

NOTE: This disposition is nonprecedential.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

2020-1212

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: December 31, 2020

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

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

JOHN FRANK MURPHY, Baker & Hostetler LLP, Philadelphia, PA, argued for defendants-appellants. Also represented by DANIEL J. GOETTLE, ALAINA J. LAKAWICZ, AARON RABINOWITZ.

Before WALLACH, TARANTO, and CHEN, *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 Rexam Beverage Can Co. and Ball Metal Beverage Container Corp. (collectively, Ball Metal) finding the claim terms “second point” in U.S. Patent No. 6,935,826 (’826 patent) and “transition”¹ in U.S. Patent No. 6,848,875 (’875 patent) indefinite, thereby rendering the asserted claims invalid under 35 U.S.C. § 112, ¶ 2.² Because the district court erred in its indefiniteness analysis, we vacate the court’s summary

¹ The “second point” and “transition” both refer to the same location—the juncture where the chuck wall ends and the annular reinforcement bead begins. For ease of reading we only refer to “second point.” Additionally, for the sake of ease, quotation marks will be omitted from this term hereinafter.

² 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.

judgment of invalidity and remand to the district court in order for it to perform the correct analysis.

BACKGROUND

Aluminum beverage cans have two parts—the can body and the can end. The '826 and '875 patents³ describe a can end, which is attached to the can body using a seamer machine. '826 patent col. 1 ll. 16–19. As shown in Figure 4 below, the outer edge of the can end, the chuck wall, is angled with respect to a vertical line h_2 extending from the bottom of an annular reinforcing bead 25 and perpendicular to the central panel 26, which purportedly saves money because less metal can be used without sacrificing can strength. *Id.* at col. 2 ll. 1–12, col. 4 ll. 16–24. The angle is shown in the figure at “C°.”

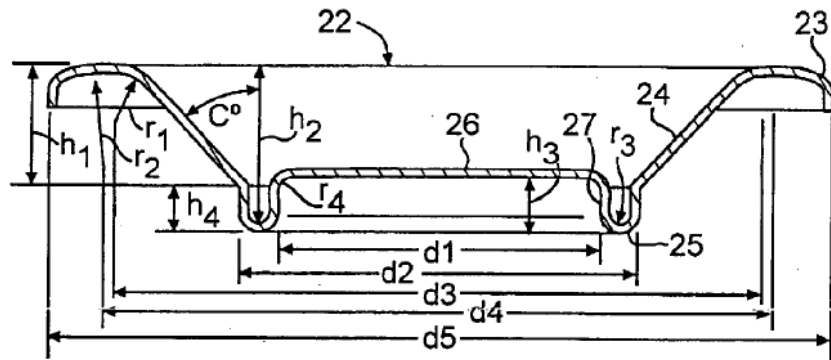


FIG. 4

'875 patent at Fig. 4. The asserted claims require the angle “C°” to fall within a certain range. Claim 50 of the '875 patent, for example, recites that the angle is “between about 20° and about 60°.” *Id.* at claim 50. The claimed

³ Because both patents have similar written descriptions, when citing to the written description, we cite only to the '826 patent.

angle is defined by a first point and a second point (or a “first location” and a “transition”) that create a diagonal line, the angle of which is then calculated based on the diagonal line compared to a vertical line, as illustrated by h_2 in the above figure. ’826 patent at claim 13. The first point is defined by the location where the wall extends from the peripheral cover hook, and the second point is defined by the location where the annular reinforcing bead extends from the lowermost end of the chuck wall. *Id.*

Claim 14 of the ’826 patent is representative of the claims of both patents. Claim 14 depends from claim 13 and the bracketed language quoted below is from 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 therebetween, said can end comprising;

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;

a central panel;

a wall extending inwardly and downwardly from said cover hook, a first portion of said wall 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).

