

NOTE: This disposition is nonprecedential.

**United States Court of Appeals
for the Federal Circuit**

**KIMBERLY-CLARK WORLDWIDE, INC. AND
KIMBERLY-CLARK GLOBAL SALES, LLC,**
Plaintiffs-Appellees,

v.

**FIRST QUALITY BABY PRODUCTS, LLC AND
FIRST QUALITY RETAIL SERVICES, LLC,**
Defendants-Appellants.

2010-1382

Appeal from the United States District Court for the
Eastern District of Wisconsin in case no. 09-CV-0916,
Judge William C. Griesbach.

Decided: June 1, 2011

CONSTANTINE L. TRELA, JR., Sidley Austin LLP, of Chi-
cago, Illinois, argued for plaintiffs-appellees. With him on
the brief were BRADLEY C. WRIGHT, Banner & Witcoff,
Ltd., of Washington, DC; MARC S. COOPERMAN, J. PIETER
VAN ES, MATTHEW P. BECKER, AIMEE B. KOLZ, MICHAEL L.

KRASHIN, and KATIE L. BECKER, of Chicago, Illinois. Of counsel was CHRISTOPHER B. ROTH, of Washington, DC.

KENNETH P. GEORGE, Amster Rothstein & Ebenstein LLP, of New York, New York, argued for defendants-appellants. With him on the brief were IRA E. SILFIN and MICHAEL V. SOLOMITA.

Before DYK, FRIEDMAN, and PROST, *Circuit Judges*.
PROST, *Circuit Judge*.

Defendants-Appellants, First Quality Baby Products, LLC and First Quality Retail Services, LLC (collectively, “First Quality”), appeal the grant of a preliminary injunction by the United States District Court for the Eastern District of Wisconsin in favor of Plaintiffs-Appellees Kimberly-Clark Worldwide, Inc. and Kimberly-Clark Global Sales (collectively, “Kimberly-Clark”). *Kimberly-Clark Worldwide, Inc. v. First Quality Baby Prods., LLC*, 714 F. Supp. 2d 919 (E.D. Wis. May 20, 2010). Because we find that First Quality has raised substantial questions of validity with respect to U.S. Patent Nos. 6,514,187; 7,156,939; and 6,888,143, we *vacate* the preliminary injunction for these patents. We *affirm* the district court’s grant of a preliminary injunction for U.S. Patent No. 6,776,316.

I. BACKGROUND

This case involves training pants used by toddlers to assist in toilet training. Kimberly-Clark, a major participant in the personal care industry, develops and manufactures disposable training pants with refastenable side seams. These side seams attach through a hook and loop

fastening system, very similar to VELCRO®. Kimberly-Clark obtained by assignment four patents directed to the manufacturing of training pants: U.S. Patent Nos. 6,514,187 (“187 patent”); 7,156,939 (“939 patent”); 6,888,143 (“143 patent”); and 6,776,316 (“316 patent”). These patents disclose a machine-based method of folding training pants at the crotch region, aligning and fastening the side seams of the training pants, inspecting the training pants, and then folding the training pants for packaging.

First Quality manufactures and supplies disposable absorbent garments, including refastenable training pants, to major retailers. In making these training pants, First Quality uses processes similar to the manufacturing methods taught by the four Kimberly-Clark patents. Kimberly-Clark, believing that First Quality’s manufacturing processes infringe its patents, asserted the patents in the underlying litigation. Thereafter, Kimberly-Clark moved for a preliminary injunction to enjoin First Quality from practicing the allegedly infringing manufacturing methods. The following patent claims were at issue in the preliminary injunction motion: Claims 1 and 3-5 of the ’187 patent; Claims 63-65, 67-68, and 142-143 of the ’143 patent; Claims 12, 19, and 29 of the ’939 patent; and Claims 1, 5, 6, and 8 of the ’316 patent.

After holding a two-day evidentiary hearing, the district court granted a preliminary injunction, finding, *inter alia*, that Kimberly-Clark had established a reasonable likelihood of success on the merits under all four patents. *Kimberly-Clark*, 714 F. Supp. 2d at 936, 938. In particular, the district court held that Kimberly-Clark would likely prove First Quality’s infringement of the four patents at issue and that these four patents would withstand validity and enforcement challenges. *Id.* at 936.

