known as Gorilla Braid to AlliedSignal. Under Dr. Sheldon Kavesh's direction,<sup>3</sup> AlliedSignal subsequently heat stretched the Gorilla Braid for PFI at a draw ratio of 2.1 and a temperature of 155°C. Kavesh ¶ 39 (Dkt. No. 211-2 at 9) and Exs. 21-22 (Dkt. Nos. 211-23 and 211-24); *see also* Foote dep. at 109-110, 116 (Dkt. No. 211-30 at 37-39) and Reynolds Ex. 26 (Dkt. No. 211-51). AlliedSignal's heat stretching substantially increased tenacity. Kavesh ¶ 39 (Dkt. No. 211-2 at 9) and Ex. 21 (Dkt. No. 211-23); Foote dep. at 119-121 (Dkt. No. 211-30 at 40-42) and Reynolds Ex. 26 (Dkt. No. 211-51). Foote recorded in his notebook that AlliedSignal's heat stretching resulted in the highest tenacities he had ever tested in a braided fishing line. Foote dep. at 119-121 (Dkt. No. 211-30 at 40-42) and Reynolds Ex. 26 (Dkt. No. 211-51); Cook dep. at 89-90 (Dkt. No. 211-29 at 27-28). AlliedSignal and PFI did not collaborate further. Dan Foote explained that collaboration stopped because AlliedSignal was supplying Spiderwire, at the time PFI's main competitor in the Superline market. Foote dep. at 11-12, 131 (Dkt. No. 211-30 at 3-4, 43).

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Dr. Kavesh was named as an expert for Normark in this action and was deposed in that capacity. Because of his prior employment with AlliedSignal, his testimony also touches on some factual matters.



PFI turned to DSM, the supplier of Dyneema material. Foote testified that he visited DSM twice in 1994, and that he made notes in his notebook on October 4, 1994, immediately after returning from one visit to DSM. Foote dep. at 40, 48-49 (Dkt. No. 211-30 at 7-9); Reynolds Ex. 26 (Dkt. No. 211-51). Foote also testified that he was aware of the benefits of heat drawing a braided fishing line before his visit to DSM, as this technique had been used since the 1950s, and AlliedSignal had suggested heat drawing during his earlier visit in August 1994. Foote dep. at 54-55 (Dkt. No. 211-30 at 10-11). According to Foote, because he was already aware of the concept of heat drawing, his intention was to obtain DSM's recommendations for post-braid treating. Foote dep. at 77-78 (Dkt. No. 211-30 at 24-25).

DSM, like AlliedSignal, recommended heat stretching of braided fishing lines, and made specific suggestions concerning the heat stretching parameters. Foote dep. at 54-55, 64-66 (Dkt. No. 211-30 at 10-11, 16-17). Foote's notebook describes DSM's recommendations in detail:

DSM Trip....

new product ~ ideas included:....

(B) Heat Setting.

they [DSM] recommend heat drawing finished braids. the temperature is  $130 \pm 2^{\circ}\text{C}$ ....

they recommend drawing of

A) up to 35% (~~length~~) (wt)

B) up to 15% of Breakload

their draw is to optimize braiding construction + extra draw of fiber (reducing denier)

they ran tests on Gorilla braid before & after post draw at the 35% stretch. Tensile kN/g/m went from 2.25 to 3.07. denier reduced 35%.

Reynolds Ex. 26 (Dkt. No. 211-51); Foote dep. at 55, 64-68 (Dkt. No. 211-30 at 10-11, 15-19).

As Foote's notebook records, DSM heat stretched some of the Gorilla Braid using its recommended parameters. Reynolds Ex. 26 (Dkt. No. 211-51); Foote dep. at 73-78 (Dkt. No. 211-30 at 20-25). DSM's heat stretching increased tenacity. *Id.* Foote communicated DSM's recommendations to Cook after he returned to Iowa. Cook dep. at 102, 108-109 (Dkt. No. 211-29 at 31, 36-37); Foote dep. at 81-82 (Dkt. No. 211-30 at 26-27).

Roger Cook testified that Foote's notebook indicates that "it was DSM that was recommending to Dan Foote heat drawing of finished braids." Cook dep. at 104 (Dkt. No. 211-29 at 32). When questioned concerning Foote's notebook, Cook confirmed that the specific parameters he used in his October 5, 1994 initial heat stretching work, including the temperature and draw ratio parameters, were based on information Foote obtained from DSM. Cook dep. at 102, 104-106 (Dkt. No. 211-29 at 30, 32-34). He also testified that "DSM's technical people taught Mr. Foote how to do heat stretching to increase tenacity and reduce denier." Cook dep. at 106 (Dkt. No. 211-29 at 34).

Cook's October 5, 1994 notebook entry confirms that he followed DSM's recommendations exactly, using a temperature of 130°C and a draw ratio of 1.35 for his first post-braid drawing. Reynolds Ex. 25 (Dkt. No. 211-50); Cook dep. at 104-109 (Dkt. No. 211-29 at 32-37). Foote also confirmed that Cook's notebook entry regarding his October 5, 1994 work indicated that Cook used the temperature and draw ratio suggested by DSM. Foote dep. at 81 (Dkt. No. 211-30 at 26).

Cook testified that he used these heat stretching parameters because DSM recommended them:

Q. And just to put us back in context 1181 page 1181 is your October 5, 1994 lab notebook entry showing the first time that Berkley did heat stretching of the braid; correct? Just to put us back in context.

A. Yes.

Q. And this is the document that was identified as this is the conception date of the '214 patent, October 5, '94; right?

A. Right.

Q. And so it's the day after Mr. Foote's notebook entry which I understand comes after he's back from the DSM trip; correct?

A. Yes.

Q. And Mr. Foote says that DSM recommends drawing at 130 degrees; correct?

A. Correct.

Q. And that's what you did on October 5th. Your first entry indicates drawing at 130 degrees; correct?

A. Correct.

Q. And you did that because that's what DSM recommended; right?

A. I must assume that's correct.

Q. And DSM also recommended drawing it at 35 percent. And that's what you did; right? On October 5th you drew it 1.35?

A. Yes.

Q. And again, you did that because that's what DSM recommended to Mr. Foote to do; correct?

A. That's what Dan Foote recommended as a starting point.

Cook dep. at 108-109 (Dkt. No. 211-29 at 36-37).

Cook conceded that DSM's recommendations match the claims of the '214 patent, noting there was "no difference" between claim 1 and what DSM told Foote to do. Cook dep. at 113 (Dkt. No. 211-29 at 38). DSM's recommended 1.35 draw ratio is within the scope of claims 4 and 5 as well.

