NOTE: This disposition is nonprecedential.

United States Court of Appeals for the Federal Circuit

BALL METAL BEVERAGE CONTAINER CORPORATION,
Plaintiff-Counterclaim Defendant-Appellee

v.

CROWN PACKAGING TECHNOLOGY, INC., CROWN CORK & SEAL USA, INC.,
Defendants-Counterclaim Plaintiffs-Appellants

v.

REXAM BEVERAGE CAN CO.,
Counterclaim Defendant-Appellee

2023-2308

Appeal from the United States District Court for the Southern District of Ohio in No. 3:12-cv-00033-WHR, Judge Walter H. Rice.

Decided: June 30, 2025

JOHN DAVID LUKEN, Dinsmore & Shohl LLP, Cincinnati, OH, argued for plaintiff-appellee and counterclaim defendant-appellee. Also represented by OLEG KHARITON,

JOSHUA LORENTZ, BRIAN S. SULLIVAN; JOHN M. WHEALAN, Chevy Chase, MD.

DANIEL J. GOETTLE, Baker & Hostetler LLP, Philadelphia, PA, argued for defendants-appellants. Also represented by JEFFREY LESOVITZ; LEIF R. SIGMOND, JR., Chicago, IL.

Before TARANTO, CHEN, and HUGHES, *Circuit Judges*.

CHEN, *Circuit Judge*.

Crown Packaging Technology, Inc. and Crown Cork & Seal USA, Inc. (collectively, Crown) appeal a decision of the United States District Court for the Southern District of Ohio granting summary judgment in favor of Ball Metal Beverage Container Corp. and Rexam Beverage Can Co. (collectively, Ball Metal). The district court determined that certain claims of U.S. Patent Nos. 6,935,826 ('826 patent) and 6,848,875 ('875 patent) (collectively, asserted patents) are invalid under 35 U.S.C. § 112, ¶ 2[1] because the claim term "second point"/"transition"[2] is indefinite. For the reasons explained below, we affirm.

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[1] Paragraph 2 of 35 U.S.C. § 112 was replaced by § 112(b) when the Leahy-Smith America Invents Act (AIA), Pub. L. No. 112–29, 125 Stat. 284 (2011) took effect on September 16, 2012. Because the applications resulting in the '826 and '875 patents were filed before that date, we refer to the pre-AIA version of § 112.

[2] The "second point" and "transition" both refer to the same location—the juncture where the chuck wall ends and the annular reinforcement bead begins. We accordingly will only refer to "second point," without quotation marks, hereinafter.

BACKGROUND

The technology at issue relates to methods for joining two parts of a beverage can—the "can body" that holds the beverage and the "can end" that acts as a lid when affixed to the can body.[3] *See* '826 patent col. 1 ll. 16–19. Crown alleges that Ball Metal infringed its patented double seaming technology, which reduces metal usage while maintaining can strength. *See id.* col. 2 ll. 1–12.

Claim 14 of the '826 patent is representative of the asserted claims of both patents.[4] As claim 14 depends on claim 13, the two claims are quoted below, with the bracketed language belonging to claim 13.

> 14. [A metal can end for use in packaging beverages under pressure and adapted to be joined to a can body by a seaming process so as to form a double seam therewith using a rotatable chuck comprising first and second circumferentially extending walls, said first and second chuck walls forming a juncture there between, said can end comprising;
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> a peripheral cover hook, said peripheral cover book comprising a seaming panel adapted to be formed into a portion of said double seam during said seaming operation;
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> a central panel;
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> a wall extending inwardly and downwardly from said cover hook, a first portion of said wall

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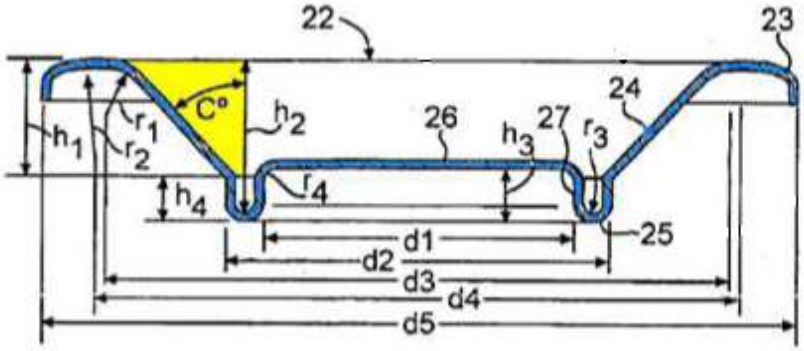
[3] We cite only to the '826 patent when citing to the written description because both parties agree that claim 14 of the '826 patent is representative, Appellant's Br. 14; Appellee's Br. 11, and because both patents have similar written descriptions.

[4] The asserted claims are claims 50, 52, 54, 56, 58 and 59 of the '875 patent and claim 14 of the '826 patent.