On May 26, 2010, First Quality timely appealed the district court's preliminary injunction decision. We have jurisdiction under 28 U.S.C. § 1292(c)(1).¹

After the parties filed their appeal briefs but before oral argument, the district court issued its claim construction order. See *Kimberly-Clark Worldwide, Inc. v. First Quality Baby Prods., LLC*, No. 09-C-916, 2011 WL 196509 (E.D. Wis. Jan. 20, 2011). In this order, the court departed from some of the claim constructions it had previously relied upon in granting the preliminary injunction.²

II. DISCUSSION

This court reviews a decision to grant a preliminary injunction for abuse of discretion. *Abbott Labs. v. Sandoz, Inc.*, 566 F.3d 1282, 1298 (Fed. Cir. 2009). “A plaintiff seeking a preliminary injunction must establish [1] that he is likely to succeed on the merits, [2] that he is likely to suffer irreparable harm in the absence of preliminary relief, [3] that the balance of equities tips in his favor, and

¹ A more complete discussion of the factual and procedural background can be found in the district court's preliminary injunction opinion. See *Kimberly-Clark*, 714 F. Supp. 2d at 919.

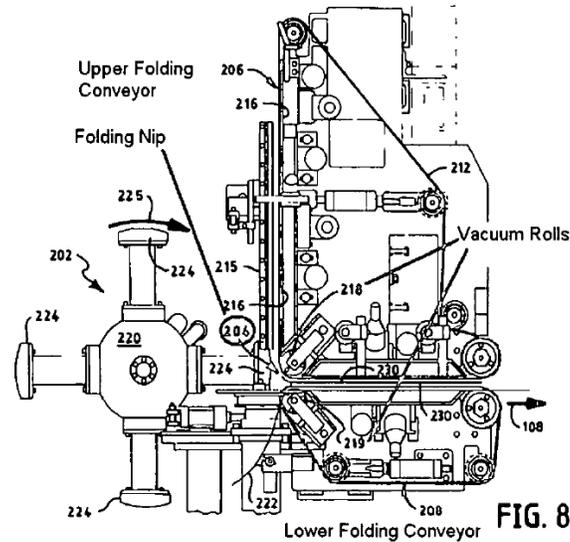
² Also after the parties filed their appeal briefs but before oral argument, the United States Patent and Trademark Office (“USPTO”) granted First Quality's request for an inter partes reexamination of Claims 1-15 and 19-25 of the '187 patent. The USPTO subsequently rejected all of these claims in a December 14, 2010 initial office action as obvious under 35 U.S.C. § 103. The rejected claims included all '187 patent claims covered by the preliminary injunction ruling.

[4] that an injunction is in the public interest.” *Winter v. Natural Res. Def. Council, Inc.*, 129 S. Ct. 365, 374 (2008); *see also AstraZeneca LP v. Apotex, Inc.*, 633 F.3d 1042, 1049 (Fed. Cir. 2010). “Although the factors are not applied mechanically, a movant must establish the existence of both of the first two factors to be entitled to a preliminary injunction.” *Altana Pharma AG v. Teva Pharm. USA, Inc.*, 566 F.3d 999, 1005 (Fed. Cir. 2009) (citing *Amazon.com, Inc. v. Barnesandnoble.com, Inc.*, 239 F.3d 1343, 1350 (Fed. Cir. 2001)).

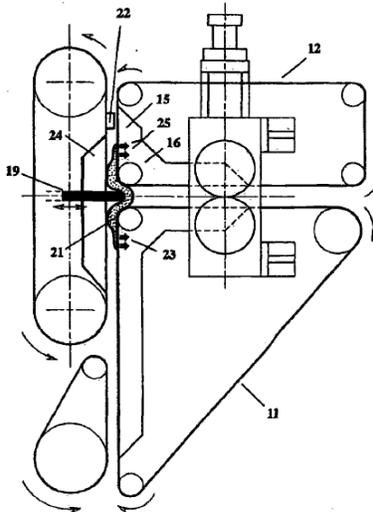
“For a patentee to establish that it is likely to succeed on the merits, it ‘must demonstrate that it will likely prove infringement of one or more claims of the patents-in-suit, and that at least one of those same allegedly infringed claims will also likely withstand the validity challenges presented by the accused infringer.’” *AstraZeneca*, 633 F.3d at 1050 (quoting *Amazon*, 239 F.3d at 1351); *see also Erico Int’l Corp. v. Vutec Corp.*, 516 F.3d 1350, 1354 (Fed. Cir. 2008). “A preliminary injunction should not issue if an alleged infringer raises a substantial question regarding either infringement or validity, i.e., the alleged infringer asserts an infringement or invalidity defense that the patentee has not shown lacks substantial merit.” *AstraZeneca*, 633 F.3d at 1050. In attempting to prove invalidity when seeking a preliminary injunction, the accused infringer does not face the clear and convincing evidence burden of proof applicable at trial. *See Altana*, 566 F.3d at 1006; *Perricone v. Medicis Pharm. Corp.*, 432 F.3d 1368, 1372 (Fed. Cir. 2005). Instead, “[v]ulnerability is the issue at the preliminary injunction stage, while validity is the issue at trial.” *Altana*, 566 F.3d at 1006 (quoting *Amazon*, 239 F.3d at 1359).

A. The '187 Patent

First Quality contests the validity of Claims 1 and 3-5 of the '187 patent. Claim 1 covers a method of folding training pants where the pants, lying open and flat, proceed down a conveyer belt to a folding area ("folding nip"). Under this claim, roughly half of the training pant ("leading half") proceeds past the folding nip and onto a second conveyer belt. The other half ("trailing half") remains on the first conveyer belt. At this point, two vacuum rolls positioned near the folding nip work with the conveyer belt to move the training pant through the nip, which results in the folding of the training pant at the crotch region. Claim 1 also teaches that as the folding occurs, two "separation members" employ to keep the leading and trailing halves of the pant separate from each other. These separation members must be placed between the two conveyer belt devices, "disposed on opposite sides of a machine center line," and "disposed outward from the machine center line." Claims 3-5 further limit Claim 1 by requiring the following: "mating mechanical fastening components" on the training pants; "transporting the leading half [of the training pant] past the folding nip;" and implementing folding blades to push the training pant into the folding nip. Below is a figure illustrating the training pant folding process disclosed in the '187 patent.



In raising its invalidity defense, First Quality asserted a prior art reference teaching nearly the same invention disclosed by Claims 1 and 3-5 of the '187 patent. This reference, an Italian patent application to Fameccanica, disclosed a method for folding products such as diapers and underwear. The undergarments folded according to this method lie open and flat on a conveyor belt guided by rollers and are transported to a folding area. Upon reaching the folding area, the leading half of the undergarment proceeds past the folding point and onto a second conveyer belt, while the trailing half remains on the first conveyer belt. With the aid of a "pusher" and vacuum suction, the undergarment moves through the folding area, resulting in the folding of the undergarments at the crotch region. The vacuum suction taught by Fameccanica, however, originates from the conveyor belts, not the rollers. Below is a figure illustrating Fameccanica's training pant folding process.



The Fameccanica reference differs from the '187 patent in two major respects. First, Fameccanica does not disclose vacuum rolls; it discloses vacuum conveyors. Second, Fameccanica does not disclose plates that separate the leading and trailing halves of the training pant while the pant is folded at the crotch region.

The district court relied on the fact that Fameccanica teaches a vacuum conveyor instead of a vacuum roll in distinguishing this reference from the '187 patent. *See Kimberly-Clark*, 714 F. Supp. 2d at 933. First Quality argues, however, that any difference between vacuum belts and vacuum rolls is trivial and unpatentable as obvious. While the ultimate question of obviousness is not before us, the practical difference between using vacuum rolls instead of vacuum conveyors appears very minimal. Indeed, the vacuum belts taught by Fameccanica and the vacuum rolls taught by the '187 patent serve the same purpose in the training pant manufacturing process: pulling the training pants through the folding nip. Kimberly-Clark's own expert acknowledged that the

vacuum rolls were known before the '187 patent's priority date, and that such rolls could have been used in the Fameccanica invention. For these reasons, First Quality's argument that the vacuum conveyors are an obvious variant of the vacuum rolls did not lack substantial merit. *See In re Translogic Tech., Inc.*, 504 F.3d 1249, 1259 (Fed. Cir. 2007) (“[O]bvious variants of prior art references are themselves part of the public domain.”).

