



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/885,393	01/28/2008	Bengt Herslof	ES-4804-21	4470
23117	7590	02/04/2020	EXAMINER	
NIXON & VANDERHYE, PC 901 NORTH GLEBE ROAD, 11TH FLOOR ARLINGTON, VA 22203			COX, AMBER M	
			ART UNIT	PAPER NUMBER
			1793	
			NOTIFICATION DATE	DELIVERY MODE
			02/04/2020	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PTOMAIL@nixonvan.com
pair_nixon@firsttofile.com

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte BENGT HERSLOF, PER TINGVALL, and
ANNA KORNFELDT

Appeal 2019-001648
Application 11/885,393
Technology Center 1700

Before JAMES C. HOUSEL, GEORGE C. BEST, and
JANE E. INGLESE, *Administrative Patent Judges*.

HOUSEL, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Pursuant to 35 U.S.C. § 134(a), Appellant¹ appeals from the Examiner's decision to reject claims 1, 4, 5, 8, 9, 12, 17–19, and 33. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.²

¹ We use the word Appellant to refer to “applicant” as defined in 37 C.F.R. § 1.42(a). Appellant identifies the real party in interest as DSM IP Assets B.V. Appeal Brief (“Appeal Br.”) filed March 29, 2018, p. 3.

² Our Decision refers to the Specification (“Spec.”) filed August 30, 2007, the Examiner's Final Office Action (“Final Act.”) dated June 29, 2017,

CLAIMED SUBJECT MATTER

The claims are directed to a foodstuff particulate lipid composition. Spec. 1:5–6. Claim 1, reproduced below from the Claims Appendix to the Appeal Brief, is illustrative of the claimed subject matter:

1. Foodstuff particulate lipid composition comprising
 - a particulate solid non-lipid carrier which is an oat flake or a corn flake, wherein the particulate solid non-lipid carrier is present in an amount of from 40% by weight to 99.5% by weight,
 - an oil-in-water emulsion adhered onto the carrier, which composition comprises from 0.5% by weight to 60% by weight of oil-in-water emulsion,
 - wherein the emulsion is capable of being released from the carrier on contact with aqueous media to form the oil-in-water emulsion in said aqueous media, wherein the oil-in-water emulsion adhered onto the carrier includes an oil phase which comprises a nonpolar lipid and a lipidic emulsifier, wherein the non-polar lipid is selected from natural, semi-synthetic and synthetic oils, and wherein the lipidic emulsifier of the oil phase comprises a galactolipid material.

REFERENCES

The prior art relied upon by the Examiner is:

Name	Reference	Date
Rasmusson	US 3,582,336	June 1, 1971
Lyall et al. (“Lyall”)	US 3,840,685	Oct. 8, 1974
Carlsson et al. (“Carlsson”)	US 5,688,528	Nov. 18, 1997

Appellant’s Appeal Brief (“Appeal Br.”) filed Mar. 29, 2018, and the Examiner’s Answer (“Ans.”) dated October 19, 2018.

REJECTIONS

The Examiner maintains the following grounds of rejection:

- 1) Claim 12 under 35 U.S.C. § 112, second paragraph, as indefinite;
- 2) Claim 12 under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement; and
- 3) Claims 1, 4, 5, 8, 9, 12, 17–19, and 33 under 35 U.S.C. § 103(a) as unpatentable over Lyall in view of Rasmussen and Carlsson.

OPINION

Rejections 1 and 2: 35 U.S.C. § 112, ¶¶ 1 and 2

The Examiner rejects claim 12 under 35 U.S.C. § 112, ¶ 1, as failing to comply with the written description requirement, and ¶ 2, as indefinite. Specifically, under the § 112, ¶ 1 rejection, the Examiner determines that “[a]lthough there is support for the galactolipid material comprising mainly digalactodiacylglycerol etc., there is no indication that the lipidic emulsifier comprises mainly digalactodiacylglycerol, 20% by weight to 30% by weight of galactolipids, and from 10% by weight to 15% by weight other polar lipids.” Ans. 4. The Examiner further states that claim 12 would need to correlate the composition with the galactolipid material of claim 1 in order to correspond with the written description. *Id.* In other words, the Examiner’s position is that claim 12 should be limited to “the galactolipid material comprises mainly digalactodiacylglycerol, . . . other polar lipids.”

Under the § 112, ¶ 2 rejection, the Examiner determines that “mainly digalactodiacylglycerol” is indefinite. The Examiner questions whether this means that, in the emulsifier, the digalactodiacylglycerol constitutes the remaining 55–70wt.%, after accounting for the galactolipids and other polar lipids, or whether it is part of the 20–30wt.% galactolipids.

