

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

PANDUIT CORP,
Plaintiff.

v.

BAND-IT-IDEX, INC,
Defendant.

June 27, 2000.

MEMORANDUM OPINION AND ORDER

SCHENKIER, Magistrate J.

This is an action for patent infringement which arises under the patent laws of the United States, in particular, 35 U.S.C. s.s. 112 and 283 et seq. The patent in suit, United States Patent No. 5,103,534 ("the '534 Patent"), was issued on April 14, 1992, to the plaintiff, Panduit Corporation ("Panduit"), for a "Selectively Coated Cable Tie." Panduit has filed a motion for a preliminary injunction to enjoin the defendant, Band-It-Idex, Inc. ("Band-It") from making, selling, offering to sell or using infringing selectively coated cable ties in the United States, including Band-It's coated Ball-LokTM cable ties, until a full trial is conducted (Panduit Mem. at 1). That motion has now been fully briefed, and the parties agree that the motion can be decided on the papers without an evidentiary hearing. FN1

FN1. Pursuant to 28 U.S.C. s. 636(c) and Northern District of Illinois Local Rule 73.1, the parties have consented for this Court to enter a ruling (rather than a report and recommendation) on this motion. This "limited consent" procedure has been upheld by the Seventh Circuit. *See Hains v. Washington*, 131 F.3d 1248, 1249 (7th Cir.1997).

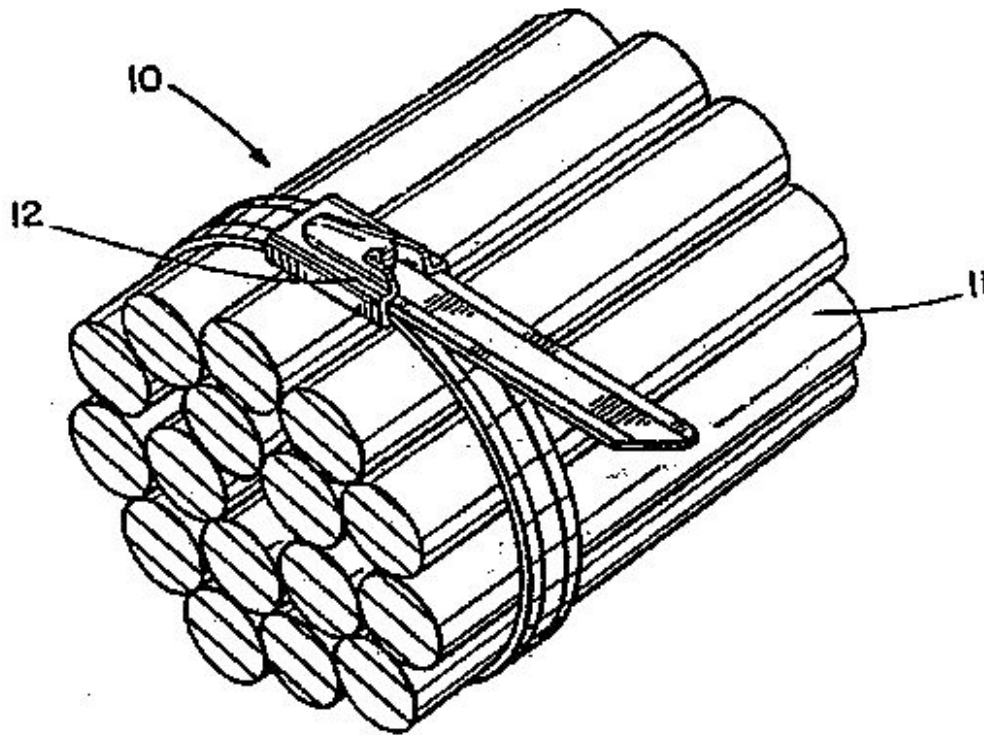
After careful review of the parties' submissions and the governing legal principles, the Court finds that the motion for a preliminary injunction should be granted. The Court sets forth below the findings of fact and conclusions of law that constitute the grounds for granting Panduit's request for a preliminary injunction. To the extent that any finding of fact constitutes a conclusion of law, the Court hereby adopts it as such, and to the extent that any conclusion of law constitutes in whole or in part a finding of fact, the Court adopts it as such. *See Miller v. Fenton*, 474 U.S. 104, 113-14 (1985).

I.

Based on the evidentiary materials submitted by the parties, the Court makes the following findings of fact in connection with the preliminary injunction motion.

A. *The Parties.*

The plaintiff, Panduit Corporation ("Panduit"), based in Tinley Park Illinois, develops, manufactures and sells cable ties and wiring accessories (Complaint ("Compl.") & Answer ("Ans.") para. 1-2). Cable ties are used for fastening objects in a bundle, as is generally depicted in the following drawing from the '534 Patent (the cable tie is the item denoted by the number 10):



Mr. Jack E. Caveney is the founder and Chief Executive Officer of Panduit (Compl. & Ans. para. 4). Mr. Caveney is also the inventor of the '534 Patent in suit (Compl. & Ans. para. 4, Ex. A). On March 18, 1991, Mr. Caveney filed the application for this patent; and, on April 14, 1992, the U.S. Patent and Trademark Office ("PTO") issued U.S. Patent No. 5,103,534, entitled "Selectively Coated Cable Tie," to Panduit as the patent's owner and assignee (Compl. para. 4, Ex. A). Panduit commercially markets and sells these patented ties in the United States (Panduit Facts para. 5).

The defendant, Band-It-Idex, Inc. ("Band-It"), FN2 is based in Denver, Colorado (Compl. & Ans. para. 3; Band-It Add'l Facts para. 1). Band-It develops, manufactures and sells banding clamps, cable ties, buckles and other fastening products around the world (Compl. & Ans. para. 3; Band-It Add'l Facts para. 1, 2, 4). Band-It's manufacturing facility for all of its products, including those sold in the United States ("U.S.") to both U.S. and foreign customers, is located in the United Kingdom (Panduit Reply, Tab U, Angotti Dep. at 37-38). Band-It competes directly with Panduit in the United States coated cable tie market (Band-It's Resp. to Panduit Facts para. 5; Panduit Mem., Tab B, Angotti Dep. at 41). Panduit is by far Band-It's largest competitor for U.S. sales of coated "ball-lock" ties (Band-It's Resp. to Panduit Facts para. 5; Panduit Mem., Tab B, Angotti Dep. at 41). The term "ball-lock" refers to the locking mechanism to secure the cable tie around the objects that the tie holds together. Band-It produces and sells a product entitled the "Ball-Lok™" cable tie (the "accused device") in the United States (Panduit Facts para. 2, 19). The accused device—a coated ball-lock cable tie—is the product that Panduit claims infringes its '534 Patent (Compl. & Ans. para. 5).

FN2. Given the nature of a patent infringement action, this is an unfortunate shorthand name for the defendant, but since it is the name that defendant claims for itself in the pleadings, it is the name the Court will use as well.

B. *The '534 Patent.*

Because the text of the '534 Patent is relatively brief, we quote it in full. The "abstract" describes the invention as follows:

A selectively coated cable tie is only coated along the lateral edges of the strap of the cable tie leaving an uncoated longitudinally extending medial strip portion of the strap for engagement with a locking mechanism in the head of the tie whereby the selectively coated cable tie provides a cable tie with smooth non-abrasive lateral edges while not significantly degrading the effectiveness of the locking mechanism of the tie.

The '534 Patent's written specifications provide as follows.

SELECTIVELY COATED CABLE TIE

The present invention generally relates to coated cable ties for fastening objects in a bundle.

BACKGROUND OF THE INVENTION

Prior metal cable ties have utilized a nylon coating over the entire surface of the cable tie strap to protect objects that come into contact with the tie from abrasion by the sharp edges of the metal tie. Coated metal ties do not require the relatively expensive manufacturing step of forming a smooth radius on the sharp edges of each tie after it is slit from stock, thus decreasing the manufacturing cost of the coated ties. Coating the entire strap portion of a ball-lock cable tie of the type disclosed in U.S. Pat. No. 4,399,592 significantly degrades the loop tensile strength of the ball-lock tie. Thus, there is a need for a means of coating a metal ball-lock cable tie with nylon to protect the objects to be bundled by the tie from abrasion by the edges of the tie while maintaining the locking effectiveness of the ball-lock cable tie.

SUMMARY OF THE INVENTION

The object of the present invention is the provision of a cable tie having coated lateral edges to protect objects that come into contact with the lateral edges of the tie where the coating does not interfere with the effectiveness of the locking mechanism of the tie.

In general, a selectively coated cable tie includes a strap having coating means for covering the lateral sharp edges of the strap to prevent abrasion of objects that come into contact with the edges of the tie; and a locking head secured to a first end of the strap having locking means for locking a second end of the strap to the head; wherein the coating means does not cover an uncoated longitudinally extending medial portion of the strap which is aligned with the strap locking means in the head and is disposed on a side of the strap that engages the locking means such that the locking means of the strap does not engage the coating means when the second end of the strap is locked within the head of the strap.

DESCRIPTION OF THE PREFERRED EMBODIMENT

A selectively coated cable tie embodying the concept of the present invention is designated generally by the numeral 10 in the accompanying drawings. Cable tie 10 includes a locking metal head 12 that includes a locking metal ball (not shown) that locks a metal strap 18 within head 12 to secure wires 11 in a bundle in the manner explained in detail in commonly assigned U.S. Pat. No. 4,399,592 which is incorporated herein by reference. The inside of head 12 and the locking metal ball are preferably not coated.

A continuous 0.003-0.005 inch (0.008-0.013 cm) nylon "11" coating is extruded on the metal strap 18 including a longitudinally extending first top edge portion 14, a longitudinally extending back portion 20 and a second longitudinally extending top edge portion 16 all of which are connected by longitudinally extending lateral edge portions 22. Strap 18 is thus left uncoated along a longitudinally extending medial

strip portion that is aligned with the locking mechanism in head 12 and is disposed on the side of strap 18 that engages the locking ball mechanism of head 12 when the distal end of strap 18 is inserted into locking head 12 of tie 10. The nylon coating could also be applied to cover the lateral edges of strap 18, leaving an uncoated longitudinally extending medial strip portion on each of the opposing planar sides of strap 18. Although nylon "11" is the preferred coating material, the present invention encompasses the use of any coating suitable to cover the sharp lateral edges of strap 18.

