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Paper 16
Entered: December 31, 2013

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

SHAW INDUSTRIES GROUP, INC.
Petitioner

v.

AUTOMATED CREEL SYSTEMS, INC.
Patent Owner

Case IPR2013-00584
Patent 7,806,360 B2

Before JOSIAH C. COCKS, JUSTIN T. ARBES, and BRIAN J. McNAMARA, *Administrative Patent Judges.*

ARBES, *Administrative Patent Judge.*

DECISION
Institution of *Inter Partes* Review
37 C.F.R. § 42.108

Petitioner Shaw Industries Group, Inc. filed a Corrected Petition (Paper 8) ("Pet.") to institute an *inter partes* review of claim 4 of U.S. Patent No. 7,806,360 B2 (Ex. 1102, "the '360 patent") pursuant to 35 U.S.C. §§ 311-319 and a motion for joinder with Case IPR2013-00132 (Paper 5). Patent Owner Automated Creel Systems, Inc. filed a preliminary response (Paper 14) ("Prelim. Resp.") to the Petition. We have jurisdiction under 35 U.S.C. § 314. For the reasons that follow, the Board has determined to institute an *inter partes* review.[1]

I. BACKGROUND

The standard for instituting an *inter partes* review is set forth in 35 U.S.C. § 314(a):

> THRESHOLD – The Director may not authorize an inter partes review to be instituted unless the Director determines that the information presented in the petition filed under section 311 and any response filed under section 313 shows that there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition.

Petitioner challenges claim 4 as unpatentable under 35 U.S.C. § 103(a). Pet. 12-46. We grant the Petition as to claim 4 on certain grounds as discussed below.

A. The '360 Patent

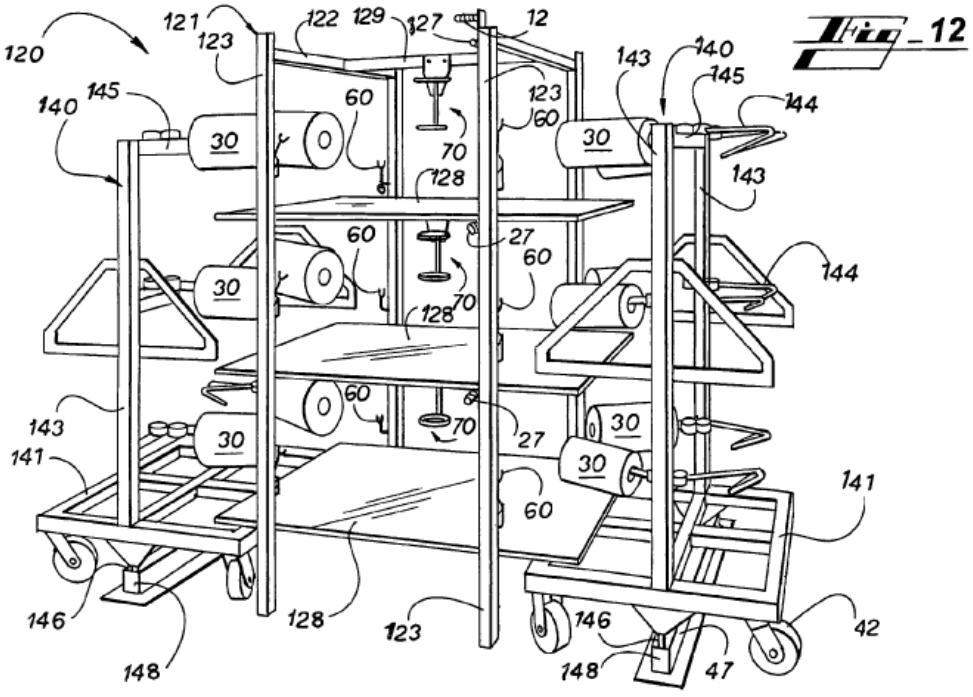
The '360 patent, titled "Creel Magazine Supply System and Method," issued on October 5, 2010 based on Application 12/253,398, filed

[1] In a decision entered concurrently, Petitioner's motion for joinder with Case IPR2013-00132 is denied.

October 17, 2008. The '360 patent is a continuation-in-part of Application 11/875,254, filed October 19, 2007, and issued as U.S. Patent No. 7,802,749.

The '360 patent relates to "creels used for supplying stranded materials" (e.g., yarn used for making textiles) to a machine for "subsequent treatment" or the "fabrication of articles" from the stranded materials. Ex. 1102, col. 1, ll. 14-17. The patent describes how high-speed processing systems require a continuous, uninterrupted stream of stranded material fed from multiple yarn packages throughout a creel, but loading and maintaining a full creel "remains an extremely labor intensive operation" and can cause breaks in the material, particularly at the point where material from successive packages is joined. *Id*. at col. 1, ll. 30-44. The patent describes a mechanism of providing a "pre configured supply of materials, carried on movable carts, or cartridges," for loading into a creel. *Id*. at col. 2, ll. 36-46.