Cook testified repeatedly that he did not conceive of the idea of using heat stretching to increase the tenacity of braided fishing line, the invention claimed in the '214 patent. Cook dep. at 37-45 (Dkt. No. 211-29 at 15-23). Initially, Cook testified that "it was DSM's idea to use heat stretching to improve the tenacity," Cook dep. at 37 (Dkt. No. 211-29 at 15), and he also stated that the idea to heat stretch braided line came through Foote from DSM, or AlliedSignal, or both. Cook dep. at 37-38, 42 (Dkt. No. 211-29 at 15-16, 20).

After a break in the deposition, Cook changed his testimony somewhat, by noting that he did not know whether Foote, DSM, or AlliedSignal conceived of using heat stretching to improve the tenacity of a fishing line; but he confirmed that it was not his idea:

Q. And what you're saying now is you don't know who suggested drawing the fishing line to increase tenacity, whether it was Allied Signal or Dan Foote or DSM or Dan Foote. You just don't know?

A. No.

Q. Is that correct?

A. Right

\* \* \*

Q. What you do recall is both DSM and AlliedSignal heat stretched fishing line for Dan Foote?

A. Yes.

Q. And what you originally told me was that AlliedSignal suggested heat stretching to increase the tenacity of the fishing line; correct?

A. Yes.

Q. And what you originally told me was DSM suggested heat stretching the fishing line to increase the tenacity; correct?

A. Yes.

Q. And now you're changing your testimony to say that you don't know who suggested heat stretching the fishing line to increase tenacity; correct?

A. Correct.

Q. And both of these events occurred before October 5, 1994, your conception date; correct?

A. Yes.

\* \* \*

Q. ... I understand your testimony now to be either Dan Foote or AlliedSignal suggested heat stretching to increase tenacity and you don't know which one?

A. Right.

Q. But it wasn't you?

A. Right.

Q. And same with DSM. Either Dan Foote or DSM suggested the heat stretching process to increase tenacity, but it wasn't you?

A. Right.

Cook dep. at 43-45 (Dkt. No. 211-29 at 21-23).

When Cook was asked what he believed he had invented, he did not claim credit for inventing the subject matter of claims 1, 4 and 5. Instead, Cook testified that what was new about his work was that “we pushed the draw ratios to a high level.” Cook dep. at 38-39 (Dkt. No. 211-29 at 16-17). As noted above, the ‘214 patent claims a draw ratio starting at the lowest possible level, “about 1.0,” and the asserted claims encompass DSM’s recommended draw ratio. Cook also said, “What we came up with was a process for making a braided fishing line high tenacity,” but admitted “that’s what DSM and AlliedSignal both told [him] to do.” Cook dep. at 38-39 (Dkt. No. 211-29 at 16-17). Cook also suggested that his use of a higher temperature (150°C rather than DSM’s suggested 130°C) distinguished his work from DSM’s, but then conceded that DSM’s recommended temperature was within the scope of the ‘214 patent claims. Cook dep. at 113 (Dkt. No. 211-29 at 38).

PFI proffers several arguments in support of its position that Cook is the true inventor. First, PFI relies on Cook’s sworn declaration filed with the ‘214 patent application, claiming inventorship. Second, PFI relies on evidence that Cook was experimenting with “heat treating” braided GSP fishing line in 1993, before DSM’s recommendations. PFI relies on pages from

Cook's notebook, PFI 112-14, which describe a May, 1993 "heat set" experiment, and page PFI 6207 from Dan Foote's notebook, which refers to Cook's work "heat treating" gel-spun polyethylene braids. Dkt. Nos. 237-7, 237-8, relying on documents PF 1112-14 and PF 6207. In response, Normark notes that "heat treating" is not "heat stretching." Normark explains, relying on Cook's testimony and the testimony of its expert Dr. Kavesh, that the "heat treating" referred to in these documents is a heat treatment to stabilize the material that is typically performed without stretching, and that the PFI documents do not refer to stretching, draw ratio, or any increase in tenacity. Cook dep. at 35-36, 45-47 (Dkt. No. 241-8 at 4-8); PF 1112-14 (Dkt. No. 244-7), PF\_3\_6207 (Dkt. No. 244-8); Second Kavesh Dec. (Dkt. No. 241-1).

Third, PFI relies on testimony from Dan Foote, indicating his and PFI's general awareness of heat stretching before the AlliedSignal and DSM meetings, and Foote's belief that Cook was working on something new involving heat stretching of braided line. Foote dep. at 68-69, 84-88 (Dkt. No. 244-4 at 9-10, 12-16). Normark responds by noting that Foote disclaimed personal knowledge of Cook's work and stated that he was "not involved" in Cook's '214 patent work. Foote dep. at 31-32, 81, 204-205 (Dkt. No. 260-7 at 3-4, 6-8). Normark also argues that Foote's testimony does not contradict Cook's specific testimony and does not show that Cook had possession of all elements of claims 1, 4, and 5 before receiving DSM's recommendations. Dkt. No. 260 at 10 (p. 5).

Finally, PFI relies on testimony from its expert, Egbert van Gorp, who was DSM's Research Technology and Development Manager in 1994. Mr. van Gorp testified that DSM did not have "independently developed know how and technology" concerning the use of heat stretching with fishing lines, and also that he was not aware of DSM stretching braided fishing lines before October 5, 1994. van Gorp dep. at 239 (Dkt. No. 244-11 at 6). Normark responds

by noting that van Gorp was not able to testify about DSM's recommendations as recorded in Foote's notebook, because he had no memory of that issue. van Gorp dep. at 211-16 (Dkt. No. 260-8 at 9-14). Normark also argues that van Gorp's testimony is irrelevant, and that he cannot deny that DSM recommended the use of heat stretching as recorded in Dan Foote's notebook. Dkt. No. 260 at 10 (p. 5).

## **VII. PFI'S 1995 FIRELINE FUSED PRODUCT**

PFI does not dispute that its 1995 Fireline Fused products were on sale more than one year before PFI filed the '214 patent application. Reynolds Ex. 20 (Dkt. No. 211-45). Comparing the 1995 Fireline Fused manufacturing process to the specific elements of the '214 patent claims, PFI admits that its 1995 Fireline Fused product:

- was a braided fishing line;
- was made up of 3-64 GSP yarns;
- that each of the yarns was in the range of 20-1000 denier;
- that the line was stretched at a total draw ratio of between 1.0 and 2.0; and
- that the stretching increased the line's tenacity.

