

NOTE: This disposition is nonprecedential.

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

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**SOUTHCO, INC.,**  
*Plaintiff-Appellant*

v.

**FIVETECH TECHNOLOGY INC.,**  
**also known as Wu Xiang Technology Company, Ltd.,**  
**also known as 5tech,**  
*Defendant-Appellee*

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2014-1390

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Appeal from the United States District Court for the Eastern District of Pennsylvania in No. 2:10-cv-01060-MAM, Judge Mary A. McLaughlin.

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Decided: April 10, 2015

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BENJAMIN E. LEACE, Ratner Prestia, Berwyn, PA, argued for plaintiff-appellant. Also represented by BRIAN SHERWOOD SEAL, ANDREW J. KOOPMAN, CHRISTOPHER H. BLASZKOWSKI.

GLENN WALTHALL RHODES, Rhodes Attorneys at Law P.C., San Francisco, CA, argued for defendant-appellee. Also represented by HEATHER H. FAN; ELIZABETH S.

FENTON, Chamberlain, Hrdlicka, White, Williams & Martin, P.C., West Conshohocken, PA.

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Before MOORE, PLAGER, and WALLACH, *Circuit Judges*.

MOORE, *Circuit Judge*.

Southco, Inc. appeals from the orders of the United States District Court for the Eastern District of Pennsylvania granting summary judgment of noninfringement of U.S. Patent Nos. 5,851,095; 6,280,131; and 6,468,012, granting summary judgment of noninfringement of U.S. Trademark Nos. 2,478,685 and 3,678,153, and denying a motion to strike an expert declaration. For the reasons set forth below, we *affirm-in-part, reverse-in-part, vacate-in-part*, and *remand*.

#### BACKGROUND

Southco sued Fivetech Technology Inc., alleging that Fivetech's captive screws infringed various claims of the asserted patents and trademarks. A captive screw is a particular type of fastener for attaching two parts. The patents at issue claim particular types of captive screws that contain, among other things, a hollow piece, called a ferrule, a screw within the ferrule, and a knob secured to the head of the screw. The ferrule is configured to attach to the first part and is configured so that the screw does not fall out of the captive screw assembly while the captive screw is used to join the two parts.

The district court found that the accused products did not infringe any of the asserted claims because the products did not meet limitations requiring that the knob and ferrule be "attached," that the screw have an "annual chamfer," that the knob and screw be "rigidly secure," and that "material from [the] knob [fill the annular] chamfer." The district court found that the accused products did not infringe Southco's trademarks because Fivetech had not

used the accused mark in commerce in the United States. Southco appeals. We have jurisdiction over this appeal under 28 U.S.C. § 1295(a)(1).

#### DISCUSSION

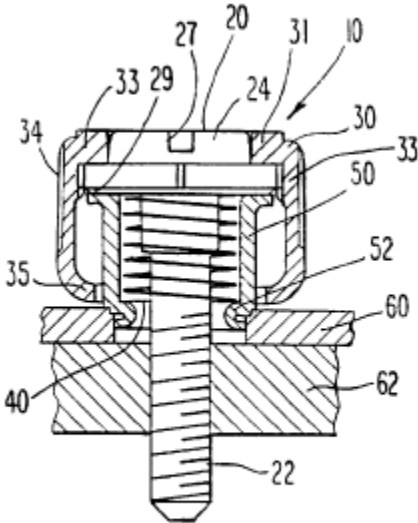
We review the ultimate question of claim construction de novo and factual findings underlying the ultimate question for substantial evidence. *See Teva Pharms. USA, Inc. v. Sandoz, Inc.*, 135 S. Ct. 831, 841–42 (2015). Here, we review the district court’s claim constructions de novo because the intrinsic evidence determines the proper construction. *Id.* at 841. Under Third Circuit law, we review a grant of summary judgment de novo. *Keurig, Inc. v. Sturm Foods, Inc.*, 732 F.3d 1370, 1372 (Fed. Cir. 2013) (citing *Nicini v. Morra*, 212 F.3d 798, 805–06 (3d Cir. 2000) (en banc)). Summary judgment is appropriate if “the movant shows that there is no genuine dispute as to any material fact and the movant is entitled to judgment as a matter of law.” Fed. R. Civ. P. 56(a). At the summary judgment stage, we credit the nonmovant’s evidence and draw all justifiable inferences in its favor. *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 255 (1986).