Figure 12 of the '360 patent is reproduced below:



As shown in Figure 12 above, two carts 140 on either side of creel magazine frame 121 are loaded with three levels of stranded material packages 30 (two packages on each level). *Id*. at col. 8, ll. 32-52. Packages 30 are supported on support arms 144. *Id*. at col. 8, ll. 55-67. One continuous feed of stranded material is provided at a particular level by connecting the end of the material in one package to the beginning of the material in the next package and drawing material from the four packages at the level sequentially. *Id*. at col. 9, l. 64-col. 10, l. 16; Fig. 13 (depicting stranded material portions a-f from packages 30a-d used in sequence). The patent also describes a method of replacement whereby the empty packages in one cart are replaced while the packages in the opposite cart are being used, and then the carts alternate roles when the opposite packages in turn are depleted. *Id*. at col. 7, l. 45-col. 8, l. 52; col. 11, l. 1-col. 12, l. 16. In other words, a cart or package is either "active" (when it is being used) or "ready" (when it has been replenished and is awaiting use). *Id*. at col. 11, l. 65-col. 12, l. 9. Carts 40 have wheels 42 and are positioned at the appropriate distance from creel magazine 120 via pin 146 placed in track 148. *Id*. at col. 4, ll. 22-25; col. 9, ll. 1-13.

As shown in Figure 12, creel magazine 120 includes on each level ring guide 70 for routing the stranded material as it is drawn from packages 30. *Id*. at col. 9, ll. 14-63.

Figure 19A depicts ring guide 70 in further detail and is reproduced below:

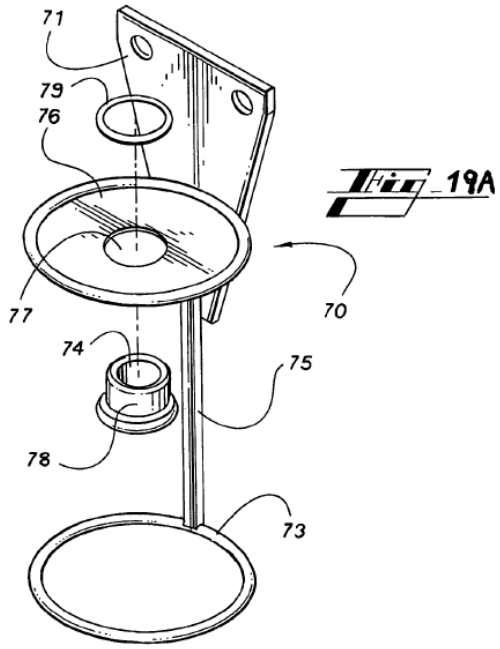


Fig. 19A

As shown in Figure 19A above, ring guide 70 comprises a lower ring having annular turning surface 73 and an upper ring having upper turning surface 74. *Id*. at col. 9, ll. 22-37. The ring shape of annular turning surface 73 allows the surface to receive stranded material from any direction (i.e., any of the four packages at that level) and control "ballooning"[2] when "the strands transfer across the magazine frame 121 from one cart to the other." *Id*. at col. 5, ll. 51-61; col. 9, ll. 49-59. As stranded material is drawn out of a package, annular turning surface 73 changes the orientation of the material from horizontal to vertical, upper turning surface 74 changes it back to horizontal, secondary guide 27 (shown in Figure 12) changes it to vertical,

[2] The '360 patent describes the problem of "ballooning" as follows: "As will be recognized by those skilled in the art, particularly with respect to stranded materials such as yarns utilized in textiles, as the yarn is pulled from the package 30, it will unwind from package 30 and form a balloon around and at the end of the package 30." Ex. 1102, col. 5, ll. 51-55.

and guide board 12 (shown in Figure 12) changes it to horizontal so that it can be processed along with the material from other magazines. *Id*. at col. 6, ll. 59-63; col. 9, l. 49-col. 10, l. 16; Figs. 16A-B.

B. Challenged Claim

Claim 4 of the '360 patent, and claims 1-3, from which claim 4 depends, recite:

> 1. A creel magazine for feeding stranded material to a manufacturing process comprising:
>
> a magazine having a stationary magazine frame comprising a common guide for said stranded material;
>
> a first and a second removable cartridge positioned adjacent said magazine frame on respective opposite sides of said frame, said first removable cartridge having at least one support arm supporting an active package of stranded material thereon;
>
> said second removable cartridge having at least one support arm supporting a ready package of stranded material thereon;
>
> wherein a trailing end of said active package is connected to a leading end of said ready package such that said stranded material is sequentially and continuously fed to said common guide from said active package then from said ready package.
>
> 2. The creel magazine of claim 1, wherein said common guide is an annular turning surface positioned to receive stranded material fed from said active package.
>
> 3. The creel magazine of claim 2, wherein said common guide further comprises an upper turning surface supported above said annular turning surface.
>
> 4. The creel magazine of claim 3, wherein said annular turning surface and said upper turning surface are separated by a distance corresponding to the diameter of said packages.

C. Prior Art

Petitioner relies on the following prior art:

1. U.S. Patent No. 4,471,917, issued September 18, 1984 ("Whisnant") (Ex. 1109);

2. U.S. Patent No. 4,572,458, issued February 25, 1986 ("Bluhm") (Ex. 1111);

3. U.S. Patent No. 5,323,982, issued June 28, 1994 ("Ligon '982") (Ex. 1108);[3]

4. German Patent Application Publication No. DE 3429153 A1, published Feb. 28, 1985 ("Münnekehoff") (Ex. 1105);

5. German Patent DE 7413531, published July 31, 1975 ("Barmag") (Ex. 1107);[4] and

6. Gwynfryn John Morris, AN INVESTIGATION OF YARN TENSION AND BALLOON SHAPE IN UPTWISTING (1959) ("Morris") (Ex. 1110).

D. Asserted Grounds

Petitioner asserts the following grounds of unpatentability as to claim 4 in its Petition:

[3] On September 13, 2013, Petitioner filed with its Petition an incorrect document as Exhibit 1108. On October 23, 2013, Petitioner filed a correct copy of Ligon '982 as Exhibit 1108 and an unopposed request to expunge the original copy of Exhibit 1108 (Paper 15). The copy of Exhibit 1108 filed on September 13, 2013 will be expunged.