Reynolds Ex. 19 (Dkt. No. 211-44).

PFI further admits that some of its 1995 Fireline Fused product was made by a process that included a first drawing stage at 150°C and a second drawing stage at 153°C. *Id.* at 5-6 (Dkt. No. 211-44 at 6-7). Roger Cook was responsible for setting up the 1995 Fireline Fused manufacturing process. Cook dep. at 22-23 (Dkt. No. 211-29 at 5-6). His notebook and PFI's 1995 Fireline Fused process document indicate PFI used a two stage drawing process for the 1995 Fireline Fused products, with a first stage set at 150°C or 151°C, and a second stage set at 153°C or 154°C. Reynolds Exs. 19, 22, 23, 24 (Dkt. Nos. 211-44, 211-47, 211-48 and 211-49);

*see also* van Gorp dep. at 153-57 (Dkt. No. 211-33 at 58-62); Reynolds Ex. 24 (Dkt. No. 211-49); Cook dep. at 23-25, 29-31 (Dkt. No. 211-29 at 6-11). The first stage used a draw ratio of 1.4, and the second stage a draw ratio of 1.36, for a total draw ratio of 1.9. Reynolds Ex. 22 (Dkt. No. 211-47); van Gorp dep. at 153-57 (Dkt. No. 211-33 at 58-62); and Reynolds Ex. 24 (Dkt. No. 211-49). PFI's expert concedes that stage 1 of the 1995 Fireline Fused process matches claims 1, 4, and 5 of the '214 patent. van Gorp dep. at 167-68 (Dkt. No. 211-33 at 67-68).

PFI makes two arguments in opposition to Normark's on-sale bar defense. First, PFI argues that the 1995 Fireline Fused products were "fused" products, and that the '214 patent claims are limited to "unfused" fishing lines. Second, PFI argues that the second stage of the 1995 Fireline Fused manufacturing process, at 153°C, is sufficient to differentiate it from the '214 patent claims, which claim heat stretching at "about 150°C." Because both of these arguments are legal in nature, they are addressed in the legal discussion section of this order.

*See infra* Discussion § III.

#### **VIII. FACTS RELEVANT TO PFI'S MOTION FOR SUMMARY JUDGMENT ON NORMARK'S INEQUITABLE CONDUCT COUNTERCLAIM**

Normark contends that the '214 patent is unenforceable for inequitable conduct because Roger Cook falsely claimed to be the true inventor of the '214 patent claims, and PFI did not disclose DSM's role to the Patent Office; because Cook and PFI's patent lawyer, Lance Johnson, did not disclose the 1995 Fireline Fused product to the Patent Office during prosecution; because PFI made what Normark argues are false statements of fact concerning the Hogenboom patent; and because PFI did not disclose the Gibbs article describing braided GSP fishing lines and the Shimizu reference. PFI moved for summary judgment, arguing that Normark had insufficient evidence of materiality and intent.



The facts concerning inventorship and the 1995 Fireline Fused are discussed above. Regarding PFI's remarks to the examiner concerning Hogenboom, Normark argues, *inter alia*, that PFI improperly argued to the examiner that no prior art bridged the gap between the rope-making process of Hogenboom and the process for fishing line addressed in the application which became the '214 patent. The court will not detail all of Normark's contentions regarding the Hogenboom patent issue, which can be found at pages 9-14 of Normark's brief in response to PFI's motion for summary judgment on Normark's inequitable conduct counterclaim, Dkt. 241 at 13-18.

## **DISCUSSION**

### **I. SUMMARY JUDGMENT STANDARD**

Summary judgment should be granted 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). It is well established that summary judgment should be granted "only when it is clear that there is no dispute concerning either the facts of the controversy or the inferences to be drawn from those facts." *Pulliam Inv. Co. v. Cameo Properties*, 810 F.2d 1282, 1286 (4th Cir. 1987).

The party moving for summary judgment has the burden of showing the absence of a genuine issue of material fact, and the court must view the evidence before it and the inferences to be drawn therefrom in the light most favorable to the nonmoving party. *United States v. Diebold, Inc.*, 369 U.S. 654, 655 (1962).

Rule 56(c)(1) provides as follows:

(1) A party asserting that a fact cannot be or is genuinely disputed must support the assertion by:

(A) citing to particular parts of materials in the record, including depositions, documents, electronically stored information,

affidavits or declarations, stipulations . . . , admissions, interrogatory answers or other materials; or

(B) showing that the materials cited do not establish the absence or presence of a genuine dispute, or that an adverse party cannot produce admissible evidence to support the fact.

Fed. R. Civ. P. 56(c)(1).

A party “cannot create a genuine issue of material fact through mere speculation or the building of one inference upon another.” *Beale v. Hardy*, 769 F.2d 213, 214 (4th Cir. 1985). Therefore, “[m]ere unsupported speculation . . . is not enough to defeat a summary judgment motion.” *Ennis v. National Ass’n of Bus. & Educ. Radio, Inc.*, 53 F.3d 55, 62 (4th Cir. 1995).

In considering whether a reasonable finder of fact could find for the non-moving party, the court must also consider the applicable burden of proof, and which party bears that burden of proof. *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242 (1986). For example, with respect to Normark’s motion seeking a summary judgment of invalidity, Normark has the burden of proving invalidity by clear and convincing evidence.

## **II. NORMARK’S MOTION FOR SUMMARY JUDGMENT THAT THE ‘214 PATENT IS INVALID UNDER SECTION 102(f)**

A patent is invalid if the inventor “did not himself invent the subject matter sought to be patented.” 35 U.S.C. § 102(f). To prove invalidity under Section 102(f), Normark must prove two elements: (1) prior conception of the invention by another; and (2) communication of the prior conception to the patentee. *Creative Compounds, LLC v. Starmark Labs.*, 651 F.3d 1303, 1313 (Fed. Cir. 2011); *Eaton Corp. v. Rockwell Int’l Corp.*, 323 F.3d 1332, 1344 (Fed. Cir. 2003). Derivation is a question of fact. *Brand v. Miller*, 487 F.3d 862, 870 (Fed. Cir. 2007). Normark has the burden of proving invalidity under Section 102(f) by clear and convincing evidence. *Price v. Symsek*, 988 F.2d 1187, 1194 (Fed. Cir. 1193).