#### I. ’095 and ’131 patents

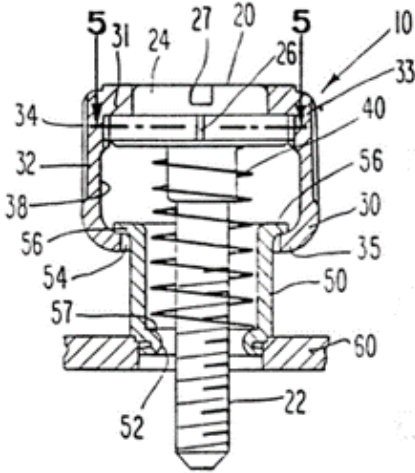
The district court granted summary judgment that Fivetech did not infringe claims 1–15 of the ’095 patent or claims 1–15 of the ’131 patent. It concluded there was no literal infringement based on its construction of the claim term “attached.” It concluded that there was no infringement under the doctrine of equivalents because the all elements test was not met and the accused product “uses a washer, which is entirely absent from the Southco patents.” *Southco, Inc. v. Fivetech Tech. Inc.*, No. 10-1060, 2012 WL 246253, at \*5–6 (E.D. Pa. Jan. 25, 2012) (*’095 and ’131 Order*).

Figure 3 of the ’095 and ’131 patents shows a captive screw having a screw head (24), threaded shaft (22),

hollow knob (30) and hollow ferrule (50). '095 patent col. 3 ll. 3–8. Figure 2 shows the same captive screw when the knob (30) is in the extended position and the threaded shaft (22) is retracted. *Id.* col. 2 ll. 21–24. In this position, the first annular flange (35) on the knob (30) and the second annular flange (56) on the ferrule (50) are in contact. *Id.* col. 5 ll. 32–34.



***Fig. 3***



***Fig. 2***

The parties agree that claim 1 of the '095 patent is representative of the asserted claims of the '095 and '131 patents. Claim 1 recites:

1. A captive screw attachable to a panel, for attaching the panel to a surface, the surface having a threaded hole, the captive screw comprising:
  - a) a screw having a head portion and a threaded shaft,  
...
  - c) a thin-walled, cylindrical, hollow knob comprising a first end having an annular top surface, a second end, and an inner surface;  
...
  - e) a hollow ferrule having a first end and a second end through which the threaded shaft slides, . . . and a threaded shaft captivation means, said threaded shaft captivation means adjacent the second end, wherein *the second end of the ferrule is slidably and rotatably attached to the knob such that when the threaded shaft is in a retracted position, the threaded shaft captivation means prevents the ferrule and the knob from separating* and when the threaded shaft is in an extended position, the flat, annular bottom surface of the head portion of the screw is in contact with the second end of the ferrule.

'095 patent col. 6 ll. 2–32 (emphasis added).

#### A. Construction of “Attached”

The district court concluded that the asserted claims of the '095 and '131 patents, which recite that the knob and ferrule are slidably and rotatably “attached,” require that the knob be directly connected to the ferrule. The district court did not rely on extrinsic evidence in construing the claims. *'095 and '131 Order*, 2012 WL 246253, at \*4 n.7.

We agree with the district court's construction. Southco is correct that the ordinary meaning of "attached" includes both direct and indirect attachment. However, the claim requires more—namely that the ferrule and knob are attached "such that when the threaded shaft is in a retracted position, the threaded shaft captivation means prevents the ferrule and the knob from separating." '095 patent col. 6 ll. 25–29. An indirect attachment would not satisfy the limitation that the "the threaded shaft captivation means prevents the ferrule and the knob from separating" because if the ferrule and knob are already separated—i.e., not directly attached—the threaded shaft captivation means cannot prevent them from separating.

