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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte DIETER DOHRING, HANS SCHAFER,
UDO HANITZSCH, and GARY P. BLENKHORN

Appeal 2014-008849
Application 12/516,084
Technology Center 1700

Before PETER F. KRATZ, MICHELLE N. ANKENBRAND, and
JENNIFER R. GUPTA, *Administrative Patent Judges*.

ANKENBRAND, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellants¹ appeal under 35 U.S.C. § 134(a) from the Examiner's final rejection of claims 1, 3, 6–8, 10–13, and 15–17. We have jurisdiction under 35 U.S.C. § 6(b).

We affirm.

Background

The subject matter on appeal relates to a method for coating boards made of wooden material with a flowable plastic material. Spec. Abstract,

¹ Appellants identify Kronoplus Technical AG as the real party in interest. App. Br. 2.

1:5–7. The method comprises applying the plastic coating as a single, thick layer and creating an impressed structure using a web that is arranged on the plastic material. *Id.* at Abstract, 3:30–4:2, 4:20–22. Claim 1, the sole independent claim, is representative of the claims on appeal, and is reproduced below from the Claims Appendix to the Appeal Brief:

1. A method for coating a board of wooden material with a flowable plastic material, wherein the method comprises the following steps:
 - applying a primer suitable for said plastic material onto the board of wooden material in an amount of up to 10 g/m²;
 - applying the plastic material as a single layer onto the primer, wherein the layer is applied in a single process step in a thickness of at least 80 μm, wherein the plastic material is curable by means of UV light and wherein the plastic material is a polymerizable acrylate system;
 - arranging a web with a structured surface onto the plastic material, to provide the layer of plastic material with a structure, wherein the web is transparent to UV light;
 - drying and/or curing the layer of plastic material material [sic] by UV radiation while the plastic material is covered by the web, wherein the UV radiation is directed through the web, whereby the structure introduced into the layer of plastic material is fixed, and
 - removing the web with the structured surface, wherein the plastic material increases the abrasion resistance of the board of wooden material.

App. Br. 12 (Claims App'x).

The References

Schultz	US 2,303,395	Dec. 1, 1942
Plauka	US 2,516,254	July 25, 1950
Barkac	US 2005/0249939 A1	Nov. 10, 2005
Penttinen	US 2006/0193994 A1	Aug. 31, 2006
Goodson	US 7,615,276 B1	Nov. 10, 2009
Kerr	WO 90/15673	Dec. 27, 1990

The Rejections

The Examiner maintains the following rejections on appeal:

1. Claims 1, 3, 6, 10, 12, and 13 are rejected under 35 U.S.C. § 103(a) as unpatentable over the combination of Kerr, Plauka, Penttinen, and Schultz;
2. Claims 7, 8, 15, and 16 are rejected under 35 U.S.C. § 103(a) as unpatentable over the combination of Kerr, Plauka, Penttinen, and Schultz, in view of Barkac; and
3. Claims 11 and 17 are rejected under 35 U.S.C. § 103(a) as unpatentable over the combination of Kerr, Plauka, Penttinen, and Schultz, as applied to claim 1, and in view of Goodson.

Ans. 2–5.

OPINION

Appellants argue independent claim 1 and dependent claims 3, 6, and 13, and do not present arguments for the separate patentability of the other dependent claims on appeal. App. Br. 4–10. We, therefore, limit our discussion to claims 1, 3, 6, and 13. Dependent claims 7, 8, 10–12, and 15–17 stand or fall with claim 1.

After having considered the evidence presented in this Appeal and each of Appellants' contentions, we are not persuaded that Appellants identify reversible error, and we affirm the Examiner's § 103 rejections for the reasons expressed in the Final Action, the Answer, and below.

Claims 1, 6, and 13

Claim 1 requires, *inter alia*, applying plastic material as a single layer, "wherein the layer is applied in a single process step in a thickness of at least 80 μm ." App. Br. 12 (Claims App'x). Claims 6 and 13 further narrow the thickness of the layer of plastic material to "a thickness of 80 – 150 μm " and "a thickness of 80 – 110 μm ," respectively. *Id.* at 12–13. Thus, all three claims require a plastic coating that is at least 80 μm thick.

