

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

**BLUE GENTIAN, LLC, NATIONAL EXPRESS, INC.,
TELEBRANDS CORPORATION,**
Plaintiffs-Appellants

v.

TRISTAR PRODUCTS, INC.,
Defendant-Appellee

2021-2316, 2021-2317

Appeals from the United States District Court for the
District of New Jersey in No. 1:13-cv-01758-NLH-AMD,
Judge Noel Lawrence Hillman.

Decided: June 9, 2023

MICHAEL HAWES, Baker Botts LLP, Houston, TX, argued for all plaintiffs-appellants. Also represented by ANDREW D. LOCKTON, EDWARD F. MCHALE, McHale & Slavin, P.A., Palm Beach Gardens, FL. Plaintiff-appellant Telebrands Corporation also represented by LORI DING, Baker Botts LLP; DAVID SMART STONE, Stone & Magnanini LLP, Berkeley Heights, NJ.

MEGAN FREELAND RAYMOND, Groombridge, Wu, Baughman & Stone LLP, Washington, DC, argued for

defendant-appellee. Also represented by JON STEVEN BAUGHMAN, SAURABH GUPTA.

Before PROST, CHEN, and STARK, *Circuit Judges*.

PROST, *Circuit Judge*.

Blue Gentian, LLC, National Express, Inc., and Telebrands Corp. (collectively, “Blue Gentian”) sued Tristar Products, Inc. (“Tristar”) for infringement of U.S. Patent Nos. 8,291,941 (“the ’941 patent”), 8,291,942 (“the ’942 patent”), 8,479,776 (“the ’776 patent”), 8,757,213 (“the ’213 patent”), D722,681 (“the ’681 design patent”), and D724,186 (“the ’186 design patent”). Tristar counterclaimed to correct inventorship of all six patents. After an evidentiary hearing, the district court determined that a nonparty, Gary Ragner, should have been a named co-inventor on all asserted patents. Accordingly, the district court entered judgment on the inventorship counterclaim in Tristar’s favor and ordered correction of the patents under 35 U.S.C. § 256. Blue Gentian appeals. We affirm for the reasons outlined below.

BACKGROUND

I

Blue Gentian owns all the asserted patents.¹ Michael Berardi was the sole named inventor on each patent. The

¹ Mr. Berardi is Blue Gentian’s principal. National Express had an exclusive license when this litigation began, which has since been assigned to Telebrands. *See* Statement in Support of Mot. to Substitute, *Blue Gentian, LLC v. Tristar Prods., Inc.*, 1:13-cv-01758 (D.N.J. May 19, 2017), ECF No. 271-1; Ord. Denying Without Prejudice Mot. to Substitute and Joining Telebrands as Party, *Blue Gentian*, (D.N.J. June 19, 2017), ECF No. 289.

utility patents generally relate to an expandable hose. In turn, the design patents claim “[t]he ornamental design for an expandable hose [assembly], as shown and described.” ’681 design patent claim 1; ’186 design patent claim 1.

An exemplary independent claim from the ’941 patent is reproduced below:

1. A hose comprising:

a flexible elongated outer tube constructed from a fabric material having a first end and a second end, an interior of said outer tube being substantially hollow;

a flexible elongated inner tube having a first end and a second end, an interior of said inner tube being substantially hollow, said inner tube being formed of an elastic material;

a first coupler secured to said first end of said inner and said outer tubes;

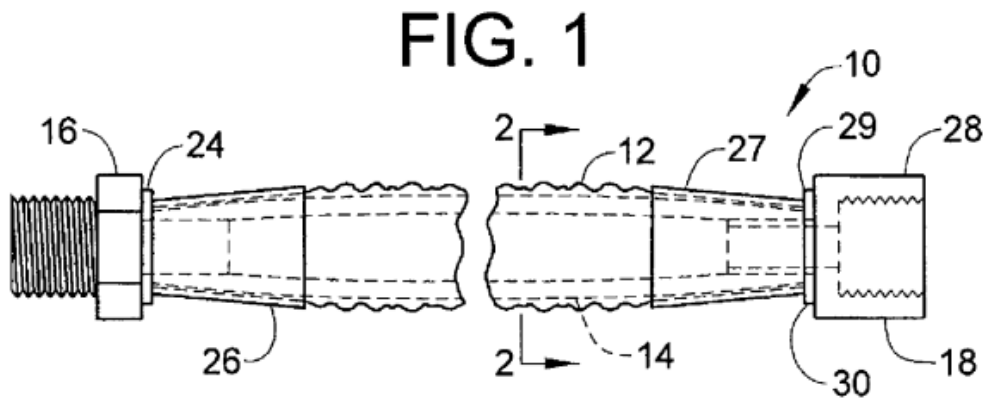
a second coupler secured to said second end of said inner and said outer tubes with the inner and outer tubes unsecured to each other between first and second ends; and

said first coupler fluidly coupling said hose to a source of pressurized fluid, said second coupler coupling said hose to a fluid flow restrictor,

whereby said fluid flow restrictor creates an increase in fluid pressure between said first coupler and said second coupler within said hose, said increase in fluid pressure expands said elongated inner tube longitudinally along a length of said inner tube and laterally across a width of said inner tube thereby substantially increasing a length of said hose to an expanded condition and said hose contracting to a substantially decreased or relaxed length when there is a decrease in fluid pressure between said first coupler and said second coupler.