[4] We refer to "Münnekehoff" as the English translation (Ex. 1105) of the original reference (Ex. 1104), and likewise refer to "Barmag" as the English translation (Ex. 1107) of the original reference (Ex. 1106). Petitioner provided affidavits attesting to the accuracy of the translations. *See* Exs. 1105, 1107; 37 C.F.R. § 42.63(b).

References	Basis
Münnekehoff, Whisnant, and Morris	35 U.S.C. § 103(a)
Münnekehoff and Ligon '982	35 U.S.C. § 103(a)
Münnekehoff and Bluhm	35 U.S.C. § 103(a)
Barmag, Whisnant, and Morris	35 U.S.C. § 103(a)
Barmag and Ligon '982	35 U.S.C. § 103(a)
Barmag and Bluhm	35 U.S.C. § 103(a)

E. Related Case IPR2013-00132

On February 1, 2013, Petitioner filed a petition to institute an *inter partes* review of claims 1-21 of the '360 patent. IPR2013-00132, Paper 2. On July 25, 2013, the Board granted the petition and instituted an *inter partes* review of claims 1-3 and 5-21 on the following grounds:

> Claims 1-3, 5, 8-10, 12, 14, 19, and 20 under 35 U.S.C. § 102(b) as anticipated by Münnekehoff;
>
> Claims 6, 7, 13, 15-18, and 21 under 35 U.S.C. § 103(a) as unpatentable over Münnekehoff and U.S. Patent No. 5,624,082 ("Ligon '082");
>
> Claim 11 under 35 U.S.C. § 103(a) as unpatentable over Münnekehoff and U.S. Patent No. 3,102,702 ("Miller");
>
> Claims 1-3, 5, 8-10, 12, 14, 19, and 20 under 35 U.S.C. § 102(b) as anticipated by Barmag;
>
> Claims 6, 7, 13, 15-18, and 21 under 35 U.S.C. § 103(a) as unpatentable over Barmag and Ligon '082; and
>
> Claim 11 under 35 U.S.C. § 103(a) as unpatentable over Barmag and Miller.

IPR2013-00132, Paper 9 at 37 ("-132 Dec."). The Board did not institute an *inter partes* review of claim 4 in Case IPR2013-00132. Petitioner subsequently filed its Petition in the instant proceeding challenging claim 4.

F. Claim Interpretation

Consistent with the statute and legislative history of the Leahy-Smith America Invents Act, Pub. L. No. 112-29, 125 Stat. 284 (2011) (AIA), the Board will interpret claims using the "broadest reasonable construction in light of the specification of the patent in which [they] appear[]." 37 C.F.R. § 42.100(b); *see also* Office Patent Trial Practice Guide, 77 Fed. Reg. 48,756, 48,766 (Aug. 14, 2012).

There is a "heavy presumption" that a claim term carries its ordinary and customary meaning. *CCS Fitness, Inc. v. Brunswick Corp.*, 288 F.3d 1359, 1366 (Fed. Cir. 2002). However, a "claim term will not receive its ordinary meaning if the patentee acted as his own lexicographer and clearly set forth a definition of the disputed claim term in either the specification or prosecution history." *Id*. "Although an inventor is indeed free to define the specific terms used to describe his or her invention, this must be done with reasonable clarity, deliberateness, and precision." *In re Paulsen*, 30 F.3d 1475, 1480 (Fed. Cir. 1994). Also, we must be careful not to read a particular embodiment appearing in the written description into the claim if the claim language is broader than the embodiment. *See In re Van Geuns*, 988 F.2d 1181, 1184 (Fed. Cir. 1993) ("[L]imitations are not to be read into the claims from the specification.").

We interpreted various limitations of claim 4, and claims 1-3 from which claim 4 depends, in Case IPR2013-00132. -132 Dec. 8-16. In the

Petition, Petitioner proposes that the Board adopt its prior interpretations for two terms ("annular turning surface" and "upper turning surface") and references Petitioner's previous arguments in Case IPR2013-00132 as to a third term ("distance corresponding to the diameter of said packages").[5] Pet. 7-9. Patent Owner proposes that the Board adopt its prior interpretations for all three terms. Prelim. Resp. 16-17.

We incorporate our previous analysis for purposes of this decision. Specifically, applying the broadest reasonable interpretation of the claims in light of the Specification, we construe certain limitations in claim 4 as follows:

Claim Term	Interpretation
"cartridge"	a small wheeled vehicle
"removable"	capable of being removed
"annular turning surface"	a ring-shaped surface that changes the direction of stranded material
"upper turning surface"	a surface, located above another surface, that changes the direction of stranded material
"distance corresponding to the diameter of said packages"	a distance that is derived from the diameter of a fully loaded package

[5] As to the term "distance corresponding to the diameter of said packages," Petitioner states that the "contents of [Petitioner's previous submissions in Case IPR2013-00132] are incorporated herein in their entirety." Pet. 9. Doing so was improper and Petitioner's arguments will not be considered. *See* 37 C.F.R. § 42.6(a)(3) ("Arguments must not be incorporated by reference from one document into another document.").

See -132 Dec. 8-16. For purposes of this decision, all other terms in claim 4 are given their ordinary and customary meaning as would be understood by one with ordinary skill in the art.