Although the present invention is illustrated by the description of the locking ball mechanism of tie 10, the teachings of the present invention can be applied to locking ties having a variety of locking mechanisms, the locking effectiveness of which are degraded by application of a coating to strap 18.

I Claim:

1. A selectively coated cable tie, comprising:

A strap having a coating means for covering lateral sharp edges of the strap to prevent abrasion of objects that come into contact with the edges of the tie; and a locking head secured to a first end of the strap having locking means for locking a second end of the strap to the head; wherein the coating means does not cover an uncoated longitudinally extending medial portion of the strap which is aligned with the strap locking means in the head and is disposed on a side of the strap that engages the locking means such that the locking means of the strap does not engage the coating means when the second end of the strap is locked within the head of the strap, wherein the coating means covers the entire length of the lateral sharp edges of a portion of the second end of the strap contained within the locking head when the strap is locked within the locking head.

2. A tie as set forth in Claim 1, wherein the strap is formed of metal.

3. A tie as set forth in Claim 1, wherein the locking means includes a locking ball.

4. A tie as set forth in Claim 1, wherein the coating means is a nylon coating.

5. A tie as set forth in Claim 1, wherein the coating means covers the entire surface of the strap except for the uncoated longitudinally extending medial portion and the distal ends of the strap.

6. A tie as set forth in Claim 1, wherein the coating means only covers lateral edges of the strap.

C. The '534 Patent's Prosecution History.

The prosecution history of the '534 Patent reveals that several categories of prior art were before the PTO when it considered Mr. Caveney's application for the patent: entirely coated cable ties; insulated cable clamps and clips; and an uncoated self-locking cable tie.

1. Entirely Coated Cable Ties.

With respect to entirely coated cable ties, the Information Disclosure Statement ("IDS") includes a copy of an advertisement that bears the notation "Critchley Limited advertisement advertising Critchley Beta Ties" (Panduit Facts para. 29, Tab P). The Critchley Beta TiesTM are stainless steel ties entirely coated with nylon (Panduit Facts para. 29-31). Panduit admits, as it did in its application for the '534 Patent, that entirely coated cable ties were available prior to the filing date of the '534 Patent; and that prior art is referenced in the Background of the Invention in the '534 Patent (Panduit Resp. to Band-It Add'l Facts para. 30). Mr. Caveney testified that, at the time of the invention claimed in the '534 Patent, entirely coated cable ties were metal ties of various designs that were entirely coated with plastic (Panduit's Resp. to Band-It

Add'l Facts para. para. 31-32).

2. Insulated Clamps and Clips.

Prior art disclosing insulated cable clamps and clips was included in Mr. Caveney's application for a patent (Panduit Reply, Tab R). Mr. Caveney testified that, at the time of the invention, he had seen insulated cable clamps and clips (Panduit's Resp. to Band-It Add'l Facts para. 33), because these clamps and clips were "commercially available more than one year before the patent application date" (Band-It Add'l Facts para. 33, *citing* Hinnen Decl. para. 13). Mr. Caveney further testified in his deposition that he assumed the purpose of the insulation was to separate the metal portion of the clamps and clips from the cables or other material that they were holding together, in order to prevent abrasion or cutting (Panduit's Resp. to Band-It Add'l Facts para. 34).

Band-It asserts that there were four prior art references relating to insulated cable clamps and clips at the time the application for the '534 Patent was filed: U.S. Patent No. 2,415,517 (the " '517 Patent"), issued in February 1947; European Patent No. 20,943 (the " '3 Patent"), issued in April 1980; British Patent Application No. 771,376 (the " '376 Application"), filed in August 1954; and the U.S. Patent No. 4,441,677 (the " '677 Patent"), issued in April 1984.

The foreign references, the '3 Patent and the '376 Application, teach a selectively insulated (or coated) metal strap, clamp and clip, which protects the objects to be bundled within these devices. These prior art references were not cited not cited in Mr. Caveney's IDS or referenced in the '534 Patent. Similarly, U.S. Patent No. 2,415,517 ("the '517 Patent") teaches an insulated clip, but is not cited in Mr. Caveney's IDS or referenced in the '534 Patent. Thus, we presume that the foreign references and the '517 Patent were not before the PTO when it considered the application that resulted in the '534 Patent. However, U.S. Patent No. 4,441,677 (the " '677 Patent"), which teaches an insulated clamp, was before the Patent and Trademark Office at the time the application for the '534 Patent was filed, as is clear from the fact that the '534 Patent specifically makes reference to it. The '517 Patent and the foreign references teach essentially the same idea as the '677 Patent, namely, to apply insulation to prevent contact between the metal portion of the clip and/or clamp and the material it is securing (Band-It Add'l Facts para. para. 35-36; 41-43). The Court therefore finds that the '517 Patent, as well as the foreign '3 Patent and '376 Application, are cumulative of the '677 Patent, which constitutes material prior art that was before the PTO at the time the application for the '534 Patent was filed.

3. The '592 Patent.

The '592 Patent was issued in August 1983 and teaches a ball-lock metal cable tie, with the tie being uncoated. The '592 Patent teaches a "self-locking tie" which, among other things, includes a locking head, a strap, and a metal ball that locks the strap within the head ('592 Patent, Col. 2, lines 52-55). The locking head includes "a series of regularly spaced transverse grooves of triangular configuration for biting into the locked strap to further resist the application of strap withdrawal force" (Band-It Add'l Facts para. 19; '592 Patent, Col. 3, lines 52-55), and a latching finger, which contributes to the retention of the strap within the locking head, and a "protuberance" in the strap, which deflects the strap away from the floor of the locking head (Band-It Facts para. para. 16-18).

The '592 Patent was disclosed in the IDS for the '534 Patent, and it is prominently discussed in the '534 Patent. The Background of Invention for the '534 Patent discussed the problem with applying the kind of ball-lock disclosed in the '592 Patent, when used in conjunction with a metal strap that is entirely coated so as to protect the materials being bound from abrasion: "the loop tensile strength of the ball-lock tie" is "significantly degraded" ('534 Patent, Col. 1, lines 16-19). The purpose of the invention claimed in the '534 Patent is to create a means "to protect the objects to be bundled by the tie from abrasion by the edges of the tie while maintaining the locking effectiveness of the ball-lock cable tie" (*Id.*, Col. 3, lines 20-22).

The '534 Patent seeks to achieve this result by having the tie "selectively" coated, rather than completely coated, so that only the coated portions touch the objects being bundled while the portion of the tie that interfaces with the lock is uncoated. The '534 Patent describes the "preferred embodiment" of the locking mechanism as the one "explained in detail" in the '592 Patent "which is incorporated by reference" ('534 Patent, Col. 1, line 63; Col. 2, line 1). However, the '534 Patent states that "the teachings of the present invention can be applied to locking ties having a variety of mechanisms" (*Id.*, Col. 2, lines 26-27).

D. The Accused Device.

The accused device is made of stainless steel, with selective coating on the lateral or sharp edges of the strap, and a locking head secured to the strap (Panduit Facts para. 20-21). The accused device does not contain the retaining finger, protuberance or transverse grooves claimed and/or described in the locking ball identified in the '592 Patent (Band-It Add'l Facts para. 22-24, 27). The accused device does, however, have a locking metal ball that sits within a locking head attached to a selectively coated cable tie (Panduit Facts para. 20, 21, 22). Band-It designed its own retention mechanism (with an oppositely disposed dimple and tab) to hold the locking head in place on the strap (Panduit Facts para. 18; Band-It Add'l Facts para. 25). That retention mechanism is not present in the '592 Patent (Panduit Facts para. 18).

Mr. Hans Hinnen ("Mr.Hinnen"), the Vice President of Product Engineering and Quality Assurance at Band-It, testified that the accused device functions as follows:

The tie is wrapped around the object, the cable, whatever you-tie. The front end, the bullet nose end is inserted into the buckle ... On the back end. Goes up underneath the ball and then out, out the other end of the buckle ... The buckle has a wedge shaped space in it, and the ball slides or wedges into the, into that space, contact the band, locks it.

(Panduit Facts para. 22). This description of the accused device's functioning tracks the description of the invention claimed in Claim 1 of the '534 Patent.

Mr. Hinnen was designated by Band-It as its witness in response to a Rule 30(b)(6) notice issued by Panduit on March 16, 2000. Mr. Hinnen obtained a bachelor's degree in mechanical engineering in 1964; has since then continuously worked in the field of mechanical engineering; has worked at Band-It since 1982; since 1982 has been involved in new product design; and "interact[s] with patent and trademark attorneys ... on a regular basis." (Band-It Facts, Ex. B, para. 1-2). In his position at Band-It, Mr. Hinnen normally reviews patents (Panduit Facts para. 23).

Panduit's Rule 30(b)(6) notice asked Band-It for a witness "most knowledgeable" regarding, among other things, the "design and development of Band-It coated Ball-LokTM cable ties;" "Panduit's coated stainless steel cable ties;" "[t]he use of Panduit's coated cable tie products by or at Band-It including, without limitation, the use or copying of Panduit's coated cable tie products in the design and development of Band-It products and product specifications;" and the '534 Patent (Panduit Facts, Ex. A, Topics 1, 2, 3, and 9). Mr. Hinnen was deposed on those subjects on April 17, 2000, and stated his belief that he was the most knowledgeable person at Band-It on those subjects (Panduit Facts, Ex. C at 6). In his deposition, Mr. Hinnen admitted-without qualification-that the accused device "falls within the scope of Claim 1" of the '534 Patent (Panduit Facts para. 24, Ex. A).