The court finds that there is no genuine issue of material fact, and that Normark has proven that claims 1, 4, and 5 of the '214 patent are invalid under Section 102(f) by clear and convincing evidence. The evidence detailed above in Part VI establishes that: 1) Cook testified to a conception date of October 5, 1994, and that conception date is corroborated by Cook's October 5, 1994 notebook entry;<sup>4</sup> 2) Before October 5, 1994, DSM conceived of the same invention, recommending to Dan Foote of PFI that PFI should heat stretch braided fishing line using parameters that match Claims 1, 4, and 5; 3) Before October 5, 1994, DSM also heat stretched Gorilla Braid for PFI, following the parameters of Claims 1, 4, and 5; 4) DSM's prior conception was communicated to Cook by Dan Foote before October 5, 1994; and 5) Cook admitted that it was not his idea to use heat stretching to increase tenacity, and that he based his October 5, 1994 "conception" on DSM's recommendations.

Normark has thus proven the two necessary elements of derivation by clear and convincing evidence: (1) DSM conceived of the claimed invention before Cook's claimed conception date; and (2) DSM's prior conception was communicated to Cook. *Creative Compounds, LLC v. Starmark Labs.*, 651 F.3d 1303, 1313 (Fed. Cir. 2011).

PFI does not dispute the details of Normark's derivation evidence. Instead, PFI contends that there is a genuine issue of material fact as to whether Roger Cook conceived of the inventions claimed in the '214 patent before DSM, and not on October 5, 1994. This court must, therefore, determine whether PFI has submitted sufficient evidence from which a jury could reasonably find that Cook conceived of the inventions claimed in Claims 1, 4, and 5 not on

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In its interrogatory response, PFI described the conception date as "at least as early as October 5, 1994," suggesting the possibility of an earlier conception date. PFI has not presented evidence that a reasonable jury could find supports an earlier conception date.

October 5, 1994, but at some earlier date before DSM's recommendations were made to Dan Foote. *Hawkins v. PepsiCo, Inc.*, 203 F.3d 274, 279 (4th Cir. 2000), *cert. denied* 531 U.S. 875.

The standard for conception has been settled for over 100 years. Conception occurs when the inventor has "a definite and permanent idea of the complete and operative invention, as it is thereafter to be applied in practice. *Mergenthaler v. Scudder*, 11 App. D.C. 264, 1897 WL 17698, \*6 (D.C. Cir. 1897); *see Coleman v. Dines*, 754 F.2d 353, 359 (Fed. Cir. 1985). Furthermore, conception evidence must be corroborated. *Singh v. Brake*, 222 F.3d 1362, 1367 (Fed. Cir. 2000). Accordingly, in order to avoid summary judgment on the issue of inventorship, PFI must show that a genuine issue of material fact exists with respect to the question of whether Roger Cook conceived of the invention recited in the asserted claims (that is, that he had a "definite and permanent idea" of all elements of Claims 1, 4, and 5) prior to Dan Foote's communication of DSM's recommendation to Mr. Cook.

The court has reviewed PFI's proffered evidence to see whether it raises a genuine issue of material fact from which a jury could find for PFI on this issue, and finds that it does not. As an initial matter, that Cook signed a declaration asserting he was the sole inventor when he applied for the patent does not contradict the evidence of derivation, because such a statement is required to apply for a patent. Any other rule would mean a claim could never be invalidated for lack of inventorship on summary judgment, no matter how clearly the inventor disavows inventorship.

PFI's reliance on evidence that Cook was experimenting with heat treating fishing line as far back as 1993 also does not raise a genuine issue of material fact. The cited evidence, namely Cook's notebook pages and Foote's deposition testimony, is either not specific to the invention claimed in the '214 patent, which relates to heat stretching braided GSP line; or that evidence

fails to suggest that Cook had a definite and permanent idea of the complete and operative invention claimed in the '214 patent claims before October 5, 1994. PFI's documents and Foote's testimony about Cook's prior work do not support an inference that Roger Cook had a "definite and permanent idea" of all elements of claims 1, 4, and 5 before October 5, 1994. *Singh*, 222 F.3d at 1367. The PFI documents do not show "stretching" at a "total draw ratio within the range from about 1.0 to about 2.0", as required by claim 1, or within the narrower ranges as required by claims 4 and 5. Indeed, the PFI documents do not contain any reference to heat stretching, and also do not contain any reference to an increase in tenacity. Cook's prior work related to "heat relaxing" (or "heat setting") which is a form of heat treating distinct from the heat stretching described and claimed in the '214 patent.

PFI relies primarily on Dan Foote's testimony to suggest that Cook was mistaken in his recollection of events. Foote's testimony regarding his meetings with AlliedSignal and DSM is, however, entirely consistent with Cook's testimony. At most, Foote's testimony suggests that, prior to visiting AlliedSignal and DSM, Foote believed Cook or others at Pure Fishing had a general idea which might be somehow unique or not yet in practice regarding how to improve braided fishing line using heat stretching techniques.

Foote's visits to AlliedSignal and DSM confirmed, however, that both entities had the same idea, and that at least AlliedSignal had already heat stretched braided line to achieve the desired improvement in tenacity. Foote also conceded that AlliedSignal described this method of improving tenacity as "low hanging fruit," and that this reference was consistent with calling it obvious. His testimony as a whole fully supports the conclusion that heat stretching braided line was well known and applying those techniques to braided GSP yarn was obvious. It also supports the conclusion that Cook's progression from the general idea of heat stretching to a

definite and permanent idea of the complete and operative invention claimed in the '214 patent began with application of suggestions received from DSM.

Foote's apparent belief that Cook was working on developing something new involving heat stretching of braided line even before Foote's meetings with AlliedSignal and DSM does not raise a genuine issue of material fact. Foote's testimony is nothing more than a statement of belief regarding what Cook may have been working on. The court finds that Foote's testimony is not sufficient to contradict Cook's own testimony regarding the scope of his work.

In any event, PFI has presented no evidence that Cook had reduced his invention to sufficiently concrete form prior to October 1994 to claim conception on his own prior to receiving specific suggestions from DSM, which Cook conceded predated his first experiment with heat stretching braided GSP lines. At most, Cook suggests that his later experiment may have supported invention of a much narrower concept than is claimed in the '214 patent. Cook's attempt to explain how his work on and after October 5, 1994, differed from what DSM suggested also does not raise a genuine issue of material fact. Cook's testimony addresses only one small portion of his claimed invention, heating and stretching at the upper end of the heat and draw-ratio spectrum, and does not address the much broader scope of the claims at issue here.