II. ANALYSIS

We turn now to Petitioner's asserted grounds of unpatentability and Patent Owner's arguments in its preliminary response to determine whether Petitioner has met the threshold standard of 35 U.S.C. § 314(a).

A. Whether the Petition is Barred Under 35 U.S.C. § 315(b)

As an initial matter, Patent Owner argues that Petitioner is barred from seeking *inter partes* review under 35 U.S.C. § 315(b). Prelim. Resp. 12-15. Section 315(b) provides (emphasis added):

> An inter partes review may not be instituted if the petition requesting the proceeding is filed more than 1 year after the date on which the petitioner, real party in interest, or privy of the petitioner is *served with a complaint alleging infringement of the patent*.

Patent Owner asserted the '360 patent against Petitioner in *Automated Creel Systems, Inc. v. Shaw Industries Group. Inc.*, N.D. Ga. Case No. 1:12-cv-00424-RWS. Pet. 4-5. Petitioner states that the "case was originally filed on February 8, 2012," and "Petitioner was served February 28, 2012." *Id*. Petitioner then filed its initial Petition in the instant proceeding more than one year later on September 13, 2013. Therefore, according to Patent Owner, Section 315(b) bars Petitioner from seeking *inter partes* review.

We are not persuaded that Section 315(b) applies under the circumstances. Section 315(b) requires that the service date of the complaint be more than one year before a petition is filed. The parties acknowledge that the litigation against Petitioner was dismissed voluntarily without prejudice under Federal Rule of Civil Procedure 41(a) pursuant to a joint stipulation. *See* Paper 12 at 2-3. A review of the district court electronic docketing system confirms this fact. *See* Exs. 3001 (copy of the court's docket sheet in the related litigation), 3002 (copy of the stipulation of dismissal, Docket No. 50, filed in the related litigation). The Federal Circuit consistently has interpreted the effect of dismissals without prejudice as leaving the parties as though the action had never been brought. *See Macauto U.S.A. v. BOS GmbH & Co. KG*, IPR2012-00004, Paper 18 at 14-16 (Jan. 24, 2013); *Graves v. Principi*, 294 F.3d 1350, 1356 (Fed. Cir. 2002) ("The dismissal of an action without prejudice leaves the parties as though the action had never been brought."); *Bonneville Assocs., Ltd. P'ship v. Barram*, 165 F.3d 1360, 1364 (Fed. Cir. 1999) ("The rule in the federal courts is that '[t]he effect of a voluntary dismissal without prejudice pursuant to Rule 41(a) "is to render the proceedings a nullity and leave the parties as if the action had never been brought."'") (citations omitted); *accord* Charles Alan Wright *et al.*, 9 FEDERAL PRAC. & PROC. CIV. § 2367 (3d ed. 2013) ("as numerous federal courts have made clear, a voluntary dismissal without prejudice under Rule 41(a) leaves the situation as if the action never had been filed"). Accordingly, the dismissal of the litigation against Petitioner nullifies the effect of the alleged service of the complaint on Petitioner.

Patent Owner contends that the plain language of Section 315(b) is clear that the only event required to trigger the one-year time period is service, with "no other qualifications," and "reading additional qualifications into the statute would not be aligned with the legislative intent or policy" of Section 315(b). Prelim. Resp. 14-15. As explained above, however, Federal Circuit precedent dictates that a dismissal without prejudice leaves the parties as though the action had never been brought. Patent Owner does not explain why such precedent allegedly applies to a complaint for purposes of a district court litigation, but not to a complaint for purposes of Section 315(b). Nor does Patent Owner cite any case law to the contrary of that cited above.

Patent Owner also argues that Petitioner admits it was "served" in the related litigation and waived any argument as to the applicability of Section 315(b) by failing to mention the issue in its Petition. *Id*. at 12-13. Patent Owner's argument is not persuasive. The AIA sets forth the statutory requirements for when an *inter partes* review may be instituted. Section 314(a) provides the threshold standard of a "reasonable likelihood" of prevailing on at least one claim, and Sections 315(a) and (b) specify that an *inter partes* review "may not be instituted if" certain conditions are met. Thus, in making a determination on whether to institute an *inter partes* review, the Board determines whether all statutory requirements are met for doing so, regardless of whether the parties specifically argue any one such requirement. Based on the facts of the instant proceeding, we conclude that Section 315(b) does not bar the Petition.

B. Asserted Ground Based on Münnekehoff and Bluhm

Petitioner contends that claim 4 is unpatentable over Münnekehoff and Bluhm, relying on the Declaration of Dr. Youjiang Wang (Ex. 1101) as support. Pet. 27-31 (citing Ex. 1101 ¶¶ 38-44). We are persuaded that Petitioner has established a reasonable likelihood of prevailing on its assertion that claim 4 is unpatentable for the reasons explained below.

1. Münnekehoff (Ex. 1105)

Münnekehoff is described in the -132 Decision at pages 18-20. For purposes of this decision, we adopt that prior description.

2. Bluhm (Ex. 1111)

Bluhm discloses a "compact yarn supply creel adapted to support unusually large diameter yarn supply packages for continuous feeding of yarn to a textile yarn processing machine." Ex. 1111, col. 1, ll. 6-15. Yarn supply packages are supported on rotary frames of the creel in pairs, with each pair including "a feed package and a reserve package tailed together." *Id*. at col. 2, ll. 59-64. The paired packages face inward toward a "yarn guide," which "guid[es] the yarn as it is withdrawn from the yarn supply packages and direct[s] the yarn to the textile machine." *Id*. at col. 3, ll. 22-31.

Figure 3 of Bluhm is reproduced below:

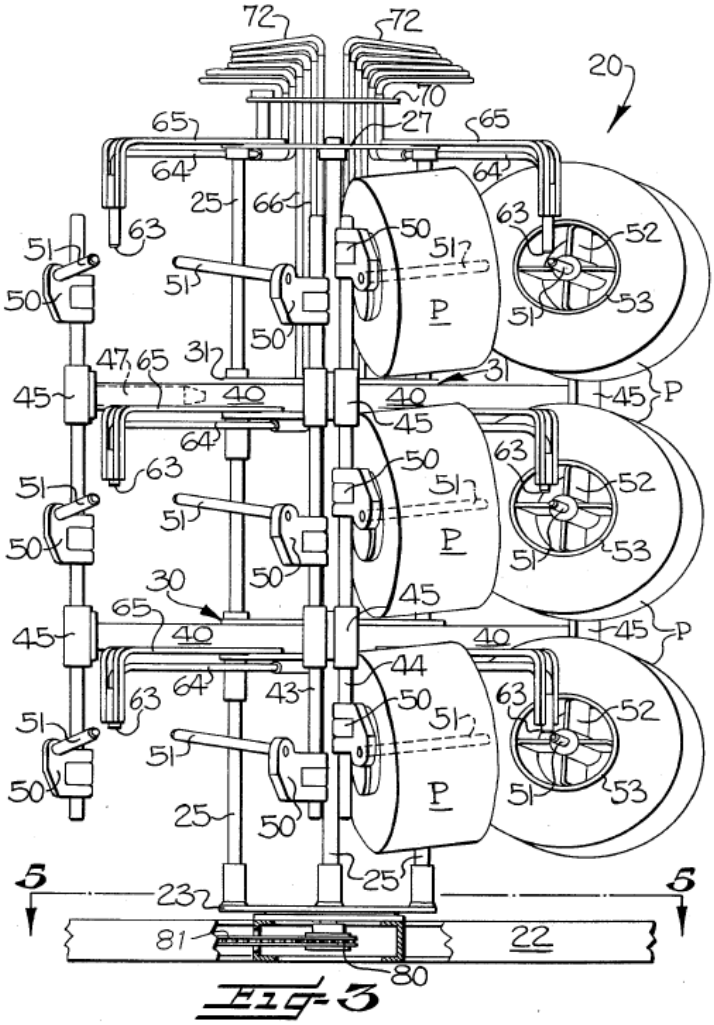


Fig-3

Figure 3 depicts yarn support frame 20 with yarn supply packages P installed on yarn support spindles 51 that extend outwardly from yarn support posts 43 and 44. *Id*. at col. 6, ll. 3-18. As shown in Figure 3, yarn withdrawn from an active package enters yarn guide eye 63 of yarn feed tube 64 and travels vertically through yarn feed tube 64, horizontally through yarn feed tube 64, vertically through yarn feed tube 66, and horizontally through yarn feed tube 72 before finally reaching the textile machine. *Id*. at col. 6, l. 66-col. 7, l. 24. Yarn guide eye 63 is "positioned at

the apex of the longitudinal axes 60, 61 [shown in Figure 4] of the paired yarn supply packages." *Id*. at col. 6, ll. 60-65.

3. Analysis

Petitioner contends that Münnekehoff teaches all of the limitations of parent claims 1-3, from which claim 4 depends. Pet. 17-20. Petitioner's arguments are identical to its arguments in Case IPR2013-00132 that claims 1-3 are anticipated by Münnekehoff. *Compare* Pet. 17-20 *with* IPR2013-00132, Paper 2 at 9-12. Patent Owner, in its preliminary response, does not argue that Münnekehoff lacks the limitations of claims 1-3. We are persuaded that Petitioner has shown sufficiently that the limitations of claim 1-3 are taught by Münnekehoff, and incorporate our prior analysis at pages 20-23 of the -132 Decision.

As to the additional limitation in claim 4 that "said annular turning surface and said upper turning surface are separated by a distance corresponding to the diameter of said packages," Petitioner relies on Bluhm as teaching the recited distance. Pet. 27-31 (citing Ex. 1101 ¶¶ 38-44). As explained above, we interpret "distance corresponding to the diameter of said packages" to mean a distance that is derived from the diameter of a fully loaded package. Petitioner argues that Figure 3 of Bluhm depicts yarn guide eye 63 as "generally aligned with the center axis of the package" and the horizontal portion of yarn feed tube 64 as "slightly elevated above the outer diameter of a fully loaded package," and provides an annotated version of Figure 3 of Bluhm in support of its assertions. *Id*. at 28-29.

The annotated Figure 3 of Bluhm on page 29 of the Petition is reproduced below:

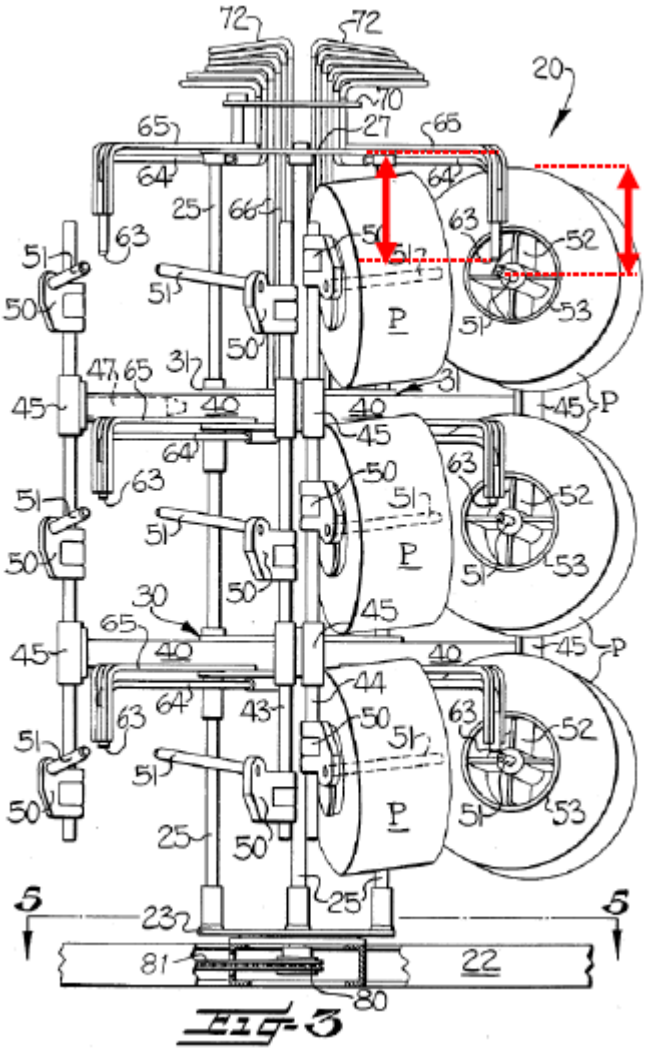


Fig-3

The annotated Figure 3 above includes a first arrow showing the distance between yarn guide eye 63 and yarn feed tube 64, which is approximately "half a diameter" (i.e., the radius) of a fully loaded package, as indicated by the second arrow, according to Petitioner. *Id*. at 28-29. Dr. Wang testifies as to how the distance between turning surfaces in Bluhm is derived from the diameter of a fully loaded package:

> The dependence of this distance between the annular and upper turning surfaces in Bluhm on the diameter of a fully loaded

> package is further driven by Bluhm's stated desire to minimize the overall size/height of the creel such that it is just large enough to receive the large diameter packages. To maintain the small size (and height) of the creel while utilizing the guiding means of Bluhm would require this distance to be minimized relative to the fully loaded package, and thus, to be derived from the diameter of a fully loaded package.

Ex. 1101 ¶ 39 (citations omitted).

Petitioner also argues that Bluhm teaches the distance limitation of claim 4 because it discloses adjustability of the creel components. Pet. 29-31. For instance, as shown in Figures 3 and 6 of Bluhm, yarn guide eye 63 is positioned at the "apex" of the axis of a corresponding package, and support plate means 30/31 (from which support arm 40 and yarn support spindle 51 extend) may be adjusted vertically. *See id.*; Ex. 1101 ¶ 40. According to Dr. Wang, the distance between yarn guide eye 63 and the point where yarn feed tube 64 turns from vertical to horizontal "necessarily corresponds to the diameter of a fully loaded package since this distance needs to vary depending on the particular size of the package installed and the resulting spacing between the vertically spaced levels." Ex. 1101 ¶ 41. Petitioner further explains that a person of ordinary skill in the art would have had reason to combine the teachings of Münnekehoff and Bluhm, again relying on the testimony of Dr. Wang. Pet. 28-30; *see* Ex. 1101 ¶¶ 43-44.

Upon review of Petitioner's analysis and Dr. Wang's declaration, we are persuaded that Petitioner's asserted ground of unpatentability of claim 4 based on the combination of Münnekehoff and Bluhm has merit. Petitioner has shown sufficiently that Bluhm teaches an annular turning surface (i.e., yarn guide eye 63) generally aligned with the spindle supporting the corresponding package and an upper turning surface (i.e., the point where

yarn feed tube 64 turns from vertical to horizontal) generally aligned with the outer diameter of a fully loaded package, such that the distance between the two is approximately the radius of a fully loaded package. This is the same as the exemplary embodiment in the Specification of the '360 patent, which similarly describes "distance h" as the radius of a fully loaded package:

> Best results may be achieved where turning surfaces 73 and 74 are separated from one another by a *distance h corresponding to the diameter of the stranded material package 30*, such that the plane of the lower annular turning surface 73 is *generally aligned with, and preferably slightly elevated from the center axis of the package 30, or the support arm 144*. The upper turning surface 74 is positioned so that it is *generally aligned with, and more preferably, slightly elevated above the outer diameter of a fully loaded package 30* so as to provide clearance between ballooning around package 30 and the running length of material as it is routed to the secondary guides 127.

See Ex. 1102, col. 9, ll. 27-38 (emphasis added); Fig. 19B. Further, based on Bluhm's teaching of the adjustability of the creel components to ensure the correct spacing of packages within the creel, and Dr. Wang's analysis of the same, Petitioner has made a threshold showing that the distance between turning surfaces in Bluhm is derived from the diameter of a fully loaded package.

Patent Owner makes three arguments. First, Patent Owner argues that a person of ordinary skill in the art would not have been motivated to combine the teachings of Münnekehoff and Bluhm. Prelim. Resp. 44-45, 48. According to Patent Owner, Münnekehoff "does not express a need for adjustable tubes" and Bluhm "does not express a need for the straight tubes of Münnekehoff." *Id*. The inquiry into whether a claim would have been

obvious based on the teachings of multiple prior art references, however, does not require an express teaching, suggestion, or motivation in the references themselves. *See KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 417-18 (2007). Moreover, Patent Owner does not address specifically Dr. Wang's testimony regarding the combination of Münnekehoff and Bluhm, or explain why it is incorrect. *See* Ex. 1101 ¶¶ 43-44. For example, according to Dr. Wang, modifying the thread guiding tubes in Münnekehoff to have the recited distance between turning surfaces taught by Bluhm would have been a simple substitution of "well-known methods to obtain predictable desired results, such as enhanced adjustability or an altered overall creel footprint," and within the skill of an ordinarily skilled artisan. *Id*. Dr. Wang testifies that "it is customary in the industry for vendors to offer an array of guide options marketed as individual components," and making the described substitution would have been advantageous to "provide adjustability in the distance between bobbins and thread guides" in Münnekehoff. *Id*. Based on the current record, we are satisfied that Petitioner has shown "'some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.'" *See KSR*, 550 U.S. at 418 (citation omitted).

Second, Patent Owner argues that the yarn tubes in Bluhm are not adjustable and, instead, are "fixed" to a support plate. Prelim. Resp. 45-49. Therefore, according to Patent Owner, combining the teachings of Münnekehoff and Bluhm would not result in a working creel assembly having turning surface distances that can be adjusted. *Id*. However, the fact that some portions of the tubes in Bluhm are not adjustable does not mean that the reference does not teach the *distance* recited in claim 4. Indeed,

claim 4 does not require that the distance be adjustable; it merely requires that the distance be derived from the diameter of a fully loaded package.

Further, Patent Owner does not dispute that Bluhm permits certain adjustments, such as adjusting the height of a spindle to ensure that the axis of the package lines up with yarn guide 63. *See* Ex. 1111, col. 5, ll. 22-44; Ex. 1101 ¶¶ 40-41. We also note Bluhm's disclosure that "[t]he inner portions of the horizontal portions of the yarn feed tubes 64 are *telescopically connected* to the lower ends of vertical yarn feed tubes 66," which suggests that at least a portion of the yarn tubes may be extended and retracted. *See* Ex. 1111, col. 7, ll. 7-14 (emphasis added); Ex. 1101 ¶ 40. Based on the current record, and given the adjustability that Bluhm does permit, we are persuaded that a person of ordinary skill in the art could have combined its teachings with those of Münnekehoff to create the creel magazine recited in claim 4, and that a skilled artisan would have looked to Bluhm to do so based on that adjustability.

Third, Patent Owner argues that Münnekehoff teaches away from using a 90-degree bend in its tubes, as taught by Bluhm. Prelim. Rep. 48-49. Patent Owner contends that Münnekehoff discloses narrow spacing in the aisles between opposing creel sections, and adding a 90-degree bend to the tubes in a particular section would require extending the section out into the narrow aisle. *Id*. (citing, e.g., Ex. 1105 at 6, ll. 34-35; 8, ll. 22-23).[6] A reference does not teach away if it expresses merely a general preference for an alternative invention from amongst options available to the ordinarily skilled artisan, and the reference does not "criticize, discredit, or otherwise

[6] When citing Münnekehoff, we refer to the page numbers in the header of the translation (Ex. 1105).

discourage the solution claimed." *In re Fulton*, 391 F.3d 1195, 1201 (Fed. Cir. 2004). The fact that Münnekehoff has narrow aisles does not mean that it teaches away from having a turning surface distance as recited in claim 4 (and depicted with tubes having a 90-degree bend in Bluhm according to Petitioner). Patent Owner does not point to statements in Münnekehoff criticizing or discrediting such an arrangement. Indeed, the yarn in Münnekehoff already bends at 90 degrees in two places—once where it is deflected by balloon thread guide 14, and another time when it reaches the 90-degree turn in thread guiding tube 21. *See* Ex. 1105, Fig. 2; Pet. 34. Thus, Patent Owner's teaching away argument is not persuasive.

For the reasons explained above, we determine that there is a reasonable likelihood that Petitioner will prevail on its assertion that claim 4 is unpatentable over Münnekehoff and Bluhm under 35 U.S.C. § 103(a).

C. Asserted Ground Based on Barmag and Bluhm

Petitioner contends that claim 4 is unpatentable over Barmag and Bluhm, relying on the analysis of Dr. Wang as support. Pet. 39-42 (citing Ex. 1101 ¶¶ 58-62). We are persuaded that Petitioner has established a reasonable likelihood of prevailing on its assertion that claim 4 is unpatentable on this basis also for the reasons explained below.

1. Barmag (Ex. 1107)

Barmag is described in the -132 Decision at pages 30-31. For purposes of this decision, we adopt that prior description.

2. Analysis

Similar to its analysis based on the combination of Münnekehoff and Bluhm, Petitioner relies on Barmag as teaching all of the limitations of parent claims 1-3, and makes the same arguments it made in Case IPR2013-00132. *Compare* Pet. 39-42 *with* IPR2013-00132, Paper 2 at 24-26. Patent Owner, in its preliminary response, does not argue that Barmag lacks the limitations of claims 1-3. We are persuaded that Petitioner has shown sufficiently that the limitations of claim 1-3 are taught by Barmag, and incorporate our prior analysis at pages 31-33 of the -132 Decision.

As to the additional limitation in claim 4 that "said annular turning surface and said upper turning surface are separated by a distance corresponding to the diameter of said packages," Petitioner argues that Bluhm teaches the recited distance for the same reasons Petitioner gives with respect to the combination of Münnekehoff and Bluhm. *See* Pet. 39-42 (citing Ex. 1101 ¶¶ 58-62). Petitioner further contends that a person of ordinary skill in the art would have had reason to combine the teachings of Barmag and Bluhm, again relying on the analysis of Dr. Wang. *Id*.; *see* Ex. 1101 ¶¶ 60-62.

In its preliminary response, Patent Owner refers to its previous arguments regarding the combination of Münnekehoff and Bluhm. Prelim. Resp. 56-57. We do not find those arguments persuasive for the reasons explained above. *See supra* Section II.B.3. Patent Owner also argues that Petitioner's asserted ground based on Barmag and Bluhm should be denied as being based on similar prior art and arguments as the combination of Münnekehoff and Bluhm. Prelim. Resp. 57-58. Even if the teachings of

Münnekehoff and Barmag are similar, however, that is not, in and of itself, a reason to institute an *inter partes* review as to one ground but deny institution based on the other. We exercise our discretion to institute based on the asserted combinations with both references.

Upon review of Petitioner's analysis and Dr. Wang's declaration, we are persuaded that there is a reasonable likelihood that Petitioner will prevail on its assertion that claim 4 is unpatentable over Barmag and Bluhm under 35 U.S.C. § 103(a).

D. Additional Asserted Grounds

As explained above, we are persuaded that Petitioner has demonstrated a reasonable likelihood that claim 4 is unpatentable over Münnekehoff and Bluhm, and also over Barmag and Bluhm. Petitioner also contends that, under 35 U.S.C. § 103(a), claim 4 is unpatentable over (1) Münnekehoff, Whisnant, and Morris; (2) Münnekehoff and Ligon '982; (3) Barmag, Whisnant, and Morris; and (4) Barmag and Ligon '982. Pet. 17-27, 31-38. The additional grounds are denied as redundant to the grounds of unpatentability on which we institute an *inter partes* review. *See* 37 C.F.R. § 42.108.

Petitioner contends that all of its asserted grounds are not redundant to each other for two reasons. First, Petitioner argues that Ligon '982 teaches the same configuration as the exemplary embodiment in the Specification of the '360 patent (i.e., a distance that is approximately the radius of a fully loaded package), and therefore, the grounds based on Münnekehoff or Barmag in combination with Ligon '982 "may be said to be stronger

. . . under certain conditions." Pet. 43. Petitioner, however, makes the same argument as to Bluhm, arguing that Figure 3 in Bluhm depicts a distance between turning surfaces that is approximately the radius of a fully loaded package. *Id*. at 28-29; *see* Ex. 1101 ¶ 78 (opining that Ligon '982 and Bluhm both teach the same radius distance described in the Specification). Thus, Petitioner has not articulated sufficiently how the grounds based on combinations with Ligon '982 would be stronger than those based on combinations with Bluhm.

Second, Petitioner argues that the Board's interpretation of "distance corresponding to the diameter of said packages" may "itself be subject to multiple interpretations." Pet. 43-44. According to Petitioner, the grounds based on Münnekehoff or Barmag in combination with Bluhm may be stronger if claim 4 is "determined to require, for example, a fully loaded package whose yarn has not been threaded into the system," otherwise the grounds based on Münnekehoff or Barmag in combination with Whisnant and Morris may be stronger. *Id*. We are not persuaded that our interpretation of "distance corresponding to the diameter of said packages" should be modified or that further interpretation is necessary. Nor does Petitioner advocate one of its alleged "multiple interpretations" of the term over the other. Petitioner's asserted reason why the grounds are not redundant to each other, therefore, is unpersuasive.

Under the circumstances, we exercise our discretion under 37 C.F.R. § 42.108 to institute an *inter partes* review based solely on the asserted grounds directed to combinations with Bluhm and deny the remaining grounds as redundant.

E. Conclusion

We are persuaded that Petitioner has demonstrated a reasonable likelihood of prevailing on the following grounds of unpatentability asserted in the Petition:

Claim 4 under 35 U.S.C. § 103(a) as unpatentable over Münnekehoff and Bluhm; and

Claim 4 under 35 U.S.C. § 103(a) as unpatentable over Barmag and Bluhm.

III. ORDER

In consideration of the foregoing, it is hereby:

ORDERED that the Petition is granted as to claim 4 of the ’360 patent;

FURTHER ORDERED that pursuant to 35 U.S.C. § 314(a), *inter partes* review of the ’360 patent is hereby instituted commencing on the entry date of this Order, and pursuant to 35 U.S.C. § 314(c) and 37 C.F.R. § 42.4, notice is hereby given of the institution of a trial;

FURTHER ORDERED that the trial is limited to the grounds identified under the heading “Conclusion” above, and no other grounds set forth in the Petition as to claim 4 of the ’360 patent are authorized;

FURTHER ORDERED that an initial conference call with the Board is scheduled for 2:00 PM Eastern Time on January 21, 2014. The parties are directed to the Office Patent Trial Practice Guide, 77 Fed. Reg. 48,756, 48,765-66 (Aug. 14, 2012), for guidance in preparing for the initial conference call, and should be prepared to discuss any proposed changes to

the Scheduling Order entered herewith and any motions the parties anticipate filing during the trial;

FURTHER ORDERED that, as ordered in related Case IPR2013-00132 (Paper 9 at 38), all documents, including affidavits, created for and filed in this proceeding shall be in Times New Roman 14-point font;

FURTHER ORDERED that, as ordered in related Case IPR2013-00132 (Paper 9 at 38), any claim charts in documents, including affidavits, created for and filed in this proceeding shall be in a dual-column format with claim limitations in one column and prior art teachings or explanations in the other; and

FURTHER ORDERED that the copy of Exhibit 1108 filed on September 13, 2013 is expunged from the record of this proceeding.

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