'941 patent claim 1 (emphasis added).

Figure 1 of the '941 patent is reproduced below:



'941 patent Fig. 1.

The specification explains that “inner tube 14 is formed from a material that is elastic” and “outer tube 12 is formed from a non-elastic, relatively soft, bendable, tubular webbing material,” preferably “braided or woven nylon, polyester, or polypropylene.” '941 patent col. 7 ll. 27–44. It also explains that the hose “includes a female coupler 18 at a

first end and a male coupler 16 at a second end,” *id.* at col. 7 ll. 48–49, where “[t]he outer tube 12 is unattached, unconnected, unbonded, and unsecured to the elastic inner tube 14 along the entire length of the inner tube 14 between the first end and the second end,” *id.* at col. 8 ll. 8–11.

II

A single meeting, held on August 23, 2011, is central to the district court’s inventorship holding. And the district court’s factfindings about that meeting are key to the challenges Blue Gentian raises on appeal.

In 2011, Ragner Technology Corporation (“Ragner Tech.”) was seeking investors to bring its MicroHose product, an expandable hose, to market. Mr. Ragner, founder of Ragner Tech., and several others met with Mr. Berardi, the named inventor of the patents at issue, in Mr. Berardi’s home for that purpose. *Blue Gentian v. Tristar Prods.*, No. 13-1758, 2021 U.S. Dist. LEXIS 151739, at *10–11 (D.N.J. Aug. 12, 2021) (“*Inventorship Order*”).

Mr. Ragner has a B.S. in physics and an M.S. in aerospace engineering. J.A. 5501–02. Prior to the meeting, Mr. Ragner had designed many expandable hose prototypes. J.A. 5596; J.A. 9798–853. He was also the named co-inventor on issued U.S. Patent No. 6,948,527 (“the ’527 patent”) as well as U.S. Patent No. 8,776,836 (“the ’836 patent”), which at the time was filed but unpublished. Both patents generally relate to expandable hoses.

Mr. Berardi has a degree in sociology. J.A. 6481:22–24. At the time of the meeting, he had no experience designing or building hoses. J.A. 6483:13–15. He testified that he was familiar with elastic bands based on his experience working in a hardware store decades earlier. J.A. 6459:19–6460:6. Prior to the meeting, Mr. Berardi watched a video demonstrating the MicroHose. J.A. 6440:4–11; J.A. 7942 (video). He testified that after

seeing that video, but before the meeting, he came up with the idea for his expandable hose while at the gym. J.A. 6389:6–13. He testified that he “wonder[ed] what would happen if [he] put water through” a resistance band, J.A. 6385:10–18, but that he did not start building this hose at that time because “it was just . . . a nebulous concept,” J.A. 6389:14–24. Before the meeting, Mr. Berardi also reviewed a MicroHose business plan. J.A. 6451:2–12; J.A. 7417; J.A. 7432.

Six other individuals attended the August 23, 2011 meeting, and three of them testified during the inventorship hearing: Cheryl Berardi (Mr. Berardi’s wife), Margaret Combs (former Ragner Tech. CEO and current equity partner), and Robert de Rochemont (current CEO of Ragner Tech. and co-inventor of the ’527 and ’836 patents). *Inventorship Order*, 2021 U.S. Dist. LEXIS 151739, at *10–11, *42–44.

During the meeting, a document that detailed the manufacturing process for the MicroHose and showed its inner components was displayed. J.A. 9430; J.A. 9563; J.A. 6410:15–21; J.A. 6411:21–23; J.A. 5655:18–5656:4. This document showed an inner “TPU Elastomer” layer and a reinforcement layer made of polyester yarn. J.A. 9430.

Additionally, Mr. Ragner demonstrated a prototype of the MicroHose during the meeting. J.A. 5674:20–5677:8; J.A. 6297:6–8; J.A. 6427:12–17. Mr. Berardi testified that he “might have picked it up and, you know, squirted it around.” J.A. 6429:17–19. This prototype of the MicroHose had a vinyl inner tube for water to flow through, a wire coil spring for biasing (i.e., to provide a force to return the hose to a retracted state after expanding), and a yarn valley cord attached to the outside of the hose. J.A. 5675:1–5676:7. The version of the MicroHose that Ragner Tech. intended to market included a full fabric cover instead of the valley cord. J.A. 5556:23–5557:10.