Finally, PFI's references to van Gorp's testimony are out of context and too limited to create a genuine issue of material fact on the issue of derivation. For example, that DSM may not have independently developed know-how and technology with respect to drawing braided fishing line, as van Gorp claims, does not mean that DSM did not conceive of the idea to draw such line based on information gained from other sources. Certainly van Gorp's assertion does not contradict the testimony from Cook and Foote that DSM provided the specific

recommendation and parameters that Cook used in his first experiment. The same is true for van Gorp's testimony that he was not aware of DSM undertaking any stretching of braided fishing line, which he explained was because DSM did not have the appropriate denier or braiding equipment available.

The court finds that Normark is entitled to summary judgment that claims 1, 4, and 5 of the '214 patent are invalid under Section 102(f), because there is clear and convincing evidence that Roger Cook is not the true inventor.

### **III. NORMARK'S MOTION FOR SUMMARY JUDGMENT THAT PFI'S 1995 FIRELINE FUSED INVALIDATES THE '214 PATENT CLAIMS UNDER SECTION 102(b)**

A patent is invalid if "the invention was... in public use or on sale in this country, more than one year prior to the date of the application for patent in the United States." 35 U.S.C. § 102(b). Proof of anticipation under § 102(b) requires clear and convincing evidence that a single prior art reference contains each element of the claimed invention. *Eli Lilly & Co. v. Barr Labs., Inc.*, 251 F.3d 955, 962 (Fed. Cir. 2001).

As outlined above, PFI does not dispute that its 1995 Fireline Fused product was on sale more one year before the '214 patent application. It has long been the law that the premature public use or sale of a product bars the patentability of the manufacturing process, even if the process is kept secret. *Metallizing Eng'g. Co. v. Kenyon Bearing and Auto Parts Co.*, 153 F.2d 516, 519 (2d Cir. 1946) (Learned Hand, J.). Learned Hand's rule remains the law (at least as to patents issued before the Leahy-Smith America Invents Act). *D.L. Auld Co. v. Chroma Graphics Corp.*, 714 F.2d 1144, 1147-48 (Fed. Cir. 1983); *New Railhead Mfg., L.L.C. v. Vermeer Mfg. Co.*, 298 F.3d 1290, 1297 (Fed. Cir. 2002).

The question, then, is whether the 1995 Fireline Fused manufacturing process anticipates the '214 patent claims, or whether those claims are patentably distinct from the 1995 Fireline

Fused process. The court finds that Normark has demonstrated clear and convincing evidence that PFI's 1995 Fireline Fused process meets all elements of claims 1, 4, and 5 of the '214 patent. The claims are therefore invalid under Section 102(b).

PFI makes two arguments in its attempt to distinguish the '214 patent claims from the 1995 Fireline Fused manufacturing process. First, PFI notes that the 1995 Fireline Fused product was a "fused" product, meaning that the fishing line yarns or filaments were melted together. PFI argues that the '214 patent claims should be limited to a process that results in an "unfused" product. Second, PFI argues that the '214 patent claims are patentably distinct from the 1995 Fireline Fused manufacturing process because the patent claims require heat stretching at "about 150°C," while the 1995 Fireline Fused process had a second stage of heat drawing at 153°C. The court rejects both arguments.

The court disagrees that the '214 patent claims should be construed to be limited to an "unfused" product. The first problem with PFI's argument is that it did not seek such a construction of the '214 patent during the claim construction phase of this litigation. Instead, PFI sought to construe "about 150°C" to include heat stretching temperatures of up to 159°C. Dkt. Nos. 74, 79. Such a broad construction would have gone well beyond the top temperature used in making the 1995 Fireline Fused, an admittedly fused product.

PFI owns two patents related to the Fireline Fused products and process, U.S. Patent Nos. 5,540,990 and 6,148,597. Reynolds Exs. 2-3 (Dkt. Nos. 211-27 and 211-28). The '597 patent, which issued after the filing of the '214 patent application, covers the process used to make 1995 Fireline Fused. The '597 patent's claim 8 claims a heat stretching process within a range, the low end of which is "about 150°C." The '214 patent claims clearly overlap with the '597 patent's temperature range, as the high end of the '214 patent's temperature range is also "about



150°C.” Even if use of the term “about” allows only a two degree variation, this would mean the temperature ranges in the two patents overlap by as much as five degrees. While PFI’s ‘597 patent is not directly implicated by the on-sale bar defense, it is significant because the ‘597 patent clearly claims a fused product. The overlap in the temperature ranges, therefore, requires the conclusion that heat stretching at the temperature range claimed in the ‘214 patent claims could result in a fused product, absent a clear limitation to an unfused product.

PFI argues that the court may find that the ‘214 patent claims are limited to “unfused” products based on two comments found in the ‘214 patent specification. Specifically, PFI relies on a comment following a group of 14 examples that the resulting product was unfused. ‘214 Patent, Reynolds Ex. 1, col. 9, l. 31-34 (Dkt. No. 211-26). PFI also relies on a reference to the color of the resulting line at the conclusion of the process: the ‘214 patent states that “[l]ine according to the invention retains the opaque white color characteristic of the virgin yarns.” *Id.*, col. 3, l. 24-25. Neither of these references, however, is found in any claim limitation. There is, likewise, no term in any relevant claim which might be construed using these references. It is, therefore, doubtful that these references should be considered at all for purposes of determining the scope of the claims at issue. *See Phillips v AWH Corp.*, 415 F.3d 1303, 1320 (Fed. Cir. 2005) (*en banc*), *cert. denied*, 546 U.S. 1170 (2006).

Even if the court were to consider these two references, it would find that they do not support importation of a limitation to an unfused product, for the following reasons. The referenced examples, 28 through 41, are only 14 of the 79 examples given in the patent specification. The other 65 examples do not state that they are unfused. The disclosure that some examples are unfused is therefore entirely ambiguous. It could as easily be meant to distinguish these unfused examples from other examples which resulted in fusing as to mean that

all examples are unfused. Thus, it does not support imposing a limitation not otherwise found in the claims.

The reference to concluding coloration is also ambiguous. It could mean that the product remains unfused, or it could mean it remains only minimally fused, leaving primarily the virgin opaque white coloring. The context of the statement is significant here, as it is in a paragraph noting how the color may be changed if some other coloration is desired. As with the reference to absence of fusing in the group of fourteen examples, the possible interpretations are too ambiguous to support an inference that the '214 patent was intended to be limited to unfused products.