Nothing in the specification compels a construction of "attached" that includes indirect attachment. None of the embodiments nor any discussion states that indirectly attached parts are "attached." Southco argues that two passages in the specification support its position. We do not agree. First, Southco argues that "attached" includes indirect attachment because the patent discloses that "[t]he screw is attachable to the first panel." *Id.* col. 1 ll. 36–37. This passage does not support Southco because the captive screw is directly attached to the first panel. *See id.* col. 1 ll. 38–44 ("The captive screw has . . . a ferrule that attaches to the upper panel."). Second, Southco argues that "attached" includes indirect attachment because the patent discloses that the screw "is used for attaching the first panel to a lower surface . . . having a threaded hole." *Id.* col. 1 ll. 37–38. This passage does not support Southco because the first panel and lower surface touch. *See id.* Fig. 3. Accordingly, the specification's use of "attached" is consistent with its ordinary meaning as used in the claim: direct attachment.

Although claim 1 of the '131 patent uses "engaged" instead of "attached," both parties agree that the terms should be construed similarly. We agree no separate

analysis is necessary. As used in the asserted claims of the '095 and '131 patents, “attached” means direct attachment and “engaged” means direct engagement.

### B. Infringement

The district court concluded that Fivetech does not literally infringe under its construction because the knob and ferrule in Fivetech’s products are not directly connected. *'095 and '131 Order*, 2012 WL 246253, at \*4–5. Southco does not challenge the district court’s conclusion of no literal infringement under the district court’s construction.

The court concluded that Fivetech does not infringe under the doctrine of equivalents because the attachment between the knob and ferrule required by the claims is absent in the products, and the all elements rule was not satisfied. *Id.* at \*5–6. Southco’s doctrine of equivalents argument is similar to its claim construction argument: direct attachment includes indirect attachment. No reasonable jury could find equivalence here because doing so would require determining that parts not directly attached are equivalent to parts that are directly attached—the very thing that the construction excludes. *See Augme Techs., Inc. v. Yahoo! Inc.*, 755 F.3d 1326, 1335 (Fed. Cir. 2014). Because the claim language differentiates between direct attachment and indirect attachment, we agree with the district court that Fivetech’s captive screws are not equivalent to the claimed invention. We therefore affirm the district court’s grant of summary judgment of noninfringement as to the '095 and '131 patents.

## II. '012 Patent

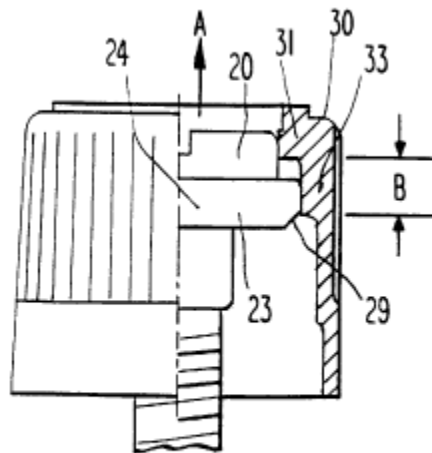
The district court granted summary judgment that Fivetech does not infringe claims 1–14 of the '012 patent. Relying on a late-disclosed expert opinion, it determined that Fivetech’s products do not satisfy the “annular



chamfer” limitation. Based on its constructions of “rigidly secure” and “material from said knob fills said chamfer,” it determined that Fivetech’s products do not satisfy claims reciting those limitations.

A. “Annular chamfer”

The district court concluded that Fivetech does not infringe claims 2–5 and 7–14 of the ’012 patent because the accused products do not meet the limitation that the captive screw include a screw head with an “annular chamfer.” *Southco, Inc. v. Fivetech Tech. Inc.*, No. 10-1060, 2013 WL 5298576, at \*6–7 (E.D. Pa. Sept. 20, 2013) (*'012 Order*). Figure 10 of the ’012 patent shows an embodiment of a captive screw with a chamfer (29). ’012 patent col. 4 ll. 24–26.