In a subsequent affidavit dated May 24, 2000 (and offered only after Panduit had filed its opening brief), Mr. Hinnen sought to recant that admission. Mr. Hinnen's affidavit states that the "locking means" structure in the accused device does not read on the "locking means" structure of Claim 1 in the '534 Patent (Band-It Resp. para. 23, Tab B, Hinnen Aff. para. 20). As his explanation for this recantation, Mr. Hinnen states that at the time of his deposition, he "had not read the entirety of the '534 Patent" and he "did not understand the

significance of means plus function language, or incorporation by reference" (Band-It Resp. para. 23, Tab B, Hinnen Aff. para. 20). With this new understanding, Mr. Hinnen now wishes to offer the opinion that "the accused products do not infringe the claims of the '534 Patent as such products do not have a 'locking means' as that term is properly defined" (Band-It Resp. para. 23, Tab B, Hinnen Aff. para. 20).

The Court does not find Mr. Hinnen's affidavit testimony credible. We do not find it plausible that Mr. Hinnen was offered by Band-It as the person "most knowledgeable" on the subjects in question and then offered testimony without first reading "the entirety" of the '534 Patent. There was plenty of time between the March 16 notice and the April 17 deposition for Mr. Hinnen to read the short '534 Patent. Moreover, Mr. Hinnen's affidavit does not disclose what part of the '534 Patent he had not previously read, or how the materials he later read caused him to change his views. We therefore choose to credit Mr. Hinnen's original deposition testimony, in which he admitted that the accused device falls within the scope of Claim 1.

The underlying evidence supports Mr. Hinnen's admission. Aside from the locking mechanism, all elements of the accused device and the '534 Patent are the same, including the "widths, thickness, length, [and] tensile loop strengths of the ties" (Panduit Facts para. 12). Moreover, there is documentary evidence that Band-It copied Panduit's '534 Patent in developing the accused device (Panduit Facts para. 6-11, 12).

The first document, dated August 28, 1997, is a facsimile transmission memorandum from Steve Dodd, the managing director of Band-It's U.K. facility, to Pete Merkel, the President of Band-It, and states in relevant part:

As you are aware I extremely concerned about the development in the Cable Tie market, where BAND-IT [is] now up against 2 competitors with self locking ties which are available coated with user friendly application [t]ools. These systems are being well accepted by end users and are gaining market share from us at an ever increasing rate.... Certainly, as previously relayed, if we do not produce the goods they will gradually form relationships with either Panduit or Hellerman and leave us in the cold.

... according to our conversation this week, the feeling is our new product does not appear suitable for coating. I am very afraid that this situation will leave us at a great disadvantage to other manufacturer[s].

If this is the case, as I proposed, the ideal answer may be to produce our own Panduit "clone." We [k]now this type of product is well accepted by the market and can be coated. If we reach [] a positive decision to move in this direction, I suggest we make this a [f]ast track project as every day we are left out of this market, will make our task to re-establish our position all the more difficult.

(Panduit Facts para. 8, 33) (emphasis added). This memo has a handwritten note, apparently from Mr. Merkel: "no advantage for us to mfg if just a 'me too" ' (Panduit Mem., Tab G). FN3

FN3. We do not read this note as suggesting a disinclination to copy. A more natural reading is that it might make more sense for Band-It to "out source" the manufacture of any "me too" copies. That reading finds support in a subsequent facsimile discussing manufacturing of copies in Korea and India (Panduit Facts para. 9, Ex. H).

Another facsimile transmission memorandum from Steve Dodd to Pete Merkel, dated August 28, 1997, states:

Of equal consternation, is the clam[ou]ring by our Electrical Distributors for an equivalent BAND-IT system to enable them to retain market share. Certainly, as previously relayed, if we do not produce the goods they will gradually form relationships with either Panduit or Hellerman and leave us in the cold.

(Panduit Facts para. 38, Tab G).

Another Band-It document, a facsimile transmission memorandum from Mr. Merkel to Paul Lee, dated September 2, 1997, includes the following statement:

We're looking at the possibility of offering a me too (clone) of the Panduit ball lock tie for those applications where it is a adequate. We would want to do it quickly (no time to manufacture it within BAND-IT).

(Panduit Facts para. 9) (emphasis added). This memorandum also says "one is manufactured in Korea and another in India" (Panduit Mem., Tab H).

This evidence of an intent by Band-It to copy the Panduit invention is complemented by evidence that Band-It sought to use Panduit's suppliers for the parts necessary to make the accused device (Panduit Facts para. para. 13-17). A facsimile transmission memorandum from Steve Dodd to Lynn Endsley, dated February 16, 1998, states: "[w]e are in fact tooling up to produce 2 widths of Ball Lok, to correspond with Panduit hopefully you will be successful in finding Panduit's vendor and get immediate access to the component we need, at competitive prices" (Panduit Facts para. 13, Tab I). Another facsimile transmission memorandum from Steve Dodd to Roger Gibbins, dated February 13, 1998, states:

the specification of this part needs to be identical to Panduit. Therefore, if possible, kindly arrange for Denver purchasing to try and locate Panduit's source of supply and obtain price and delivery information.

(Panduit Facts para. 15, Tab J). A third facsimile transmission memorandum from Steve Dodd to Hans Hinnen, dated June 3, 1998, states:

... we need bearings to put samples together for an exhibition commencing 15 June and a replacement batch from the Panduit supplier in good time for delivery of the assembly machine anticipated at the end of this month.

(Panduit Facts para. 16, Tab K). And, a fourth facsimile transmission memorandum from Steve Dodd to Hans Hinnen, dated March 19, 1998, states:

I will pass a sample 4.6mm and 7.9mm Ball-Lok Tie to Roger next week, fabricated to the design we intend to use. [T]he samples are fitted with Panduit buckles.

(Panduit Facts para. 17, Tab L).

E. Sales of the Accused Device.

Mr. Hinnen testified in his deposition that the foregoing documents written by Steve Dodd, Band-It's Managing Director in the United Kingdom, refer to the need for a selectively coated cable tie in Europe, rather than the United States (Panduit Facts para. para. 6-7). However, the evidence demonstrates that while Band-It's manufacturing facility for the accused device is in the United Kingdom, that device has been and is admittedly sold in the United States and to United States customers (Panduit Reply Mem., Tab U, Angotti Dep. at 37-38).

Mr. Angotti, the National Sales Manager for Band-It, testified on April 18, 2000 as a Rule 30(b)(6) witness designated by Band-It in response to Panduit's March 16, 2000 notice seeking Band-It's person "most knowledgeable" about, among other things, sales and offers for sale in the United States (Panduit Facts, Ex. A, Topics 5-8). Mr. Angotti confirmed he was the person most knowledgeable on those subjects (Id., Ex. B, at 6). Mr. Angotti testified that once the accused device was on the market, Band-It took both the coated and the uncoated ball lock cable tie business with Intracoastal Electric, a purchaser of such ties, away from

Panduit (Panduit Facts para. 32). Mr. Angotti also explained a Band-It record, which he said showed sales of approximately \$110,000 worth of the accused product in the United States (Panduit Mem., Tab B, Angotti Dep. at 42, lines 19-24; Panduit Reply, Tabs U, Angotti Dep. at 36-37; Tabs V, W, X).

As with Mr. Hinnen, Mr. Angotti now seeks to recant his testimony. In an affidavit dated May 24, 2000, Mr. Angotti offers a more limited statement of Band-It's United States sales.

Thus far, Band-It has sold only \$13,000 worth of the accused product in the United States, *i.e.*, where those products actually entered the United States. Band-It has no current plans to increase significantly its sales levels in the United States.

(Band-It Add'l Facts, Tab K, Angotti Aff. para. 3-4).

Again, the Court is skeptical about Band-It's attempt to revise deposition testimony by an after-the-fact affidavit, offered only after Panduit filed its opening memorandum. The Court's review of Mr. Angotti's relevant deposition testimony discloses no great ambiguity in the questions asked or confusion in the answers given. Mr. Angotti testified that a particular document allowed him to identify United States sales (Panduit Reply, Ex. U at 36 and Ex. V). Mr. Angotti stated that one entry on this document revealed that "there has been sold in the United States 2110 units" (a unit contains 100 ties), for \$54,883.62 (*Id.*, Ex. U at 36-37 and Ex. V). Mr. Angotti said every entry on the document showed a sale made in the United States, where "the customer is here," and "you just obtain the product from the U.K." (*Id.*, Ex. U at 37). The entries he identified as reflecting sales of the accused product in the United States totaled \$108,798.20 (*Id.*, Ex. U at 42 and Ex. V).

In the face of this prior sworn testimony, Mr. Angotti's conclusory affidavit is unpersuasive. Mr. Angotti does not reveal how he could make the nearly \$100,000 mistake he now claims occurred. He does not explain what documents he consulted to drop the total volume of documented sales from \$108,798.20 to \$13,000-and certainly, the document he used in his deposition provides no obvious path to such a reduction. As a result, the Court finds the affidavit testimony by Mr. Angotti regarding the \$13,000 worth of sales that has entered the United States (as opposed to being sold in the United States for foreign use) is of little evidentiary value compared to the prior deposition testimony indicating a total value of nearly \$110,000 in domestic sales of the accused device.

Equally conclusory and unpersuasive is Mr. Angotti's affidavit statement that Band-It has no "current" plan to increase "significantly" United States sales (Band-It Facts, Ex. K at para. 4). The use of these qualifiers does not provide the Court with detail about what Band-It thinks is "significant," or whether there are "prospective" plans for increases that have not been finalized and thus are not "current."

