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United States District Court,  
D. Minnesota.  
FARGO ELECTRONICS, INC., Plaintiff,  
v.  
IRIS LTD., INC., Defendant.  
**No. 04-1017 JRT/FLN.**

Nov. 30, 2005.

[Robert J. Gilbertson](#), [Ronald J. Schutz](#), Robins, Kaplan, Miller & Ciresi L.L.P., Minneapolis, MN, for plaintiff.

[J. Derek Vandenburg](#), [Brian W. Hayes](#), Carlson, Caspers, Vandenburg & Lindquist P.C., Minneapolis, MN, for defendant.

MEMORANDUM OPINION AND ORDER ON DEFENDANT'S MOTIONS FOR PARTIAL SUMMARY JUDGMENT AND CONSTRUING CLAIM TERMS

[TUNHEIM, J.](#)

\*1 This is a patent case between a manufacturer of photo identification card printers and one of its former distributors. Plaintiff Fargo Electronics, Inc. ("Fargo") owns two patents directed to printer ribbon identification sensors. In its Second Amended Complaint dated May 31, 2005, Fargo asserts infringement of its patents and claims under the Lanham Act and the Minnesota Unlawful Trade Practices and Deceptive Trade Practices Acts <sup>FN1</sup> against defendant Iris Ltd., Inc. ("Iris"). Iris has counterclaimed for declaratory judgment of non-infringement, patent invalidity, and unenforceability.

**FN1.** The Second Amended Complaint also contains "Count VII-Unfair Competition," which was previously dismissed as duplicative by the Court's Order of March 8, 2005. (Docket No. 43.)

This matter is before the Court upon defendant's motion

for partial summary judgment and plaintiff's motion to construe claim terms. For the reasons explained below, the Court grants defendant's motion and sets forth its construction of the disputed claim terms.

BACKGROUND

Fargo is engaged in the design, manufacture, and sale of dye-sublimation identification ("ID") card printers and ribbons, as well as other supplies for use with its ID card printers. Fargo sells these specialized printers primarily for use in making high-quality, secure employee ID cards. A large amount of Fargo's business consists in selling replacement ribbons and other "consumables." The ribbons can print a finite number of ID cards and then must be replaced.

Fargo makes different types of ink ribbons, with different characteristics, to use in its printers. It is thus important for the printer to be able to identify which type of ribbon is being used. Fargo owns two patents relating to sensors and identifier indicia that enable its printers to identify the type of ribbon. These [patents, nos. 5,755,519](#) ("the '519 patent") and [6,152,625](#) ("the '625 patent"), are entitled "Printer Ribbon Identification Sensor" and "Sensor Hub for a Print Ribbon Supply Roll and Method," respectively. (Fink Aff., Exs. A, B.)

The ['519 patent](#) is directed to a "sensor for sensing and identifying characteristics of a printer ink ribbon when a ribbon supply roll is inserted into a printer and operated." Metal pins are arranged in a given sequence, according to ribbon type, in a circular pattern on the end of the ribbon roll core, or hub. As the roll rotates within the printer, the metal pins pass a Hall Effect Sensor, or, alternatively, a number of sensors can be positioned in alignment with the bores or apertures that hold the pins so that the printer can sense the ribbon type before the roll begins to rotate. The sensor, which is attached to the printer, senses the pins and sends a signal to a printer controller, in which is stored a code for the desired ribbon for a particular type of print job. The signals are compared to the code to determine if the correct ribbon

was installed.

The '625 patent describes “a sensor hub for a print ribbon supply roll” which includes pins “permanently secured” in the apertures (in contrast to the '519 patent, in which the pins are “removable and replaceable”). The “permanently secured” feature ensures that the pins do not fall out during shipping or use, and reduces human error because the pins can be molded together with the apparatus holding the pins. Also, the sensor is attached to the ribbon supply roll itself, as opposed to the sensor in the '519 patent, which is attached to the printer. Fargo's most popular ribbon is a multi-color, 250 print ribbon designated as part no. 1733. This ribbon is marked with the numbers of both patents at issue in this suit.

\*2 Iris, a former distributor for Fargo, began making and selling a ribbon, called Ribbon Choices No. 81733G (“no.81733G”), designed to compete with Fargo's no. 81733. When Fargo learned of the sale of these ribbons, it terminated Iris's distribution contract and instituted this lawsuit. By Order dated March 8, 2005, pursuant to the parties' agreement, the Court granted in part Fargo's motion for a preliminary injunction and enjoined the sale of no. 81733G. Fargo now alleges that sometime after the preliminary injunction hearing, Iris began making and selling a ribbon designated as Ribbon Choices FPYMCKO-250 Ribbon (“the FPYMCKO-250 ribbon”), which is also compatible with Fargo's printers. Fargo alleges that the FPYMCKO-250 ribbon differs from the no. 81733G ribbon in only insignificant respects and also infringes its two patents.

## ANALYSIS

### I. Defendant's Motion for Partial Summary Judgment

Summary judgment is appropriate where there are no genuine issues of material fact and the moving party is entitled to judgment as a matter of law. [Fed.R.Civ.P. 56\(c\)](#). Only disputes over facts that might affect the outcome of the suit under the governing substantive law will properly preclude the entry of summary judgment. [Anderson v. Liberty Lobby, Inc.](#), 477 U.S. 242, 248, 106

[S.Ct. 2505](#), 91 L.Ed.2d 202 (1986). In considering a motion for summary judgment, a court is required to view the facts in a light most favorable to the nonmoving party. [Lomar Wholesale Grocery, Inc. v. Dieter's Gourmet Foods, Inc.](#), 824 F.2d 582, 585 (8<sup>th</sup> Cir.1987).

Iris moves for summary judgment on Count I of Fargo's Second Amended Complaint, which alleges infringement of the '519 patent. Iris bases its motion on two arguments. First, it contends that independent claim 8 of the '519 patent, and its dependent claims 9-15, are invalid as indefinite due to an apparent error in the language of claim 8 that makes part of it nonsensical. Second, Iris argues that it has not contributorily or by inducement infringed claims 1-7 of the '519 patent because the replacement of the used-up ribbon is allowable as permissible repair.