***Fig. 10***

Exemplary claim 7 recites:

7. A captive screw attachable to a panel, for attaching the panel to a surface, the surface hav-

ing a threaded hole, the captive screw comprising:

- a) a screw having a head portion and a shaft having at least a threaded portion, said head portion having a top surface and a bottom surface, said *head portion further having an annular chamfer* peripheral to said bottom surface of said head portion;
- b) a knob secured to said head portion; and
- c) a ferrule having a first end and a second end through which said shaft extends, said ferrule having a panel attachment means at said first end to secure the captive screw to the panel.

'012 patent col. 7 ll. 3–16 (emphasis added).

Fivetech's motion for summary judgment, and the court's decision, relied on an expert declaration from Fivetech's expert Dr. David Dornfeld. Fivetech did not disclose Dr. Dornfeld's noninfringement opinion until moving for summary judgment, after the deadline for disclosing expert reports under the court's scheduling order. Accordingly, Southco moved to strike the Dornfeld Declaration as untimely and prejudicial, arguing that it did not have an opportunity to depose Dr. Dornfeld. The Court denied Southco's motion to strike because the late disclosure was not prejudicial. *Southco, Inc. v. Fivetech Tech. Inc.*, No. 10-1060, J.A. 46–48, 47 (E.D. Pa. Nov. 12, 2013) (*Motion to Strike Order*).

Under Third Circuit law, we review a decision to admit evidence for abuse of discretion. *Energy Transp. Group, Inc. v. William Demant Holding A/S*, 697 F.3d 1342, 1355 (Fed. Cir. 2012); *Pineda v. Ford Motor Co.*, 520 F.3d 237, 243 (3d Cir. 2008). The Third Circuit has held that, in considering the exclusion of untimely disclosed evidence, it considers the factors listed in *Meyers v. Pennypack Woods Home Ownership Ass'n*, 559 F.2d 894 (3d

Cir. 1977), *overruled on other grounds by Goodman v. Lukens Steel Co.*, 777 F.2d 113 (3d Cir. 1985). *In re TMI Litig.*, 193 F.3d. 613, 721 (3d Cir. 1999). Although the district court did not articulate the *Pennypack* factors in its decision, it considered whether the late disclosure prejudiced Southco—which is the first *Pennypack* factor. *Pennypack*, 559 F.2d at 904 (“(1) the prejudice or surprise in fact of the party against whom the excluded witnesses would have testified”). Specifically, the court found that there was no prejudice because Southco responded to the Dornfeld Declaration in opposition to Fivetech’s motion for summary judgment. *Motion to Strike Order*, at J.A. 47.

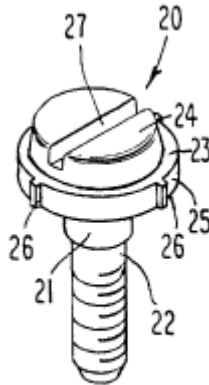
We hold that the district court clearly erred in finding Southco was not prejudiced. Fivetech did not disclose Dr. Dornfeld’s opinion in an expert report as required by both the Federal Rules of Civil Procedure and the district court’s scheduling order. When Fivetech supported its summary judgment motion with Dr. Dornfeld’s declaration, Southco objected because Dr. Dornfeld’s opinion was untimely. And, even though Southco did not have the opportunity to depose Dr. Dornfeld to learn about his tests and opinions, it presented expert testimony that Dr. Dornfeld’s testing procedures were improper and his conclusions unsupported. The court denied the motion to strike, reasoning that Southco was not prejudiced because it responded to Fivetech’s motion for summary judgment. At the same time, the court granted Fivetech’s motion for summary judgment, in part because it determined that Southco’s expert’s response was conclusory. *’012 Order*, 2013 WL 5298576, at \*7. The district court abused its discretion by failing to give Southco an opportunity to depose Dr. Dornfeld, relying on his declaration, and then faulting Southco for failing to rebut his opinion. Therefore, we reverse the denial of the motion to strike the Dornfeld Declaration. We need not, and do not, however, decide whether the prejudice could be cured on remand.