F. Panduit's Actions.

Panduit's Product Manager for Stainless Steel Products, Christopher Hipple, learned of Band-It's accused device by at least June of 1999 (Band-It Add'l Facts para. 55). Panduit also admits that Mr. Hipple testified during his deposition that he routed a printout of Band-It's catalogue sheet to the division product manager, a division manager and to a vice-president (Panduit's Resp. to Band-It Add'l Facts para. 56), and ordered samples of the product (Panduit Reply Mem., Ex. T, at 57). Panduit further admits that Mr. Hipple testified he had a discussion with the division manager on the printout catalogue sheet that he circulated, but he could not recall how much later (Panduit's Resp. to Band-It Add'l Facts para. 57). Panduit also admits that Mr. Hipple testified that he heard rumors that there was a Band-It Ball-LokTM product prior to June 1999 from the European product manager located in the United Kingdom (Panduit's Resp. to Band-It Add'l Facts para. 58). Panduit filed this action on March 9, 2000.

Panduit argues that the accused product, Band-It's coated Ball-Lok™ cable ties, infringes Claim 1 of the '534 Patent literally and, in the alternative, under the doctrine of equivalents. In its submission, Band-It admits that every element except the "locking means" of the accused product is covered by Claim 1 (Panduit Facts para. 24; Band-It's Response para. 24). As the following analysis will show, the only issue in this case is whether the accused product reads on the "locking means" element of Claim 1. Accordingly, the Court will focus on the construction and coverage of "locking means" in Claim 1 of the '534 Patent to determine whether Band-It's accused product is infringing.

The issuance of an injunction pursuant to the patent statute enjoins "the violation of any right secured by the patent, on such terms as the court deems reasonable." "Because the issuance of an injunction pursuant to this section, ... although a procedural matter, involves substantive matters unique to patent law," the standards for issuance of the injunction are governed by the law of the Federal Circuit and "purely procedural questions involving the grant of a preliminary injunction are controlled by the law of the appropriate regional circuit"-in this case, the Seventh Circuit. *See Hybritech Inc. v. Abbott Laboratories*, 849 F.2d 1446, 1445 and n.12 (Fed.Cir.1988).

To obtain an injunction pursuant to 35 U.S.C. s. 283, a party must establish: (1) reasonable likelihood of success on the merits; (2) irreparable harm; (3) the balance of hardships tipping in its favor; and (4) the impact of the injunction on the public interest. "These factors, taken individually, are not dispositive; rather, the district court must weigh and measure each factor against the other factors and against the form and magnitude of the relief requested." *Hybritech Inc.*, 849 F.2d at 1451. This "weighing" process is not unlike the Seventh Circuit's "sliding scale" approach to deciding motions for preliminary injunctions. *See Abbott Labs v. Mead Johnson & Co.*, 971 F.2d 6, 11 (7th Cir.1992). FN4 Although the parties have focused principally only on the first two elements, the Court's findings on each element are set forth below.

FN4. In its opening memorandum, Panduit advocates use of the sliding scale approach by citing to *Abbott Labs* (Panduit Mem. at 10-11), even though Panduit agrees that the law of the Federal Circuit guides this Court's substantive analysis of the four factor preliminary injunction test. Band-It does not argue to the contrary. Because this Court has not found any law in the Federal Circuit suggesting anything other than a "weighing" process akin to the sliding scale approach, that is the approach this Court adopts for purposes of this motion.

A. Likelihood of Success on the Merits.

In general, when deciding "likelihood of success on the merits" in a patent case, courts will employ a two-step analysis. *See Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 976 (Fed.Cir.1995) (en banc), *aff'd*, 517 U.S. 370 (1996). First, the court determines the meaning and scope of the patent's claims. *Id.* Claim construction is a question of law for the court to decide. *Markman*, 517 U.S. at 384, 389-91. Second, the court compares the properly interpreted claims to the accused system to determine whether there is a likelihood that the plaintiff can prove, by a preponderance of the evidence at trial, that the latter infringes the former. *See H.H. Robertson, Co. v. United Steel Deck, Inc.*, 820 F.2d 384, 390 (Fed.Cir.1987) (abrogated on other grounds) (grant of preliminary injunction turns on likelihood that plaintiff will meet burden at trial of proving infringement). Claim comparison and/or coverage is a question of fact. *See Markman*, 517 U.S. at 384; *Hybritech*, 849 F.2d at 1455. In claim comparison, courts generally break the analysis regarding likelihood of success into two categories: (1) likelihood of success on the patent's validity, an affirmative defense that must be raised by the party opposing the motion for preliminary injunction, since validity is presumed as a matter of law from the patent's issuance, (2) and likelihood of success on infringement. *See generally Hybritech*, 849 F.2d at 1451-56. This Court's analysis will follow the same path.

1. Claim Construction.

The '534 Patent claims at issue read as follows. Claim 1, which is independent, claims:

A selectively coated cable tie, comprising:

a strap having coating means for covering lateral sharp edges of the strap to prevent abrasion of objects that come into contact with the edges of the tie; and

a locking head secured to a first end of the strap having locking means for locking a second end of the strap to the head; wherein the coating means does not cover an uncoated longitudinally extending medial portion of the strap which is aligned with the strap locking means in the head and is disposed on a side of the strap that engages the locking means such that the locking means of the strap does not engage the coating means when the second end of the strap is locked within the head of the strap, wherein the coating means covers the entire length of the lateral sharp edges of a portion of the second end of the strap contained within the locking head when the strap is locked within the locking head.

('534 Patent, Col. 2, lines 31-50). There is only one element of the claimed patent (the "'534 Patent") at issue, namely, the term "locking means" in Claim 1 (Band-It Opp. Mem. at 3; Panduit Reply at 2).

The parties agree that in Claim 1 the term "locking means" is written in "means plus function" language—a language that invokes certain statutory rules of construction (Pl.'s Reply at 1; Def.'s Opp. Mem. at 3-4). *See* 35 U.S.C. s. 112, para. 6. *See also* *Odetics, Inc. v. Storage Technology Corp.*, 185 F.3d 1259, 1266-68 (Fed.Cir.1999) (outlining means-plus-function standards of construction); *Micro Chemical, Inc. v. Great Plains Chemical Co.*, 194 F.3d 1250, 1257-59 (Fed.Cir.1999) (same). Given the parties' agreements on the method for construing Claim 1 and the single claim element to be construed, the legal issues on construction are very narrow. We will begin with an overview of the controlling legal principles with respect to claim construction, in general, and "means plus function" claim construction in particular. FN5

FN5. Panduit also asserts that Band-It's product infringes dependent Claims 2-5 (Panduit Mem. at 9). Because we believe the construction and analysis of Claim 1 is sufficient to resolve the present motion, we do not address those other claims at this time.

a. General Claim Construction Rules.

Claim construction is the "the process of giving proper meaning to the claim language." *Abtox, Inc. v. Exitron Corp.*, 122 F.3d 1019, 1023 (Fed.Cir.1997). "To ascertain the meaning of claims, we consider three sources: The claims, the specification, and the prosecution history." *Markman*, 52 F.3d at 979. These three sources are considered "intrinsic evidence." *Vitronics Corp. v. Conceptoronic, Inc.*, 90 F.3d 1576, 1582 (Fed.Cir.1996). The claim language defines the scope of the patented invention. *Id.* *See also* *SRI Intern. v. Matsushita Elec. Corp. of America*, 775 F.2d 1107, 1121 (Fed.Cir.1985) (claims measure the invention). The specifications and the prosecution history "provide a context to illuminate the meaning of claim terms." *Abtox*, 122 F.3d at 1023 . FN6 The claim language is the primary source of meaning.

FN6. "It is well-settled that, in interpreting an asserted claim, the court should look first to the intrinsic evidence of record, *i. e.*, the patent itself, including the claims, the specification and, if in evidence, the prosecution history." *Id.* Resort to extrinsic evidence is improper where the intrinsic evidence is sufficient to construe the patent claim. *Vitronics*, 90 F.3d at 1583. In this case, extrinsic evidence is not required to construe Claim 1 of the '534 Patent.

Generally, words in a claim are given their "ordinary" meaning. *Vitronics*, 90 F.3d at 1582; *Bell Communications Research, Inc. v. Vitalink Communications Corp.*, 55 F.3d 615, 620 (Fed.Cir.1995) (court

must ascribe ordinary meaning to claim language unless it appears the inventor intended otherwise). However, the claims must be read in light of the specifications and, where the specifications indicate that the inventor has expressly defined a word in the claim so that it carries a particular rather than ordinary meaning, the court must give the meaning intended by the inventor, as revealed in the specifications. *Vitronics*, 90 F.3d at 1582. *See also* *Markman*, 52 F.3d at 979 ("[c]laims must be read in view of the specification, of which they are a part"). The specifications, however, should not be "read into" the claims where the claim language is clear and/or where the specifications reveal only a preferred embodiment or illustration of the claim, rather than a limitation on the meaning of particular claim language. *Id.* ("If everything in the specification were required to be read into the claims, ... there would be no need for claims. Nor could an applicant, regardless of the prior art, claim more broadly than that embodiment"). *See also* 35 U.S.C. s. 112 (claims must "particularly point[] out and distinctly claim[] the subject matter which the applicant regards as [the] invention").

The specifications are the "single best guide to the meaning of a disputed term," but the court may also consider the prosecution history of the patent, if it is in evidence. *Vitronics*, 90 F.3d at 1582. The prosecution history consists of the complete record of the proceedings before the Patent and Trademark Office, including any express representations made by the applicant regarding the scope of the claims. *Vitronics*, 90 F.3d 1576, 1582 (Fed.Cir.1996). The prosecution history may contain information such as an examination of the prior art cited by the inventor. The list of prior art references known to the inventor at the time of the patent application may give a clue as to what the claims were not intended to cover. *Id.* at 1583. In short, "[t]he prosecution history limits the interpretation of claim terms so as to exclude any interpretation that was disclaimed during prosecution." *Southwall Tech., Inc. v. Cardinal IG Co.*, 54 F.3d 1570, 1576 (Fed.Cir.1995).

Claim elements recited in "means-plus-function" form incorporate these general principles of construction but add certain statutory limitations. Means-plus-function claims must be interpreted under 35 U.S.C. s. 112, para. 6, which provides that:

An element in a claim for a combination may be expressed as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof, and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof.