At the outset, it is important to note that Iris's motion is based on its understanding of the scope of Fargo's Second Amended Complaint. According to the parties' correspondence and Fargo's earlier memorandum in support of its motion for a preliminary injunction, Fargo is asserting direct infringement of independent claim 8 and some of its dependent claims, and contributory infringement of independent claims 1 and 5 and some of their dependent claims.

In the parties' correspondence, however, Fargo notes that it may assert additional claims, and the Second Amended Complaint broadly asserts, in Count I, that “Iris has willfully, directly, indirectly, contributorily, and/or by inducement infringed the claims of the '519 patent ...” (Pl.'s Sec. Am. Compl., ¶ 33.) Count I thus includes claims of direct infringement of independent claims 1 and 5 in addition to the contributory and inducement claims. Thus, although the Court grants Iris's motion in its entirety, Count I of Fargo's Second Amended Complaint is, strictly speaking, not entirely extinguished. At this stage it does not appear possible that Fargo could assert these claims of direct infringement, but the Court notes their existence to avoid confusion about the scope of its Order.

#### A. Indefiniteness

\*3 Title 35 U.S.C. § 112, ¶ 2 requires that every patent's specification "conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention." The claims must use language definite enough to notify the public of the patentee's right to exclude. *Datamize, LLC v. Plumtree Software, Inc.*, 417 F.3d 1342, 1347 (Fed.Cir.2005). Because determining whether a claim is sufficiently definite involves the Court's duty to construe the claim, indefiniteness is a question of law. *Atmel Corp. v. Information Storage Devices, Inc.*, 198 F.3d 1374, 1378 (Fed.Cir.1999).

Iris asserts that claim 8 contains a mistakenly truncated phrase, "the second supports other than the," and that this mistake is not correctible under *Novo*, 350 F.3d at 1357 and subsequent cases addressing the effect of mistaken language in a claim. Because the Court cannot correct this language, Iris concludes, it must find the claim to be invalid as indefinite.

At oral argument, Fargo indicated that it did not agree that the truncated phrase is a mistake in need of correction. As such, Fargo contends the Court should construe the language according to standard principles of claim construction, starting with the rule that if the meaning of the claim is discernable, a court should not hold it invalid for indefiniteness even though the task of construction is formidable and reasonable persons may disagree over the result. *Bancorp Servs., L.L.C. v. Hartford Life Ins. Co.*, 359 F.3d 1367, 1371 (Fed.Cir.2004).

Claim 8 of the '519 patent states:

An ink ribbon supply roll comprising a roll core, a plurality of supports comprising a first support and a plurality of second supports formed in a member movable with the roll core and radially spaced from an axis of rotation of the roll core when the roll core rotates as ribbon thereon is removed, and first identifier indicia comprising an unmagnetized magnetic material in a first support to indicate a home position, *the second supports other than the* being oriented at known positions relative to the home position and at least one second support carrying a removable unmagnetized magnetic material identifier indicia.

(Fink Aff., Ex. A.) The Court does not credit Fargo's argument that the phrase "the second supports other than the" is not a mistake. A court's task in construing a claim starts with the language of the claim itself. *Vitronics Corp. v. Conceptoronic, Inc.*, 90 F.3d 1576, 1582 (Fed.Cir.1996). Fargo proposes two possible constructions of the phrase "the second supports other than the:" (1) "the supports other than the first support;" or (2) "the second supports." Both of Fargo's proposed constructions require the Court either to add or delete, not simply construe, language from the claim. In the first proposal, the Court would have to delete the word "second" from where it modifies "supports" and add the words "first supports" after "other than the." In the second proposal, the Court would have to delete the words "other than the." In general, however, courts are to avoid constructions that render words superfluous. See *Innova/Pure Water, Inc. v. Safari Water Filtration Sys., Inc.*, 381 F.3d 1111, 1119 (Fed.Cir.2004) ("While not an absolute rule, all claim terms are presumed to have meaning in a claim."). Because Fargo proposes that the Court put language in the claim that is not there and take language away that is there, Fargo is asking the Court to do something more than construe the claim: it is asking the Court to correct the claim. The Court therefore agrees with Iris that it is necessary to analyze whether it can do so under *Novo*.

\*4 The Federal Circuit has articulated a two-part test for determining when a district court may correct an error in a patent. *Novo*, 350 F.3d at 1357. Such correction is proper "only if (1) the correction is not subject to reasonable debate based on consideration of the claim language and the specification and (2) the prosecution history does not suggest a different interpretation of the claims." *Id.* In *Novo*, the patent described a carrier assembly holding vertical blinds for covering the interior of a window. *Id.* at 1349. One of the claims contained the phrase "stop means formed on a rotatable with said support finger." *Id.* at 1352. The district court corrected this language to "stop means formed on *and* rotatable with said support finger." *Id.* at 1353. Applying its two-part test, the Federal Circuit concluded that it was inappropriate for the district court to correct the claim in that case. *Id.* at 1354.

Fargo distinguishes *Novo* on the basis that the truncated phrase was added during prosecution in an effort to distinguish the patent from the prior art. *Id.* at 1357-58. In contrast, the language at issue here was always part of the claim language and appears to be mere accidental excess left over from a change in terminology. While Fargo is correct that the Federal Circuit examined the prosecution history in *Novo*, Fargo's argument ignores the fact that it did so as part of its two-part test. *Id.* at 1357. The *Novo* test clearly requires both that the correction not be subject to reasonable debate based on the claim language and specification and that the prosecution history not suggest a different interpretation of the claims. *Id.* at 1354. Only when both of these standards are satisfied may a court correct a claim.

Fargo argues strenuously that its proposed constructions, namely, “the supports other than the first support,” or “the second supports,” are consistent with and, indeed, the only possible construction of the truncated phrase. Carefully parsing the language of the claim, Fargo notes that the claim initially describes a “first support” and a “plurality of second supports.” The claim then goes on to identify “first identifier indicia ... in a first support to indicate a home position.” The next phrase, “the second supports other than the being oriented at known positions relative to the home position,” can therefore, according to Fargo, only refer to the “second supports” described earlier in the claim, because the first part of the claim indicates that the second supports are the only things oriented in such a way. Fargo's argument, however, entirely ignores the effect of the language “other than the.” The fact that the claim begins by reciting “a plurality of supports comprising a first support and a plurality of second supports” does not restrict the claim's ability to thereafter distinguish between types of second supports.