Turning next to the grant of Fivetech’s motion for summary judgment of noninfringement, we hold that Southco presented evidence raising a question of material fact. Fivetech produced engineering drawings of the accused product that Southco argues depict an annular chamfer. In opposing summary judgment, Southco’s expert testified that the drawing shows “that there is a chamfer on the screw head peripheral to the bottom surface.” J.A. 3583. A drawing—produced by the defendant—plausibly showing that a product includes a claim limitation and testimony confirming the same is sufficient evidence to present a question of material fact. Although Southco carries the burden for proving infringement, Fivetech carries the burden of showing there is no genuine dispute of material fact when moving for summary judgment. Thus, we reverse the grant of summary judgment with respect to claims reciting an “annular chamfer.”

#### B. “Rigidly secure”

The district court determined that Fivetech does not infringe claims 1, 6, 8–10, and 14 of the ’012 patent because the accused products do not meet the limitation that the captive screw includes a knob that is rigidly secured to the screw head. *’012 Order*, 2013 WL 5298576, at \*9. In rendering its noninfringement judgment, the district court concluded that “rigidly secure” requires displacing knob material. The district court noted the term “rigidly secure” is not defined in the claims or in the specification of the ’012 patent but concluded that “rigidly secure” required displacement because the specification provides that “the screw head with the protrusions rigidly secures the screw head to the inner surface of the knob and provides a press-fit of the screw to the inner surface of the knob.” *Id.* at \*8 (quoting ’012 patent col. 1 ll. 53–56).

Figure 4 shows a portion of a captive screw with protrusions (26). '012 patent col. 2 ll. 33–34. According to the specification, the screw (20) can be rigidly secured to the knob by the protrusions (26), which provide a press-fit whereby material in the knob is displaced by the protrusions. '012 patent col. 3 ll. 31–38.



***Fig. 4***

Exemplary claim 1 recites:

1. A captive screw attachable to a panel, for attaching the panel to a surface, the surface having a threaded hole, the captive screw comprising:
  - a) a screw having a head portion and a shaft having at least a threaded portion, said head portion having an outer perimeter and a plurality of protrusions provided on said outer perimeter of said head portion;
  - b) a knob having an inner surface, wherein *said protrusions rigidly secure said head portion to said inner surface of said knob*; and

- c) a ferrule having a first end and a second end through which said shaft extends, said ferrule having a panel attachment means at said first end to secure the captive screw to the panel.

'012 patent col. 6 ll. 14–28 (emphasis added).

We hold that the district court improperly limited the claims of the '012 patent to one method of rigid securement described in the specification. Claim 1 requires “a knob having an inner surface, wherein said protrusions rigidly secure said head portion to said inner surface of said knob.” '012 patent col. 6 ll. 21–23. Rigidly secure has an ordinary meaning, namely that the component parts are attached such that they do not separate during normal operation. As the district court recognized, “rigidly secure” is not defined in the intrinsic record and nothing in the intrinsic record clearly and unmistakably redefines the term.

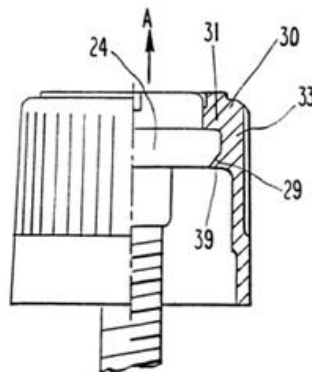
Fivetech’s argument that the claim is limited by the specification is unavailing. “The standards for finding lexicography and disavowal are exacting.” *GE Lighting Solutions, LLC v. AgiLight, Inc.*, 750 F.3d 1304, 1309 (Fed. Cir. 2014). The abstract simply identifies a specific way of making parts of the captive screw rigidly secure. '012 patent, Abstract (stating that captive screw has “protrusions integral to the outer perimeter of the head portion of the screw to rigidly secure . . . the screw to the inner surface of the knob . . . where the screw is pressed into the knob from the underside of the knob”). Similarly, the Summary of the Invention does not require displacement for parts to be rigidly secure. *Id.* col. 1 ll. 41–44, 53–55 (“The captive screw of the present invention has a unique configuration in the means by which the screw portion of the captive screw is mounted to the knob of the captive screw” and that “the screw head with the protrusions rigidly secures the screw head to the inner surface of the knob and provides a press-fit of the screw to the

inner surface of the knob.”). Finally, the embodiments in the specification regarding the advantages of press-fitting, meaning pushing the screw head into the knob, are inapposite because the claim requires the parts be rigidly secure, not press-fitted. Accordingly, we hold that “rigidly secure” means “the component parts are attached such that they do not separate during normal operation.”

C. “Material from said knob fills said chamfer”

The district court determined that Fivetech does not infringe claims 2–5, 11, and 12 of the ’012 patent because the accused products do not meet the limitation that material from the knob fills the chamfer of the screw head in the captive screw. *’012 Order*, 2013 WL 5298576, at \*8. The district court construed “material from said knob fills said chamfer” to require that knob material be displaced into the chamfer.

Figure 11 shows the assembly of the captive screw after the screw is press-fitted into the knob (30). ’012 patent col. 2 ll. 65–67, col. 3 ll. 59–65. Figure 11 shows how material (39) from the knob (30) flowed into the chamfer (29). *Id.*



***Fig. 11***

Exemplary claim 2 recites:

2. The captive screw according to claim 1, wherein said head portion has a top surface and a flat, annular bottom surface, said head portion further has an annular chamfer peripheral to said annular bottom surface of said head portion, and *material from said knob fills said chamfer*.

'012 patent col. 6 ll. 28–33 (emphasis added).

We hold that the district court improperly limited “material from said knob fills said chamfer” to a preferred embodiment. Claim 2 requires that “said head portion further has an annular chamfer peripheral to said annular bottom surface of said head portion, and material from said knob fills said chamfer.” '012 patent col. 6 ll. 31–33. The ordinary meaning of this phrase is clear—material from the knob flows into the chamfer. As the district court noted, the word “displace” is not used in the claims or specification with relation to the chamfer. Even though the specification discloses a method of pressing a screw with protrusions into the knob and such a method would displace knob material, the claims do not require displacement. Rather, the claims require that knob material fill the chamfer, without specifying how the material does so. Further, even though Southco argued in the reexamination of the parent '095 patent that the protrusions are “a significant limitation” and pointed to the specification’s language that the protrusions are satisfactory for the purposes of the present invention, neither of those statements clearly requires displacement to fill a chamfer. We hold that “material from said knob fills said chamfer” means that material from the knob flows into the chamfer.

\* \* \*

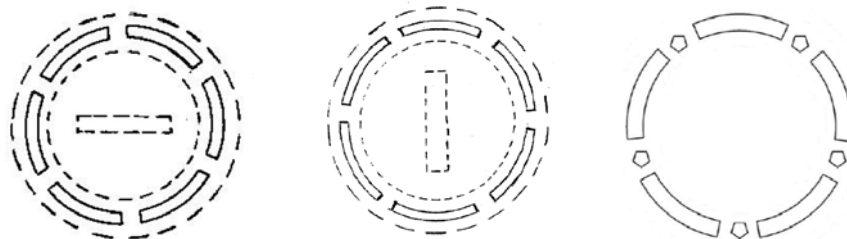
We vacate the grant of summary judgment as to claims 1–6 and 8–12 of the '012 patent because the district court did not apply the correct constructions for “rigidly secure” and “material from said knob fills said



chamfer.” We reverse the grant of summary judgment as to claims 7, 13, and 14 of the ’012 patent, which require an “annular chamfer,” because Southco presented evidence raising a genuine dispute of material fact.

### III. The ’153 and ’685 Trademarks

The ’153 (left) and ’685 (middle) trademarks depict “a circle of segmented curved lines.” E.g., Registration No. 3,678,153. The trademarks are placed on the knob of Southco’s captive screws. The mark on the right is placed on the knob of some of Fivetech’s captive screws. J.A. 269–81.