Mr. Ragner testified that during the meeting Mr. Berardi “asked whether [h]e could replace . . . the wire spring with elastic” and Mr. Ragner responded by saying that you could and by explaining that his “first two prototypes had a surgical tubing in them for the retracting force.” J.A. 5668:7–15; J.A. 5681:24–5682:5. He also testified about the configuration of what the parties refer to as “prototype 2.” Mr. Berardi testified that this discussion of replacing the spring with elastic never occurred. J.A. 6423:17–25. But he did testify that Mr. Ragner “might have mentioned elastomer” at the meeting. J.A. 6459:5–6. Margaret Combs and Robert de Rochemont testified that they did not hear this conversation—Ms. Combs because she was seated too far away, J.A. 6111:7–15, and Mr. de Rochemont because he has hearing loss, J.A. 6202:19–24. Mrs. Berardi testified that she did not hear this conversation either, J.A. 6293:3–15, but she also testified that she wasn’t paying as much attention as others present and periodically left the room while the meeting continued, J.A. 6312:20–25; J.A. 6314:25–6315:16.

Within hours after the meeting, Mr. Berardi went to Home Depot to buy supplies to build a hose prototype. J.A. 6458:14–17. The very next day, Mr. Berardi tested his first prototype. J.A. 10069 (video). Like Ragner Tech.’s prototype 2, Mr. Berardi’s initial prototype had an inner elastic tube to provide a biasing force and an outer tube that water ran through. J.A. 7944 (video 00:21–1:29); *cf.* J.A. 5686:12–25.

Mr. Berardi filed his first patent application for an expandable hose in November 2011, less than three months after the meeting. That application issued as the ’941 patent, with Mr. Berardi listed as the sole inventor. Blue Gentian sued Tristar, licensee of Mr. Ragner’s ’836 and ’527 patents, for infringement in 2012—asserting the ’941 patent, three related utility patents, and two of Mr. Berardi’s design patents. Tristar counterclaimed to correct inventorship.

After an evidentiary hearing, the district court concluded that Mr. Ragner should have been a named inventor on all of the asserted patents. *Inventorship Order*, 2021 U.S. Dist. LEXIS 151739, at *48–49. The district court entered final judgment on the inventorship claims under Federal Rule of Civil Procedure 54(b). We have jurisdiction under 28 U.S.C. § 1295(a)(1).

DISCUSSION

I

Under 35 U.S.C. § 256, a district court may order correction of inventorship when it determines that an inventor has been erroneously omitted from a patent. “All inventors, even those who contribute to only one claim or one aspect of one claim of a patent, must be listed on that patent.” *Vapor Point LLC v. Moorhead*, 832 F.3d 1343, 1348–49 (Fed. Cir. 2016). The named inventors are presumed correct, and the party seeking correction of inventorship must show by clear and convincing evidence that a joint inventor should have been listed. *Eli Lilly & Co. v. Aradigm Corp.*, 376 F.3d 1352, 1358 (Fed. Cir. 2004).

An alleged joint inventor’s testimony standing alone is insufficient to establish inventorship by clear and convincing evidence. *Ethicon, Inc. v. U.S. Surgical Corp.*, 135 F.3d 1456, 1461 (Fed. Cir. 1998). “Thus, an alleged co-inventor must supply evidence to corroborate his testimony.” *Id.* “Corroborating evidence may take many forms,” including “contemporaneous documents” or physical evidence, “[c]ircumstantial evidence,” and “oral testimony of someone other than the alleged inventor.” *Id.*; see also *Sandt Tech., Ltd. v. Resco Metal & Plastics Corp.*, 264 F.3d 1344, 1350–51 (Fed. Cir. 2001). To determine whether testimony has been sufficiently corroborated, a “rule of reason” test is applied where “all pertinent evidence is examined in order to determine whether the inventor’s story is credible.” *Sandt Tech.*, 264 F.3d at 1350 (cleaned up). A court’s conclusion about corroboration under this “rule of reason”

analysis is a factfinding, which we review for clear error. *Fleming v. Escort Inc.*, 774 F.3d 1371, 1377 (Fed. Cir. 2014).

An alleged joint inventor must show that he contributed significantly to the conception—the definite and permanent idea of the invention—or reduction to practice of at least one claim. *Dana-Farber Cancer Inst., Inc. v. Ono Pharm. Co.*, 964 F.3d 1365, 1371 (Fed. Cir. 2020). And that these contributions arose from “some element of joint behavior, such as collaboration or working under common direction” with the other inventor(s). *Kimberly-Clark Corp. v. Procter & Gamble Distrib. Co., Inc.*, 973 F.2d 911, 917 (Fed. Cir. 1992).