It is also of some significance that the Cook '990 and Cook '597 patents expressly and repeatedly note that the process resulted in fused lines. This limitation is reflected in the claims themselves. The '214 patent, by contrast, includes no express reference in the claims either to fusion or lack of fusion. At most there are two references in the specification that might suggest the resulting product should not be fused, and the court finds those insufficient for reasons already discussed. This distinction between the '214 patent and the other Cook patents is particularly significant as all three patents have the same inventor and were prosecuted by the same attorney, Lance Johnson. Johnson dep. at 78 (Dkt. No. 241-6 at 13).

It is possible that Cook intended his '214 patent to be limited to unfused lines. He did not, however, expressly limit it to unfused lines, and the other evidence PFI cites does not compel importation of such a limitation into the claims.

With respect to PFI's second argument, PFI has admitted that the 1995 Fireline Fused product was a four yarn braid made from Spectra, with each yarn either 100 denier or 200 denier. PFI has further admitted that the 1995 Fireline Fused was heat stretched in a two-stage drawing

process. It is undisputed that the first stage for some of the products used a draw ratio of 1.4 and a temperature of 150°C, and the second stage used a draw ratio of 1.36 and a temperature of 153°C. The total draw ratio of the entire process was 1.9.

Therefore, there is no issue of material fact that stage one of the 1995 Fireline Fused process performs each element of '214 patent claims 1, 4, and 5. PFI contends that the '214 patent is saved from invalidity, however, because the second stage used a temperature of 153°C. That is the sole difference PFI has identified between the 1995 Fireline Fused process and the '214 patent claims, as properly construed. According to PFI, the claim limitation of "about 150°C," which the court has construed to mean "approximately 150°C," is patentably distinct from the use of 153°C in the 1995 Fireline Fused process.

The court finds that PFI is wrong as a matter of law. The second stage of the 1995 Fireline Fused process cannot save the validity of the '214 patent claims. The question of anticipation simply asks whether a single prior art reference contains all the elements in a patent claim. *Hakim v. Cannon Avent Grp., PLC*, 479 F.3d 1313, 1319 (Fed. Cir. 2007). If so, the fact that the reference has an additional step or additional features does not change the result. *See e.g., Powdermagic, Ltd. v. Rossignol Ski Co., Inc.*, No. 1:04-CV-001332005, WL 3981617, at \*6 (D. Utah Aug. 4, 2005) ("the fact that a prior art reference teaches additional or alternate features will not diminish the reference's satisfaction of the limitations"); *Mossman v. Broderbund Software, Inc.*, No. 98 71244 DT, 1999 WL 696007, at \*8 (E.D. Mich. May 18, 1999) ("if all the elements discussed are included in the prior art reference, the claim is anticipated even if additional elements are used in the reference."); *Everything Baseball v. Wilson Sporting Goods Co.*, 611 F. Supp. 2d 832, 835 (N.D. Ill. 2009) ("provided all limitations of the patent-in-suit are present in a prior art reference, the presence of 'additional' features in the prior art reference

does not undermine its satisfaction of the criteria for anticipation”). The leading treatise on patent law makes this point as follows: “for anticipation purposes, as for infringement purposes, it does not matter that the anticipatory (or infringing) item contains elements in addition to those specified in the patent claim in question.” *Chisum on Patents*, § 3.02[1][f].

The court, therefore, finds that Normark is entitled to summary judgment that claims 1, 4, and 5 of the ‘214 patent are invalid under Section 102(b). The evidence is clear and convincing that the 1995 Fireline Fused product was on sale more than one year before PFI applied for the ‘214 patent, and that the manufacturing process for the 1995 Fireline Fused meets all elements of claims 1, 4, and 5.

#### **IV. NORMARK’S MOTION FOR SUMMARY JUDGMENT OF ANTICIPATION, BASED ON DUNBAR, AND ITS MOTION FOR SUMMARY JUDGMENT OF OBVIOUSNESS**

Normark also seeks summary judgment on an additional ground under Section 102(b), arguing that the Dunbar patent’s Example 7 anticipates Claims 1, 4, and 5 of the ‘214 patent. In the alternative, Normark seeks summary judgment that the patent claims are invalid as obvious, relying on Dunbar as the primary reference.

The court denies Normark’s motion for summary judgment of anticipation based on Dunbar Example 7. The differences in the denier of the yarns used in Dunbar Example 7 create at least a genuine issue of material fact concerning whether the ‘214 patent was anticipated by Dunbar Example 7.

The court is not, however, persuaded by PFI’s other attempted distinctions between Dunbar Example 7 and the ‘214 claims. Specifically, for the reasons explained below, the court concludes that the ‘214 patent claims are not limited to “fully-drawn yarns” of 30 grams per denier or more, as PFI and its expert contend.

The first difficulty with PFI's argument is that the "fully drawn yarns" limitation is not expressly stated in any claim of the '214 patent, and PFI did not ask the court to construe the claims to include such a limitation during the claim construction phase of this case. In any event, PFI's argument is defeated by the language of the patent itself. The detailed description of the invention contained in the '214 patent specification states that the process should be practiced using yarns *with a tenacity of at least 15 grams per denier*. '214 Patent, col. 2, l. 39 (Dkt. No. 211-26). According to van Gorp, a "fully-drawn yarn" at the time of the '214 patent application was one which had a *tenacity of 30 grams per denier* or more. Van Gorp report, Reynolds Ex. 11, p. 5 (Dkt. No. 211-36 at 6); van Gorp dep. at 79 (Dkt. No. 211-33 at 27). Thus, PFI's own expert defined fully drawn lines as having a minimum tenacity (grams per denier ("gpd")) which was double the tenacity disclosed in the patent specification. Given the explicit reference in the '214 patent specification to the use of yarns that are not fully drawn (15 gpd versus 30 gpd), the evidence does not support a conclusion that the '214 patent is limited to the use of fully-drawn yarns.

PFI's next argument is that the '214 patent claims are limited to a "fishing line", and that the claims should be interpreted such that the 64 yarn by about 1000 denier construction set forth in the claims is not included within the claim scope. The court rejects that argument, and finds that the language of the claims clearly provides that braided structures up to 64 yarns by about 1000 deniers are within the scope of the '214 patent claims.

