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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
14/892,767	11/20/2015	Rudolf Baumgarten	13009229EPA1/US	5464

24959 7590 12/27/2019

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EXAMINER	
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ART UNIT	PAPER NUMBER
1765	

MAIL DATE	DELIVERY MODE
12/27/2019	PAPER

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE
THE PATENT TRIAL AND APPEAL BOARD

Ex parte RUDOLF BAUMGARTEN[1]

Appeal 2019-003030
Application 14/892,767
Technology Center 1700

Before MARK NAGUMO, JEFFREY B. ROBERTSON, and N. WHITNEY WILSON, *Administrative Patent Judges*.

NAGUMO, *Administrative Patent Judge*.

DECISION ON APPEAL

PPG Industrial Ohio, Inc. ("Baumgarten") timely appeals under 35 U.S.C. § 134(a) from the Final Rejection[2] of all pending claims 1–4, 7–10, 13, and 14. We have jurisdiction. 35 U.S.C. § 6 (2012). We reverse.

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[1] The applicant under 37 C.F.R. § 1.46 (Application Data Sheet, filed 20 November 2015), and hence the appellant under 35 U.S.C. § 134, is the real party in interest, identified as PPG Industrial Ohio, Inc. (Appeal Brief filed 08 October 2018. ("Br.")

[2] Office Action mailed 8 May 2018 ("Final Rejection"; cited as "FR").

OPINION

A. Introduction[3]

The subject matter on appeal relates to a coating composition said to provide equivalent or improved alkali resistance, adhesion, flexibility, and abrasion resistance performance to, for example, containers for beverages or cosmetics, compared to prior art compositions comprising bisphenol-A. (Spec. 2, ll. 16–19, *see also* Spec. 1, ll. 9–16, 34–36.) Such prior art compositions are said to be objectionable due to "apparent negative health effects of coatings comprising such compounds" (*Id.* at 1, l. 36–2, l. 1). The inventive compositions are said to comprise a polymeric resin that can be cross-linked (*id.* at 3, ll. 6–7) by reacting with a crosslinking agent, i.e., a chemical compound having two or more crosslinking functional moieties (*id.* at 7, ll. 20–27), in the presence of bismuth neodecanoate (*id.* at 11, ll. 13–14), which, it is said, "may increase the rate of the crosslinking reaction between a crosslinker and a polymeric film forming resin of the present coating composition" (*id.* at ll. 24–26).

Claim 1 is representative and reads:

> A coating composition comprising:
>
> i) a polymeric film forming resin,
>
> ii) a crosslinking agent suitable for crosslinking the polymeric film forming resin i), and
>
> iii) an additive comprising a bismuth carboxylic acid salt,

[3] Application 14/892,767, *Coating Composition*, filed 20 November 2015 as the national stage under 35 U.S.C. § 371 of PCT/EP2014/060242, filed 19 May 2014, claiming the benefit of EPO 13168513.3, filed 21 May 2013. We refer to the "′767 Specification," which we cite as "Spec."

wherein the bismuth carboxylic acid salt comprises bismuth neodecanoate and wherein

the crosslinking agent comprises one or more of
a hydroxyl substituted aromatic group containing agent,
an amino group containing agent,
an amine group containing agent,
a urea-formaldehyde agent or
an alkylated urea with imino functionality.

(Claims App., Br. 8; some formatting added.)

(It may be noted that the claims do not exclude the presence of bisphenol-A.)

The Examiner maintains the following grounds of rejection[4, 5]:

A. Claims 1, 2,[6] 4, and 7–10 stand rejected under 35 U.S.C. § 102(a)(1) in view of Wakabayashi.[7]

A1. Claims 13 and 14 stand rejected under 35 U.S.C. § 103 in view of the combined teachings of Wakabayashi and Wales.[8]

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[4] Examiner's Answer mailed 19 February 2019 ("Ans.").

[5] Because this application was filed after 16 March 2013, the effective date of the America Invents Act, we refer to the AIA version of the statute.

[6] The Examiner does not include claim 3 in the statement of rejection (Ans. 3 § (1)) and miscites the statue in the response to argument (*id.* at § 2.1). Although moot for purposes of this Opinion (we assume, without deciding, that the claims stand rejected as set forth in the Final Rejection), appropriate clarification should be provided in the event of further examination.

[7] Katsuyu Wakabayashi et al., *Curable composition*, U.S. Patent Application Publication 2005/0171315 A1 (2005).

[8] Melinda Wales and C. Steven McDaniel, *Polymeric coatings incorporating bioactive enzymes for cleaning a surface*, U.S. Patent Application Publication 2011/0240064 A1 (2011).

