

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

ARDAGH GLASS INC.,
Petitioner,

v.

CULCHROME, LLC,
Patent Owner.

Case IPR2015-00943
Patent 6,230,521 B1

Before GRACE KARAFFA OBERMANN,
CHRISTOPHER L. CRUMBLEY, and ELIZABETH M. ROESEL,
Administrative Patent Judges.

ROESEL, *Administrative Patent Judge.*

DECISION
Denying Request for Rehearing
37 C.F.R. § 42.71

Petitioner, Ardagh Glass Inc., filed a request for rehearing (Paper 10, “Rehearing Req.”) of our Decision denying *inter partes* review (Paper 9, “Dec.”) of claims 1–31 of U.S. Patent No. 6,230,521 B1 (Ex. 1001, “the ’521 patent”). Petitioner argues that the Decision failed to apply the

broadest reasonable construction and misapprehended or overlooked several matters in the Petition (Paper 1, “Pet.”). For the reasons that follow, we deny the request for rehearing.

ANALYSIS

When considering a request for rehearing, the Board reviews its decision for an abuse of discretion. 37 C.F.R. § 42.71(c). The party requesting rehearing bears the burden of showing that the decision should be modified, and “[t]he request must specifically identify all matters the party believes the Board misapprehended or overlooked.” 37 C.F.R. § 42.71(d).

Petitioner seeks rehearing of the Board’s denial of *inter partes* review of claims 1, 2, 5–10, 17, and 26–31: (1) as anticipated under 35 U.S.C. § 102(b) by Nix,¹ and (2) as obvious under 35 U.S.C. § 103 over Nix and Faber.² We first address Petitioner’s claim construction argument and then address each of these grounds in turn.³

A. Claim Construction

Petitioner argues that the Decision construed the term “desired glass coloring oxide agent levels” too narrowly and that the asserted error is evident in the Decision’s analysis of Nix. Rehearing Req. 4–6.

¹ M. Nix & H. P. Williams, *Calculation of the Redox Number of Glass Batches Containing Recycled Cullet*, GLASTECH. BER. 63K (1990) at 271–279, Ex. 1004.

² Anne J. Faber et al., *Technological Impacts of Glass Recycling*, PROC. OF THE XVII INT’L CONG. ON GLASS, Vol. 6 (Chinese Ceramic Society 1995) at 151–156, Ex. 1005.

³ According to Petitioner, the remaining grounds (pertaining to claims 3, 4, 11–16, and 18–25) “rise and fall with grounds 1 and 2” because they were denied for the same reasons. Rehearing Req. 3; Dec. 22–23.

The Decision construes “desired glass coloring oxide agent levels” as “concentrations of coloring oxides necessary to produce recycled glass products of a particular color.” Dec. 10. Contrary to Petitioner’s argument, the construction does not require that “oxide agent” be “only ‘oxide’” or “pure oxides.” Rehearing Req. 5. Nor does the Decision apply an unduly narrow claim construction in analyzing Nix. The Decision does not rest on a finding that Calumite slag is not an “oxide agent,” as argued by Petitioner. *Id.* at 6. Instead, the Decision finds that Dr. Risbud’s “concrete example,” Ex. 1010 ¶ 71, is not supported by Nix (Ex. 1004), because the “coloring oxide agent” identified by Dr. Risbud—“SO₃ oxide coloring agent”—is not disclosed by Nix as having a redox factor of –0.092, as set forth in Dr. Risbud’s “concrete example.” Dec. 16; Ex. 1010 ¶ 71 (table). On this record, Petitioner does not demonstrate that the Decision is based on an incorrect claim construction.

B. Anticipation by Nix

Step [f] of the independent claims recites “calculating using said percentages and said percentage composition the desired glass coloring oxide agent levels” Dec. 12 (quoting Ex. 1001, claims 1, 26, 28, and 30). Regarding step [f], Petitioner argues that the Decision “overlooks (or at least misapprehends) (1) that the starting materials [disclosed in Table 2 of Nix] are used for comparison purposes and (2) as necessary inputs for calculating the percentage of glass color oxide agent levels.” Rehearing Req. 7 (citing Pet. 16, 18–19). Petitioner further argues that the Decision misapprehends the disclosure of Nix and how a person of ordinary skill would have inferred and understood “how the calculation is carried out from the comparison of both the inputs and resulting color (i.e., redox number)

shown in Nix.” *Id.* at 7–8 (citing Pet. 17–18, 20; Ex. 1010 (Risbud Declaration) ¶¶ 63–79).

Petitioner cites the table in paragraph 71 of Dr. Risbud’s declaration, Rehearing Req. 7, but identifies no error in our determinations that the “concrete example” set forth in that table is not disclosed in Nix and that Dr. Risbud’s opinions are “based on a modified version of Nix’s disclosure, without a sufficient evidentiary basis for the modification.” Dec. 15. Although Petitioner argues that “an implicit property of equations [is] that variables can be rearranged to solve for different variables,” Petitioner does not identify any equation in Nix having desired glass coloring oxide agent levels as a variable. Petitioner does not persuade us that the Decision misapprehends or overlooks any disclosure in Nix that teaches or suggests step [f] of the claims.