The court next considers Normark's motion for summary judgment that the '214 patent claims are invalid as obvious under 35 U.S.C. § 103. A patent is invalid "if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person of ordinary

skill in the art...” 35 U.S.C. § 103. The ultimate question of obviousness is a legal issue. *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 427 (2007); *Graham v. John Deere Co.*, 383 U.S. 1, 17 (1966). Obviousness requires consideration of three underlying factual issues: 1) the scope and content of the prior art, 2) the differences between the prior art and the claimed invention, and 3) the level of ordinary skill in the art. *KSR*, 550 U.S. at 406. Where those issues are not in material dispute, summary judgment is appropriate. *Id.* at 427. If proffered, secondary considerations such as a long-felt but unsolved need, commercial success, or contemporaneous invention by others, should be considered. *Id.* at 406. To be relevant, secondary factors must be linked to the patented features, and even then secondary factors cannot defeat summary judgment if there is a strong showing of obviousness. *Stamps.com Inc. v. Endicia, Inc.*, 437 Fed. App’x 897, 905 (Fed. Cir. 2011); *Sundance, Inc. v. Demonte Fabricating Ltd.*, 550 F.3d 1356, 1368 (Fed. Cir. 2009); *Muniauction, Inc. v. Thomson Corp.*, 532 F.3d 1318, 1328 (Fed. Cir. 2008); *see also Wyers v. Master Lock Co.*, 616 F.3d 1231, 1246 (Fed. Cir. 2010).

The Supreme Court teaches that “[t]he combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results.” *KSR*, 550 U.S. at 416. *KSR* also taught that “if a technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious unless its actual application is beyond his or her skill.” *Id.* at 417. The “person of ordinary skill” is presumed to have full knowledge of all of the prior art. *Therasense, Inc. v. Becton, Dickinson & Co.*, 565 F.Supp.2d 1088, 1103 (N.D. Cal. 2008), *rev’d on other grounds*, 649 F.3d 1276 (Fed. Cir. 2011); *Rothman v. Target Corp.*, 556 F.3d 1310, 1318 (Fed. Cir. 2009). That omniscient “person of ordinary skill” also has common

sense, “and in many cases a person of ordinary skill will be able to fit the teachings of multiple patents together like pieces of a puzzle.” *KSR*, 550 U.S. at 420.

The court finds claims 1, 4, and 5 invalid as obvious in light of the teachings of Dunbar and Hogenboom, combined with 1995 Fireline Fused. There is no material dispute concerning the factual issues underlying obviousness.<sup>5</sup> The scope and content of Dunbar Example 7, Hogenboom, and 1995 Fireline Fused are not disputed. It is also not disputed that the only difference between Dunbar Example 7 and claims 1, 4, and 5 is that Dunbar Example 7 used yarns with a denier of 1190, while the claims require yarns of “about 1,000” denier. The 1995 Fireline Fused disclosed the use of yarns of less than 1000 denier in a heat stretching process that, as discussed above, matches the claims of the ‘214 patent. To the extent there was any gap to be bridged between Dunbar and Hogenboom and the application of the technology and concepts in those patents to the production of fishing line, the court finds that 1995 Fireline Fused bridged that gap.<sup>6</sup> The court finds as a matter of law that the inventions claimed in claims 1, 4, and 5 would have been obvious to a person of ordinary skill having knowledge of Dunbar, Hogenboom, and the 1995 Fireline Fused. *KSR*, 550 U.S. at 416-17.

PFI argues that secondary considerations of a long-felt but unsolved need, alleged copying, and the commercial success of products manufactured according to the ‘214 patent

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Normark describes a small difference between the definitions of a person of ordinary skill in the art employed by the experts for the two parties, Dkt. No. 211-1 at 35 (p. 29 n. 6), but neither party argued that that difference created a material issue of fact in this context.

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The court notes that Normark argued that additional references could be combined with Dunbar Example 7 to satisfy the “about 1,000 denier” limitation, including Dunbar’s own disclosure of smaller denier yarns, the commercially available smaller denier yarns, or the prior art braided Superlines on the market as described in the Gibbs and In Fisherman articles. *See* Dkt. No. 211-1 at 36-37 (pp. 30-31). The court finds it unnecessary to consider each possible combination, in light of its ruling herein.

claims support a finding of nonobviousness. Dkt. No. 244 at 35-38 (pp. 30-33). Normark disputes PFI's secondary considerations evidence, and also argues that PFI failed to show a nexus between the alleged secondary considerations and the '214 patent claims. Dkt. No. 260 at 23-25 (pp. 18-20). Normark also relies on the DSM and AlliedSignal work, arguing that that prior, or at a minimum contemporaneous, independent invention is a secondary factor supporting a finding of obviousness. *Id.*, at 24 (p. 19).

Whatever the merit of PFI's secondary considerations evidence, the court finds such evidence is not sufficient to overcome the strong direct evidence of obviousness. *Stamps.com Inc. v. Endicia, Inc.*, 437 Fed. App'x 897, 905 (Fed. Cir. 2011); *Sundance, Inc. v. Demonte Fabricating Ltd.*, 550 F.3d 1356, 1368 (Fed. Cir. 2009). The court also agrees with Normark that DSM and AlliedSignal's independent recommendations to PFI to heat stretch braided fishing lines, occurring prior to PFI's alleged conception date, support a finding of obviousness. The court therefore concludes that Normark is entitled to summary judgment on the issue of obviousness.

#### **V. NORMARK'S MOTION FOR SUMMARY JUDGMENT ON PFI'S ALLEGATION OF WILLFUL INFRINGEMENT**

To prove willful infringement, PFI must prove by clear and convincing evidence that:

1) Normark "acted despite an objectively high likelihood that its actions constituted infringement of a valid patent"; and 2) Normark acted with specific intent, because the objectively-defined risk was "either known or so obvious that it should have been known" to Normark. *In re Seagate Tech., LLC*, 497 F.3d 1360, 1371 (Fed. Cir. 2007) (*en banc*). The objective prong of the *Seagate* test is a question of law for the court. *Bard Peripheral Vascular, Inc. v. W.L. Gore & Associates, Inc.*, 682 F.3d 1003, 1006-07 (Fed. Cir. 2012).



The first prong of the *Seagate* test is to be “determined by the record developed in the infringement proceeding.” *Seagate*, 497 F.3d at 1371. “If the accused infringer’s position is susceptible to a reasonable conclusion of no infringement, the first prong of *Seagate* cannot be met.” *Uniloc USA, Inc. v. Microsoft Corp.*, 632 F.3d 1292, 1310 (Fed. Cir. 2011). “[B]oth legitimate defenses to infringement claims and credible invalidity arguments demonstrate the lack of an objectively high likelihood that a party took actions constituting infringement of a valid patent.” *Black & Decker, Inc. v. Robert Bosch Tool Corp.*, 260 F. App’x 284, 291 (Fed. Cir. 2008). The query into whether an accused infringer has raised a substantial question for its defense is independent of whether a jury might ultimately reject that defense. *See, e.g., Spine Solutions, Inc. v. Medtronic Sofamor Danek USA, Inc.*, 620 F.3d 1305, 1319 (Fed. Cir. 2010).