\*5 Fargo also points out that its construction is consistent with specification language indicating that there are a plurality of supports other than the first support, that the supports are divided into sectors for ribbon identification, and that all of these supports are oriented at known positions relative to the home position. Essentially, Fargo argues that the specification indicates that

supports are either in the home position or oriented at known positions relative to the home position. The language of claim 8, however, refers to “first identifier indicia ... in a first support,” with “support” being singular, yet the specification shows more than one support in the “home position.” Thus, it appears possible that “the second supports other than the” could refer to the other support in the “home position,” which is a correction inconsistent with that proposed by Fargo.

Moreover, the fact that Fargo's reading is consistent with the language of the claims and specification is not enough to satisfy *Novo*. In *Novo*, the court held that correction from “a” to “and” was improper because the correct approach could have been to add some unknown missing word. *Id.* at 1357. Similarly, the phrase “second supports other than the” naturally leads the reader to expect a description of a further subset of that category of supports known as “second supports.” Fargo's proposed constructions take any such additional differentiation out of the phrase completely. In such circumstances, the Court cannot agree that Fargo's correction is not subject to reasonable debate.

A review of other cases involving errors in patent language confirms the Court's conclusion. In *Hoffer v. Microsoft Corp.*, 405 F.3d 1326 (Fed.Cir.2005), one of the claims referred to a claim 38, but the patent contained no claim 38. *Id.* at 1331. A review of the prosecution history demonstrated that when renumbering the allowed claims in preparation for printing, the examiner mistakenly failed to correct the internal reference, and the correction was obvious. *Id.* The Federal Circuit explained that this was the type of harmless and obvious administrative error that is permissibly corrected under *Novo*. *Id.*; see also *Novo*, 350 F.3d at 1357 (stating that district courts can correct only “*Essex*-type,” or obvious, errors). In contrast, in a case involving the incomplete phrase “coupled to said gearbox means by rigid,” the Federal Circuit found the claim invalid as indefinite because “it is impossible to discern the scope of such a truncated limitation.” *Allen Eng'g Corp. v. Bartell Indus., Inc.*, 299 F.3d 1336, 1348-49 (Fed.Cir.2002). Similarly, in *Group One Ltd. v. Hallmark Cards, Inc.*, 407 F.3d 1297 (Fed.Cir.2005), the Federal Circuit held that

the district court correctly refused to add language to a claim where it was not possible to discern what language was missing simply by reading the patent. *Id.* at 1303.

\*6 Fargo points out that the missing phrase in *Group One* was quite long and was essential to the claim's validity. The number of words missing from a claim does not by itself indicate whether the missing language renders the claim invalid, however. In *Novo*, the Federal Circuit disallowed a correction from “a” to “and.” *Novo*, 350 F.3d at 1349. While the Court understands Fargo's argument to be that the claim is valid even without correction, the analysis of the possible ways to correct the phrase “second supports other than the” leads the Court to conclude that to assign a meaning to this phrase, the Court would have to engage in conjecture. The Court therefore concludes that independent claim 8 of the '519 patent, and thus its dependent claims 9-15, are invalid for indefiniteness.

## B. Repair

Both independent claims 1 and 5 are directed to the print ribbon supply roll and the detector, or sensor, attached to the printer. Claim 1 states, “the improvement comprising identifier indicia for the particular type of ribbon ... and a detector mounted adjacent the end of the supply roller assembly....” Claim 5 includes “A printer of a type which utilizes ... a detector mounted on the printer comprising a magnet and a Hall Effect Sensor between the magnet and the end of the hub....” (Fink Aff., Ex. A.) Fargo does not allege that Iris sells printers with the accompanying detectors, however, but only that Iris sells infringing printer ribbon supply rolls.

Contributory infringement exists when a seller sells “a component of a patented machine, manufacture, combination or composition ... constituting a material part of the invention, knowing the same to be especially made or especially adapted for use in an infringement of such patent ...” 35 U.S.C. § 271(c). Anyone who actively induces infringement is liable as an infringer. *Id.* at § 271(b). Liability under § 271(b) and (c) is dependent on the existence of an underlying act of direct in-

fringement. *Linear Tech. Corp. v. Impala Linear Corp.*, 379 F.3d 1311, 1326 (Fed.Cir.2004). Iris argues that its customers may purchase and use its ribbons without incurring liability for direct infringement under the doctrine of permissible repair, and that therefore it cannot be liable for contributory infringement or infringement by inducement.

Under the permissible repair doctrine, a user of a patented combination is permitted to preserve and maintain the combination by making repairs or replacing unpatented component parts necessary for continued use. *Everpure, Inc. v. Cuno, Inc.*, 875 F.2d 300, 302-03 (Fed.Cir.1989). It is an infringement, however, for such users to “reconstruct” the combination. *Sandvik Aktiebolag v. E.J. Co.*, 121 F.3d 669, 673-74 (Fed.Cir.1997). Whether a user's actions constitute permissible repair or impermissible reconstruction is a question of law. See *Dawson Chem. Co. v. Rohm & Hass Co.*, 448 U.S. 176, 217, 100 S.Ct. 2601, 65 L.Ed.2d 696 (1980) (describing the distinction between reconstruction and repair as “legal”); *Sandvik*, 121 F.3d at 672.