'153 Trademark

'685 Trademark

Fivetech's Mark

The district court granted Fivetech’s motion for summary judgment of noninfringement of the ’153 and ’685 trademarks because Fivetech did not use the trademarks “in commerce.” *Southco, Inc. v. Fivetech Tech. Inc.*, 982 F. Supp. 2d 507, 511–12 (E.D. Pa. 2013) (*Trademark Order*). Opposing summary judgment, Southco identified three potential acts of infringement. First, it identified publication of Fivetech’s website, which includes a catalog depicting captive screws with Fivetech’s mark. Second, it identified Fivetech’s filing of a trademark application March 25, 2010, in which Fivetech described its mark as “a pattern of 5 wider ridges along the outer circumference with a circle of 5 segmented curved lines interrupted by 5

pentagon shapes” and stated that the mark was “first used in commerce at least as early as 03/10/2010, and is now in use in such commerce.” J.A. 273–74. The application was withdrawn and abandoned three months after it was filed. Third, Southco identified Fivotech’s submission of a quotation list to a customer in the United States that identified part numbers, prices, quantities and lead times for three Fivotech products.

The district court granted summary judgment of non-infringement, determining that the Lanham Act did not apply, concluding that “neither Fivotech’s website, product catalogue, nor price quotes . . . can constitute ‘use in commerce’ of [Fivotech’s mark because] [n]one of these involved [Fivotech’s mark] being sold or transported in United States commerce.” *Trademark Order*, 982 F. Supp. 2d at 511–12. In addition, the district court found that while “Southco’s argument that the offer to sell goods in the United States can constitute infringement under the Lanham Act is correct,” the defendant’s actions here do not bring them within the purview of the Act because there was no evidence that Fivotech shipped marked products to the United States. *Id.* at 512.

The Lanham Act applies to “use in commerce” of “any reproduction, counterfeit, copy, or colorable imitation of a registered mark in connection with the sale, offering for sale, distribution, or advertising of any goods or services on or in connection with which such use is likely to cause confusion, or to cause mistake, or to deceive.” 15 U.S.C. § 1114(1)(a). Under the Act, “commerce” means “all commerce which may lawfully be regulated by Congress.” *Id.* § 1127. “[A] mark shall be deemed to be in use in commerce—(1) on goods when—(A) it is placed in any manner on the goods or their containers or the displays associated therewith or on the tags or labels affixed thereto, or if the nature of the goods makes such placement impracticable, then on documents associated with

the goods or their sale, and (B) the goods are sold or transported in commerce.” *Id.*

The district court correctly granted summary judgment of noninfringement. The district court properly found that none of Southco’s evidence raised a genuine question of material fact that Fivetech’s mark was not used in United States commerce. The district court properly found that Fivetech’s web-based catalog failed to raise a genuine factual dispute regarding use of the trademark in United States commerce because the print-out of the catalog was an exhibit attached to Southco’s Complaint without any authentication. *Trademark Order*, 982 F. Supp. 2d at 510. Further, the catalog alone does not prove that goods were used in commerce in the United States. The district court properly found that Fivetech’s trademark application is not a use in commerce. Although the application stated that products were used in commerce, Southco has not provided any evidence that Fivetech shipped infringing parts to the United States. Finally, Southco’s evidence of an offer for sale, via a quotation list including allegedly infringing parts does not raise a genuine dispute of material fact because there is no evidence that Fivetech ever shipped parts bearing Fivetech’s mark to the United States.

To the extent Southco argues that the district court erred by relying on an incorrect legal definition of “use in commerce,” we disagree. None of the actions identified by Southco include shipping infringing products to the United States. Accordingly, Southco has not put forth sufficient evidence to raise a genuine factual dispute regarding the use of the accused trademark in United States commerce.

#### CONCLUSION

We hold that the district court properly granted summary judgment of noninfringement as to the ’095 and ’131 patents, improperly granted summary judgment of

noninfringement as to the '012 patent because Southco presented evidence raising a genuine question of material fact as to noninfringement, improperly construed the terms “rigidly secure” and “material from said knob flows into said chamfer,” and properly granted summary judgment of noninfringement as to the asserted trademarks. Accordingly, the decision of the United States District Court for the Eastern District of Pennsylvania is

**AFFIRMED-IN-PART, REVERSED-IN-PART,  
VACATED-IN-PART, AND REMANDED**

COSTS

No costs.