Appellant does not argue these rejections nor the patentability of claim 12. *See* Appellant's Response to Notification of Non-Compliant Brief filed June 20, 2018, p. 10; Appeal Br. 14; Reply Br. 2.

Accordingly, we summarily affirm the Examiner's § 112, ¶¶ 1 and 2 rejections.

Rejection 3: 35 U.S.C. § 103(a)

As indicated above, Appellant does not argue the patentability of claim 12. Accordingly, we summarily affirm the Examiner's § 103(a) rejection of claim 12.

After review of the Examiner's and Appellant's opposing positions and the appeal record before us, we determine that Appellant's arguments are insufficient to identify reversible error in the Examiner's obviousness rejection with respect to remaining claims 1, 4, 5, 8, 9, 17–19, and 33. *In re Jung*, 637 F.3d 1356, 1365 (Fed. Cir. 2011). Accordingly, we affirm the stated rejection as to these claims for substantially the fact findings and the reasons set forth by the Examiner in the Examiner's Answer. We offer the following for emphasis only.

Appellant does not argue the claims separately, but instead focuses on the limitations of claim 1 only. Appeal Br. 8–14. In accordance with 37 C.F.R. § 41.37(c)(1)(iv) (2017), claims 4, 5, 8, 9, 17–19, and 33 stand or fall with claim 1, which we select as representative in our opinion below.

The Examiner finds that Lyall teaches oil-in-water emulsion coatings applied to and enrobing corn flakes, wherein the coatings comprise edible oil or fat oleaginous materials, an emulsifier consisting essentially of distilled monoglycerides, and an aqueous syrup solution. Ans. 6. The Examiner further finds that the edible oil or fat is preferably a vegetable oil or fat such

as palm kernel oil, coconut oil, cocoa butter, sunflower seed oil, soybean oil, corn oil, though the edible oil may be an animal derived fats such as lard. *Id.* at 6–7. The Examiner finds that at least one of the edible oil or fat is considered to comprise more than 90% glycerol. *Id.* at 7. The Examiner acknowledges that while disclosing the concentrations of the ingredients in the oil-in-water emulsion which coats the corn flakes, Lyall fails to teach the amounts of the oil-in-water emulsion and corn flakes in the final emulsion coated corn flake product. *Id.*

For this feature, the Examiner turns to Rasmussen as teaching prepared corn flakes clad or coated with an oil-milk-sugar mix comprising oil and milk solids which dissolve instantly in added water so as to simulate the appearance of fluid milk, wherein the amount of emulsion coating is about 10–80 parts by weight and the amount of corn flakes coated is about 20–90 parts by weight. Ans. 7. The Examiner concludes that it would have been obvious to provide Lyall’s oil-in-water emulsion coated corn flakes with 20–90wt.% corn flakes and 10–80wt.% emulsion as taught by Rasmussen, because both Lyall and Rasmussen teach oil coated corn flakes and Rasmussen teaches these amounts to be suitable for oil coating corn flakes. *Id.* at 7–8. The Examiner notes that these ranges overlap the ranges recited in claim 1, and thereby concludes that the recited ranges would have been prima facie obvious. *Id.* at 8 (citing *In re Wertheim*, 541 F.2d 257 (CCPA 1976)); *In re Woodruff*, 919 F.2d 1575 (Fed. Cir. 1990); and MPEP § 2144.05(I).

The Examiner further acknowledges that Lyall fails to teach the presence of galactolipid material in the oil-in-water emulsifier. Ans. 8. For this feature, the Examiner finds, without dispute, that Carlsson teaches an

oil-in-water emulsion comprising galactolipid material for use as an emulsifier, wherein the galactolipid material consists of at least 50% digalactosyldiacylglycerols and a remainder being other polar lipids. *Id.* The Examiner further finds that Carlsson teaches that galactolipids have the beneficial property of stabilizing emulsion droplets, especially compared to other known emulsifiers such as egg or soy lecithin. *Id.* Moreover, the Examiner finds that Carlsson teaches galactolipid emulsions exhibit narrow and consistent particle size distribution thereby reducing the creaming phenomenon and the appearance of oil droplets on the surface. *Id.* The Examiner also finds Carlsson teaches that oil-in-water emulsions based on galactolipid material do not exhibit an unpleasant odor or taste and are remarkably stable against oxidation. *Id.* at 9. Therefore, the Examiner concludes that it would have been obvious to have incorporated galactolipids as the emulsifier in Lyall's oil-in-water emulsion in order to obtain the above discussed benefits as taught by Carlsson. *Id.*