\*7 As the Federal Circuit has noted, the Supreme Court has taken an “expansive” view of what constitutes permissible repair. *Sandvik*, 121 F.3d at 672. There is no legally recognized “heart” of a combination that cannot be replaced or repaired. *Aro Mfg. Co. v. Convertible Top Replacement Co.*, 365 U.S. 336, 345, 81 S.Ct. 599, 5 L.Ed.2d 592 (1961). Nor must the repair or replacement be confined to minor parts. *Sage Prods., Inc. v. Devon Indus., Inc.*, 45 F.3d 1575, 1578 (Fed.Cir.1995). Factors that are relevant in determining whether an action constitutes repair or reconstruction include whether the part is readily replaceable and whether it has a shorter useful life than the combination as a whole. *Husky Injection Molding Sys. Ltd. v. R & D Tool & Eng'g Co.*, 291 F.3d 780, 787 (Fed.Cir.2002) (“At a minimum, repair exists if the part being repaired is a readily replaceable part”); *Sandvik*, 121 F.3d at 673 (noting significance of “whether one of the components of the patented combination has a shorter useful life than the whole”). Thus, courts have permitted the replacement of filter cartridges for a water purification

system, *Everpure, Inc.*, 875 F.2d at 304; inner linings for a “Sharps Disposal System” for sharp medical waste, *Sage Products, Inc. v. Devon Indus., Inc.*, 45 F.3d 1575, 1579 (Fed.Cir.1995); blades in a harvester, *Porter v. Farmers Supply Service, Inc.*, 790 F.2d 882, 886 (Fed.Cir.1986); and broken remote controls, where the patented system included both the remote and the receiving apparatus in the television, *Universal Electronics, Inc. v. Zenith Electronics Corp.*, 846 F.Supp. 641, 649 (N.D.Ill.1994), *aff’d*, 41 F.3d 1520 (Fed.Cir.1994) (unpublished table decision).

The facts of this case fall squarely within these earlier precedents finding repair. The printer ribbon is a readily replaceable part that must be replaced after a set number of uses.<sup>FN2</sup> Although it comprises an important part of the combination, this fact is not relevant to the repair doctrine. *Aro*, 365 U.S. at 345; *Porter*, 790 F.2d at 885-86; *cf. Universal Elecs.*, 846 F.Supp. at 649 (“The flaw in Zenith’s argument, that replacing the remotes is a ‘second creation of the patented entity,’ is that the ‘patented entity’ is not the remote control transmitter, but the transmitter/receiver system.”). While the Federal Circuit has suggested that there might be some outer limits to this doctrine, *see Husky*, 291 F.3d at 786-87, Fargo does not discuss the factors relevant to the determination whether a user’s actions constitute permissible repair or impermissible reconstruction, nor does Fargo address the Supreme Court’s holding in *Aro* that the importance or novelty of the replaced part is irrelevant in making the determination. Instead, Fargo relies on the fact that its ribbon is separately patented. *See, e.g., Husky*, 291 F.3d at 786 (noting that “[m]ere replacement of individual unpatented parts” constitutes repair); *Everpure*, 875 F.2d at 302-03 (stating that a lawful user of a patented combination may replace unpatented component parts); *Porter*, 790 F.2d at 886 (stating that a licensed user may replace any element so long as that element is not separately claimed).

FN2. The '519 patent does not contain any claims directed to the ink ribbon itself, which is the part that is actually exhausted. Fargo does not argue, however, that the supply roll assembly is reusable. *Cf. Sage Prods.*, 45 F.3d at

1578 (“when it is neither practical nor feasible to continue using an element that is intended to be replaced, that element is effectively spent.”).

\*8 Iris argues that whether or not a separate claim covers only the replaced part at issue should not be relevant to the question of contributory infringement of a combination claim. A consideration of the permissible repair doctrine, however, reveals the flaw in Iris’s argument. The doctrine of permissible repair arises out of the fact that a license to use a patented combination includes the right to preserve its fitness for use through repair or replacement of a broken or spent part. *Aro*, 365 U.S. at 345. As other courts have recognized, the fact that a patentee secured a separate patent on a component part defeats any inference that the patentee has granted a license to repair the combination with a component part that infringes its separate patent. *R2 Med. Sys., Inc. v. Katecho, Inc.*, 931 F.Supp. 1397, 1444 (N.D.Ill.1996); *Warner & Swasey Co. v. Held*, 256 F.Supp. 303, 311 (1966); *see also Hensley Equip. Co. v. Esco Corp.*, 383 F.2d 252, 260 (5<sup>th</sup> Cir.1967) (citing *Warner* ). Thus, if Fargo’s ribbon (or, to be more precise, the supply roll assembly and accompanying identifier indicia) is separately patented, Iris cannot avoid liability for contributory infringement or infringement by inducement of the combination claims 1-7 of the '519 patent.

Fargo asserts that its ribbon is separately patented, citing the '519 and '625 patents in their entirety. As discussed previously, however, the Court has determined that claim 8, the only other independent claim in the '519 patent, is invalid as indefinite. In its Answer to Iris’s counterclaims, Fargo admitted that a pin that is “removable” as that term is used in the claims of the '519 patent cannot be “permanently secured” as that term is used in the claims of the '625 patent. (Hayes Aff., Ex. 10 at 10, ¶ 18-19, Ex. 11 at 3, ¶ 18-19.) All of the independent claims of the '625 patent require that the pins be “permanently secured.” (Fink Aff., Ex. B.) Claims 1 and 5 of the '519 patent, in contrast, both require that the pins be “removable” or “removably mounted.” (*Id.*, Ex. A.) Iris asserts that because the two patents are mutually exclusive, it would be impossible

for a ribbon that infringes the '625 patent to infringe the combination claims of the '519 patent. At oral argument, counsel for Fargo focused on claim 8 of the '519 patent as being the claim that renders its ribbons “separately patented.” Fargo has not explained how the sale of a separately patented component part could constitute contributory infringement, or infringement by inducement, of a combination patent with which it is mutually exclusive. The Court therefore concludes that claim 8 of the '519 patent is the only basis upon which Fargo can assert that its printer ribbons are “separately patented” for the purpose of determining whether Iris's sales constitute contributory infringement or infringement by inducement of claims 1 and 5 of the '519 patent. Because claim 8 is invalid, the Court therefore grants summary judgment to Iris on Fargo's claims of contributory inducement and infringement by inducement of claims 1 through 7 of the '519 patent.

## II. Plaintiff's Motion for Claim Construction

\*9 The parties have submitted a large number of words and phrases for the Court's construction. Although it appears that the Court's disposition of Iris's summary judgment motion could render many of the parties' disputes concerning language in the '519 patent moot, as noted above some of Fargo's claims concerning the '519 patent still survive. In addition, it has not escaped the Court's notice that patent cases are vigorously litigated and the outcomes are difficult to predict, and that thus it is possible that these terms will become relevant again at some later date. Therefore, because the parties have already fully briefed and argued all the terms, in the interests of judicial economy the Court will proceed to construe all the disputed terms as they have been submitted to the Court.

### A. Standards of Claim Construction

Claim construction is a question of law for the Court. *Allen Eng'g Corp. v. Bartell Indus., Inc.*, 299 F.3d 1336, 1344 (Fed.Cir.2002). The words of the claim are generally given the ordinary and customary meaning they would have to a person of ordinary skill in the art in

question at the time of invention. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312-13 (Fed.Cir.2005). To ascertain this meaning, courts look to the words of the claims themselves, the remainder of the specification, the prosecution history, and extrinsic evidence concerning the meaning of technical terms and the state of the art. *Id.* at 1314.

The specification is the single best guide to the meaning of a disputed term. *Id.* at 1315. Courts must be cautious, however, not to read a limitation from the specification into the claims. *Id.* at 1320. The court should consider the prosecution history, if it is in evidence, but courts should be mindful that such history often lacks the clarity of the specification and is thus less useful for claim construction purposes. *Id.* at 1317. While the court can use extrinsic evidence, it is less significant than the intrinsic record in determining the meaning of claim language. *Id.* at 1317. Such evidence must be considered in light of the intrinsic evidence, and it cannot be permitted to establish a meaning that is clearly at odds with the claim construction mandated by the intrinsic evidence. *Id.* at 1318.

### B. Disputed Claim Terms from the '519 Patent

For purposes of discussion, the Court will set forth each party's proposed construction after each disputed term or phrase.

#### 1. aperture (claims 4, 9, 10, 11) <sup>FN3</sup>

FN3. Although the disputed terms often occur in claims other than those identified by the parties, the Court will limit itself to identifying those claims in which the parties indicate the disputed terms occur. In so doing, the Court notes that it has nevertheless considered each term in the context of the entire patent, including the specification and the unasserted claims.

Fargo

Iris

Both parties agree that an aperture is some type of opening. Iris contends that, “in the real world,” the term “aperture” is used to refer to an opening that extends all the way through something. It cannot be identical to a “hole” or an “opening,” Iris argues, because synonyms by their nature do not have identical meanings. Iris also points out that the specification shows the apertures extending all the way through the hubs. Both parties refer to dictionary definitions to support their arguments. Fargo's definition comes straight from a dictionary. While criticizing Fargo's reliance on a dictionary, Iris relies on a newer edition of the same dictionary to argue that the most common use of the word “aperture” is to describe the opening extending through the wall of a camera or a telescope.

**\*10** The Court finds that Fargo's proposed definition is the most appropriate construction of the term “aperture.” Iris has not shown that the ordinary meaning of the word “aperture” requires that the hole extend completely through the hub. While Iris's evidence concerning cameras and telescopes might be relevant in a different case, the patents at issue here do not involve cameras or telescopes. Although courts should not place blind reliance on dictionaries, there is no evidence in this case that [the '519 patent](#) is using “aperture” in a specialized manner, and all the dictionaries the parties cite define “aperture” in a manner similar to Fargo. *Cf. Phillips*, 415 F.3d at 1314 (noting that dictionaries are

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an opening, such as a hole, gap, or slit

an opening that extends completely through the end face of the

supply roll assembly (claim 4) or through the member movable

with the roll core (claims 9-10)

helpful in cases where the ordinary meaning is readily apparent and “claim construction in such cases involves little more than the application of the widely accepted meaning of commonly understood words.”).

Moreover, the fact that the specification shows openings extending all the way through the hub does not mean that Fargo must be limited to that meaning. While the specification is “the single best guide to the meaning of a disputed term,” *Phillips*, 415 F.3d at 1315 (quoting *Vitronics Corp. v. Conceptoronic, Inc.*, 90 F.3d 1576, 1582 (Fed.Cir.1996)), courts are not to import limitations from the specification into the claims. *Comark Commc'ns, Inc. v. Harris Corp.*, 156 F.3d 1182, 1186 (Fed.Cir.1998). While this distinction can be difficult to apply, it is helpful to keep in mind that the purpose of the specification is to enable those of skill in the art to make and use the invention. *Phillips*, 415 F.3d at 1323. In this case, where the specification uses the words “openings,” “bores,” and “apertures” interchangeably to refer to the holes in which pins are inserted, it is apparent that the patentee has not assigned any special meaning to the word “aperture” that would require an aperture to extend all the way through the hub.

2. support (claims 2, 4-9, 12, 14)

aperture, bore, or other apparatus that can be used to support,

detach, carry, or accept insertions of another object

This is governed by 35 U.S.C. § 112, ¶ 6, and covers apertures

extending through the hub, plus equivalents thereof



Iris contends that the word “support” is a means-plus-function limitation and is therefore governed by 35 U.S.C. § 112, ¶ 6, which states that such claims “shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof.” As such, Iris contends that, as shown in the specification, the “bores” or “apertures” that hold the pins must extend all the way through the hub.

A patentee's use of the word “means” in a claim limitation gives rise to a rebuttable presumption that it is a means-plus-function limitation within the meaning of § 112, ¶ 6. *Apex Inc. v. Raritan Computer, Inc.*, 325 F.3d 1364, 1371 (Fed.Cir.2003). Conversely, when a claim limitation does not include the word “means,” there is a rebuttable presumption that § 112, ¶ 6 is inapplicable. *Id.*; see also *Lighting World, Inc. v. Birchwood Lighting, Inc.*, 382 F.3d 1354, 1358 (Fed.Cir.2004) (stating that “the presumption flowing from the absence of the term ‘means’ is a strong one that is not readily overcome.”). Here, the claim limitation does not include the word “means,” but Iris can rebut the corresponding presumption by demonstrating that the claim term fails to recite sufficiently definite structure, or else recites a function without reciting sufficient structure for performing that function. *Apex*, 325 F.3d at 1372.