Step [g] of the independent claims recites “calculating a composition of said recycled finished glass . . . including . . . amounts of said glass coloring oxide agents suitable to adjust final glass coloring oxide agent levels to said desired glass coloring oxide agent levels . . .” Dec. 16 (quoting Ex. 1001, claims 1, 26, 28, and 30). Regarding step [g], Petitioner quotes excerpts from the Decision, arguing that the Board “acknowledged that Nix discloses all aspects of the claimed calculation” and overlooked Dr. Risbud’s explanation for how Nix applies the calculation. Rehearing Req. 8–9 (quoting Dec. 17). Without citation to the record, Petitioner argues that a person of ordinary skill in the art would have inferred from Nix “how to calculate the final glass color from starting glass materials.” *Id.* at 10–11. Even if Petitioner’s inference were supported by the record, however, that inference is not equivalent to step [g], which recites calculating a glass

composition, not merely calculating a final glass color. *See, e.g.*, Ex. 1001, 25:6–17. Petitioner does not persuade us that the Decision misapprehended or overlooked any disclosure in Nix that discloses or suggests step [g] of the claims.

On this record, Petitioner does not demonstrate an abuse of discretion in the Decision to deny *inter partes* review of claims 1, 2, 5–10, 17, and 26–31 of the ’521 patent based on anticipation by Nix.

C. Obviousness over Nix and Faber

Petitioner argues that the Decision misapprehended or overlooked the stated basis for combining the teachings of Faber and Nix, including Faber’s citation to Nix. Rehearing Req. 11–12. We are not persuaded by Petitioner’s argument. The Decision expressly acknowledges Faber’s reference to Nix (Dec. 18) and acknowledges that the Petition and Risbud Declaration discuss a reason to combine the teachings of Nix and Faber, *id.* at 20. The Decision assumes that a person of ordinary skill in the art would have combined the teachings of Nix and Faber, but determines that the Petition and Risbud Declaration do not explain sufficiently how the combination of Faber and Nix would have led to the claimed method. Dec. 20. Petitioner does not persuade us that we misapprehended or overlooked any portion of the Petition or Risbud Declaration, or otherwise abused our discretion, in making this determination.

Petitioner argues that the Decision overlooked that “Nix provides all the elements needed to forecast the color of final glass products” and that “Faber then discloses how to use the metrics disclosed in Nix to make amber and green bottles from mixed-color recycled cullet.” Rehearing Req. 13. Even accepting Petitioner’s characterizations of the teachings of Nix and

Faber, Petitioner does not show sufficiently how these teachings would have led one of ordinary skill in the art to the step of “calculating . . . the desired glass coloring oxide agent levels,” as recited in step [f] of the challenged claims. Nor does Petitioner direct us to disclosure in Nix or Faber that was overlooked or misapprehended in the Decision and that would have led one of ordinary skill in the art to a method of creating recycled glass products that includes step [f] of the challenged claims.

Petitioner refers to the Decision’s finding that “Faber does not disclose producing [amber and green glass] bottles from cullet of any color, including dead leaf green,” Dec. 22, arguing that this finding overlooked Faber’s discussion of typical recycled glass color mixture and components. Rehearing Req. 13–14. Faber’s discussion was not overlooked. As explained in the Decision, the cited disclosures of Faber and Nix are insufficient to support Dr. Risbud’s opinion that Faber “necessarily adjusts the amounts of glass coloring oxide agents to achieve [amber and green bottles].” Dec. 21–22 (quoting Ex. 1010 ¶ 184). The Decision explains why the teachings inferred by Petitioner and Dr. Risbud are not sufficiently supported by the evidence. *Id.* We are not persuaded that these findings lack substantial support in the record.

Finally, Petitioner asserts that certain disclosures in Faber were disregarded solely on the grounds that they were not cited or discussed by Dr. Risbud. Rehearing Req. 14. Petitioner is not correct. As stated in the Decision, the Petition failed “to explain how the quoted disclosures from Faber, alone or in combination with Nix, teach or suggest step [g] of the challenged claims.” Dec. 21. The Decision concludes that “the unexplained quotation is not sufficient to show that the claimed method, including step

[g], would have been obvious to one of ordinary skill in the art in view of Nix and Faber.” *Id.* Although the Request for Rehearing newly elaborates on the cited disclosures of Faber, Rehearing Req. 15, there is still no explanation for how the cited disclosures, alone or in combination with Nix, teach or suggest the calculating step in paragraph [g] of the independent claims.

On this record, Petitioner does not demonstrate an abuse of discretion in the Decision to deny *inter partes* review of claims 1, 2, 5–10, 17, and 26–31 based on obviousness over Nix and Faber.

III. CONCLUSION

Petitioner’s request for rehearing is *denied*.

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