"Application of s. 112, para. 6 requires identification of the structure in the specification which performs the recited function." *Micro Chem.*, 194 F.3d at 1257. *See also* *Amtel Corp. v. Information Storage Devices, Inc.*, 198 F.3d 1374, 1381-82 (Fed.Cir.1999) (the statute permits "inventors to use a generic means expression for a claim limitation provided that the specification indicates what structure(s) constitute(s) the means" because "[f]ulfillment of the [statute] ... cannot be satisfied when there is a total omission of structure"). The case law interpreting s. 112, para. 6 employs a two-step analysis for claim construction: step one requires identification of the claimed function and step two requires identification of the relevant structure in the specification "necessary to perform that function." *Micro Chem.*, 194 F.3d at 1257-58. FN7

FN7. The parties disagree about whether the identified structure must simply "correspond" to the identified function or must be "necessary" to perform the claimed function (*Panduit Reply* at 2; *Band-It Sur-Reply* at 2). Although the statute uses the word "corresponding," the case law interpreting the statute uses the word "necessary." *See* *Micro Chem.*, 194 F.3d at 1258 (the statute "requires ... identification of the structure in the written description necessary to perform that function" and the statute does not "permit incorporation of structure beyond that necessary to perform the claimed function"). The word "necessary" is thus a gloss on the word "corresponding," which reflects governing Federal Circuit law that we are bound to follow.

This two-part identification process is guided by several overarching legal principles. *First*, "[t]he statute

does not permit limitation of a means-plus-function claim by adopting a function different from that explicitly recited in the claim." *Id.* at 1258. *Second*, "the statute [does not] permit incorporation of structure from the written description beyond that necessary to perform the claimed function." *Id.* See also *Odetics, Inc. v. Storage Technology Corp.*, 185 F.3d 1259, 1268 (Fed.Cir.1999) ("the relevant structure is that which 'corresponds' to the claimed function"); *Chiumnatta Concrete Concepts, Inc. v. Cardinal Indus., Inc.*, 145 F.3d 1303, 1308-09 (Fed.Cir.1998) (structure "unrelated to the recited function" disclosed in the patent is irrelevant to s. 112, para. 6). *Third*, "[t]he individual components, if any, of an overall structure that corresponds to the claimed function are not claim limitations. Rather, the claim limitation is the overall structure corresponding to the claimed function." *Odetics*, 185 F.3d at 1268. *Fourth*, "[i]dentification of corresponding structure may embrace more than the preferred embodiment." *Micro Chem.*, 194 F.3d at 1258.

b. Claim 1 Construction.

With these principles in mind, the Court now turns to construction of Claim 1 of the '534 Patent. We begin with Claim 1 and employ the two-step analysis set out in *Micro Chem.* for interpreting means-plus-function claims: identification of the claimed function and identification of the corresponding structure.

(1) Identification of the claimed function.

In Claim 1, the inventor identifies a selectively coated cable tie ('534 Patent, Col. 2, line 30), with a "locking head secured to a first end of the strap having [a] locking means for locking a second end of the strap to the head" (Col. 2, lines 36-38). The ordinary meaning of the words used in Claim 1 reveals that the claimed function of the "locking means" in the '534 Patent is simply this: to lock one end of a selectively coated cable tie to the locking mechanism on the other side of the tie. That function is accomplished by locking the strap portion of a selectively coated cable tie to the other end of the strap (where the locking head is secured), by inserting the uncoated portion of the upper surface of the strap into the locking head, where it is engaged by the "locking means."

The language of the specifications supports this reading of the inventor's intent. See *Markman*, 52 F.3d at 976 ("[c]laims must be read in view of the specification, of which they are a part"). In the Background of the '534 Patent, the inventor states that "prior metal cable ties have utilized a nylon coating over the entire surface of the cable tie strap to protect objects that come into contact with the tie from abrasion by the sharp edges of the metal tie." (Col. 1, lines 8-11). The inventor indicated, however, that "[c]oating the entire strap portion of a ball-lock cable tie" such as the one disclosed in the '592 Patent "significantly degrades the loop tensile strength of the ball-lock tie" (Col. 1, lines 16-19). The written specifications further indicate that the '534 Patent invention arose because there was a "need" for a selectively coated metal ball-lock cable tie with increased "locking effectiveness" (Col. 1, lines 19-23). Accordingly, the inventor's goal in the '534 Patent was to provide "a cable tie having coated lateral edges to protect objects that come into contact with the lateral edges of the tie where the coating does not interfere with the effectiveness of the locking mechanism of the tie" (Col. 1, lines 26-30). FN8

FN8. The Court's identification of the claimed function differs slightly from the function claimed by Panduit. Panduit contends that the claimed function "is merely 'locking a second end of the strap to the head" ' (Panduit Reply at 2, citing Claim 1, Col. 2, lines 36-37). The Court's reading of Claim 1, which identifies the '534 Patent's claimed function, is narrower because we find that the essence of the '534 Patent is its increased locking effectiveness from the prior, entirely coated cable ties. To achieve this increased locking effectiveness, the locking mechanism must work off of the uncoated portion of the tie. Clearly, this reading is illuminated by the written specifications, not simply the claim language; however, the claim language identifies this narrower function and does not require the broader reading given to it by Panduit.

(2) Identification of the claimed structure.

The real dispute in this case turns on a proper identification of the '534 Patent's claimed structure for the "locking means." And, even here, the range of dispute is narrow. Both sides agree that although the specific words of Claim 1 do not state that the "locking means" is a "locking ball," when read in light of the specifications the locking means structure in Claim 1 is, in fact, a "locking ball" (Panduit Reply Mem. at 3; Band-It Mem. at 4). Where Panduit and Band-It part company is on the question of what kind of locking ball is embraced by Claim 1. Band-It asserts that Claim 1 covers only the specific structure of the locking ball taught in the '592 Patent, and that Claim 1 does not cover a locking ball that deviates from that structure (Band-It Mem. at 4). Panduit argues that Claim 1 is not limited in its coverage to the specific locking ball taught in the '592 Patent, but instead covers locking means that employ any "locking ball" structure (Panduit Sur-Response Mem. 1-2). For the reasons set forth below, we believe that Panduit has the better of this construction argument.

The Court finds that the term "locking ball" is a structure that corresponds to the claimed function in Claim 1 and is therefore a claim limitation. This locking ball structure is "necessary" to perform the identified "locking function," because without the locking ball, the selectively coated metal tie would slide right through the locking head; it is the locking ball that holds the first end of the strap (where the locking head is secured) to the second end of the strap in the uncoated medial portion of the tie.

The discussion of the Background of the Invention also discloses the central nature of a ball-lock to the Patent: "there is a need for a means of coating a metal *ball-lock* cable tie with nylon to protect the objects to be bundled by the tie from abrasion by the edges of the tie while maintaining the locking effectiveness of the *ball-lock* cable tie" ('534 Patent, Col. 1, lines 19-23). And, the Description of the Preferred Embodiment (the "preferred embodiment") further confirms that a ball-lock is the structure of the locking means covered in Claim 1:

Cable tie 10 includes *a locking metal head 12 that includes a locking metal ball* (not shown) that locks a metal strap 18 within head 12 to secure wires 11 in a bundle in the manner explained in detail in commonly assigned U.S. Pat. No. 4,399,592 which is incorporated herein by reference. The inside of the head 12 and the locking metal ball are preferably not coated.

(Col.1, lines 59-63; Col. 2, lines 1-3) (emphasis added).

To say that the locking means structure in Claim 1 is *a* locking ball is not to say, however, that it must be *the* precise locking ball disclosed in the '592 Patent, and no other. In this case, we are persuaded that the locking means in Claim 1 is not limited to the precise locking ball in the '592 patent for several reasons.

First, "[i]dentification of corresponding structure may embrace more than the preferred embodiment. A means-plus-function claim encompasses all structure in the specification corresponding to that element and equivalent structures." Micro Chem., 194 F.3d at 1258. To incorporate the '592 Patent as *a claim limitation* rather than an *illustration* of the preferred embodiment would directly contravene this canon of construction. *See also* Constant v. Advanced Micro-Devices, Inc., 848 F.2d 1560, 1571 (Fed.Cir.1988) ("particular embodiments and examples appearing in the specification will not generally be read into the claims"); Sjolund v. Musland, 847 F.2d 1573, 1581 (Fed.Cir.1988) ("when claim construction is required, claims are construable ... in light of the specification, ... yet 'that claims are interpreted in light of the specification does not mean that everything expressed in the specification must be read into all the claims" '). That is particularly true here where the '534 Patent not only refers to the locking ball of the '592 Patent as a preferred embodiment, but also goes farther and specifically discusses the applicability of the '534 Patent to other ball locks:

Although the present invention is *illustrated* by the description of the *locking ball mechanism* of tie 10, the

teachings of the present invention can be applied to locking ties having a variety of locking mechanisms, the locking effectiveness of which are degraded by application of a coating to strap 18.

(Col. 2, lines 23-28) (emphasis added).

Second, incorporation of the '592 Patent's functional limitations would also require adoption of a function different from that explicitly recited in the claim, because it would add the "positive locking at any angle functions of the '592 Patent" to the "base locking mechanism of the '534 Patent in suit" (Panduit Reply at 2). The statute does not permit limitation of a means-plus-function claim in this way. In fact, Band-It admits that the '592 Patent "solved the problem of gravity holding the locking ball out of engagement with the strap" (Band-It Opp. Mem. at 4). This difference is especially telling, given that the '534 Patent, conversely, teaches that the locking mechanism contemplated by that invention is supposed to function in a way that increases the locking effectiveness of the tie in a different way: by engaging the uncoated medial portion of the tie with the locking ball mechanism of the locking head (Col. 2, lines 13-15; Claim 1, Col. 2, lines 36-46).