Appellant raises four arguments against the Examiner's obviousness rejection of claim 1. First, Appellant argues that Lyall teaches away from the combination with Rasmussen because Lyall discloses that Rasmussen and other prior art have drawbacks which detract from their acceptability, limit their widespread use, are inconvenient to use, or costly. Appeal Br. 9–10. Second, Appellant argues that Rasmussen is non-analogous prior art because Rasmussen concerns a coating of melted oil, rather than a coating of oil-in-water emulsion. *Id.* at 11. As such, Appellant contends that one of ordinary skill in the art would not know how to combine Rasmussen's melted oil coating with Lyall's oil-in-water coating. *Id.* Third, Appellant argues that the releasability property, i.e., "capable of being released from the carrier on

contact with aqueous media to form the oil-in-water emulsion in said aqueous media,” is not inherent and would not have been expected by an ordinary artisan because Lyall’s composition differs from that of claim 1. *Id.* at 12. According to Appellant, because of this difference in composition and because neither Lyall nor Rasmussen disclose or suggest this releasability property, a skilled artisan “would not have faith that the composition is capable of being released from the carrier on contact with an aqueous media.” *Id.* Fourth, Appellant argues that because Lyall does not suggest providing a composition which is releasable from the carrier in an aqueous media, a skilled artisan would have no reason to modify the composition to include a galactolipid material in order to obtain a composition able to be released in an aqueous media. *Id.* at 13.

Appellant’s arguments are not persuasive of reversible error. Regarding Appellant’s teaching away argument, it has been held that “[w]hat the prior art teaches and whether it teaches toward or away from the claimed invention . . . is a determination of fact.” *Para-Ordnance Mfg., Inc. v. SGS Importers Int’l, Inc.*, 73 F.3d 1085, 1088 (Fed. Cir. 1995). “Although a reference that teaches away is a significant factor to be considered in determining unobviousness, the nature of the teaching is highly relevant, and must be weighed in substance.” *In re Gurley*, 27 F.3d 551, 553 (Fed. Cir. 1994). Here, we initially note that Lyall is silent regarding the relative proportions of emulsion coating and carrier are present in the final product. We find such silence to indicate that Lyall considered determination of the relative proportions of emulsion and carrier to be within the ordinary skill in the art. Further, we note that the ranges recited in claim 1 for the relative amounts of emulsion and carrier are broad. Ans. 15.

Next, as the Examiner observes (Ans. 14, 15), the rejection does not rely on a substitution of Rasmussen's melted oil composition for Lyall's composition. Indeed, Rasmussen is not relied on for its specific teaching of an emulsion composition, but for its teaching that, generally, the relative proportions of a coating on corn flakes is broad, specifically 20–90wt.% corn flakes and 10–80wt.% coating. Because Lyall discusses Rasmussen, Lyall clearly recognized that these relative proportions would have served to guide those skilled in the art in producing Lyall's emulsion coated corn flakes. Thus, Lyall's discussion of Rasmussen would not have discouraged investigation into the appropriate relative amounts coating and corn flakes in the final product. *In re Ethicon, Inc.*, 844 F.3d 1344, 1351 (Fed. Cir. 2017) (A teaching away requires “clear discouragement” from implementing a technical feature.)

Looking more specifically at Lyall's discussion of Rasmussen, we note that Lyall states that Rasmussen's approach to coat a prepared cereal with both sugar and an edible oil “is fairly effective.” Lyall 2:29–37. Lyall then discusses a number of processes involving water-in-oil emulsions as food coatings, before stating that all of the foregoing processes, presumably also including Rasmussen's, have one or more drawbacks from the perspective of the steps involved or in the care necessary to ensure the ingredients are within specified limits. Lyall 2:50–3:9. As the Examiner finds, Lyall's criticism is directed toward prior art processes generally and does not criticize Rasmussen specifically. Ans. 13. And again, we reiterate that even if Lyall's criticism includes Rasmussen's process specifically, such criticism does not attach to Rasmussen's broad teaching of the relative proportions of the coating and carrier in the final product.

Regarding Appellant's argument that Rasmussen is non-analogous prior art, a reference is analogous art if it is either in the field of the applicant's endeavor, or is reasonably pertinent to the particular problem with which the inventor was concerned. *In re Kahn*, 441 F.3d 977, 987 (Fed. Cir. 2006). Here, Appellant's field of endeavor is a foodstuff particulate lipid composition. Spec. 1:5–6. Lyall and Rasmussen both teach foodstuff particulate lipid compositions. Lyall teaches a similar oil-in water emulsion coating on a non-lipid solid carrier, e.g., corn flakes, to that of claim 1. Lyall also discusses Rasmussen, thereby indicating that Lyall and Rasmussen are within the same field of endeavor. Therefore, it is clear that Lyall and Rasmussen are directed to the same field of endeavor as Appellant.