\*11 In claims 4, 6, and 9, “supports” are clearly defined as either “bores” or “apertures” in the claims themselves. In claims 2, 5, 7, 8, 12, and 14, however, the word “support” is used without any recitation of a struc-

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Although the parties identified this phrase as in need of construction, Iris does not address it in its briefs. The Court will therefore adopt Fargo's proposed construction. As noted below, claim 2 specifically requires more supports than pins, and thus the parties do not appear to disagree on the meaning of this phrase within the con-

ture. If the word “support” has a reasonably well understood meaning in the art, however, it is not a means-plus-function limitation. *Id.* The word need not call to mind a single well-defined structure to avoid application of § 112, ¶ 6. *Greenberg v. Ethicon Endo-Surgery, Inc.*, 91 F.3d 1580, 1583 (Fed.Cir.1996) (holding that “detent mechanism” had a reasonably well understood meaning in the art); *Lighting World*, 382 F.3d at 1358 (“The fact that more than one structure may be described by that term, or even that the term may encompass a multitude of structures, does not make the term ‘connector assembly’ any less a name for structure.”). Finally, the fact that the disputed term is derived from the function performed does not necessarily indicate that it fails to indicate a structure. *Lighting World*, 382 F.3d at 1361. In light of these cases, it is clear from reading through the claims that the word “support” is used throughout the patent to denote a structure, not a function. Iris contends that Fargo's definition is too broad, but this is not a reason to hold that the word is a means-plus-function limitation. *Id.* at 1361-62. The Court therefore adopts Fargo's proposed definition and declines to find that “support” is a means-plus-function limitation.

3. selected plurality of combinations (claim 2)

combinations (of inserts) that identify one of a plurality of ribbon types

there must be more supports than pins so as to facilitate the ability to choose one combination of pin placements instead of

some other combination of pin placements

text of claim 2.

4. selected ones of the supports (claim 5)

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Iris contends that the phrase “selected ones of the supports” requires that there be more supports than pins. Otherwise, according to Iris, the word “selected” has no meaning. The flaw in Iris’s argument is that Iris ignores that the discussion of “selected” occurs in the context of identifying different ribbon types. The manufacturer therefore “selects” not only amongst supports on each spool, but amongst different configurations of pins on different spools. Reading the claim language, there is no reason why one of the configurations could not be to fill all of the supports with pins. This interpretation is consistent with the word “ones,” meaning, obviously, more than one.

\*12 Iris’s reliance on *Hewlett-Packard Co. v. Mustek Sys., Inc.*, 340 F.3d 1314 (Fed.Cir.2003), is misplaced. The issue in that case was whether the end user of an optical scanning device selected a scan speed where there was no mechanism for selecting a speed, but merely a mechanism for selecting a resolution, which was related to scan speed but did not have a one-to-one correlation. That issue bears little resemblance to the issue here, which is whether the word “selected” necessarily means that some of the possible selections be left unselected. Here, where more than one of the supports can be selected at one time, there is no reason why all of them cannot be selected.

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more than one of the supports

there must be more supports than pins so as to facilitate the ability to choose one combination of pin placements instead of

some other combination of pin placements

Iris argues that in the single disclosed embodiment of the patent, four of the apertures must be left open in order to facilitate identifying the “home position.” As a general rule, however, limitations are not to be imported from the specification into the claims. *Phillips*, 415 F.3d at 1323. As Fargo points out, claim 2 language referring to a “selected plurality of combinations” explicitly requires that the assembly has more supports than pins, whereas claim 5 contains no such explicit language. Under the doctrine of claim differentiation, courts presume that each claim in a patent has a different scope. *Versa Corp. v. Ag-Bag Int’l Ltd.*, 392 F.3d 1325, 1330 (Fed.Cir.2004). Although this doctrine is at its strongest when a party seeks to read a limitation into an independent claim that already appears in one of its dependent claims (which is not the case here), *Liebel-Flarsheim Co. v. Medrad, Inc.*, 358 F.3d 898, 910 (Fed.Cir.2004), it is nevertheless instructive that the patentee specifically chose to require that there be more supports than pins in one claim and not in another. The Court therefore adopts Fargo’s proposed construction.

5. removable (claims 1, 8); removably mounted (claim 5); removing and replacing (claim 4); replaceable (claims 1, 2)

removable: capable of being removed

removably mounted: mounted so as to be capable of being removed

removing and replacing: taking away from a position and placing into a position

replaceable: capable of being replaced

these terms are not amenable to construction and therefore

These terms refer to the metal pins placed in the apertures in the hub of the printer roll core. According to the prosecution history and the specification, the pins are removable so that they can be positioned to obtain the desired code for identifying the type of ribbon.

Iris argues that the word “removable” is insolubly ambiguous and renders the claims in which it appears invalid as indefinite under 35 U.S.C. § 112, ¶ 2. Iris argues that a quantitative measurement is necessary to render these terms amenable to construction, but nothing in the intrinsic evidence helps define the terms precisely. Rather, according to Iris, the prosecution history renders the terms more ambiguous, because it refers to the ease of removing and replacing the pins. Given enough force, Iris argues, anything is removable, and thus this term lacks any determinate meaning.

\*13 In the recent case of *Datamize, LLC v. Plumtree Software, Inc.*, 417 F.3d 1342 (Fed.Cir.2005), the Federal Circuit set forth the standards for determining whether a claim is indefinite. Only when a claim term cannot be given any reasonable meaning can it be considered insolubly ambiguous or not amenable to construction. *Id.* at 1347. If the meaning is discernable, the term will not be found indefinite, even though the task of construction may be difficult and the conclusion may be one over which reasonable persons will disagree. *Id.* In light of these principles, the Court simply cannot agree with Iris that the term “removable” renders indefinite any claim in which it appears. While it is true that the specification and the prosecution history do not enable the Court to assign a precise measurement of the amount of force needed to remove the pins, the Court does not agree that this lack of a quantitative measurement renders the terms indefinite. *Id.* (“The definiteness

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render the claims indefinite

requirement, however, does not compel absolute clarity.”).