Third, because the '592 Patent "teaches a very specific locking mechanism" including the "protuberance" the "retaining finger" and the "transverse grooves" (Band-It Opp. Mem. at 4-5), limiting Claim 1 to that structure would go beyond what is necessary to perform the function of "locking means" in Claim 1. *Id.* Although the "locking ball" is "necessary" to the claimed function, as construed by the Court, the three structural features of the locking ball in the '592 Patent identified above are not. To incorporate the limitations of the '592 Patent's locking mechanism, including the protuberance, the retaining fingers, and/or the "transverse grooves"-as Band-It invites us to do-would violate the canons of construction for means-plus-function claims identified in *Micro Chem*. The Court declines that invitation.

To summarize: the Court finds that the structure relevant to the term "locking means" in Claim 1, as properly interpreted by the canons of construction guiding an analysis of means-plus-function claims under 35 U.S.C. s. 112, para. 6, is a "locking ball" as identified in the written specifications. This identification satisfies the statutory requirement. *See Amtel Corp.*, 198 F.3d at 1381-82 (patent holder's use of means-plus-function language requires recitation of specific structure in the patent specification which becomes part of the claim limitation). That structure does not incorporate all limitations of the locking means structure identified in the '592 Patent, incorporated by reference as the preferred embodiment, because the '592 Patent's claimed function and structure is merely an *illustration* not a *limitation* of the "locking means" or "locking mechanism in the head" in the '534 Patent (Col. 2, line 12). Having concluded the Court's claim construction of the '534 Patent, we move now to the second step of the likelihood of success analysis, namely, claim comparison or coverage.

2. Claim Comparison.

Claim comparison is a question of fact. *See Markman*, 517 U.S. at 384; *Hybritech*, 849 F.2d at 1455. This analysis breaks down into two categories: patent validity and patent infringement. We begin with patent validity since that is a threshold question (*i.e.* , an invalid patent cannot be infringed).

a. Likelihood of Success: Validity

There is a strong presumption of validity for issued patents. *See* 35 U.S.C. s. 282. *See also Robotic Vision Systems*, 189 F.3d at 1337. This presumption is rebuttable by "an accused infringer who raises patent invalidity as a defense," *see, e.g., Robotic Vision Systems*, 189 F.3d at 1337, because "[t]he presumption merely acts as a procedural device which places the burden of going forward with evidence and the ultimate burden of persuasion of invalidity at trial on the alleged infringer." *See, e.g., New England Braiding Co., Inc. v. A.W. Chesterton Co.*, 970 F.2d 878, 882 (Fed.Cir.1992). When the question of patent validity is raised in a preliminary injunction motion, the Court is in the first instance assessing "the persuasiveness of

the challenger's evidence, recognizing that it is doing so without all evidence that may come out at trial." *Id.* Evidence by the defendant which raises a "substantial question" of invalidity shifts the burden to the plaintiff to show that the defense lacks "substantial merit." *Id.* at 883. FN9

FN9. This burden shifts, even though the alleged infringer bears the ultimate burden of persuasion on the defense at trial, because "the presumption does not relieve a patentee who moves for a preliminary injunction from carrying the normal burden of demonstrating that it will likely succeed on all disputed liability issues at trial, even when the issue concerns the patent's validity." *New England Braiding Co.*, 970 F.2d at 882.

In this case, the burden never shifts to Panduit because Band-It has failed to raise a substantial question. In opposing the preliminary injunction, Band-It attacks the validity of the '534 Patent on two theories: (1) that it is "obvious in light of the prior art" under 35 U.S.C. s. 103, and (2) that the specification ... fails to support the claims of that patent, as required by 35 U.S.C. s. 112. The second theory has been addressed by the Court's analysis construing Claim 1 to be limited to a "locking means" that simply includes a locking ball. Thus, Band-It has not raised "a substantial question" that Claim 1 of the '534 Patent is invalid as indefinite. FN10 Accordingly, we turn our attention to the first and primary theory of obviousness raised by Band-It, which we find equally unavailing.

FN10. Band-It also argues that "a locking ball by itself would not be structure sufficient to provide for the locking function," and a mere teaching of a locking ball as the "locking mechanism" would render the claims of the '534 patent invalid as indefinite (Band-It Sur-Reply at 3). This argument is meritless.

(1) Obviousness

A claimed invention is unpatentable if the differences between it 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 having ordinary skill in the art." 35 U.S.C. s. 103(a). *See Graham v. John Deere Co.*, 383 U.S. 1,14 (1966). The ultimate determination of whether an invention is or is not obvious is a legal conclusion based on the underlying factual inquiries that include: (1) the scope and content of the prior art; (2) the level of ordinary skill in the prior art; (3) the differences between the claimed invention and the prior art; and (4) objective evidence of nonobviousness. *See Graham*, 383 U.S. at 17-18. *In re Dembiczak*, 175 F.3d 994, 998 (Fed.Cir.1999) (abrogated on other grounds).

Keeping in mind that Band-It must rebut the presumption of patent validity with evidence which raises a "substantial question" of invalidity, the Court will begin its analysis by reviewing Band-It's evidence that the '534 Patent was "obvious at the time it was made in light of the prior art." That evidence is thin.

The relevant "prior art" for purposes of an obviousness analysis includes all of the categories of reference included in 35 U.S.C. s. 102 (the statute governing the separate doctrine of anticipation). *See LaBounty Mfg., Inc. v. U.S. Int'l Trade Comm'n*, 958 F.2d 1066, 1071 (Fed.Cir.1992). That section provides in relevant part:

A person shall be entitled to a patent unless ... the invention was patented or described in a printed publication in this or a foreign country 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. s. 102(b).

Band-It raises two arguments regarding obviousness. *First*, Band-It asserts that the presumption of validity

is not applicable here because the PTO issued the patent without having before it relevant prior art. *Second*, Band-It says that the prior art (disclosed and undisclosed) renders the '534 Patent obvious. For the reasons set forth below, we reject each argument.

(a) *Material, Noncumulative Prior Art Was Disclosed.*

To invalidate a patent based on the theory of obviousness under Section 103, the prior art references must be "material."

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). Thus, the statute makes clear that "materiality is not analyzed in a vacuum.... Rather, it is judged based upon the overall degree of similarity between the omitted reference and the claimed invention in light of the other prior art before the examiner." *See* Baxter Int'l, Inc. v. McGaw, Inc., 149 F.3d 1321, 1328 (Fed.Cir.1998). When a reference is cumulative to other prior art that was before the examiner, the element of materiality is not established." *Engle Indus., Inc. v. The Lockformer Co.*, 946 F.2d 1528, 1534 (Fed.Cir.1991)(Section 103 claims of patent invalidity rejected where prior art not before examiner cumulative of other art that was).

According to Band-It, the prior art that renders this patent "obvious" to a person "having ordinary skill in the art," 35 U.S.C. s. 103(a) falls into three categories: (1) prior art concerning entirely coated cable ties; (2) prior art concerning insulated cable clamps and clips; and (3) prior art concerning uncoated ball lock cable ties (Band-It Opp. Mem. at 9-10). Band-It argues that certain art in those categories was not disclosed to the PTO. We disagree. Each of these categories of prior art was disclosed, and any particular references not disclosed were cumulative and therefore not material.

(i) *Entirely Coated Cable Ties.*

Panduit offers evidence that these commercially available ties "were before and reviewed by the Patent Office Examiner" when the patent was issued (Panduit Reply Mem. at 4). These types of ties were not only included in the Background of the Invention, where it is stated that, "[p]rior metal cable ties have utilized *a nylon coating over the entire surface* of the cable tie strap to protect objects that come into contact with the tie from abrasion by the sharp edges of the metal tie" ('534 Patent, Col. 1, Lines 8-11) (emphasis added), but were also disclosed by the applicant in the IDS, which attached a copy of the "Critchley Limited Advertisement" for nylon coated ties (Panduit Facts para. 29, 31 and Ex. P). This evidence is more than adequate to show that this category of prior art was before the PTO at the time Panduit filed its application.

(ii) *Insulated Clamps and Clips.*

Band-It points out that insulated clamps and clips, which protect bundled cables from abrasion by the sharp metal edges of their of uninsulated counterparts (Panduit Facts para. 34), were the subject of several prior art patents, namely: U.S. Patent No. 2,415,517 (the " '517 Patent"), issued in February 1947; European Patent No. 20,943 (the " '3 Patent"), issued in April 1980; British Patent Application No. 771,376 (the " '376 Application"); and U.S. Patent No. 4,441,677 (the " '677 Patent"). The Court finds that the '517 Patent, as well as the foreign '3 Patent and '376 Application, are cumulative of the '677 Patent, which constitutes material prior art that was before the PTO at the time the application for the '534 Patent was filed, and therefore not material.

The '677 Patent teaches "various metal devices for bundling cables together and selectively covering the edges of those devices for the purpose of protecting the bundled cables from the metal edges of those

devices" (Band-It Mem. at 10). The '677 Patent was specifically called out by the inventor of the in the application for the '534 Patent filed in the PTO. *See* '534 Patent (references cited). Thus, the patent examiner had the opportunity to review that patent as potential prior art.

Although the '534 Patent Application did not specifically call out the '517 Patent or the foreign '3 Patent and '376 Application as prior art references, those references belong to the same category of prior art ("insulated cable clamps and clips") that were before the patent examiner in the form of the '677 Patent. There is no evidence that these prior art references teach a materially different device from the '677 Patent. In fact, Band-It's own brief supports the Court's conclusion that the '677 Patent teaches essentially the same invention as the two foreign patents and the U.S. '517 Patent (Band-It Mem. at 9-10).