B. Claims 1–4 and 7 stand rejected under 35 U.S.C. § 103 in view of Flosbach.[9]

B. Discussion

The Board's findings of fact throughout this Opinion are supported by a preponderance of the evidence of record.

Briefly, the Examiner finds that Wakabayashi discloses a (meth)acrylate-based polymer with a methyl silicate crosslinking agent and bismuth neodecanoate. (FR 2, 4th para., citing Wakabayashi claim 9, Tables 6–7, and paragraphs [0036]–[0046], [0236].) The Examiner finds that Wakabayashi prefers a metal carboxylate such as bismuth neodecanoate that has a metal atom of more than 208 in atomic weight. (*Id.* at 5th para., citing Wakabayashi [0123].) The Examiner finds further that Wakabayashi teaches that when an epoxy resin is added to the composition, an epoxy curing agent is added as a matter of course. (*Id.* at 3, 1st full para., citing Wakabayashi [0190].)

Our reviewing court has explained that, "unless a reference discloses within the four corners of the document not only all of the limitations claimed but also all of the limitations arranged or combined in the same way as recited in the claim, it cannot be said to prove prior invention of the thing claimed and, thus, cannot anticipate under 35 U.S.C. § 102." *Net MoneyIN, Inc. v. VeriSign, Inc.*, 545 F.3d 1359, 1371 (Fed. Cir. 2008). The court explained further, "differences between the prior art reference and a claimed invention, however slight, invoke the question of obviousness, not

[9] Carmen Flosbach et al., *Aqueous coating composition*, U.S. Patent Application Publication 2011/0151264 A1 (2011).

anticipation." *Id.*, *citing* with approval *In re Arkley*, 455 F.2d 586, 587–88 (CCPA 1972). In *Arkley*, the court explained that an anticipatory reference "must clearly and unequivocally disclose the claimed compound or direct those skilled in the art to the compound without *any* need for picking, choosing, and combining various disclosures not directly related to each other by the teachings of the cited reference." 455 F.2d at 587.

In the present rejection, the Examples, including Comparative Example 11, which uses bismuth neodecanoate, crosslink a silicon group containing polyoxyalkylene-based polymer A-4 (described at Wakabayashi [0208]–[0209]) by silanol condensation. The Examiner has not come forward with evidence or argument demonstrating that, more likely than not, there is a crosslinking agent within the scope of the claims, present in the composition of Comparative Example 11. The Examiner's reliance on the possibility or suggestion that an epoxy resin and epoxy-crosslinking agents might be added to such a composition as suggested by Wakabayashi in paragraph [0190], introduces a degree of picking and choosing and combining disclosures that, without substantially more justification than has been advanced thus far by the Examiner, removes the rejection from the realm of anticipation and places it in obviousness. We therefore reverse the rejection for anticipation.

An obviousness rejection of independent claim 1 over Wakabayashi is not before us, and we decline to exercise our discretion to enter a new ground of rejection in this case. The Examiner clearly misapprehended the teachings of Wakabayashi regarding the usefulness of compounds containing metals having an atomic weight of greater than 208 (bismuth has an atomic weight of 209; see any periodic table with atomic weights):

"[w]hen the atomic weight of the metal atom is *larger* than 208, no satisfactory adhesion can be obtained." (Wakabayashi [0118], emphasis added.) To the extent that Comparative Example 1 may show adhesion by a 90 Degree hand peel test to glass of "A"—a matter not raised by the Examiner or by Baumgarten in the briefing before us—it is clear that factual matters best resolved in the first instance remain in this case. We decline to undertake such an investigation in the first instance, as our primary role is review, not examination.

The Examiner makes no findings regarding Wales that cure the deficiencies of Wakabayashi. We therefore reverse the rejection of claims 13 and 14 for obviousness.

The obviousness rejection in view of Flosbach fails because, although as the Examiner finds, Flosbach does disclose the use of bismuth carboxylates (Flosbach [0094]), the Examiner has not directed our attention to any disclosure in Flosbach that bismuth neodecanoate, which is named in independent claim 1—the only independent claim subject to this rejection—is recommended as a crosslinking accelerant. Again, our primary function is review, not examination in the first instance.

We reverse the rejection in view of Flosbach.

CONCLUSION

The Examiner's rejections are reversed.

In summary:

Claims Rejected	35 U.S.C. §	Reference(s)/Basis	Affirmed	Reversed
1–4, 7–10	102(a)(1)	Wakabayashi		1–4, 7–10
13, 14	103	Wakabayashi and Wales		13, 14
1–4, 7	103	Flosbach		1–4, 7
Overall Outcome				1–4, 7–10, 13, 14

REVERSED