Inventorship is a question of law based on underlying facts. *In re VerHoef*, 888 F.3d 1362, 1365 (Fed. Cir. 2018). As we have noted, “[t]he determination of whether a person is a joint inventor is fact specific, and no bright-line standard will suffice in every case.” *Fina Oil & Chem. Co. v. Ewen*, 123 F.3d 1466, 1473 (Fed. Cir. 1997); *see also In re Jolley*, 308 F.3d 1317, 1323 (Fed. Cir. 2002) (“[T]he conception inquiry is fact-intensive . . .”). We review the district court’s overall inventorship determination de novo, and the court’s underlying factfindings for clear error. *Dana-Farber*, 964 F.3d at 1370.

Blue Gentian alleges error in the district court’s determinations related to Mr. Ragner’s contribution to conception, corroboration of his testimony, and collaboration between Mr. Ragner and Mr. Berardi. We address each contention of error in turn.

II

First, we address Blue Gentian’s arguments related to contribution. The district court found that Mr. Ragner conveyed three key elements of the hose to Mr. Berardi at the meeting: “(1) inner and outer tubes attached only at the ends, (2) a fabric outer tube, and (3) an elastic inner tube

that can provide force to retract the hose without a metal spring.” *Inventorship Order*, 2021 U.S. Dist. LEXIS 151739, at *33–34. Further, the district court found that these key elements amounted to a significant contribution “to the conception of at least one claim in each of the six asserted Berardi patents.” *Id.* at *34.

Blue Gentian makes several arguments about the contribution determination. First, it argues that the district court erred because it did not construe the claims before finding a contribution. Second, it argues that the district court’s analysis of the contributed elements was not sufficiently tied to specific claims. Relatedly, Blue Gentian argues that the three elements can’t amount to a contribution, let alone a significant one, because they aren’t the same elements reflected in the claims. As outlined below, we reject each of these arguments.

A

As for claim construction, Blue Gentian has not identified a dispute about claim scope that is material, or even relates to, inventorship. Instead, Blue Gentian seems to argue that claim construction is always simply a threshold requirement—disputed terms or not. This argument is without merit.

Before the district court, Blue Gentian argued that “[t]he inventorship of a patent can only be ‘corrected’ after a court construes the subject matter of each claim at issue.” J.A. 11246 (citing *Trovan, Ltd. v. Sokymat SA*, 299 F.3d 1292, 1302 (Fed. Cir. 2002)). It also stated that the terms “flexible elongated inner[/outer] tube” would require construction but did not propose a construction or explain how the terms’ meaning related to inventorship. *Id.*; see also J.A. 4584. Here, Blue Gentian still does not explain how the construction of “flexible elongated inner[/outer] tube,” or any other claim term, would have impacted the district court’s inventorship analysis or otherwise relates to the three contributed elements.

This court’s statement in *Trouan* that “an inventorship analysis, like an infringement or invalidity analysis, begins as a first step with a construction of each asserted claim to determine the subject matter encompassed thereby,” 299 F.3d at 1302, does not establish a different requirement for construing claims in inventorship cases. As in other contexts, when a fundamental dispute about claim scope arises, the district court may need to resolve it before it can evaluate inventorship. But “[w]here a district court has resolved the questions about claim scope that were raised by the parties, it is under no obligation to address other potential ambiguities that have no bearing on the operative scope of the claim.” *GPNE Corp. v. Apple Inc.*, 830 F.3d 1365, 1372 (Fed. Cir. 2016). In other words, the court is not required to prospectively address hypothetical claim-construction disputes. That is as true for inventorship analyses as it is for invalidity and infringement analyses. *See, e.g., Simio, LLC v. FlexSim Software Prods., Inc.*, 983 F.3d 1353, 1365 (Fed. Cir. 2020) (finding “no error in the district court’s determining ineligibility without first conducting claim construction” where patentee “ha[d] not explained how it might benefit from any particular term’s construction under an *Alice* § 101 analysis”).

Blue Gentian’s insistence that claim construction was a prerequisite to an inventorship hearing, without more, did not present a dispute about claim scope. And since Blue Gentian did not otherwise present a material dispute about claim meaning, the district court did not err by making its inventorship determination without engaging in claim construction.

B

Next, we turn to Blue Gentian’s arguments that the district court’s analysis of the contributed elements was not sufficiently tied to specific claims and that those elements don’t amount to a contribution. The district court properly determined that the three key elements were a

significant contribution to the conception of at least one claim of each asserted patent. And, to the extent the district court should have provided a more detailed claim-by-claim comparison of Mr. Ragner's contributions, any error in this regard was harmless.²

The district court determined that Mr. Ragner contributed "(1) inner and outer tubes attached only at the ends, (2) a fabric outer tube, and (3) an elastic inner tube that can provide force to retract the hose without a metal spring." *Inventorship Order*, 2021 U.S. Dist. LEXIS 151739, at *33–34. The court noted that "[i]t was not disputed that each of [the] four asserted utility patents has one or more claims that require at least these three elements." *Id.* at *34. As for the design patents, the district court found that by disclosing the three hose elements Mr. Ragner had "conveyed to Berardi a hose with the 'crumpled' aspect depicted in Berardi's two design patent claims, which Berardi himself admitted is the result of how the hose is made." *Id.* We agree with the district court's conclusion that these three elements, taken together, were a significant contribution to at least one claim of each asserted patent.

For starters, we agree with Tristar that the three key elements are plainly reflected in the utility patents' claim language. For example, claim 1 of the '941 patent recites "a flexible elongated outer tube constructed from a fabric material . . . a flexible elongated inner tube . . . said inner tube being formed of an elastic material . . . with the inner and outer tubes unsecured to each other between first and

² The district court's mention of the XHose, a commercial embodiment of the asserted patents, in its analysis was likewise harmless. Read in context, the opinion overall reflects that the court understood that the inventorship analysis required an assessment of Mr. Ragner's contribution to the *claims*.

second ends.” ’941 patent claim 1. Similarly, claim 1 of the ’942 patent recites in relevant part “[a] hose assembly comprising: an outer tube assembly formed from a soft non-elastic based control material housing an inner tube member constructed from an elastic based material . . . said outer tube assembly is unattached from said inner tube member between said first and said second coupler.” Claim 15 of the ’213 patent recites “a flexible non-elastic elongated outer tube” and “a flexible elastic elongated inner tube” with “said inner and outer tubes being unattached, unbonded, unconnected and unsecured to each other except at the couplers” where the couplers are secured at the ends of the tubes. And claim 11 of the ’776 patent recites a “method of transporting water” by “providing a garden hose” with “an expandable elastic based hollow inner tube member” and “a soft non elastic bendable elongated outer tube member” with “said inner tube member and said outer tube member being secured to each other only at said first and said second ends and unsecured to each other between said first and said second ends forming a hose assembly.” The claims of each utility patent thus reflect the three key elements contributed by Mr. Ragner.

Second, these are the very elements Blue Gentian has used to distinguish the invention of the asserted patents from the prior art. For example, during prosecution the “fabric outer tube” and the tubes’ “attach[ment] only at the ends” elements were used to overcome a rejection. The ’941 patent was initially rejected based on the ’527 patent, J.A. 11532, which is entitled “pressure-actuated linearly retractable and extendible hose,” and for which Mr. Ragner is the named inventor, J.A. 7266 (capitalization normalized).³ In an interview related to this rejection, the

³ All of the asserted patents are in the same family. The ’941 patent was the first to issue and the other

patentee relied “mainly [on] the fact that the inner and outer layers of the [’527 patent] hose are bonded together and that the outer layer is [a] plastic material, wherein the present invention’s outer layer is formed of a fabric material” to distinguish the ’527 patent from the ’941 patent’s claims. J.A. 11532. These distinguishing features were then added as limitations to overcome the rejection. J.A. 11535; J.A. 11559. Further, at the district court, Blue Gentian again pointed to these two features along with the springless feature to distinguish the asserted patents from the ’527 patent. *See* J.A. 4305 (arguing that “Mr. Berardi successfully *distinguished* his inventions over the prior art ’527 patent, including by” pointing to the attached-only-at-the-ends and fabric-outer-tube features); J.A. 9526 (in response to invalidity contentions, arguing that unlike the asserted patents, the ’527 patent does not disclose inner and outer tubes secured only at the ends, a non-elastic outer tube, or retraction without a metal spring).

Key features that the patent owner itself acknowledges distinguish the *invention* of the asserted patents from the prior art are necessarily tied to the claims. Likewise, it follows that contributing such materially distinguishing features “is not insignificant in quality, when th[e] contribution is measured against the dimension of the full

asserted patents all claim priority from it. Statements made by the patentee during prosecution of a patent can be relevant to other patents in the same family—particularly where, as here, added limitations are carried forward into the claims of the subsequently issued patents in the family. *Cf. Verizon Servs. Corp. v. Vonage Holdings Corp.*, 503 F.3d 1295, 1306 (Fed. Cir. 2007) (“We have held that a statement made by the patentee during prosecution history of a patent in the same family as the patent-in-suit can operate as a disclaimer.”).

invention.” *Pannu v. Iolab Corp.*, 155 F.3d 1344, 1351 (Fed. Cir. 1998).

As for the design patents, we agree with the district court that Mr. Ragner’s three-element contribution applies to those patents as well.⁴ “We apply the same standard of inventorship to design patents that we require for utility patents.” *Hoop v. Hoop*, 279 F.3d 1004, 1007 (Fed. Cir. 2002). And, once a design is conceived, slight differences in appearance from the original do not amount to a new and separate design conception. *Id.* By conveying the three key elements, Mr. Ragner also conveyed “a hose with the [resultant] ‘crumpled’ aspect depicted” in the design patents’ claims, *Inventorship Order*, 2021 U.S. Dist. LEXIS 151739, at *34, and contributed to the conception or reduction to practice of the claimed designs in the design patents. When Mr. Berardi was asked how he came up with the “idea of the fabric cover looking like” it did in the design patents, he responded “[c]ome up with the idea? That’s . . . the way the hose looks. And I mean, after the prototypes were made, that’s the way it looks as a garden hose.” J.A. 7903:20–7904:9. In other words, Mr. Berardi admitted that the resulting form of the fabric cover in the design patents turned on the elements used to construct his prototypes—a garden hose configuration that Mr. Berardi only developed based on the three hose elements Mr. Ragner disclosed to him. And no one disputes that those three elements necessarily contribute to the patented designs’ “crumpled” appearance. Moreover, Mr. Berardi’s testimony provided no indication that the hose shown in his design patents included any design element independent of his focus on constructing a functional, retractable hose. As a result, the district court correctly

⁴ The issue of the validity of the design patents was not before the district court and is not before us.

determined that Mr. Ragner was a significant contributor to those patents as well.

In sum, the district court correctly concluded that Mr. Ragner contributed significantly to the conception of at least one claim of each asserted patent.

C

In addition to asserting that the district court's analysis was deficient, Blue Gentian makes several overlapping arguments about Mr. Ragner's contribution to specific elements and their significance to the claims. We also reject these arguments.

Blue Gentian parses each element (or sub-element) of Mr. Ragner's contribution and argues that it is not the same element claimed, was already present in the prior art, or was already conceived of by Mr. Berardi prior to the August 2011 meeting. Blue Gentian reiterates the same or similar arguments as both a reason that there wasn't a contribution and a reason that any contribution was insignificant. Although Blue Gentian dedicated many pages to these arguments in its opening brief, its reply brief did not respond to Tristar's argument that the three elements "are plainly reflected in the claims," Appellee's Br. 24, or Tristar's detailed arguments as to why Blue Gentian had not demonstrated that the district court's factual findings were clearly erroneous.

Initially, we reject Blue Gentian's arguments that Mr. Ragner's contributions were mere explanations of the state of the art because these arguments depend on separating out the three contributed elements (sometimes even further parsing them into sub-elements) and then attacking the district court's findings as to each individually. The proper lens requires considering the elements in combination, not in isolation. Likewise, it is the significance of Mr. Ragner's overall contribution that matters for determining inventorship, not the significance of certain

elements standing alone. Perhaps unsurprisingly (considering the prosecution history and validity arguments discussed above), Blue Gentian does not argue that this combination of elements was in the prior art. Nor does it argue that the contribution of all three elements together is insignificant.

Similarly, we reject Blue Gentian's arguments about Mr. Berardi's prior conception because Blue Gentian does not point to evidence that he conceived of all three contributed elements before the August 2011 meeting. Mr. Berardi testified that he generally "wonder[ed] what would happen if [he] put water" through an exercise resistance band. J.A. 6385:14–15. And while Blue Gentian argues that some exercise bands reflect the three elements, Appellants' Br. 42, Mr. Berardi's testimony clarifies that prior to the meeting he "didn't know, you know, how [he] was going to make it or anything like that," J.A. 6385:16–17. In sum, Mr. Berardi pondering whether it was possible to run water through an exercise band, after watching a video of the expandable MicroHose, J.A. 6387:1–5, is not a prior conception of a hose with "(1) inner and outer tubes attached only at the ends, (2) a fabric outer tube, and (3) an elastic inner tube that can provide force to retract the hose without a metal spring."

Finally, while Blue Gentian attempts to frame its remaining arguments that the elements Mr. Ragner disclosed aren't the same as what's claimed as relating to a proper analysis of the claims themselves, these arguments really boil down to a challenge to the district court's factual findings about *what* precisely was disclosed at the meeting—not what the claims require. Because Blue Gentian has not shown that the district court's factfindings were clearly erroneous, we reject these arguments as well.