Although foreign patents and foreign patent applications may constitute relevant prior art for purposes of an obvious analysis under 35 U.S.C. s. 103, *see* *OddzOn Prods., Inc. v. Just Toys, Inc.*, 122 F.3d 1396, 1401-02 (Fed.Cir.1997); *In re Schreiber*, 1473, 1475-77 (Fed.Cir.1997), like all such references, the significance of foreign prior art references is contingent on their materiality. Here, the foreign references are not material because they are cumulative. As Band-It points out: the '3 Patent "shows a protective covering around the edges of a locking strap" where "the protective covering does not cover the central portion of the strap" (Panduit Opp. Mem. at 10). Similarly, the '376 Application "shows a cable clip comprising a band made of ... aluminum alloy. The clip has a protective member covering its edges so that the wires "are protected from contact with the strap or band" (*Id.*). The '517 Patent is not much different: this U.S. patent teaches " 'the application of a cushion ... to the modified form of [a] clip ... so as to substantially encircle the wires or conduit to prevent contact thereof with the metal of the clip.' Significantly, the cushion does not extend around the entirety of the strap, leaving uncovered a longitudinally extending medial portion of the clip" (Band-It Mem. at 10).

On this record, Band-It has failed to raise a "substantial question" that the prior art references were material and non-cumulative of what already was before the PTO in the form of the '677 patent.

(iii) *Uncoated Ball Lock Cable Ties.*

Band-It claims that uncoated ball-lock ties, which teach the importance of "a metal-to-metal connection to improve tensile strength" were represented by the '592 Patent, issued in August 1983, more than one year before the '534 application was filed. The '592 Patent was disclosed by the inventor of the '534 Patent in its application and was thus, like the other patents described above, before the PTO for its review during the prosecution of the '534 Application.

The issuance of the '534 Patent, in spite of the PTO's awareness of the prior art categories listed above, solidifies the presumption of validity. Band-It has done nothing more than re-recite in its brief the prior art known to the PTO at the time the '534 Patent application was filed. This recital is not sufficient to overcome the significant evidentiary burden necessary to show that Panduit does not have a reasonable likelihood of success at trial on the issue of patent validity.

(b) *The Prior Art Did Not Render The '534 Patent Invention Obvious.*

Because Band-It has not produced any prior art "other than that which was considered by the Patent Office Examiner[,]" in one form or another, the "burden of overcoming the deference that is due to a qualified government agency presumed to have properly done its job" is heightened. *See* *American Hoist & Derrick Co. v. Sowa & Sons, Inc.*, 725 F.2d 1350, 1359 (Fed.Cir.1984). Here, Band-It argues that the subject matter of the '534 Patent "would have been obvious at the time the invention was made to a person having ordinary skill in the art" based on "the combined teachings of the prior art and the subject matter of the claims" (Band-It Mem. at 11). It is well-established that "[t]he party seeking a holding of invalidity based on a combination of two or more prior art teachings must show some motivation or suggestion to combine the

teachings." *Robotic Vision Systems, Inc. v. View Engineering, Inc.*, 189 F.3d 1370, 1377 (Fed.Cir.1999). It is also settled that "[a] suggestion or motivation to combine generally comes from the teachings of pertinent references, but it may also come from the nature of the problem or from the ordinary knowledge of one skilled in the art." *Id.*

Band-It has not offered any evidence that shows the suggestion or motivation necessary to establish that the prior art, taken in combination, taught the '534 Patent. Instead, Band-It simply refers to deposition testimony of Mr. Caveney, the inventor of the '534 Patent, who stated, according to Band-It, that "there are a number of different technologies related to the invention of the patent" (Band-It Opp. Mem. at 11). Band-It's paraphrase of Mr. Caveney's testimony is far from sufficient to satisfy the evidentiary burden necessary to establish that a combination of prior art teaches the present invention. It no doubt is often the case that "different technologies" are brought together in a new way to arrive at an invention. That is why the mere use of different technologies is not enough to render an invention obvious: it must be shown that the prior art shows some motivation or suggestion to combine their teachings. *See Pro-Mold & Tool Co. v. Great Lakes Plastics*, 75 F.3d 1568, 1573 (Fed.Cir.1996).

Moreover, the question of obviousness must be assessed from the perspective of what was known at the time of the invention, without resorting to hindsight. The Federal Circuit has explained why this is so:

Measuring a claimed invention against the standard established by section 103 requires the difficult but critical step of casting the mind back to the time of invention, to consider the thinking of one of ordinary skill in the art, guided only by the prior art references and the then-accepted wisdom in the field. *See, e.g., W. L. Gore & Assocs., Inc. v. Garlock, Inc.*, 721 F.2d 1540, 1553 (Fed.Cir.1983). Close adherence to this methodology is especially important in the case of less technologically complex inventions, where the very ease with which the invention can be understood may prompt one "to fall victim to the insidious effect of a hindsight syndrome wherein that which only the inventor taught is used against its teacher." *Id.*

The case law makes clear that the best defense against the subtle but powerful attraction of hindsight-based obviousness analysis is rigorous application of the requirement for a showing of the teaching or motivation to combine prior art references. Combining prior art references without evidence of such a suggestion, teaching, or motivation simply takes the inventor's disclosure as a blueprint for piecing together the prior art to defeat patentability—the essence of hindsight. *See, e.g., Interconnect Planning Corp. v. Feil*, 774 F.2d 1132, 1138 (Fed.Cir.1985) ("The invention must be viewed not with the blueprint drawn by the inventor, but in the state of the art that existed at the time").... [E]vidence of a suggestion, teaching, or motivation to combine may flow from the prior art references themselves, the knowledge of one of ordinary skill in the art, or, in some cases, from the nature of the problem to be solved. [citations omitted] ... The range of sources available, however, does not diminish the requirement for actual evidence. That is, the showing must be clear and particular. *See, e.g., C.R. Bard*, 157 F.3d at 1352. Broad conclusory statements regarding the teaching of multiple references, standing alone, are not "evidence." *E.g., McElmurry v. Arkansas Power & Light Co.*, 995 F.2d 1576, 1578 (Fed.Cir.1993).

In *Re Dembiczak*, 175 F.3d 994, 998-999 (Fed.Cir.1999) (some internal citations omitted) (abrogated on other grounds). The fact that something may seem obvious with the benefit of 20/20 hindsight does not address the key question: whether the invention was obvious when the patent was sought. The Court finds that Band-It's arguments regarding the teaching or suggestion flowing from the combination of prior art cited by Band-It are far too conclusory to overcome the heightened burden of rebutting the presumption of validity attendant to the '534 Patent.

In addition, evidence of factors tending to show nonobviousness—commercial success of the invention, satisfying a long-felt need, failure of others to find a solution to the problem at hand, and copying of the invention by others—are present in the evidence offered by Panduit. *See Pro-Mold & Tool Co.*, 75 F.3d at 1572 (listing these factors). *See also Specialty Composites v. Cabot Corp.*, 845 F.2d 981, 991 (Fed.Cir.1988)

(evidence of commercial success and "copying the claimed invention, rather than one in the public domain, is indicative of unobviousness"). Panduit has offered documents prepared by Band-It which indicate that Band-It considered making a "Panduit clone" and a "me too copy (clone)" of the '534 Patent, had an economic motive to do so, and took steps to put that plan into effect (Panduit Facts para. 6-11). These documents reflect the commercial success of Panduit's '534 Patent, and indicate that this patent solved a problem, satisfied a long felt-need, and constituted a device that Band-It, in its rush to gain market share, apparently took steps to copy. This evidence further undermines Band-It's invalidity defense. The Court therefore finds that the presumption of validity stands un rebutted, and this element of the likelihood of infringement prong has been satisfied by Panduit.

b. Likelihood of Success: Infringement.

To demonstrate likelihood of success, Panduit must also show that "in light of the presumptions and burdens that will inhere at trial, it will likely prove that [Band-It's accused product] infringes its patent[]." *See Bell & Howell Document Management Products Co. v. Altek Systems*, 132 F.3d 701, 704 (Fed.Cir.1997). At the preliminary injunction stage, it is enough for Panduit to show that it has a reasonable probability of proving its claims against Band-It. *Jeneric/Pentrol, Inc. v. Dillon Co., Inc.*, 205 F.3d 1377, 1384 (Fed.Cir.2000).

Having construed the '534 Patent claim, the Court now turns to a comparison of the claim with the device accused of infringement: the Band-It coated Ball-Lok™ cable tie. Determination of whether the accused device infringes the '534 Patent is a question of fact. *Hybritech*, 849 F.2d at 1455. Panduit has two theories of infringement: literal infringement and infringement under the doctrine of equivalents. Because the Court finds that the accused device is covered by the '534 Patent, Panduit has shown a reasonable likelihood of success on its claim of literal infringement and analysis under the doctrine of equivalents is unnecessary.

When a claim is written in means-plus-function language, "[l]iteral infringement of [such a claim] requires that the relevant structure in the accused device perform the identical function recited in the claim and be identical or equivalent to the *corresponding* structure in the specification." *See Odetics*, 185 F.3d at 1267 (citations omitted). "Functional identity and either structural identity or equivalence are both necessary." *Id.* (*citing Pennwalt Corp. v. Durand-Wayland, Inc.*, 833 F.2d 931, 934 (Fed.Cir.1987) (en banc)).

Band-It concedes that every element of the accused device, other than the locking means, is covered by Claim 1 of the '534 Patent, meaning that all other elements of the accused device's structure are claimed by the '534 Patent. Band-It argues that there can be no infringement because the locking ball structure is not identical or equivalent to the locking ball structure in the '534 Patent for performing the claimed locking means function. *See Odetics*, 185 F.3d at 1267. However, as we already have explained, the locking means claimed in the '534 Patent is not limited to the specific locking ball in the '592 Patent. Given this construction of the '534 Patent's claimed function, the question is whether the accused device performs the claimed function.