> extending from said cover hook to a *first point* on said wall, said first wall portion adapted to be deformed during said seaming operation so as to be bent upwardly around said juncture of said chuck walls at said *first point* on said wall, a second portion of said wall extending from said first point to a *second point* forming a lowermost end of said wall, *a line extending between said first and second points being inclined to an axis perpendicular to said central panel at an angle of between 30° and 60°*],
>
> further comprising an annular reinforcing bead connected to said wall at said *second point*, said annular reinforcing bead connecting said wall to said central panel.

'826 patent at claim 14 (emphases added).

Relevant to this appeal, the parties disputed whether there are different methodologies to measure the claimed angle "C°" shown in Figure 4 below.



'875 patent at FIG. 4 (highlights added to show C°). This claimed angle is defined by a first point and a second point (or a "first location" and a "transition," respectively) that create a diagonal line. The diagonal line is then compared to the vertical line illustrated by h_2 in the above figure; the resulting angle is C°. *See* '826 patent at claim 13.

After several hearings, the district court granted summary judgment of invalidity for the asserted claims, concluding that the claims are indefinite because there are multiple known approaches to measuring the claimed angle. J.A. 2685–86. It reviewed Crown's prior litigations and found that Crown's former expert, Mr. Higham, used different methods at different times to determine the location of the second point in an accused product. *Id.* at 2685. According to the district court, Mr. Higham used (1) the "across from the center panel" method in this litigation; (2) the finite element analysis in a prior litigation with Ball Metal; and (3) the "change in geometry" test in another litigation with Anheuser-Busch. *Id.*; *see also Ball Metal Beverage Container Corp. v. Crown Packaging Tech., Inc.*, 838 F. App'x 538, *541–42 (Fed. Cir. 2020) (*Ball III*). It concluded that these different methods "do not always produce the same results [and] the method chosen for locating the second point/transition could affect whether or not a given product infringes the claims." J.A. 2685 (cleaned up) (citing *Dow Chem. Co. v. Nova Chems. Corp.*, 803 F.3d 620, 634 (Fed. Cir. 2015)). Due to this variance, the district court determined that the claims are indefinite. *Id.* at 2686–87. Crown appealed to us, and we vacated the district court's indefiniteness ruling, holding that the district court's analysis was incomplete because "it [did] not establish in any meaningful way what material difference in angle range outcome, if any, exists among [the] different methodologies." *Ball III*, 838 F. App'x at *543–44. We remanded to the district court so that it could determine whether Mr. Higham's different methods lead to materially different results for the angle of an accused product or method such that said product or method may infringe the claim under one method but not infringe under another. *Id.* at 544.

On remand, the district court again granted summary judgment. It reviewed expert testimonies of Crown's current expert, Mr. Biondich, and those of Ball Metal's expert,

Mr. Gillest, and held there was no genuine dispute of material fact, finding the "'application of the different methods' of Mr. Higham 'result[ed] in materially different outcomes for the claim's scope such that a product or method may infringe the claim under one method but not infringe when employing another method.'" *Ball Metal Beverage Container Corp. v. Crown Packaging Tech., Inc.*, No. 3:12-CV-033, 2023 WL 4976547, at *6 (S.D. Ohio Aug. 3, 2023) (*Decision*) (quoting *Ball III*, 838 F. App'x at *542–43). The district court again concluded that the asserted claims are indefinite, thereby rendering the asserted patents invalid.

Crown now appeals the district court's conclusion of indefiniteness and grant of summary judgment in favor of Ball Metal. We have jurisdiction pursuant to 28 U.S.C. § 1295(a)(1).

DISCUSSION

We review a district court's grant of summary judgment under the law of the regional circuit. *Lexion Med., LLC v. Northgate Techs., Inc.*, 641 F.3d 1352, 1358 (Fed. Cir. 2011). The Sixth Circuit reviews an order granting summary judgment de novo. *Savage v. Gee*, 665 F.3d 732, 737 (6th Cir. 2012).

The ultimate conclusion that a claim is indefinite under 35 U.S.C. § 112, ¶ 2 is a legal conclusion which we review de novo. *Eidos Display, LLC v. AU Optronics Corp.*, 779 F.3d 1360, 1364 (Fed. Cir. 2015). "[A] patent is invalid for indefiniteness if its claims, read in light of the specification delineating the patent, and the prosecution history, fail to inform, with reasonable certainty, those skilled in the art about the scope of the invention." *Nautilus Inc. v. Biosig Instruments, Inc.*, 572 U.S. 898, 901 (2014). General principles of claim construction apply to indefiniteness allegations. *Biosig Instruments, Inc. v. Nautilus, Inc.*, 783 F.3d 1374, 1377–78 (Fed. Cir. 2015). Accordingly, as with claim construction, for an indefiniteness inquiry, we review

a district court's underlying factual findings based on the extrinsic evidence for clear error, and those based upon the intrinsic evidence de novo. *Eidos*, 779 F.3d at 1364.

Crown contends that the district court erred by improperly weighing evidence in favor of the movant, Ball Metal, and granting summary judgment even though there were genuine disputes of material fact regarding indefiniteness. Appellant's Br. 28–29. Crown asserts the district court failed to consider the competing expert declarations in a light most favorable to Crown. *See, e.g.*, *id.* at 19–22, 29. Although Crown acknowledges that "subsidiary" factual findings made as part of a district court's indefiniteness determination should be reviewed for "clear error," *see Teva Pharms. USA, Inc. v. Sandoz, Inc.*, 574 U.S. 318, 324 (2015), it argues that the material facts here are "primary and essential" and accordingly, should instead be reviewed under Federal Rule of Civil Procedure 56's "no genuine dispute as to any material fact" standard. Appellant's Br. 29–30. We disagree.

Crown's attempt to cabin the "clear error" standard to only subsidiary facts, but to not extend it to ultimate facts, contradicts *Teva*. *Teva* explained that, when the district court relies on extrinsic evidence to make factual findings underlying its indefiniteness determination, we must review such findings for clear error under Federal Rule of Civil Procedure 52(a)(6). *See Teva*, 574 U.S. at 324; *see also Williamson v. Citrix Online, LLC*, 792 F.3d 1339, 1346 (Fed. Cir. 2015). This standard of review "applies to both subsidiary and ultimate facts." *Teva*, 574 U.S. at 324. The Rule does not "exclude certain categories of factual findings . . . . It does not divide facts into categories; in particular, it does not divide findings of fact into those that deal with 'ultimate' and those that deal with 'subsidiary' facts." *Pullman-Standard v. Swint*, 456 U.S. 273, 287 (1982); *see Teva*, 574 U.S. at 326.

Although the district court combined its indefiniteness determination and its summary judgment ruling in one order, *see Decision*, 2023 WL 4976547 at *5–6, this does not necessarily mean the factual findings underlying its indefiniteness determination were made *as part of* the district court's grant of summary judgment. Instead, the district court conducted its factual findings underlying indefiniteness—which applies the same principles as claim construction—under Rule 52. *See Conoco, Inc. v. Energy & Env't Int'l, L.C.*, 460 F.3d 1349, 1359 (Fed. Cir. 2006) ("[A] district court may engage in claim construction during various phases of litigation."). This means that we review factual findings underpinning an indefiniteness determination under the "clear error" standard, even if it is made in the same order resolving the parties' summary judgment motions. *See, e.g.*, *Synchronoss Techs., Inc. v. Dropbox, Inc.*, 987 F.3d 1358, 1364–65 (Fed. Cir. 2021) (applies "clear error" review to a district court decision that resolved indefiniteness issue and summary judgment motions in one order); *Cox Communs., Inc. v. Sprint Commun. Co. LP*, 838 F.3d 1224, 1228 (Fed. Cir. 2016) (same); *EON Corp. IP Holdings LLC v. AT&T Mobility LLC*, 785 F.3d 616, 619–20 (Fed. Cir. 2015) (same).[5] In other words, although a court may grant summary judgment based on a determination of indefiniteness, the determination itself is distinct from the Rule 56 analysis. *See Sonix Tech. Co. v. Publ'ns Int'l, Ltd.*, 844 F.3d 1370, 1371 (Fed. Cir. 2017) (stating that the district court's

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[5] Crown relies on a non-precedential opinion, *ImmunoGen, Inc. v. Hirshfeld*, No. 2021-1939, 2022 WL 885774, (Fed. Cir. Mar. 25, 2022), to support its argument that indefiniteness determination at summary judgment should be evaluated under Rule 56. Appellant's Br. 29, 31. *Immunogen* is inapposite, as the review of the indefiniteness determination there did not apply or reference *Teva*'s "clear error" standard. *See ImmunoGen, Inc.*, 2022 WL 885774, at *2–3; *Teva*, 574 U.S. at 331.

grant of summary judgment "*follow[ed]* its determination that . . . the asserted claims . . . are invalid as indefinite." (emphasis added)).

Here, we find the district court did not clearly err in the subsidiary factual findings underpinning its indefiniteness determination. Although both parties' experts disagreed on whether the application of Mr. Higham's methods resulted in materially different outcomes for the claim's scope, the district court did not clearly err in crediting the testimony of Mr. Gillest over Mr. Biondich. *See Decision*, 2023 WL 4976547, at *6; *see also Celsis In Vitro, Inc. v. CellzDirect, Inc.*, 664 F.3d 922, 929 (Fed. Cir. 2012) ("The district court has wide discretion to weigh expert credibility.").