For example, the district court found that Mr. Ragner contributed "an elastic inner tube that can provide force to retract the hose without a metal spring." There was

evidence that (1) the process document shown at the meeting labeled the inner tube a “TPU Elastomer,” J.A. 9430; (2) the MicroHose prototype demonstrated at the meeting had an inner vinyl elastic tube that expanded when water flowed through it, J.A. 5675:1–5676:7; and (3) Mr. Ragner testified that he described his own prototype that used elastic as a biasing force and told Mr. Berardi that elastic could replace the spring, J.A. 5668:7–15; J.A. 5681:24–5682:5. Blue Gentian has not shown clear error in the district court’s finding that the elastic inner hose tubes shown or discussed at the meeting were actually “elastic.” Nor has it shown clear error in the finding that Mr. Ragner’s discussion of prototype 2 and his explanation that an elastic tube could provide a biasing force conveyed the feature of an elastic tube providing retraction without a spring. *See generally Nilssen v. Osram Sylvania, Inc.*, 504 F.3d 1223, 1229 (Fed. Cir. 2007) (“Under the clear error standard, the court’s findings will not be overturned in the absence of a definite and firm conviction that a mistake has been made.” (cleaned up)).

As for the fabric outer tube that is connected to the inner tube only at the ends, the record includes: evidence that (1) the process document shown at the meeting showed a “polyester yarn” being added as a “reinforcement” layer, J.A. 9430; (2) the MicroHose that was demonstrated at the meeting had a yarn valley cord attached only at the ends, J.A. 5675:1–5676:7; (3) the full version of the MicroHose had a fabric cover (instead of a valley cord) that was only attached at the ends, J.A. 5556:23–5557:10, 5558:4–14; (4) testimony and a prototype instructions document indicated that it was typical to inform potential investors that the demonstrated prototype was missing the final version’s fabric cover, J.A. 7947; J.A. 6196:19–23; J.A. 5678:21–24, and Mr. Berardi testified that he was told that “the outer material” wasn’t what would “be used on the actual product,” J.A. 6428:12–6429:6; and (5) the MicroHose business plan that was sent to Mr. Berardi discussed a “knitted

reinforcement” to go over the interior plastic layer, J.A. 7432. Blue Gentian has not shown that factfindings related to these elements were clearly erroneous.

III

Next, on the issue of corroboration, the district court found, based on “all pertinent evidence,” that “Ragner’s testimony is adequately corroborated both by physical and circumstantial evidence.” *Inventorship Order*, 2021 U.S. Dist. LEXIS 151739, at *46–47. In reaching this conclusion, the district court considered Mr. Ragner’s ’836 patent and Mr. Berardi’s first prototype, including its similarity to Mr. Ragner’s prototype 2, particularly corroborative. Specifically, the court emphasized that since “these exhibits are physical evidence created at the time of conception or reduction to practice, there is no risk of litigation-inspired fabrication or exaggeration.” *Id.* at *40. The district court also thoroughly examined how other testimony about the August 2011 meeting compared to Mr. Ragner’s account. *Id.* at *41–46.

Whether an alleged co-inventor’s account of inventorship is corroborated is a fact-intensive inquiry, governed by a rule-of-reason test. And we review the district court’s finding for clear error. *Fleming*, 774 F.3d at 1377.

In Blue Gentian’s view, the district court’s corroboration analysis was flawed because it required corroboration only that Mr. Ragner conceived of the three key elements, without also requiring corroboration that he communicated them to Mr. Berardi. Further, it argues that the record does not support a corroboration finding. We disagree on both counts. The district court properly engaged in a rule-of-reason analysis aimed at determining whether Mr. Ragner’s story was credible overall. And considering the evidence as a whole, Blue Gentian has not shown clear error in the district court’s finding that Mr. Ragner’s account was corroborated.

On the first point, we see no flaw in the way the district court analyzed corroboration. The district court properly evaluated whether Mr. Ragner’s account, including both what he knew about expandable hoses going into the meeting and what he conveyed to Mr. Berardi at the meeting, was corroborated. See *Ethicon*, 135 F.3d at 1461. Blue Gentian does not point to any case that indicates that such an analysis is flawed.