The answer is that it does. Band-It's accused device contains a locking ball as the locking means for the locking mechanism that performs the function claimed by the '534 Patent. Therefore, because the claimed function of the '534 Patent is identical to the function performed by the accused device and because the structure used by the accused product is identical to the structure claimed by the '534 Patent, Panduit has a substantial likelihood of success in proving that Band-It's coated Ball-Lock cable tie literally infringes the '534 Patent. *Id.* FN11

FN11. The Court does not construe the term "locking means" more broadly to mean "any" kind of locking means that might perform the claimed function (and Panduit does not appear to seek that construction). Indeed, such a construction could raise serious issues of validity. In *Amtel Corp.*, 198 F.3d at 1381, the Court held that the "structure supporting a means-plus-function claim under s. 112, para. 6 must appear in the specification." *See also Pennwalt*, 833 F.2d at 935 (paragraph 6 of the statute "rules out the possibility

that any and every means which performs the function specified in the claim literally satisfies that limitation"). This structure, however, need not be "incorporated by reference." 198 F.3d 1381. Rather, the relevant "inquiry asks first whether structure is described in [the] specification, and, if so, whether one skilled in the art would identify the structure from that description." *Id.* The *Amtel* Court went on to state that "these requirements of s. 112 are revealed by its language and purpose." *Id.* Here, the specifications in the '534 Patent disclose the relevant and necessary "locking means" structure: a locking ball.

B. Irreparable Harm

We turn now to the issue of irreparable harm. Because Panduit has made a strong showing that it has a reasonable likelihood of success on the merits, both with respect to the validity and infringement of its patent, it is entitled to a presumption of irreparable harm. *See Reebok International Ltd. v. J. Baker, Inc.*, 32 F.3d 1552, 1556 (Fed.Cir.1994). "However, the presumption does not necessarily or automatically override the evidence of record. It is rebuttable. Like many other factual presumptions, it simply acts here as a procedural device which shifts the ultimate burden of production on the question of irreparable harm onto the alleged infringer." *Id.* (citations omitted). We find that Band-It has not produced sufficient evidence to rebut the presumption of irreparable harm.

Moreover, Panduit has not merely relied on a presumption of irreparable harm, but has offered independent evidence sufficient to support a finding of irreparable harm. The evidence shows that Panduit is by far Band-It's largest competitor in the United States for coated ball-lock ties (Band-It's Resp. to Panduit's Facts para. 5); that the genesis of Band-It's development of the accused device was a desire to compete with Panduit (Panduit Facts para. 10); that Band-It has sold the accused device in the United States (Panduit Reply Mem. Ex. U at 36-42 and Ex. V); that Band-It has taken certain business away from Panduit (Panduit Facts para. 32); and that Band-It intends to continue selling the accused device in the United States (Band-It Mem., Ex. K, para. 4). Moreover, as the Court has found, the credible evidence shows that the volume of sales has been in excess of \$100,000. And, Band-It's own documents show that if Panduit loses market share as a result of an infringing device, the harm likely will be difficult to undo: when Band-It discussed developing a Panduit "clone," the observation was made that the project needed to be on a fast track "as every day we are left out of this market, will make our task to re-establish our position all the more difficult" (Panduit Facts para. 33).

Thus, the evidence offered at this stage shows that the alleged infringement already has caused competitive harm to Panduit, is ongoing, and thus would threaten continued harm in the future, and that the harm is of the type that would not easily be reduced to damages. That is particularly true given the nature of the right allegedly being infringed by Band-It:

It is well-settled that, because the principal value of a patent is its statutory right to exclude, the nature of the patent grant weighs against holding that monetary damages will always suffice to make the patentee whole. The patent statute provides injunctive relief to preserve the legal interests of the parties against future infringement which may have market effects never fully compensable in money. If monetary relief were the sole relief afforded by the patent statute then injunctions would be unnecessary and infringers could become compulsory licensees for as long as the litigation lasts.

Hybritech Inc., 849 F.2d at 1456-67 (internal citations omitted). In the face of this evidence, Band-It offers two arguments against a finding of irreparable harm. The Court is not persuaded by either argument.

First, Band-It argues that because "Panduit waited for many months after learning of the accused product to bring suit," that "delay in seeking relief warrants denying its motion for preliminary injunction" (Band-It Mem. at 14). In support of this argument, Band-It points to the deposition testimony of Christopher W. Hipple, Panduit's Product Manager for Stainless Steel Products, who admitted that he learned of the accused

product by at least June of 1999, and heard "rumors" of this product sometime prior to June 1999 from Panduit's European product manager in the United Kingdom (Panduit's Facts para. 55, 58). Mr. Hipple stated that he routed this information regarding Band-It's product to senior personnel at Panduit, ordered samples of the accused product and shortly thereafter had a discussion with a division manager regarding the '534 Patent (Panduit's Facts para. 56-57). Although the accused product was discovered in June 1999, the complaint in this case seeking preliminary injunctive relief was not filed until March 9, 2000—some nine months later.

"[D]elay in seeking a remedy is an important factor bearing on the need for a preliminary injunction[.]" High Tech Medical Instrumentation v. New Image Industries, Inc., 49 F.3d 1551, 1557 (Fed.Cir.1995), no doubt for the common sense reason that an undue delay in taking action may undermine a showing of irreparable harm—if the harm was so bad, why would one wait to seek a remedy? But, delay is only one factor to consider. Hybritech Inc., 849 F.2d at 1457 ("a showing of delay does not preclude, *as a matter of law*, a determination of irreparable harm" (emphasis in original)). In Citibank, N.A. v. Citytrust, 756 F.2d 273, 276 (2d Cir.1985), a trademark case, the court found that a nine-month delay by Citibank before filing its preliminary injunction motion undercut "the sense of urgency that ordinarily accompanies" such a motion and "suggests that there is, in fact, no irreparable injury." However, the court also found that the delay was not dispositive of the issue, but instead served merely as an indicator of harm. *Id.* By contrast, in High Tech Medical Instrumentation v. New Image Industries, Inc., 49 F.3d 1551, 1557 (Fed.Cir.1995), the Court concluded that a delay of 17 months did not bar a finding of irreparable harm.

Here, Panduit does not fully explain the reason for a nine-month lag time from discovery of the alleged infringement to suit (Panduit Reply at 6-7). The inference that Panduit apparently wants the Court to draw is that the time was spent making sure that the accused device infringed and was being sold in the United States before rushing to court. Prudence before filing suit is certainly welcomed; but Panduit could have been more forthcoming in describing what it did to investigate before suit. In the circumstances, we find that the nine-month delay is a factor that raises questions concerning Panduit's claim of irreparable harm, but does not destroy it. The Court finds that this delay was not long enough to completely undermine the evidence cited above that shows irreparable harm.

Second, Band-it argues that Panduit will suffer no irreparable harm in the absence of a preliminary injunction because Band-It's sales in the United States are, and will remain, *de minimis* (Band-It Mem. at 14). For the reasons explained before, however, the Court finds Mr. Angotti's deposition testimony that there has been in excess of \$100,000 in sales into the United States more credible than his later affidavit revision reducing that figure to \$13,000. However, even if the figure were \$13,000, the Court would not find the injury to Panduit to be *de minimis*. Whether the precise dollar figure is \$13,000 or \$100,000, it is clear that Panduit already has lost some business. Moreover, Mr. Angotti's guarded affidavit statement that Band-It has no "current" plans to increase its United States sales "significantly" is not, in the Court's view, a sufficiently clear disavowal of any "planned widespread use of the accused technology" (Band-It Mem. at 14) to provide assurance against irreparable harm. The Angotti affidavit does not deny that Band-It intends to continue making some level of sales in the United States, which could result in future competitive loss by Panduit. FN12

FN12. Band-It's reference to Roper Corp. v. Litton Sys., Inc., 757 F.2d 1266, 1273 (Fed.Cir.1985) is inapposite; in that case, there was *no* practice of the invention by the accused infringer and *no* plans to do so in the future.

The Court concludes that with or without the boost supplied by a presumption of irreparable harm, Panduit has offered sufficient evidence of irreparable harm to support the issuance of a preliminary injunction.

C. Balance of Hardships

The question to be answered when balancing hardships is whether the hardship to Panduit without an injunction exceeds the hardship imposed on Band-It from its issuance. *Hybritech*, 849 F.2d at 1457. Band-It does not contend that Panduit cannot satisfy this element of the preliminary injunction test, and the Court agrees. The evidence persuades the Court that the irreparable harm to Panduit without issuance of the injunction would exceed the irreparable harm to Band-It from an injunction; Band-It points to no harm it would suffer and, to the contrary, seeks to downplay the level of its United States activity. The Court therefore finds that the balance of hardships tips in Panduit's favor.

D. The Public Interest

In analyzing this factor, the Court must consider "whether there exists some critical public interest that would be injured by the grant of preliminary relief." *Hybritech*, 849 F.2d at 1458. Courts have consistently recognized that the public interest is served by enforcing valid patents. *Id.* The Court has found that the presumption of validity for the '534 Patent has not been rebutted. The Court therefore finds that the public interest is best served by the issuance of an injunction against Band-It.

III.

Finally, there is the question of a bond. Although neither party has commented on this issue, the federal rules and the case law require the party seeking the injunction to provide security as support for it. FED. R. CIV. para. 65; *Gateway Eastern Railway Co. v. Terminal Railroad Assoc. of St. Louis*, 35 F.3d 1134, 1141 (7th Cir.1994) (*citing* *American Hosp. Supply Corp. v. Hospital Prod. Ltd.*, 780 F.2d 589, 597 (7th Cir.1986) (making security mandatory)). The Seventh Circuit recently has observed that when setting an injunction bond, "district courts should err on the high side." *Mead Johnson & Co. v. Abbott Laboratories*, 201 F.3d 883, 887 (7th Cir.2000). In this case, issuance of the preliminary injunction will be premised on Panduit obtaining a bond in the amount of \$250,000, an amount based on Panduit's evidence of Band-It's allegedly infringing sales (\$113,000), and an estimate of the litigation lasting for two years.

CONCLUSION

IT IS THEREFORE ORDERED that an injunction should issue against Band-It which orders Band-It to refrain from manufacturing, using, selling or offering to sell in the United States selectively coated cable ties that infringe the '534 Patent until a full trial on the merits. Panduit's motion for a preliminary injunction (doc. # 2-1) is therefore granted. Bond is set at \$250,000.

N.D.Ill.,2000.

Panduit Corp. v. Band-It-Idex, Inc.

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