Unfortunately, Fargo's proposed definition for this term does not overcome Iris's complaints, because it relies on the same root word, “remove.” Because the use of this term throughout the patent indicates that the structure in which the pins are mounted is still usable after the pins are removed, it is dear in the context that to be removable within the meaning of the claims, the act of removing must not cause any damage to that structure. Accordingly, the Court will adopt the following construction: “capable of being taken away from a position without damaging the surrounding structure.”

The parties do not dispute that “removable” and like terms have the same meaning throughout the patent. Accordingly, the Court will adopt Fargo's proposed definitions of “removably mounted,” “removing and replacing,” and “replaceable,”<sup>FN4</sup> with the understanding that the root word “remove” carries the meaning of “taking away from a position without damaging the surrounding structure.”

FN4. Because Iris focuses specifically on the meaning of the word “removable,” the Court believes that its construction of that word renders it unnecessary to construct the term “replaceable.”

6. ferromagnetic (claims 1, 2); magnetic material pins (claim 5); unmagnetized magnetic material (claim 8)

ferromagnetic: of or relating to a class of substances characterized by abnormally high magnetic permeability, definite saturation point, and appreciable residual magnetism and hysteresis

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magnetic material pins: pins made of a magnetic material

unmagnetized magnetic material: magnetizable material that is

not permanently magnetized

ferromagnetic: a material that exhibits ferromagnetism, but is

not magnetized

magnetic material pins: pins made of a material that is capable

of being magnetized, but is not magnetized

unmagnetized magnetic material: material that is capable of being magnetized but, in the absence of an applied external magnetic field, is not magnetized<sup>5</sup>

FN5. Iris offered this proposed construction at oral argument.

\*14 The focus of Iris's arguments regarding these terms is that, within the context of the patent, they all refer to material that is capable of being magnetized, but is not magnetized. Iris highlights evidence in the prosecution history where the applicant sought to distinguish prior art on the basis that the supply rolls have "no magnets." (Fink Aff., Ex. C, pt. 4, at C61-C62.) The document states:

Claim 11 [issued Claim 8] is specific to the positioning of the identifier indicia, using an unmagnetized magnetic material. This feature is very important, again, from a pollution control standpoint, because there are no magnetic materials that are utilized on the roll, but yet the reliability of a magnetic sensor can be utilized using one stationary detector of the present invention.

With the present invention the magnetic material pins are cheap, they are non-polluting, and since there are no magnets, there are no plurality [sic] requirement. They can be placed on the supports or inserted into the apertures without regard to polarity.

The doctrine of prosecution disclaimer prevents a pat-

entee from recapturing a specific meaning that it disclaimed during prosecution. *Omega Eng'g, Inc. v. Raytek Corp.*, 334 F.3d 1314, 1323 (Fed.Cir.2003). The disclaimer must have been clear and unambiguous for the doctrine to apply. *Id.* at 1324. Fargo argues that there is no clear and unmistakable disavowal of the ordinary and customary meaning of "magnetic material pins." The problem with Fargo's argument, however, is that its proposed construction for "magnetic material pins" is "pins made of a magnetic material." Yet the prosecution history clearly indicates that the "invention" has "no magnets." Neither Fargo's arguments nor its proposed definition help explain how "material" that is "magnetic" is nevertheless not a "magnet."

At oral argument, Iris offered a new definition for "unmagnetized magnetic material" to counter any objection that its previous definition might have excluded the pins in the patent because they are briefly magnetized as they pass through the magnetic field that is part of the sensor. The resulting definition, "material that is capable of being magnetized but in the absence of an applied external magnetic field is not magnetized," is a better definition than Fargo's because it avoids the am-

biguity of the word “permanent.” In light of the prosecution history indicating that the supply rolls have “no magnets,” the Court will adopt this definition for “unmagnetized magnetic material” and a similar definition for “magnetic material pins:” “pins made of material that is capable of being magnetized but in the absence of an applied external magnetic field is not magnetized.” In so doing, the Court is aware that it is defining different terms to have essentially the same meaning. Although a patentee’s use of different terms normally indicates that it intended those terms to carry different meanings, a reading of the patent and prosecution history does not reveal what that difference might be in this case, and Fargo’s objections to Iris’s proposed definitions ignore the clear statement in the prosecution history regarding the lack of magnets.

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The parties’ dispute over this phrase concerns whether the supports must be spaced at equal intervals apart from each other. At oral argument, Fargo indicated that it did not object to that portion of Iris’s definition indicating that “annular” means “in the shape of a ring.” Iris argues that to be in the shape of a ring, the intervals must be fixed; otherwise, the supports could all be bunched together in one small arc of the circle. The claim itself already requires that the supports are spaced “annularly,” however, and there is no reason why, either in general or from a reading of the patent, this spacing must be enforced with fixed intervals. The Court agrees

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\*15 Finally, in light of that same prosecution history, the Court will adopt Iris’s definition of “ferromagnetic,” modified as follows: “a material that exhibits ferromagnetism, but, in the absence of an applied external magnetic field, is not magnetized.” Because Iris concedes that Fargo’s definition of “ferromagnetic” is correct “in the abstract,” the Court will adopt Fargo’s definition of “ferromagnetic” insofar as it is necessary to define the word “ferromagnetism” in Iris’s definition of “ferromagnetic.”

7. spaced annularly around a periphery of the hub at known intervals (claim 5)

positioned on an annular path on the hub’s end face with discrete annular arc lengths between supports

the supports are spaced in the shape of a ring around the periphery at fixed intervals apart from each other

with Iris, however, that the term “discrete” in Fargo’s definition does not serve to clarify the meaning of this phrase. Accordingly, the Court adopts the following definition: “positioned on an annular path around the hub’s end face.”

8. a first support and a plurality of second supports (claim 8)

a first support, and more than one additional supports

There must be one, and only one, “first support” that contains a

pin or other indicia that indicates the home position. There also

must be at least two “second supports” that are not associated

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 (Cite as: 2005 WL 3241851 (D.Minn.))