The Examiner finds that the combination of Kerr, Plauka, and Penttinen does not disclose a layer or coating of plastic material that is at least 80 μm thick, "but suggests up to 50 microns." Final Act. 3. The Examiner further finds that Schultz discloses a layer of plastic material that "can be 1 mil or much more in thickness," and that Schultz's range "includes 80 microns." *Id.* The Examiner concludes that it would have been obvious to the ordinary artisan to make the plastic coating "any thickness[,] such as 80 microns thick[,] to allow for a deeper design to be reproduced as taught by Schultz." *Id.* at 4 (citing Schultz, 3:66–68 (left column)).

Appellants argue that, contrary to the Examiner's finding, Schultz fails to disclose or suggest a coating that is at least 80 μm thick. App. Br. 6. More specifically, Appellants, relying on *Atofina v. Great Lakes Chemical Corp.*, 441 F.3d 991, 999 (Fed. Cir. 2006) and *In re Baird*, 16 F.3d 380, 383 (Fed. Cir. 1994), argue that the genus of thicknesses disclosed in Schultz, i.e. "as thin as 1/1000 of an inch [25.4 μm] or less, but may be much greater," is

“virtually infinite” and “includes every non-zero thickness,” such that it cannot be said to fairly suggest a thickness of at least 80 μm . *Id.* at 7–8.

We are not persuaded. With respect to *Atofina*, as Appellants acknowledge, that case addresses issues related to anticipation. *See* Reply Br. 3 (“The Examiner is correct that *Atofina* . . . [is] . . . directed to anticipation.”). In contrast, the Examiner’s rejection of Appellants’ claims is based on obviousness. *See* Final Action 2–4. Accordingly, *Atofina* is distinguishable from the present case.

We also find *Baird* distinguishable. In *Baird*, our reviewing court determined that “[a] disclosure of millions of compounds does not render obvious a claim to three compounds, particularly when that disclosure indicates a preference leading away from the claimed compounds.” 16 F.3d at 383. Appellants’ claims in the present case, however, are not so narrow. Claim 1 recites a lower limit (at least 80 μm), but no upper limit to the thickness of the coating. Thus, claim 1 encompasses a large range of thicknesses. And, although claims 6 and 13 include upper limits (150 μm and 110 μm , respectively), the ranges of thicknesses recited in those claims are much broader than the three compounds claimed in *Baird*.

In any event, Appellants do not point to a preference in the relied upon prior art leading away from the recited thickness ranges, as was the case with the prior art disclosure in *Baird*. *Id.* at 382–83. Rather, Schultz discloses a thickness range that completely overlaps Appellants’ recited thickness ranges (i.e., at least 80 μm , 80–150 μm , and 80–110 μm). “[W]here there is a range disclosed in the prior art, and the claimed invention falls within that range, there is a presumption of obviousness.” *Iron Grip Barbell Co. v. USA Sports, Inc.*, 392 F.3d 1317, 1322 (Fed. Cir.

2004); see *In re Peterson*, 315 F.3d 1325, 1329–30 (“In cases involving overlapping ranges, we and our predecessor court have consistently held that even a slight overlap in ranges establishes a *prima facie* case of obviousness. . . . [W]hen, as here, the claimed ranges are completely encompassed by the prior art, the conclusion [of obviousness] is even more compelling than in cases of mere overlap.”). Schultz also discloses that the thickness of the plastic layer affects “the depth of the design to be reproduced.” Schultz, 3:65–68 (left column). Given that teaching, the determination of workable or optimum ranges of thickness would have been within the level of ordinary skill in the art, absent Appellants’ showing of criticality (e.g., unexpected results) in the recited range. *In re Boesch*, 617 F.2d 272, 276 (CCPA 1980) (“[D]iscovery of an optimum value of a result effective variable in a known process is ordinarily within the skill of the art.”) (citations omitted); see *Peterson*, 315 F.3d at 1330 (“the existence of overlapping or encompassing ranges shifts the burden to the applicant to show that his invention would not have been obvious).