The second noteworthy difference between the Fameccanica reference and Claims 1 and 3-5 of the '187 patent is that Fameccanica does not teach “separation members” that keep the leading and trailing halves of the training pant separate during folding. First Quality argues, however, that the Herrmann reference (U.S. Patent No. 5,626,711) teaches separation members, and that it would be obvious to combine Herrmann and Fameccanica.

The Herrmann reference discloses a machine that, *inter alia*, folds elasticized undergarment products. Under Herrmann, an undergarment lies flat and open while travelling through a mechanism that folds the leading half of the undergarment over the trailing half. At the time of folding, rods deploy between the two halves of the undergarment.

The district court distinguished these rods from the separation members disclosed in the '187 patent by explaining that the rods were used for a completely different purpose and implemented at a different time than the separation members. *See Kimberly-Clark*, 714 F. Supp. 2d at 931-32. While this may be true, the Herrmann specification explicitly teaches that the rods lie between the leading and trailing halves of the training pant during the folding process. *See* U.S. Patent No. 5,626,711 col.7 l.53-60. This design is similar to the '187 patent's dislo-

sure, which teaches “separation members” that separate the leading half of the training pant from the trailing half during folding. Whether the placement of the two rods between the leading and trailing halves as disclosed in Herrmann constitutes the type of “separation” described in the ’187 patent is an issue that the parties and district court can address during the litigation. At the time the district court granted the preliminary injunction, however, First Quality’s argument that the Herrmann reference taught the separation panels disclosed in the ’187 patent did not lack substantial merit.

In sum, through Fameccanica, First Quality asserted a prior art reference teaching nearly every element contained in the asserted ’187 patent claims. First Quality addressed the elements not present in Fameccanica by providing a obviousness argument regarding the vacuum rolls and asserting the Herrmann reference. As a result, First Quality has raised a substantial question of validity for Claims 1 and 3-5 of the ’187 patent that cannot be characterized as substantially meritless. Therefore, the district court abused its discretion in granting a preliminary injunction for these claims.³

³ As mentioned, the USPTO rejected Claims 1 and 3-5 of the ’187 patent in an inter partes reexamination proceeding after the district court issued its preliminary injunction ruling. We have explained that “the current posture of . . . inter partes reexamination proceedings at the PTO” is relevant “when evaluating . . . the likelihood of success on the merits” at the preliminary injunction stage. *Procter & Gamble Co. v. Kraft Foods Global, Inc.*, 549 F.3d 842, 847 (Fed. Cir. 2008). In particular, the examiner’s decision regarding patentability can be considered when discerning the likelihood of success. *Id.* Although the rejection issued after the district court’s preliminary injunction ruling, we note that the rejection provides further support for First Quality’s position that

B. The '143 Patent

First Quality contests the validity of Claims 63-65, 67-68, and 142-143 of the '143 patent (the claims covered by the preliminary injunction order). These claims cover a method of inspecting pre-fastened training pants to ensure they are assembled properly at the side seams. More specifically, after the training pants are folded at the crotch region and then connected at the sides, the patented invention teaches the pulling of the front and back portions of the pants so as to induce tension at the engagement seam (i.e., the side seams). This enables the inspection of the training pants from the side, rather than from above, and ensures proper alignment at the engagement seam. Claims 142 and 143 add the additional requirement that an image be captured during the inspection process.

First Quality argued at the preliminary injunction stage that a machine designed to manufacture training pants (“TP3 machine”) anticipated all of the asserted '143 patent claims under 35 U.S.C. § 102(b).⁴ The district court rejected this argument in its preliminary injunction ruling after construing the “pre-fastened disposable pants” claim term to cover only pants with refastenable side seams.⁵ *Kimberly-Clark*, 714 F. Supp. 2d at 933.

the '187 patent claims are “vulnerable.” See *Erico*, 516 F.3d at 1357.

⁴ Kimberly-Clark disputes whether the TP3 machine qualifies as prior art. The district court assumed it did for purposes of its preliminary injunction analysis. See *Kimberly-Clark*, 714 F. Supp. 2d at 930-31. We do the same.

⁵ This claim term is contained in Claims 63-65, 67-68, and 142-143 of the '143 patent (i.e., all '143 claims subject to the preliminary injunction ruling).

Under this construction, the TP3 machine could not qualify as anticipating prior art because it only produced training pants with permanently bonded side seams. *See Kimberly-Clark*, 714 F. Supp. 2d at 933-34. Thus, the district court's claim construction significantly undermined First Quality's invalidity position.

The district court's construction, however, conflicted with the '143 specification, a point which the district court acknowledged in its subsequent January 20, 2011 claim construction order. *See Kimberly-Clark*, 2011 WL 196509, at *8. The specification makes clear that the claimed invention is not limited to refastenable articles and can be used in conjunction with pants having permanently bonded side seams. *See* '143 patent col.9 l.11-24, col.14 l.54-57. Indeed, relying on this specification language in its January 20, 2011 claim construction order, the district court amended its previous construction of the "pre-fastened disposable pants" term to include training pants with permanently bonded side seams. *See Kimberly-Clark*, 2011 WL 196509, at *8. This amended construction significantly strengthens First Quality's invalidity position regarding the ability of the TP3 machine to anticipate the claimed invention. Clearly, the fact that the district court applied an improper claim construction of the "pre-fastened disposable pants" term and relied on that construction heavily in its preliminary injunction analysis of the '143 patent's validity undermines its conclusion that a preliminary injunction was appropriate. *See Jack Guttman, Inc. v. Kopykake Enters.*, 302 F.3d 1352, 1361-62 (Fed. Cir. 2002) ("Our precedent supports the proposition that grounding a decision on a preliminary injunction on a claim construction at odds with an

unambiguous definition in the intrinsic evidence constitutes an abuse of discretion.”).

Regarding the TP3 machine, First Quality proffered evidence and argument at the preliminary injunction proceedings in support of its position that this machine shares the features claimed by the '143 patent. Kimberly-Clark responded by arguing that the TP3 machine fails to disclose the '143 patent's "tension" limitation, supporting this argument with evidence purportedly showing that the training pant hangs loose, or sags, on the paddles during the inspection process.⁶ The district court sided with Kimberly-Clark on this issue. *See Kimberly-Clark*, 714 F. Supp. 2d at 934.

We do not conclude that the district court's factual findings regarding the TP3 machine and tension are incorrect. Indeed, as explained in more detail below in Section D, such factual findings made at the preliminary injunction stage "deserve tolerance by reviewing courts." *See Reebok Int'l Ltd. v. J. Baker, Inc.*, 32 F.3d 1552, 1557 (Fed. Cir. 1994). The tension issue, however, is a closely contested one that could change based on evidence submitted during discovery. Moreover, the court's conclusion regarding the tension issue does not detract from the fact that (1) the TPC machine has an inspection system very similar to the inspection methods taught by the '143 patent and (2) the TP3 machine's permanently bonded side seam limitation does not prevent the machine from anticipating the claims under a proper construction of the "pre-fastened" claim term. Therefore, we conclude that

⁶ Tensioning the training pant during inspection is explicitly required by Claims 68, 142, and 143 of the '143 patent.

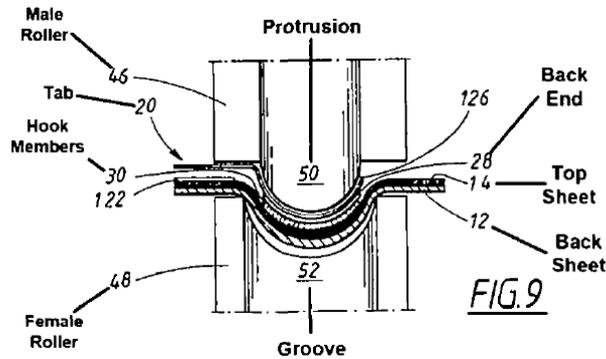
First Quality has raised a substantial question of validity for Claims 63-65, 67-68, and 142-143 of the '143 patent that cannot be characterized as substantially meritless. As a result, we hold that the district court abused its discretion in granting a preliminary injunction for these claims.

C. The '939 Patent

The '939 patent teaches a method of strengthening the engagement seam of the training pant.⁷ The preferred type of fastening at the engagement seam taught by the '939 patent involves hook and loop fastening very similar to VELCRO®. When one applies a shear stress to such a system (e.g., by moving the engaged hook and loop faces in a parallel, opposite direction from each other), more hooks can snag into the loops, thereby strengthening the bond between the hook and loop components.

First Quality contests the validity of Claims 12, 19, and 29 of the '939 patent. These claims cover a method of applying “shear stress” to the engagement seam of a “pre-fastened” disposable garment, which is designed to promote “increased engagement” at the seam. In raising a § 102(b) defense, First Quality asserted the Lindqvist reference as anticipatory prior art. This reference discloses a hook and loop fastening system on a refastenable training pant that passes through two mating rollers. Lindqvist, WO 98/15248 p. 7, 9, 18. The figure below illustrates the hook and loop fastening system as it passes through the rollers.

⁷ According to the district court’s claim construction order, the “engagement seam” is the point at which the front and back panels of the garment connect. *Kimberly-Clark*, 2011 WL 196509, at *9.



The district court distinguished Lindqvist, finding that this reference did not disclose the “shear stress” limitation required by the ’939 patent. *Kimberly-Clark*, 714 F. Supp. 2d at 935. In particular, the court concluded that when the top and bottom sheets of the Lindqvist fastening system pass through the rollers, a relative displacement occurs involving compression or bending forces, not a shear stress. *Id.*

If the force causing the “relative displacement” in Lindqvist qualifies as a “shear stress” as that term is defined in the ’939 patent, Lindqvist would provide First Quality with a sound invalidity argument. Therefore, the ’939 patent’s specification support for the “shear stress” claim term, and the court’s construction of that claim term, are relevant. *See Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996) (“It is well-settled that, in interpreting an asserted claim, the court should look first to the intrinsic evidence of the record . . . including the specification.”).

Kimberly-Clark argues that a shear stress as defined by the ’939 patent only occurs when the entire top sheet of the hook and loop fastener system is pulled in an opposite

direction from the bottom sheet, and that Lindqvist does not teach this type of action. The district court adopted a narrow construction of “shear stress” in its preliminary injunction infringement analysis, defining the term to mean a force “generally parallel to the face of the material and pulling in opposite directions.” *See Kimberly-Clark*, 714 F. Supp. 2d at 927.⁸

The ’939 specification, however, does not require such a narrow reading of the “shear stress” term. Indeed, this specification makes clear that a shear stress can result from other techniques besides pulling the top and bottom sheets in opposite directions (such as by applying a force to only one of the fastening components). *See* ’939 patent col.34 l.11-18. Moreover, the district court, relying on this specification language, rejected its own initial construction of “shear stress” (from the preliminary injunction proceeding) and re-construed the term more broadly in its January 20, 2011 claim construction order to mean “force generally parallel to the face of the material.” *Kimberly-Clark*, 2011 WL 196509, at *11.

This broader construction substantially enhances First Quality’s argument that the force generated by the mating of the rollers in Lindqvist qualifies as a “shear stress” as defined by the ’939 patent. In particular, the Lindqvist reference states that “the hook members of the second portion and the surface of the topsheet . . . effect a relative displacement in a direction substantially parallel to the surface of the topsheet.” Lindqvist, WO 98/15248 p.9 ln.3-6. Lindqvist also explains that “the *relative displacement* of the hook members and the surface of the article *in a direction substantially parallel to the surface*

⁸ The district court did not apply this definition in its validity analysis of the ’939 patent.

of the article causes the hook members to ‘jiggle’ between the fibers and loops of the surface material and become snagged thereon.” *Id.* at p.9 ln. 22-27 (emphases added). This language in Lindqvist encroaches upon the definition of shear stress provided by the district court in its January 20, 2011 claim construction order (i.e., “force generally parallel to the face of the material”). For these reasons, First Quality’s argument that Lindqvist meets the ’949 patent’s shear stress element does not lack substantial merit.

In addition to the shear stress element, the district court concluded that Lindqvist did not disclose the ’939 patent’s “promote increased engagement” element. The methods taught by Claims 12, 19, and 29 of the ’939 patent require that the shear stress at the engagement seam “promote increased engagement between the fastening components.” The district court concluded that Lindqvist did not satisfy this element because that reference dealt with preparing products for storage, which meant that there was “no need to promote increased engagement between fastening components.” *Kimberly-Clark*, 714 F. Supp. 2d at 935.

In focusing on the storage characteristics of the Lindqvist system, the district court however, failed to accord proper weight to Lindqvist’s explicit statement that subjecting the hook and loop system to a relative displacement “significantly increased retention force between the hook members . . . and the topsheet.” Lindqvist, WO 98/15248 p.9 ln.6-12. Because of this language, First Quality’s argument that the Lindqvist system “promote[s] increased engagement between the fastening components” as required by Claims 12, 19, and 29 of the ’939 patent does not lack substantial merit.

In sum, in asserting the Lindqvist reference, First Quality has raised a substantial question of validity for Claims 12, 19, and 29 of the '939 patent that cannot be characterized as substantially meritless. As a result, we hold that the district court abused its discretion in granting a preliminary injunction for these claims.

D. The '316 Patent

The district court's preliminary injunction ruling for the '316 patent covered Claims 1, 5, 6, and 8. These claims disclose a method of tucking the side seams of refastenable training pants in between the front and back panels of the garment. The invention achieves this result by implementing vacuum conveyor devices to hold the front and back portions of the pant apart from each other while blades push the refastenable side seams towards the center of the garment, thereby folding the diaper. The area where the vacuum conveyor device contacts, and thus suctions, the diaper is called the "vacuum zone." First Quality, on appeal, challenges the district court's finding that Kimberly-Clark established a likelihood of success in proving validity and infringement regarding the '316 patent.

First, with respect to validity, First Quality proffered an obviousness defense based on two prior art machines that manufactured training pants (the P&G Machine and the Drypers Machine). The district court distinguished these machines from the claims at issue, however, because the machines only produced training pants with permanently bonded side seams, not training pants with refastenable side seams. *Kimberly-Clark*, 714 F. Supp. 2d at 934.

On appeal, First Quality argues that it would have been obvious to use the P&G and Drypers Machines to manufacture training pants with refastenable side seams. In support of this argument, First Quality relies on a statement made by Kimberly-Clark in 1994 while opposing a European patent application involving refastenable training pants: “[t]he provision of releasable and refastenable fastening means on training pants was entirely routine and obvious at priority date [T]he concept of releasably fastened training pants was widely known as were the benefits of such a feature by 1994” J.A. 1619-1620. The district court dismissed this admission, explaining that “while [Kimberly-Clark] may have thought at the time that it would be obvious to use known manufacturing methods to produce refastenable training pants, this does not mean that it did not learn otherwise when it embarked on its own project” *Kimberly-Clark*, 714 F. Supp. 2d at 938.

The record contains evidence showing that Kimberly-Clark did in fact learn otherwise when it embarked on its own project. In particular, Kimberly-Clark proffered evidence and testimony showing that the '316 patent resulted from unexpected difficulties encountered after 1994 when it tried to develop a process for folding its prefastened, refastenable training pants for packaging. *Id.* at 934. For instance, Robert Popp, a technical specialist at Kimberly-Clark, testified that his design team did not anticipate any problems with folding its refastenable training pants for packaging but eventually discovered that if the fold fell on the refastenable engagement seam, the hook and loop system “didn’t function very well . . . [and] would pop open.” *Id.* To solve these problems, Kimberly-Clark designed a tucking method that could control the location of the longitudinal fold. *Id.* This tucking method forms the basis of the '316 patent.