The Court agrees with Fargo that this phrase does not need to be construed, and that Fargo's definition simply recites the plain meaning of the words. The Court recognizes, however, that in light of the fact that this phrase appears in claim 8, which also contains the ambiguous phrase "the second supports other than the," the construction of this phrase may need to be revisited should claim 8 be revived at some later time in this lit-

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**\*16** As with the previous phrase, the Court agrees with Fargo that this phrase does not need to be construed, and that Fargo's definition simply recites the plain meaning of the words. Again, however, the Court recognizes that in light of the fact that this phrase appears in claim 8, the construction of this phrase may need to be revisited should claim 8 be revived at some later time in

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As with the earlier phrase concerning supports "spaced annularly ... at known intervals," Iris contends that this phrase indicates that the pins to which it refers must be spaced at equal distances from each other. Iris contends that "radial" means "developing symmetrically around a

with the home position.

igation.

9. first identifier indicia ... in a first support to indicate a home position (claim 8)

a pin or other identifying mark or indication in a support in a

position that indicates the start of a rotation cycle

There must be one, and only one, "first support" that contains a

pin or other indicia that indicates the home position. There also

must be at least two "second supports" that are not associated

with the home position.

this litigation.

10. radially spaced from an axis of rotation of the roll core (claim 8)

positioned at a known distance from the axis of rotation of the

roll core

the pins are spaced an equal distance apart from the axis of rotation as well as from each other

central point." A review of the dictionary entry Iris submitted, however, demonstrates that Iris's proposed definition is only one of the definitions. The first three definitions do not require symmetry. Iris also relies on the specification, but nowhere in the specification does it state that the pins must be at an equal distance from

each other. While the drawings do not refute Iris's definition, neither do they clearly support or require it. The Court thus adopts Fargo's proposed definition.

### C. Disputed Claim Terms from [the '625 Patent](#)

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The parties reprise the same arguments concerning this term that they advanced for the same term in [the '519 patent](#). For the same reasons explained previously, therefore, the Court adopts Fargo's definition.

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Iris cites a technical dictionary definition of the term “sleeve.” Reading the claims and the specification, however, it is clear that Iris's definition is too constricting. The specification states that “[t]he sleeve is preferably substantially cylindrical and includes a tapered end, wherein the sleeve is dimensioned to fit into the roll core of the print ribbon supply roll.” (Fink Aff., Ex. B.) Claim 11 includes almost identical language. (*Id.*)

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1. aperture (claims 1, 5, 17)

an opening, such as a hole, gap, or slit

an opening that extends completely through the plate

2. sleeve (claims 1, 17)

a substantially cylindrical object that is dimensioned to fit into

or attach to the roll core of the print ribbon supply roll

a tubular part designed to fit over another part

The Court therefore adopts Fargo's definition of this term.

3. pin-receiving plate (claims 1, 17); pin-receiving plate secured to said sleeve (claims 1, 17)

pin-receiving plate: a surface that receives pins

pin-receiving plate secured to said sleeve: a surface that receives

pins and is attached to or formed integral with the sleeve

pin-receiving plate: a flat thin piece of material for receiving the

pins

pin-receiving plate secured to said sleeve: the two parts are attached in some fashion to each other while still retaining their

identity

\*17 Iris objects to Fargo's use of the word "surface," because that term indicates that the plate exists in only two dimensions. Fargo argues that because the plate may be formed integral with the sleeve, Iris's proposed definition is too constricting. The Court agrees with Iris that the word "surface" is at odds with the ordinary meaning of the word "plate," and also recognizes the validity of Fargo's argument that the claims permit the plate to be formed integral with the sleeve. Accordingly, the Court will adopt Iris's definition of "pin-receiving plate" and the following definition of

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Iris again focuses on the meaning of the word "selected" to argue that these phrases require more apertures than pins. As stated previously in the Court's construction of the phrase "selected ones of the supports" in [the '519 patent](#), the Court does not agree with Iris's contentions and therefore adopts Fargo's construc-

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"pin-receiving plate secured to said sleeve:" "a plate that receives pins and is attached to or formed integral with the sleeve."

4. selected ones of said apertures; being arranged in the selected ones of said apertures according to a [or said] print ribbon type to thereby identify the print ribbon type

selected ones of said apertures: more than one of the apertures

being arranged in the selected ones of said apertures according

to a [or said] print ribbon type to thereby identify the print ribbon type: arranged in more than one of the apertures in such a

way as to identify the type of ribbon

the claim requires more apertures than pins so as to facilitate the

ability to choose one combination of pin placements that identifies one print ribbon type over another combination of pin

placements that identifies another print ribbon type

tions.

5. permanently secured

affixed in such a manner as to stay in the same state or without

any change that destroys form or character

the pins cannot be removed without damaging the pin receiving plate



END OF DOCUMENT

Iris contends that Fargo's definition, and specifically the phrase "stay in the same state," is vague and adds more uncertainty to the meaning of "permanently secured." Fargo contends that its definition takes into account both references in the specification, because the specification refers to the pins being prevented from falling out during shipping or use. (Fink Aff., Ex. B.) The Court agrees with Iris, however, that the second part of Fargo's definition adequately encompasses the first. If, as both parties agree, the pins are secured so as to be incapable of removal without damage, they are also secured so as not to fall out accidentally. In contrast, Fargo's definition itself would require further construction concerning the meaning of the phrase "stay in the same state." The Court accordingly adopts Iris's definition of the term.

#### ORDER

**\*18** Based on the foregoing, and all the files, records, and proceedings herein, IT IS HEREBY ORDERED that:

1. Defendant's motion for partial summary judgment [Docket No. 69] is GRANTED;
2. Count I of Plaintiff's Second Amended Complaint [Docket No. 65] is DISMISSED WITH PREJUDICE insofar as it asserts claims based on claims 8-15 of [U.S. Patent No. 5,755,519](#) and claims of contributory infringement or infringement by inducement of claims 1-7 of [Patent No. 5,755,519](#). Any remaining claims included within Count I are not dismissed;
3. Plaintiff's motion to construe claim terms [Docket No. 79] is GRANTED in part, and the Court hereby ADOPTS the construction of the claim terms as set forth in the Memorandum accompanying this Order.

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