On February 1, 2012, Rexam⁴ filed an action for declaratory judgment seeking a ruling of noninfringement with respect to its can end and a determination of invalidity for the '826 and '875 patents. J.A. 4282–91. On July 25, 2012, Crown counterclaimed alleging infringement of the '875 and '826 patents. JA. 4321–35. The asserted claims include claims 50, 52, 54, 56, 58, and 59 of the '875 patent and claim 14 of the '826 patent. On September 25, 2019, the district court granted summary judgment of invalidity for the asserted claims. J.A. 6–36. The district court found the claims indefinite because the patents failed to reference any test for locating the second point and Crown's expert had inconsistently presented at least three different tests for locating the second point. *Id.* at 33.

Crown appeals the district court's finding 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

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

⁴ Ball Metal was later added as a party to the case after Ball Metal acquired Rexam.

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).

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).

Crown argues that its expert, Martin J. Higham, has consistently used the same methodology to determine the location of the second point of the claimed invention over the course of various litigations. Appellant’s Br. at 51. We disagree. Mr. Higham has had a number of opportunities to explain how a skilled artisan would determine the claimed second point and has not been consistent in those explanations. The method Mr. Higham uses in this litigation is the “across from the central panel test.” J.A. 5107, 6523 (p. 156 ll. 11–19), 6213, 6250. This test calculates the second point by drawing a horizontal line from the top of the central panel to an intersection point with the chuck wall. J.A. 6213. In a prior litigation between Crown and Anheuser-Busch, however, Mr. Higham calculated the second point by identifying “a point along the chuck wall where the radius of the lower arcuate portion of the chuck wall deviates from” the chuck wall to become the annular reinforcing bead. J.A. 5129–30, 5133. Mr. Higham determined this deviation by first calculating the radius curvature of the chuck wall and then finding where the chuck wall begins to deviate from this curvature. *Id.* Finally, in a prior litigation with Ball Metal, Mr. Higham used the finite element analysis (FEA) method—a computer modeling method. J.A. 5123–25, 2001.

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The record evidence also shows, contrary to Crown's argument, that Mr. Higham's different methodologies do not necessarily result in selection of the same location for the second point. Unlike the "across from the central panel test," the record shows examples of the other tests identifying a location other than the point across from the central panel as the second point. See J.A. 5133, 5107, 6658. We also note that Crown's argument that the FEA test in the prior Ball Metal litigation was simply confirmatory of the "across the central panel" test is explicitly rebutted by Mr. Higham's deposition testimony. J.A. 5123–25.

That the record evidence indicates that multiple different methodologies exist for measuring a parameter recited in a claim does not by itself render a claim indefinite. Under such circumstances, the relevant indefiniteness inquiry then becomes whether the differing methodologies lead to materially different results in defining the boundaries of the claim. We have explained that "the mere possibility of different results from different measurement techniques" does not render a claim indefinite. *Takeda Pharms. Co. Ltd. v. Zydus Pharms. USA Inc.*, 743 F.3d 1359, 1366–67 (Fed. Cir. 2014). In ruling that a possibility of different results did not render the claims indefinite in *Takeda*, we distinguished an earlier case in which held a claim to a process for making a product indefinite because there were several methods for measuring a claimed process parameter and "the particular method chosen was 'critical to discerning whether [a product] has been produced by the claimed process.'" *Id.* at 1367 n.4 (quoting *Honeywell Int'l, Inc. v. Int'l Trade Comm'n*, 341 F.3d 1332, 1340 (Fed. Cir. 2003)). In *Teva*, the claim included a specific measurement of a copolymer's "molecular weight" and the specification did not indicate which of three known measurement methods used was used (M_p , M_w , or M_n) to determine the claimed molecular weight. *Teva Pharms. USA, Inc. v. Sandoz, Inc.*, 789 F.3d 1335, 1345 (Fed. Cir. 2015). Because it was unclear which measurement to use for the claimed molecular

