

# United States Court of Appeals for the Federal Circuit

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**CANATEX COMPLETION SOLUTIONS, INC.,**  
*Plaintiff-Appellant*

**v.**

**WELLMATICS, LLC, GR ENERGY SERVICES, LLC,  
GR ENERGY SERVICES MANAGEMENT, LP, GR  
ENERGY SERVICES OPERATING GP, LLC, GR  
WIRELINE, L.P.,**  
*Defendants-Appellees*

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2024-1466

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Appeal from the United States District Court for the  
Southern District of Texas in No. 4:22-cv-03306, Judge Al-  
fred H. Bennett.

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Decided: November 12, 2025

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J. DAVID CABELLO, Cabello Hall Zinda PLLC, Houston,  
TX, argued for plaintiff-appellant. Also represented by  
STEPHEN D. ZINDA.

PHILLIP AURENTZ, Sidley Austin LLP, Dallas, TX, ar-  
gued for defendants-appellees. Also represented by  
MORGAN R. MENDICINO; JOSHUA JOHN FOUGERE, Washing-  
ton, DC.

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Before MOORE, *Chief Judge*, PROST and TARANTO, *Circuit Judges*.

TARANTO, *Circuit Judge*.

Canatex Completion Solutions, Inc. owns U.S. Patent No. 10,794,122, titled “Releasable Connection for a Downhole Tool String,” which claims a device, having two parts, that is used in oil and gas wells. When the device operator intends to leave the lower (further downhole) part of the device in the drilled hole, perhaps because the downhole part has gotten stuck, the operator can disconnect the two parts of the device, leaving the first part in the well while pulling the second part toward or to the surface. Canatex sued Wellmatics, LLC; GR Energy Services, LLC; GR Energy Services Management, LP; GR Energy Services Operating GP, LLC; and GR Wireline, L.P. (collectively, defendants) in September 2022 in the U.S. District Court for the Southern District of Texas, alleging infringement of the ’122 patent.

Defendants challenged the ’122 patent’s validity, arguing that asserted claims 1, 4–13, and 15–19 are indefinite for lack of an antecedent basis for the phrase now at issue, “the connection profile of the second part,” which appears in all the independent claims (1, 7, and 13). Canatex argued that the phrase contains what a relevant artisan would recognize to be an evident error with an evident simple correction, *i.e.*, that a relevant artisan would clearly understand the intended meaning to be “the connection profile of the *first* part.” The same asserted error appears once in the patent’s Abstract and twice in the patent’s written description. ’122 patent, Abstract; *id.*, col. 1, lines 33–34; col. 3, lines 31–32. Canatex asked the district court to construe the phrase to reflect the asserted correction of “second” to “first.”

The district court rejected Canatex’s argument and agreed with defendants that claims 1, 7, and 13 are invalid

for indefiniteness. *See Canatex Completion Solutions, Inc. v. Wellmatics, LLC*, No. 4:22-CV-03306, 2023 WL 9645474, at \*2–3 (S.D. Tex. Dec. 14, 2023) (*Claim Construction Order*). The district court ruled that “the error” identified by Canatex “is not evident from the face of the patent and the correction to the claim is not as simple as [Canatex] makes it seem.” *Id.* at \*3. We now reverse, concluding that it is evident that the claim contains an error and that a relevant artisan would recognize that there is only one correction that is reasonable given the intrinsic evidence.

## I

### A

Canatex’s ’122 patent, which issued in October 2020, claims and discloses a “releasable connection” tool used in operations in oil and gas wells. ’122 patent, Abstract. The device comprises two “parts,” which are locked together during normal downhole operations but can be separated by action from the operator on the ground. ’122 patent, col. 1, lines 12–20. The “first part” is the part further downhole (distal), and the “second part” is the part closer to the land surface (proximal). If circumstances warrant, *e.g.*, if the first part becomes stuck due to debris lodged in the wellbore, the two parts of the device can be disconnected from each other, allowing the second part to be retrieved immediately while the first part remains downhole for later retrieval. ’122 patent, col. 1, lines 12–20; *id.*, col. 3, lines 1–24; J.A. 1276.

Independent claim 1 of the ’122 patent is representative of the claims at issue for present purposes. With emphases added to highlight the mechanics relevant to the issue before us, and internal clause labels ([a]–[b], [i]–[v]) added for ease of reference, the claim reads as follows:

1. A releasable connection for a downhole tool string, comprising

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[a] *a first part comprising an external connection profile*; and

[b] *a second part comprising:*

[i] an outer housing;

[ii] *a releasable engagement profile which internally engages the connection profile of the first part and which is configured to expand radially to release the connection profile of the first part*;

[iii] *a locking piston positioned within an internal cavity of the second part, the locking piston configured to move axially along the second part between a locking position that directly constrains the releasable engagement profile into engagement with the connection profile of the first part and a release position that permits the releasable engagement profile to expand radially to release the connection profile of the second part*;

[iv] an expansion chamber in fluid communication with the locking piston; and

[v] a source of fluid pressure in communication with the expansion chamber, wherein, upon activation, the source of fluid pressure is configured to apply fluid pressure to move the locking piston from the locking position toward the release position.

'122 patent, col. 5, lines 16–40 (emphases added).

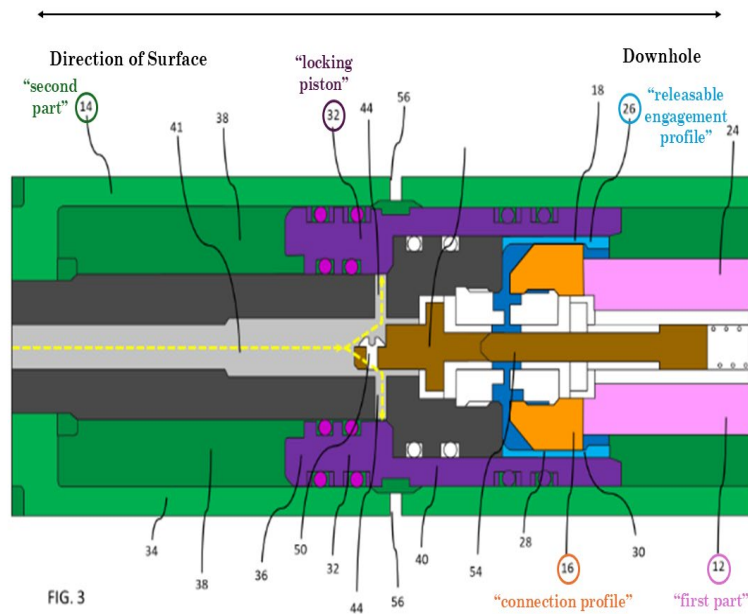
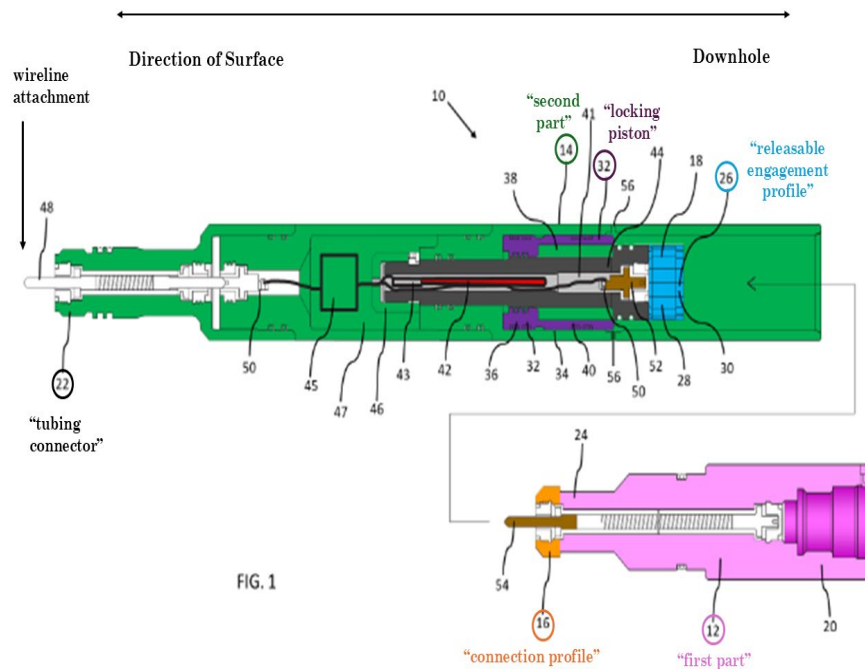
The underlined phrase is the phrase specifically at issue here. That language appears in each of independent claims 1, 7, and 13, once in the abstract, and twice in the written description. '122 patent, Abstract; *id.*, col. 1, lines 33–34; col. 3, lines 31–32. The issue before us is whether