Appellants argue the specification explains that higher coating thicknesses “have advantages over thinner coatings,” in that larger abrasion resistant particles may be embedded in the thicker coating, as compared to a thin coating system. Reply Br. 4. Appellants, however, do not explain sufficiently how or why such advantages would have been unexpected by the ordinarily skilled artisan. See, e.g., *In re Klosak*, 455 F.2d 1077, 1080 (CCPA 1972) (“[T]he burden of showing unexpected results rests on [the party] who asserts them. Thus it is not enough to show that results are obtained which differ from those in the prior art: that difference must be shown to be an *unexpected* difference.”) Nor do Appellants explain why a

coating with a thickness of at least 80 μm would have produced advantages over a coating with a thickness falling outside of the recited range (e.g., a coating with a thickness of 50 μm , as disclosed in Kerr). Indeed, the portion of the specification on which Appellants rely indicates that the same advantages are achieved using a coating layer that is only 30 μm thick. Spec., 4:20–29.

Appellants argue that, “regardless of what Schultz discloses,” the ordinary artisan would not have looked to Schultz because Schultz teaches away from Kerr. App. Br. 8. In particular, Appellants argue that Kerr is directed to applying coatings to thermoplastic sheets and film, whereas Schultz discloses producing coated materials “*without the use of thermoplastics.*” *Id.* (quoting Schultz, 1:15–18).

We are not persuaded. As the Examiner finds, Schultz’s teaching of an alternative process for applying a coating to a surface to provide an impressed or embossed effect is not a teaching away from a method that employs thermoplastics, such as the method disclosed in Kerr. Ans. 7; *see In re Fulton*, 391 F.3d 1195, 1201 (Fed. Cir. 2004) (“The prior art’s mere disclosure of more than one alternative does not constitute a teaching away from . . . [other] alternatives because such disclosure does not criticize, discredit, or otherwise discourage the solution claims. . . .”). Moreover, contrary to Appellants’ argument, Schultz discloses that thermoplastic methods of embossing can achieve the same results as Schultz’s method, albeit by using additional, and more expensive, equipment. Schultz, 3:5–13.

In addition, although Kerr discloses thermoplastic sheets and films as preferred substrates, Kerr is not limited to such sheets and films. Rather, “in a section 103 inquiry, ‘the fact that a specific [embodiment] is taught to be

preferred is not controlling, since all disclosures of the prior art, including unpreferred embodiments, must be considered.”” *Merck & Co. v. Biocraft Labs, Inc.*, 874 F.2d 804, 807 (Fed. Cir. 1989) (citation omitted). In that regard, Kerr also discloses that “[v]irtually any flat substrate can be coated” using the described methods, including “plywood.” Kerr, 5:30–33. For this additional reason, we are not persuaded that Schultz teaches away from Kerr. Accordingly, we affirm the rejections of claims 1, 6–8, 10–13, and 15–17 under 35 U.S.C. § 103(a).

Claim 3

Claim 3 requires that the structure formed on the plastic coating “has a depth of up to 80 μm .” App. Br. 12. Appellants argue that the Examiner “provides no analysis” of claim 3, and “does not identify any portion of the cited prior art as disclosing a structure that has a depth of up to 80 μm .” *Id.* at 8–9.

In response, the Examiner finds that the design impressed in the coating must be thinner than the coating itself. Ans. 4. The Examiner concludes that the ordinary artisan would have understood that the structure forming the design would be thinner than the plastic coating, i.e., “thinner than 80 microns.” *Id.* In reply, Appellants fail to rebut the Examiner’s specific findings with respect to claim 3. *See generally* Reply Br. Accordingly, we are not persuaded of reversible error in the Examiner’s findings as to claim 3. As such, we also affirm the Examiner’s rejection of claim 3 under 35 U.S.C. § 103(a).

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DECISION/ORDER

The Examiner's rejections of claims 1, 3, 6–8, 10–13, and 15–17 under 35 U.S.C. § 103(a) are affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a).

AFFIRMED