weight and those different measurements would yield different results, the claim “failed to inform with *reasonable certainty* those skilled in the art about the scope of the invention.” *Id.* Similarly, in *Dow*, we concluded that the claims were indefinite where there were multiple methods of measuring a claimed parameter “*leading to different results* without guidance in the patent or the prosecution history as to which method should be used.” *Dow Chem. Co. v. Nova Chems. Corp. (Can.)*, 803 F.3d 620, 634 (Fed. Cir. 2015) (emphasis added); *see also Pacific Coast Bldg Prods., Inc. v. CertainTeed Gypsum, Inc.*, 816 F. App’x 454, 460 (Fed. Cir. 2020) (affirming indefiniteness ruling where evidence demonstrated the existence of “at least two methods of converting the measurement between board thicknesses that produce significantly differing results”). Consistent with the purpose of the definiteness requirement, differences in measurement methods must matter for determining whether or not a claim limitation is met by those who might realistically be practicing the other claim limitations. Under our case law, then, a claim may be invalid as indefinite when (1) different known methods exist for calculating a claimed parameter, (2) nothing in the record suggests using one method in particular, and (3) application of the different methods result 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. Such a claim lacks the required degree of precision “to afford clear notice of what is claimed, thereby apprising the public of what is still open to them.” *Nautilus*, 572 U.S. at 909 (quoting *Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 373 (1996) (internal quotation marks omitted)).

Ball Metal relies on *Amgen Inc. v. Hoechst Roussel, Inc.*, 314 F.3d 1313 (Fed. Cir. 2003), to support its argument that Crown’s claims are indefinite simply due to the lack of clarity in the patent or record as to which of the methods should be used to identify the second point on a

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can end. Appellee's Br. 32–33. We disagree with this reading of *Amgen*. In *Amgen*, the claimed glycoprotein had “glycosylation which differs from that of human urinary erythropoietin [uEPO].” *Amgen*, 314 F.3d at 1340. In other words, “one must know what the glycosylation of uEPO is with certainty before one can determine whether the claimed glycoprotein has a glycosylation different from that of uEPO.” *Id.* at 1341. The key pivotal defect with the claims was that, while the claim language “presupposes that the glycosylation of [uEPO] is a fixed, identifiable marker,” the evidence established uEPO produced variable glycosylation patterns. *Id.* Because the claimed standard for comparison was actually a variable, a skilled artisan would be unable to reliably determine whether the glycosylation of a particular glycoprotein differed from that of uEPO. *Id.* Although we noted that multiple techniques existed for detecting the differences in glycosylation between two glycoproteins, that observation was not the decisive factor in affirming the indefiniteness ruling. *Amgen* thus is not inconsistent with our understanding of *Teva* and *Dow*, discussed above.

The relevant portion of claim 13, which provides the context for dependent claim 14, states “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°.” ’826 patent at claim 13. The relevant inquiry is therefore whether the different methodologies used to identify the second point yield materially different angle ranges because the purpose of the claimed second point is simply for defining the angle, and it is ultimately the claimed angle range, not the location of the second point itself that matters for determining the scope of the claim and whether an accused product infringes it. For example, if the evidence established that any conceivable choice of a second point through the different methodologies used by Mr. Higham would always lead to an angle that was within 30° to 60° for any operational can end, then whether

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different methods yield different second point locations would be immaterial to understanding the scope of claim 1 of the '826 patent. On the other hand, if one of the methods for identifying the second point resulted in an angle outside of the claimed range, then that would be a materially difference, for the selection of a particular method would alter the result of the infringement inquiry. In that scenario, the lack of clarity as to which method to choose to identify the second point would have a material impact on the scope of the claim, rendering it indefinite.

The district court's opinion states "[b]ecause all asserted claims require measuring the angle, from vertical, of a hypothetical line that connects two points, one of which is a second point/transition, and because the methods do not always produce the same results, the method chosen for locating the second point/transition could affect whether or not a given product infringes the claims." J.A. 33 (internal quotation marks omitted). This analysis is incomplete, however, because it does not establish in any meaningful way what material difference in angle range outcome, if any, exists among Mr. Higham's different methodologies. We therefore must vacate the district court's decision. We emphasize that on remand the district court should review Mr. Higham's methodologies and analyze whether the methods lead to materially different results for the angle.

CONCLUSION

We have considered the parties' remaining arguments and find them unpersuasive. For the foregoing reasons, we vacate the district court's grant of summary judgment and remand for further proceedings consistent with this opinion.

VACATED AND REMANDED

COSTS

No costs.