For example, Blue Gentian relies on *Price v. Symsek*’s statement that “the person attacking the patent must establish prior conception of the claimed subject matter and communication of the conception to the adverse claimant.” 988 F.2d 1187, 1190 (Fed. Cir. 1993). *Price* is unhelpful here for several reasons. First, that case did not make a determination on corroboration; it simply remanded based on the Board’s application of an improperly high burden of proof. *Id.* at 1194–95. Additionally, a claim of derivation—the two elements of which are prior conception and communication—was at issue there. *Id.* at 1190. Here, in contrast, the focus of the co-inventorship analysis is on contributions to conception and collaboration, making the absence of a specific call-out to the word *communication* in the district court’s opinion unsurprising. And, finally, even if the statement in *Price* were fully apt, it does not preclude an analysis of corroboration that considers conception and communication together. Indeed, the same evidence can be relevant to both. For example, in *Davis v. Reddy*, another derivation case Blue Gentian relies on, the court was “unpersuaded by Reddy’s uncorroborated testimony concerning what he disclosed at the meeting” where there was insufficient evidence that he had even conceived of what he claimed to have disclosed. 620 F.2d 885, 889 (CCPA 1980). An inventor can’t communicate something they haven’t conceived of yet. The corollary here is that the strength of documentary evidence showing Mr. Ragner’s familiarity with the three hose elements before the meeting lends credibility to his account of conveying those ideas to

Mr. Berardi at a meeting centered around discussing and presenting on an expandable hose.

Blue Gentian attempts to cast doubt on the corroborative power of the '836 patent, the prototype, and other witness testimony individually. But these arguments ignore that corroboration is based on evaluation of the evidence as a whole. *Fleming*, 774 F.3d at 1377 (explaining that the corroboration requirement “is a flexible, rule-of-reason demand for independent evidence that, as a whole, makes credible the testimony of the purported prior inventor”). No single piece of evidence alone needed to establish that Mr. Ragner’s account of inventorship was credible. *Id.*

Considering the evidence as a whole, Blue Gentian has not demonstrated clear error. “Corroborating evidence may take many forms.” *Ethicon*, 135 F.3d at 1461. “Documentary or physical evidence that is made contemporaneously with the inventive process provides the most reliable proof that the inventor’s testimony has been corroborated.” *Sandt Tech.*, 264 F.3d at 1350–51. However, “[c]ircumstantial evidence about the inventive process, alone, may also corroborate.” *Id.* at 1351. The district court drew reasonable inferences from the circumstantial evidence here. And we agree that Mr. Berardi’s first prototype, physical evidence created within a day of the meeting, provided a strong indication that Mr. Ragner’s story was credible.

IV

With regard to collaboration, the district court found that there was sufficient collaboration between Mr. Berardi and Mr. Ragner based on the information exchanged at the meeting. The opinion noted several indications of collaboration (i.e., open communication related to the invention): that Mr. Berardi was shown detailed graphics and photographs containing confidential information about the MicroHose, that he held and used a prototype of the MicroHose, and that Mr. Ragner provided verbal explanations of alternative designs. *Inventorship*

Order, 2021 U.S. Dist. LEXIS 151739, at *28–29. Further, the district court credited Margaret Combs’s (meeting attendee, former Ragner Tech. CEO, and current equity partner) testimony that Mr. Berardi had agreed to sign an NDA and found that this was unfavorable to Blue Gentian’s position. *Id.* at *29–30.

Blue Gentian argues that the district court erred in finding that Mr. Ragner and Mr. Berardi collaborated. Its argument appears to boil down to a contention that Mr. Ragner’s contributions needed to be provided with the intent to invent the hose that was ultimately claimed. Specifically, in Blue Gentian’s view, it is significant that Mr. Ragner attended the meeting to procure investment for a different hose, not design an alternative to it. We disagree.

“People may be joint inventors even though they do not physically work on the invention together or at the same time, and even though each does not make the same type or amount of contribution.” *Falana v. Kent State Univ.*, 669 F.3d 1349, 1357 (Fed. Cir. 2012). “The interplay between conception and collaboration requires that each co-inventor engage with the other co-inventors to contribute to a joint conception,” *Vanderbilt Univ. v. ICOS Corp.*, 601 F.3d 1297, 1303 (Fed. Cir. 2010), not that each co-inventor independently conceives of the entire invention ultimately claimed. Since Mr. Ragner did not need to conceive of the entire invention, he certainly did not need to be intent on inventing the full invention ultimately claimed before he started collaborating.

And while it’s true that co-inventors cannot be “completely ignorant of what [the] other has done,” *Kimberly-Clark*, 973 F.2d at 917, we have never required that collaboration involve the unity of vision that Blue Gentian argues for. Here, the August 2011 meeting involved the requisite “element of joint behavior, such as collaboration or working under common direction, one inventor seeing a

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relevant report and building upon it or hearing another's suggestion at a meeting." *Id.* Mr. Ragner showed Mr. Berardi confidential information about hoses he had designed, discussed technical details about how he planned to manufacture his hose, and discussed alternative ways to build an expandable hose. Mr. Berardi built off of those contributions and immediately began building prototypes of the expandable hose eventually claimed in the asserted patents.

CONCLUSION

We have considered Blue Gentian's remaining arguments and find them unpersuasive. For the foregoing reasons, we affirm.

AFFIRMED