Given the court’s grant of summary judgment in favor of Normark on Normark’s invalidity defenses, the court finds that the issue of willful infringement is moot. Alternatively, the court finds that Normark is entitled to summary judgment of no willful infringement, because Normark has credible invalidity defenses.

## VI. PFI'S MOTION FOR SUMMARY JUDGMENT ON NORMARK'S INEQUITABLE CONDUCT COUNTERCLAIM

To prevail on its inequitable conduct counterclaim, Normark has the burden of proving, by clear and convincing evidence, that the patentee made a material misrepresentation or omission, and that the patentee acted with intent to deceive the PTO. *Therasense, Inc. v. Becton, Dickinson & Co.*, 649 F.3d 1276 (Fed. Cir. 2011) (*en banc*); *Ring Plus, Inc. v. Cingular Wireless Corp.*, 614 F.3d 1354, 1358 (Fed. Cir. 2010). With respect to materiality, Normark must show that the misrepresentation or omission meets the standard of “but-for” materiality, meaning that the ‘214 patent would not have issued but for the misrepresentation or omission. There is an exception to this requirement for affirmative egregious misconduct. *Therasense*, 649 F.3d at 1292. With respect to deceptive intent, to meet the clear and convincing standard of proof, specific intent to deceive must be the single most reasonable inference able to be drawn from the evidence. *Therasense*, 649 F.3d at 1290-91. Because direct evidence of deceptive intent is rare, a district court may infer intent from indirect and circumstantial evidence. *Id.*

The court is the finder of fact on Normark’s inequitable conduct counterclaim. “The defense of inequitable conduct is entirely equitable in nature, and thus not an issue for the jury to decide.” *PerSeptive Biosys., Inc. v. Pharmacia Biotech, Inc.*, 225 F.3d 1315, 1318 (Fed. Cir. 2000); *see also Am. Calcar, Inc. v. Am. Honda Motor Co., Inc.*, 651 F.3d 1318, 1333 (Fed. Cir. 2011). To be entitled to summary judgment, PFI must show that there are no genuine issues of material fact concerning the issues of materiality and intent raised by Normark’s inequitable conduct counterclaim.

The court concludes that PFI is not entitled to summary judgment on Normark’s inequitable conduct counterclaim. For the reasons explained above, there is sufficient evidence to support the first prong of Normark’s claim, that material information was withheld from the

patent examiner. In particular, Cook's affirmative statement that he was the sole inventor was necessarily a failure to disclose that he was not. This non-disclosure was material because the patent would not have issued had Cook disclosed this information.

The failure to disclose that 1995 Fireline Fused had been on sale for more than a year before the '214 patent application was also material, as the patent would not have issued had the Patent Office been advised of 1995 Fireline Fused. It is also material to obviousness because the '214 patent claims were, at the least, obvious in light of 1995 Fireline Fused, as discussed above. This product also provided a bridge between the inventions in Hogenboom and Dunbar and application of those inventions to fishing line.

With respect to obviousness, it is also of particular concern that the original denial of the patent was overcome in part by argument by counsel for PFI that there was no prior art which would bridge the gap between the rope-making process in Hogenboom and the process for fishing line addressed in the application which became the Cook '214 patent. *See* Dkt. No. 207-9, at p. 10. PFI could not have made this argument if sales of 1995 Fireline Fused had been disclosed. Materiality is also supported by the fact that most of the distinctions the examiner found between the '214 patent and Hogenboom would have been satisfied by the process used to make 1995 Fireline Fused, thus defeating the grounds on which the examiner concluded the '214 patent could issue over Hogenboom. This and other evidence cited by Normark supports a finding that material information was withheld.

Intent is the more challenging prong for Normark, particularly under the Federal Circuit's more recent decisions. There is, however, sufficient circumstantial evidence of intent to mislead to raise a genuine issue of material fact for trial. For example, Cook would have known at the time he signed his statement claiming to be the inventor of the contributions of DSM. Cook was

certainly also aware of 1995 Fireline Fused, as he testified that he set its production parameters. This evidence of knowledge, coupled with Cook's involvement in the application process, including reviewing counsel's arguments in response to the initial denial, is circumstantial evidence of an intent to deceive.

It is also significant that the same attorney, Lance Johnson, prepared and prosecuted the two Fireline applications, both of which were filed before the application for the '214 patent. This involvement in prosecution of all three patents is at least circumstantial evidence of knowledge of the status of 1995 Fireline Fused. This is not all of the evidence the court has considered on the issue of intent, but it is sufficient to demonstrate that there are genuine issues of material fact precluding summary judgment.

### **CONCLUSION**

For the reasons set forth above:

1. Normark's motion for summary judgment that claims 1, 4, and 5 of the '214 patent are invalid under Section 102(f) is granted;
2. Normark's motion for summary judgment that claims 1, 4, and 5 of the '214 patent are invalid under Section 102(b) because of 1995 Fireline Fused is granted;
3. Normark's motion for summary judgment that claims 1, 4, and 5 of the '214 patent are invalid under Section 102(b) because of the Dunbar Patent is denied;
4. Normark's motion for summary judgment that claims 1, 4, and 5 of the '214 patent are invalid as obvious under Section 103 is granted;
5. The court need not decide Normark's motion for partial summary judgment of no infringement, because the parties' stipulation on the issue of infringement has made that motion moot;

6. Normark's motion for summary judgment of no willful infringement is made moot by the court's rulings on the validity of the '214 patent, and, alternatively, Normark's motion for summary judgment of no willful infringement is granted;

7. The court also need not decide Normark's motion for summary judgment on PFI's claim for damages, as that issue is made moot by the court's rulings herein;

8. For the same reason, the court will not decide Normark's motion *in limine* to exclude the testimony of PFI's damages expert, Hugh Penny;

9. The court need not decide PFI's motion for partial summary judgment of infringement, because the parties' stipulation on the issue of infringement has made that motion moot; and

10. The court denies PFI's motion for summary judgment on Normark's inequitable conduct counterclaim.

SO ORDERED

s/ Cameron McGowan Currie  
Cameron McGowan Currie  
United States District Court Judge

Columbia, South Carolina  
December 11, 2012