The '316 specification discusses these unexpected difficulties, as well, explaining that the claimed invention originated to address the engagement problems associated with folding training pants with refastenable side seams. *See* '316 patent col.6 l.29–63. The importance of the refastenability feature in the '316 patent is also evident in the claims, as each claim covered by the court's preliminary injunction order contains a refastenability limitation.

Because the '316 patent (and related evidence) focuses so strongly on refastenable side seams and on solving the problems associated with folding such seams, the district court did not err in rejecting First Quality's obviousness argument. On this record, given the absence of contrary evidence from First Quality on the obviousness issue, the district court did not err in finding that First Quality failed to raise a substantial issue of patentability.

Second, with regard to infringement, all four of the claims at issue have a limitation requiring the vacuum zone to have "a transverse width about equal to a desired folded transverse width of the body portion in contact with the vacuum zone" ("Equal Width Limitation"). '316 patent col.15 l.57-59. First Quality argues that the machine accused of infringement does not meet the Equal Width Limitation because the transverse widths of the machine's vacuum zones are 68 mm and 85 mm, while the transverse width of the body portion of the training pant manufactured by the machine is 115 mm. As a result, First Quality asserts that the transverse width of the vacuum is not "about equal" to the transverse width of the body portion of the training pant. In support of this argument, First Quality provided Computer-aided design ("CAD") drawings of its machine and elicited testimony during the two-day evidentiary hearing.

Conversely, Kimberly-Clark argues that the vacuum zone utilized by the First Quality machine does span the transverse width of the body portion of the training pant. In making this argument, Kimberly-Clark relies primarily on photographs it took while inspecting First Quality's facilities, as well as testimony on those photographs. The district court ruled in Kimberly-Clark's favor, explaining that First Quality "inexplicably did not provide its own photographs and video of its own machine." *Kimberly-Clark*, 714 F. Supp. 2d at 927. As a result, the court held that Kimberly-Clark was "likely to prevail in its contention that First Quality literally infringes the '316 patent." *Id.*

"[M]otions for a preliminary injunction may come for decision before significant discovery has occurred." *Guttman*, 302 F.3d at 1361. Therefore, we remain "mindful that all findings of fact and conclusions of law at the preliminary injunction stage are subject to change upon the ultimate trial on the merits." *Purdue Pharma L.P. v. Boehringer Ingelheim GmbH*, 237 F.3d 1359, 1363 (Fed. Cir. 2001). As a result, the district court's findings at the preliminary injunction stage "deserve tolerance by reviewing courts so they can tailor procedures of adjudication to the case at hand." *Reebok*, 32 F.3d at 1557.

Here, the district court held an evidentiary hearing and viewed evidence on the width of the vacuum zones in First Quality's allegedly infringing machine, a critical element in the infringement analysis for Claims 1, 5, 6, and 8 of the '316 patent. The court accorded little weight to First Quality's evidence because this evidence consisted of CAD files instead of actual photographs of its own machine. We see no error in the district court's conclusion and reasoning on this issue. Therefore, the court did not abuse its discretion in holding that Kimberly-Clark

had shown a reasonable likelihood of success in proving infringement of Claims 1, 5, 6, and 8 of the '316 patent.

Finally, we see no error in the district court's conclusions and reasoning regarding the remaining preliminary injunction factors (i.e., the irreparable harm factor, the balance of harms factor, and the public interest factor). *See Kimberly-Clark*, 714 F. Supp. 2d at 936-37. Therefore, the district court did not abuse its discretion in deciding that these factors favored the grant of a preliminary injunction for Claims 1, 5, 6, and 8 of the '316 patent.

III. CONCLUSION

For the above reasons, we conclude that the district court abused its discretion in granting Kimberly-Clark's motion for a preliminary injunction for Claims 1 and 3-5 of the '187 patent; Claims 63-65, 67-68, and 142-143 of the '143 patent; Claims 12, 19, and 29 of the '939 patent. Therefore, we vacate the order of the district court with respect to these claims. We affirm, however, the district court's decision to grant a preliminary injunction under Claims 1, 5, 6, and 8 of the '316 patent.

COSTS

Each party shall bear its own costs.

AFFIRMED-IN-PART AND VACATED-IN-PART