it is sufficiently clear that “second” in the underlined phrase must mean (and thus be corrected to) “first.”

With that one change, the claim logically and clearly lays out the following structure. Clauses [a] and [b] call for a first part that connects with a second part. Clause [b][ii] says that the first part’s connection component is a connection profile, which engages—releasably and in the inside of—a component of the second part (releasable engagement profile), and the second part’s engagement profile can “expand radially to release the connection profile of the first part.” Clause [b][iii] then specifies how the engagement and release are effectuated—by a “locking piston” that moves between two different positions. In a “locking position,” the piston “directly constrains the releasable engagement profile into engagement with the connection profile of the first part”; in a “release position,” the piston “permits the releasable engagement profile to expand radially to release the connection profile of the [first, replacing ‘second’] part.” Clauses [b][iv]–[v] then specify how the locking piston moves—by activated fluid pressure reaching the piston in an expansion chamber—“from the locking position toward the release position.”

The two figures from the patent displayed after the present paragraph illustrate the device claimed. Figure 1 shows the first and second part separated. Figure 2 shows the two parts when connected, and Figure 3 shows a blowup of the connection area in Figure 2. We display Figures 1 and 3. To those figures we have added word labels, drawn from the specification, for the items of principal significance to the dispute before us. We have also added the directional guide, with labels, at the top of the figures.

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## B

On September 27, 2022, Canatex sued defendants, alleging infringement of claims 1, 4–13, and 15–19 of the ’122 patent, and one day later Canatex moved for a preliminary injunction. J.A. 24–25, 88. The district court denied the motion for preliminary injunction, and the case proceeded to claim construction. J.A. 1159. In their claim-construction brief, defendants argued that all asserted claims are indefinite because the language “the connection profile of the second part” in clause [b][iii], with “the” at its beginning, needs but lacks an antecedent basis earlier in the claim. J.A. 1633. Specifically, as is evident in the quoted claim language above, claim 1 introduces a “*first part* comprising an external connection profile” (clause [a]) but does not mention any connection profile of the *second part* until the backward-referring mention of “the connection profile of the second part” in clause [b][iii]. We have been pointed to no place prior to defendants’ filing on claim construction at which the parties (or the Examiner during prosecution) adverted to any uncertainty regarding the meaning of this claim language or its potential indefiniteness. *See* J.A. 1389 (Canatex’s Opening Claim Construction Brief); J.A. 872–73 (Indefiniteness Rejection on Other Grounds).

In response, Canatex agreed that a required antecedent basis was missing, but it contended that the language problem—an evident error with an evident correction—had a simple solution. It argued that “the nature of the error and its correction are remarkably apparent,” as a relevant artisan would immediately understand the claim to refer to the connection profile of the *first part*, the only connection profile previously mentioned in the claim and the only connection profile reasonably understood to exist from the patent as a whole. J.A. 1795–800; J.A. 1390. Relying on our precedents authorizing courts to interpret patent claims to correct claim-language errors in very narrow circumstances, Canatex argued that the reference to the

“connection profile of the second part” should be construed to mean “the connection profile of the ~~second~~ first part.” J.A. 1389; J.A. 1794–95; see *Ultimax Cement Manufacturing Corp. v. CTS Cement Manufacturing Corp.*, 587 F.3d 1339, 1353 (Fed. Cir. 2009)).

On December 14, 2023, the district court held all asserted claims to be invalid for indefiniteness because the claim phrase at issue needed but lacked an antecedent basis. *Claim Construction Order*, at \*2–4. The district court disagreed with Canatex’s contention that the claims contained a “clear clerical error” and concluded that “the error is not evident from the face of the patent and the correction to the claim is not as simple as [Canatex] makes it seem.” *Id.* at \*2–3. Instead, the court reasoned that the “pervasiveness of the error” in both the claims and the specification suggested that the error “was an intentional drafting choice and not an error at all.” *Id.* at 3. The court suggested that the patent’s drafter may have “intended to provide an antecedent basis for a connection profile of **the second part**, thus making the error the use of ‘the’ instead of ‘a.’” *Id.* (emphasis added). And the court added that Canatex’s failure to seek correction from the U.S. Patent and Trademark Office (PTO) pursuant to 35 U.S.C. § 255, which expressly permits the PTO to correct certain clerical, typographical, and minor errors, suggested that the error is neither minor nor evident on the face of the patent. *Claim Construction Order*, at \*3. For those reasons, the court concluded that it lacked authority to construe the claims to make Canatex’s proposed correction. *Id.*



The district court entered a final judgment based on a joint stipulation. J.A. 8–11. Canatex appeals. We have jurisdiction under 28 U.S.C. § 1295(a)(1).<sup>1</sup>

## II

On appeal, Canatex challenges as legally erroneous the district court’s dual determination that no error in the claim phrase at issue was evident on its face and that there was no unique evident correction. Under the very demanding standards for judicial correction of a claim term, as applied here, we ask whether the intrinsic evidence clearly establishes that “second” in the claim phrase could only be reasonably understood by a relevant skilled artisan to mean “first.” We answer that question in the affirmative, and we do so de novo as a matter of claim interpretation based entirely on intrinsic evidence. *See Pavo Solutions v. Kingston Technology Company, Inc.*, 35 F.4th 1367, 1373 (Fed. Cir. 2022); *CBT Flint Partners, LLC v. Return Path, Inc.*, 654 F.3d 1353, 1358 (Fed. Cir. 2011); *Ultimax Cement*, 587 F.3d at 1346–47; *Novo Industries, L.P. v. Micro Molds Corp.*, 350 F.3d 1348, 1353–54 (Fed. Cir. 2003). We review the district court’s claim construction based on intrinsic evidence de novo. *Apple Inc. v. Wi-LAN Inc.*, 25 F.4th 960,

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<sup>1</sup> In February 2024, shortly after the district court entered its final judgment and Canatex appealed, Canatex sought correction of the disputed language from the PTO pursuant to 35 U.S.C. § 255 and 37 C.F.R. § 1.323, making arguments similar to those it has made to us. *See* Letter from Joseph P. Anderson III, Canatex Counsel, to PTO Certificate of Corrections Branch (Feb. 13, 2024); Canatex’s Opening Br. at 14 n.4. The PTO denied Canatex’s proposed correction in March 2025, stating without elaboration that the “corrections requested [sought] to change the scope of the patented claims.” Patent Examiner’s Response, Denying Certificate of Correction (Mar. 25, 2025), ECF No. 54, Ex. A.

967 (Fed. Cir. 2022); *Teva Pharmaceuticals USA, Inc. v. Sandoz, Inc.*, 574 U.S. 318, 331 (2015). The district court here properly did not rely on any findings of fact about extrinsic evidence, as defendants’ expert did not supply evidence of extra-patent usage or other extra-patent facts that could alter the conclusion from the intrinsic evidence. *See, e.g., Teva Pharmaceuticals USA, Inc. v. Sandoz, Inc.*, 789 F.3d 1335, 1342 (Fed. Cir. 2015) (explaining limits on the role of expert evidence); *Phillips v. AWH Corp.*, 415 F.3d 1303, 1318 (Fed. Cir. 2005) (en banc) (similar); J.A. 1695–1702 (defendants’ expert discussing only intrinsic evidence).

### A

Governing precedent recognizes the propriety of judicial correction of erroneous wording of a claim, as a matter of claim construction, when a very demanding standard is met. Almost a century ago, the Supreme Court in *I.T.S. Rubber Co. v. Essex Rubber Co.* corrected an obvious and minor mistake in a claim, concluding that the word “rear” was erroneously omitted through clerical error and the claim had to be construed to include the word. 272 U.S. 429, 442–43 (1926). The Court held that the correction was “not in any real sense [ ] a re-making of the claim” but instead “merely g[ave the claim] the meaning which was intended by the applicant and understood by the examiner.” *Id.* at 442. Based on *Essex*, our court has repeatedly held that judicial correction of errors in patents is proper in narrow circumstances. *See, e.g., Pavo*, 35 F.4th at 1373–74; *CBT Flint*, 654 F.3d at 1358–59; *Ultimax Cement* 587 F.3d at 1353; *Group One, Ltd. v. Hallmark Cards, Inc.*, 407 F.3d 1297, 1303 (Fed. Cir. 2005); *Novo*, 350 F.3d at 1357.

The standard for judicial correction is a demanding one. We have made a correction for “an obvious and correctable error in the claim, the construction of which is not subject to reasonable debate.” *CBT Flint*, 654 F.3d at 1358. Our cases articulate several elements of the standard.

First, one necessary requirement is that “the error must be ‘evident from the face of the patent,’” *Pavo*, 35 F.4th at 1373 (quoting *Group One*, 407 F.3d at 1303), *i.e.*, obvious, as determined “from the point of view of one skilled in the art,” *id.* (quoting *Ultimax*, 587 F.3d at 1353). Second, another necessary requirement is that “[c]orrection is appropriate ‘only if (1) the correction is not subject to reasonable debate based on consideration of the claim language and the specification and (2) the prosecution history does not suggest a different interpretation of the claims.’” *Pavo*, 35 F.4th at 1373 (quoting *Novo*, 350 F.3d at 1354). Third, we have ruled that “[a] district court may correct ‘obvious minor typographical and clerical errors in patents.’” *Id.* (quoting *Novo*, 350 F.3d at 1357). We have not stated that element as a necessary requirement, which it may well be, but we here assume that it is.

The just-stated demanding standard for judicial correction via claim construction, when rigorously applied as it must be, takes account of the primacy of “the public notice function of patents.” *Phillips*, 415 F.3d at 1319. If an error is evident on the face of the patent, and the correction is the only reasonable understanding of the intrinsic evidence, at least if the correction makes only a small change in claim language, the relevant reader of the patent—a person of ordinary skill in the art, *Phillips*, 415 F.3d at 1312–13—is constructively aware of the intended meaning, to be given effect by a court carrying out claim construction with its established, limited role for correction. The standard also respects Congress’s choice to make only prospective the corrections the PTO makes under 35 U.S.C. § 255, as that provision covers a broader class of errors—which, for example, are “not limited to obvious errors” and so can result in a claim scope different from the one that relevant readers would understand from the pre-alteration language. *Novo*, 350 F.3d at 1356–57. A judicial correction determines the meaning the claim always had, *id.*, and the rigorous standard for such a correction avoids the

alteration-of-understanding problem underlying the prospectivity rule for PTO correction. Finally, the standard for judicial correction of patent claims is akin to a standard for judicial correction of other legal language set forth in the prominent guide to legal interpretation generally, ANTONIN SCALIA & BRYAN A. GARNER, *READING LAW: THE INTERPRETATION OF LEGAL TEXTS* (2012): “A provision may be either disregarded or judicially corrected as an error (when the correction is textually simple) if failing to do so would result in a disposition that no reasonable person could approve.” *Id.* at 234.

## B

We conclude that Canatex is entitled to judicial correction in this case. For reasons that overlap, the existence of an error in the phrase at issue is evident (obvious) on the face of the patent, and there is only one reasonable correction, considering all the intrinsic evidence, including the prosecution history. That correction, changing “second” to “first,” plainly is simple and “minor” as a textual matter. And it follows that the fact of error and uniqueness of the small correction mean that the error is properly characterized as a minor clerical or typographical error. We elaborate on (1) the obviousness of the error on the face of the patent and (2) the uniqueness of a reasonable correction.

## 1

We conclude that the error in the claim language—“to release the connection profile of the second part”—is obvious on the face of the patent. Beginning with the claim language, a relevant artisan would immediately see that, as written, there is an error in the claim. The phrase at issue plainly requires an antecedent (“*the* connection profile of the second part”), but no “connection profile of the second part” has previously been mentioned in the claim. In addition, the reference to releasing a (nowhere identified) “connection profile of the second part” makes no sense on the face of the claim language. As explained above, the

clauses defining the structure require a component of the *second* part (“releasable engagement profile”) to engage with (by embracing internally) the “connection profile of the *first* part” and, upon movement of the locking piston from a “locking position” to a “release” position, to release some component by “radial expansion.” A relevant reader would immediately see that something was off in language that speaks of releasing, through the releasable engagement profile’s radial expansion, anything but the very component embraced in the connected state (the connection profile of the *first* part)—as made clear even by the name “*releasable engagement profile*.” An undefined notion of the second part’s engagement component releasing a part of the second part itself is jarringly anomalous in this claim. All of this makes the error evident on the face of the claim.

The error of referring to a “connection profile of the second part” is also evident on the face of the specification. Nothing in the figures or their descriptions shows a “connection profile” in the second part. The Abstract and two passages in the written description use the same language as the claim, ’122 patent, Abstract; *id.*, col. 1, lines 33–34; col. 3, lines 31–32, and one of those written-description passages makes plain to a relevant reader that this usage was erroneous. The passage, referring to the patent’s figures, states:

Releasable engagement profile **26** is locked in place by a locking piston **32**, which moves axially along second part **14** between a locking position, shown in FIGS. 2 and 3, that locks releasable engagement profile **26** into engagement with connection profile **16** of the first part, and a release position, shown in FIG. 1, that permits releasable engagement profile **26** to release connection profile **16** of second part **14**.

’122 patent, col. 3, lines 25–32 (underlining added). In the underlined phrase, the specification refers to “connection

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profile **16**” as being “of second part **14**.” But the figures clearly show “connection profile **16**” as being of *first* part 12; the above-quoted passage itself refers to “connection profile **16** of the first part,” *id.*, col. 3, line 29; and the specification, introducing these components, makes that clear: “Second part **14** has a releasable engagement profile **26** that releasably engages connection profile **16** of *first* part **12**.” *Id.*, col. 3, lines 10–11 (italics added). A relevant reader had to understand that the passage attributing the connection profile 16 to the second part 14 was erroneous—and so must be the other references to the connection profile of the “second” part.

We conclude that it is evident on the face of the patent that the claim language at issue contains an error.

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We also conclude that the proper correction is not “subject to reasonable debate based on consideration of the claim language and the specification.” *Novo*, 350 F.3d at 1354. The only reasonable correction is the changing of “second” to “first” in the claim language at issue. That is what the claim language as a whole and the specification both show “the very character of the invention requires.” *Alloc, Inc. v. International Trade Commission*, 342 F.3d 1361, 1370 (Fed. Cir. 2003). We have already explained why that is so. What is released, by radial expansion of the second part’s releasable engagement profile, is clearly meant to be the connection profile of the first part, which is what the releasable engagement profile embraces to connect the first and second parts.

We reject defendants’ arguments that there are other reasonable corrections. One such argument is that the device contains a “connection profile” on the second part, though not so named in the figures or the specification, so that the disputed claim phrase could be corrected to retain “second”—presumably by changing “the” to “a” or by adding earlier language to the claim to provide an antecedent.

See Defendants' Response Br. at 38–39; *Claim Construction Order*, at \*3. Defendants propose “tubing connector 22” or “some other possible connection profile on the second part that is not depicted in the figures or further described” as the possible connection profile of the second part that the patent drafter might have meant to identify. Defendants' Response Br. at 38–39; J.A. 1699. This construction is illogical. Tubing connector 22, which is not called a “connection profile,” is, as depicted in Figure 1, located on the far proximal (toward the surface) end of the second part of the device; it is not a component of the device involved in the connection or disconnection of the device's two parts, which is the plain function of the connection profile. '122 patent, Figure 1; *id.*, col. 2, lines 56–62. Instead, “as . . . known in the art,” tubing connector 22 connects the device to the tool string—the wireline up to the surface. *Id.* Tubing connector 22 cannot functionally be “the connection profile of the second part” to which the claims refer. And defendants do not identify any other component of the device that could serve as the connection profile of the second part. We see no reasonable basis for reading the disputed claim language as intended to refer to some unidentified connection profile located on the second part of the device.

Defendants' expert opined that the errors in the claims “are not simply the result of a copy and paste mistake” and are instead “a deliberate (yet unclear) drafting choice” because “the language differs between some of the instances.” Defendants' Response Br. at 50; J.A. 1698 (comparing '122 patent, col. 1, lines 33–34 (“the connection profile of the second part”), with *id.*, col. 3, lines 31–32 (“connection profile 16 of second part 14”)). This slight difference in wording cannot reasonably be thought significant. The only change in the language is the addition of the numbers corresponding to the labels on the patent's figures; these labels do not change the understanding of the device's components. Moreover, as indicated above, the specification passage at col. 3, lines 31–32, by its undisputable mistake, shows that

the patentee plainly meant the connection profile of the first part, as stated in col. 3, lines 10–11.

Defendants additionally proffer a list of potential corrections to the claim language. Defendants’ Response Br. at 38; J.A. 1698–1702. These proposals are unavailing. One proposal is not substantively different from changing “second” to “first”: It would simply delete “of the second part,” leaving “the connection profile,” which by the called-for antecedent would refer to the only previously mentioned connection profile, namely, the “connection profile of the first part.” *Cf. CBT Flint*, 654 F.3d at 1358–59 (determining that, where a relevant artisan could conclude that three reasonable alternative constructions have the “same scope and meaning,” the district court had authority to make a correction). All the other proposed alternatives would alter the scope and meaning of the claims significantly from what is clear from the claim language as a whole and is described in the specification. *See, e.g.*, Defendants’ Response Br. at 38–39 (providing alternative corrections such as “a release position that permits the ~~releasable engagement profile~~ locking piston to expand radially to shift sufficiently to allow a sufficient force to be applied to a release the connection profile of the second part to allow disengagement of the releasable engagement profile from the connection profile of the first part,” a correction that changes the context of the claims). These proposals are not reasonably debatable alternatives to Canatex’s simple, logical change of “second” to “first.”

Finally, we have no basis for concluding that the prosecution history in this case suggests any construction of the disputed language other than Canatex’s proposed correction. *See Pavo*, 35 F.4th at 1373; *Novo*, 350 F.3d at 1354. Here, the district court did not conclude, and defendants make no convincing argument to us in their brief, that the prosecution history in this case precludes correction if, as we have concluded, the error at issue is evident on the face of the patent and the proposed correction is the only



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reasonable one based on the claims and specification. In this respect, the present case is properly distinguished from *Chef America, Inc. v. Lamb-Weston, Inc.*, 358 F.3d 1371, 1374–75 (Fed. Cir. 2004), in which, as we have explained, this court relied significantly on the prosecution history, *Pavo*, 35 F.4th at 1375.

In these circumstances, we conclude that the correction of “second” to “first” is the unique correction that captures the claim scope a reasonable relevant reader would understand was meant based on the claim language and specification.

### III

For the foregoing reasons, we reverse the district court’s claim construction and remand the matter for further proceedings consistent with the corrected claims.

Costs awarded to Canatex.

**REVERSED AND REMANDED**