The record supports the court's finding. *See* J.A. 2946–64 (showing Mr. Gillest's application of Mr. Higham's change-in-geometry and across-from-center-panel methods to ten different can ends, yielding angles within the claimed angle ranges for one method and angles outside the claimed angle ranges for the other method). Mr. Gillest's expert report, for example, used Mr. Higham's methodology to locate the first point of the can ends. J.A. 2782. Mr. Gillest explained that he "applied Mr. Higham's 'change in geometry' and 'across-from-the-center-panel' tests to [several] can end[s]" and found material differences between the angles measured. J.A. 2784; *see id.* at 2784–802. Although Mr. Biondich disagreed with Mr. Gillest's methodology for locating the first and second points of the can ends, he did so by using measurements and methodologies that differed from Mr. Higham's and were contrary to our remand order. *See*, *e.g.*, J.A. 3289–91. For example, instead of applying Mr. Higham's method to one sample can, Mr. Biondich merely asserted there is no first point in the can end and, "[c]onsequently, it would be impossible to determine the angle of a line from the first point[] to the second point[]." *Id.* at 3349. In another instance, Mr. Biondich repositioned the first point that

Mr. Higham placed on a can end so that the calculations of the second point would not create materially different angle measurements. *See* J.A. 3262–66 (disagreeing with Mr. Higham's "analysis as to the location of the change of geometry of the LOF+ can end that he shows in his attachment 13 to his 2003 Report"). By the same token, Mr. Biondich focused on issues not related to our remand order, contesting, among other things, the validity of Mr. Higham's methodologies instead of applying the methodologies and determining if they yield materially different results. *See* J.A. 3291. The district court accordingly found under Rule 52 that Mr. Biondich's testimony "effectively disregarded" our remand order and therefore is not relevant to the indefiniteness determination. *Decision*, 2023 WL 4976547, at *6. We see no error in the district court crediting Mr. Gillest's testimony over Mr. Biondich's testimony. *See id.*

Crown contends that if the district court was making subsidiary factual findings under Rule 52, then it should have held a hearing, "[found] the facts specially," and "state[d] its conclusions of law separately." Appellant's Reply Br. 1–2 (citation omitted). We are not persuaded that the district court abused its discretion in not holding a separate evidentiary hearing.[6] "[W]e have said that district

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[6] Nor are we persuaded that the district court did not find the facts specially and state its conclusion of law separately. Crown cites to *Tris Pharma, Inc. v. Actavis Lab'ys FL, Inc.* for the proposition that Rule 52 "require[s] findings on 'as many of the subsidiary facts as are necessary to disclose to the appellate court the steps by which the trial court determined factual issues and reached its ultimate conclusions.'" Appellant's Reply Br. 2–3 (citing 755 F. App'x 983, *988 (Fed. Cir. 2019)). *Tris Pharma* is inapposite. Unlike in *Tris Pharma*, the district court here

courts have 'wide latitude in how they conduct the proceedings before them,' including claim-construction proceedings." *UTTO Inc. v. Metrotech Corp.*, 119 F.4th 984, 993–94 (Fed. Cir. 2024) (quoting *Ballard Med. Prods. v. Allegiance Healthcare Corp.*, 268 F.3d 1352, 1358 (Fed. Cir. 2001)). While some courts have found it useful to hold hearings before construing claims, such a procedure is not always necessary. *Ballard Med. Prods.*, 268 F.3d at 1358.

In this matter, we see no abuse of discretion in the district court's proceeding to its determinations without hearing live testimony from Crown witnesses. When responding to Ball Metal's summary judgment motion of invalidity under indefiniteness, Crown did not make a concrete case showing why such testimony was needed to resolve the remanded factual issues on indefiniteness. *See* J.A. 3226–60; *see also* Southern District of Ohio Local Rule 7.1(b)(2) (where a hearing is not required by rule or law, but allowing a party to "apply to the Court for oral argument. . . . by including the phrase 'ORAL ARGUMENT REQUESTED' (or its equivalent) on the caption of a motion or on a memorandum" and "succinctly explain[]" "[t]he grounds for any such request."). Instead, Crown opposed holding an evidentiary hearing to resolve the motion in advance of trial, arguing: "[w]ere the Court to delay trial for such a hearing, Crown may be prejudiced, particularly because two key fact witnesses retire at the end of 2023." J.A. 3239 n.9. At least without a concrete showing of need, and without a concrete showing of prejudice on appeal, Crown cannot raise this issue now.

Upon review of the record, we conclude the district court did not clearly err in finding that the application of the different methods of Mr. Higham resulted in materially

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specifically explained and identified which arguments it credited and which it rejected, allowing us to effectively review the district court's decision. *See* 755 F. App'x at *989.

different angle ranges, rendering the asserted claims indefinite and the asserted patents invalid.

CONCLUSION

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

AFFIRMED