Moreover, as the Examiner explains (Ans. 15), Appellant's contention that a skilled artisan would not know how to combine Rasmussen's melted oil coating with Lyall's oil-in-water coating mischaracterizes the rejection. As explained above, the rejection does not propose to modify Lyall's oil-in-water emulsion coating with Rasmussen's coating. Instead, the rejection recognizes that Lyall fails to teach the relative proportions of the emulsion coating and the carrier in the final product, and looks to Rasmussen's teaching merely for guidance on these relative proportions. In providing such guidance, Rasmussen "logically would have commended itself to an inventor's attention in considering his problem," and, therefore, also is reasonably pertinent. *In re Clay*, 966 F.2d 656, 659 (Fed. Cir. 1992).

Further, contrary to Appellant's third argument, the Examiner finds that Rasmussen does disclose that the coating is capable of being released from the carrier on contact with an aqueous media. Ans. 16–17; Rasmussen 3:17–53 ("being nonetheless available . . . to dissolve instantly in added

water”). Further, although Lyall includes an emulsifier, i.e., monoglycerides, other than galactolipid material, Appellant fails to direct our attention to any evidence of record or persuasive technical reasoning showing that the releasability property is dependent on the emulsifier being a galactolipid. Indeed, Appellant teaches a wide variety of lipidic emulsifiers, including monoglycerides taught by Lyall, that may be used in the invention to achieve the releasability property. Spec. 4:10–20.

In addition, although Lyall is silent to the relative proportions of emulsion coating and carrier, Appellant also fails to direct our attention to any evidence of record or persuasive technical reasoning showing that the releasability property is dependent on the relative proportions of emulsion coating and carrier recited in claim 1. To the contrary, Appellant discloses that the relative proportions of each may vary over a very wide range, i.e., 0.1–90 wt.% emulsion and 10–99.9 wt.% carrier. Spec. 5:20–22. Therefore, contrary to Appellant’s argument, one of ordinary skill in the art would have expected Lyall’s composition to necessarily possess the releasability property recited in claim 1. Where, as here, the Examiner establishes a reasonable belief that a property or characteristic recited in the claims would have been inherent to the prior art product, the burden of proof shifts to Appellant to show that this property or characteristic is not actually possessed by the prior art. *In re Schreiber*, 128 F.3d 1473, 1478 (Fed. Cir. 1997).

Turning lastly to Appellant’s fourth argument, we note this argument depends on Appellant’s third argument that Lyall does not suggest providing a composition which is releasable from the carrier in an aqueous media. As discussed above, Appellant’s third argument is not persuasive. To the

contrary, a preponderance of the evidence supports the finding that Lyall's emulsion composition is inherently releasable from the carrier in an aqueous media. With regard to Appellant's conclusion that a skilled artisan would have no reason to modify the composition to include a galactolipid material in order to obtain a composition able to be released in an aqueous media, we note that the reason for substituting Carlsson's galactolipid emulsifier for the monoglyceride emulsifier of Lyall need not be the same as Appellant's. *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 419–20 (2007) (“In determining whether the subject matter of a patent claim is obvious, neither the particular motivation nor the avowed purpose of the patentee controls.”) In this case, as the Examiner finds (Ans. 8–9), Carlsson teaches that galactolipid emulsifiers have the beneficial feature of stabilizing emulsion droplets thereby reducing the creaming phenomenon and the appearance of oil droplets on the surface, while not exhibiting an unpleasant odor or taste, and are also stable against oxidation. These benefits represent sufficient motivation for the ordinary artisan to substitute a galactolipid emulsifier for Lyall's emulsifier so as to establish a prima facie case of obviousness by a preponderance of the evidence.

Accordingly, we sustain the Examiner's obviousness rejection of claim 1, and claims 4, 5, 8, 9, 17–19, and 33 which are dependent thereon.

CONCLUSION

Upon consideration of the record, and for the reasons given above and in the Final Office Action and the Examiner's Answer, the decision of the Examiner rejecting claims 1, 4, 5, 8, 9, 12, 17–19, and 33 under 35 U.S.C. § 103(a) as unpatentable over Lyall in view of Rasmussen and Carlsson is *affirmed*.

DECISION SUMMARY

In summary:

Claims Rejected	35 U.S.C. §	References	Affirmed	Reversed
1, 4, 5, 8, 9, 12, 17–19, 33	103(a)	Lyll, Rasmussen, Carlsson	1, 4, 5, 8, 9, 12, 17–19, 33	

TIME PERIOD FOR RESPONSE

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a). *See* 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED