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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte EMMI MARTIKAINEN and JANNE UUSI-RAUVA

Appeal 2018-007398
Application 13/394,608
Technology Center 1700

Before BEVERLY A. FRANKLIN, JEFFREY R. SNAY, and
BRIAN D. RANGE, *Administrative Patent Judges*.

SNAY, *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 rejecting claims 1–10, 12–18, and 20–22. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

¹ We use the word Appellant to refer to “applicant” as defined in 37 C.F.R. § 1.42. Appellant identifies Valio Ltd. as the real party in interest. Appeal Br. 3.

BACKGROUND

The invention relates to cheesemaking. Spec. ¶ 1. According to the Specification, reducing salt or fat content in ripened cheese product can negatively affect taste and texture. *Id.* ¶ 9. Adding milk- or whey-based minerals, or a biologically active peptide, prevents taste defects and off-tastes caused by reduction of salt or fat. *Id.* ¶ 22. Claims 1 and 10 read as follows:

1. A method for improving organoleptic properties of a ripened cheese having a water content of a fat-free portion in a range of 49% to 69%, a sodium content of at most 0.3% (w/w), and a fat content of at most 30% (w/w), comprising a step of adding milk- and/or whey-based minerals and/or one or more biologically active peptides to a milk raw material.

10. A ripened cheese having a water content of a fat-free portion in a range of 49% to 69%, which contains milk- and/or whey-based minerals and which has a sodium content of at most 0.3% (w/w) and a fat content of at most 17% (w/w), or if the fat content is more than 17% to 30%, the proportion of saturated (hard) fat is at most 33%.

Appeal Br. 28, 29 (Claims Appendix). Claim 13 is directed to a method for making ripened cheese which includes salting with milk- and/or whey-based minerals. Claim 22 recites a method including adding milk- and/or whey-based minerals and/or biologically active peptide to a milk raw material. Each remaining claim on appeal depends from claim 1, 10, or 13.

REJECTIONS

- I. Claims 1–3, 5, 9, 10, 21, and 22 stand rejected under 35 U.S.C. § 103(a) as unpatentable over St-Gelais², Al-Otaibi³, and Lefier⁴.
- II. Claims 4 stands rejected under 35 U.S.C. § 103(a) as unpatentable over St-Gelais, Al-Otaibi, Lefier, and Harju⁵.
- III. Claims 6–8 and 12 stand rejected under 35 U.S.C. § 103(a) as unpatentable over St-Gelais, Al-Otaibi, Lefier, and van der Burg-Koorevaar⁶.
- IV. Claims 13–18 stand rejected under 35 U.S.C. § 103(a) as unpatentable over St-Gelais, Al-Otaibi, Lefier, admitted prior art, and Van Leeuwen⁷.
- V. Claim 20 stands rejected under 35 U.S.C. § 103(a) as unpatentable over St-Gelais, Al-Otaibi, Lefier, and Kosikowski⁸.

OPINION

Rejection I: obviousness over St-Gelais, Al-Otaibi, and Lefier

With regard to rejection I, Appellant argues only claim 10 and states that claim 10 may be considered representative of the appealed claims.

² Daniel St-Gelais et al., *Production of Low-Fat Cheddar Cheese from Low and High Mineral Retentate Powders and Different Fractions of Milkfat Globules*, 7 Int'l Dairy J. 733–41 (1997) (“St.-Gelais”).

³ Mutlag M. Al-Otaibi and R. Andrew Wilbey, *Effect of chymosin reduction and salt substitution on the properties of white salted cheese*, 16 Int'l Dairy J. 903–9 (2006) (“Al-Otaibi”).

⁴ WO 9015541, published December 27, 1990.

⁵ Matti Harju, *Milk sugars and minerals as ingredients*, 54 Int'l J. of Dairy Tech. 2 (2001) (“Harju”).

⁶ US 2007/0054352 A1, published March 8, 2007.

⁷ US 4,965,078, issued October 23, 1990.

⁸ US 3,975,544, issued August 17, 1976.

Appeal Br. 10. We focus our remarks on Appellant's arguments concerning claim 10.

Claim 10 concerns a ripened cheese containing milk- or whey-based minerals and having a specified water, fat, and sodium content. Relevant to Appellant's arguments on appeal, the Examiner finds St-Gelais discloses a ripened cheese that meets all of the recitations of claim 10 except that St-Gelais does not teach sodium content of at most 0.3% (w/w). Final Act. 5. The Examiner finds Lefier teaches it was known to produce cheese having sodium content of less than about 0.05%. *Id.* at 6. The Examiner also finds Al-Otaibi teaches adding whey-based minerals improves organoleptic properties of cheese having reduced sodium.

Appellant principally argues that the references relied upon in the rejection are directed to different types of cheese, and that one skilled in the art would know that properties from different cheeses cannot be simply combined without significantly affecting organoleptic properties, such as taste and mouthfeel. Appeal Br. 7. Appellant contends Al-Otaibi's substitution of whey minerals for table salt applies to manufacture of soft, white salted cheese, like feta, and St-Gelais is directed to manufacture of cheddar cheese using a different salting process. *Id.* at 13–14. *See also id.* at 17 (“A person having ordinary skill in the art would not have applied Al-Otaibi's teachings relating to a soft cheese (like feta) to a harder cheese (like St-Gelais's cheddar or the recited cheese with the particularly recited moisture on a fat-free basis).”). Appellant also argues that one skilled in the art would not have predicted that acceptable organoleptic properties could be achieved in a reduced salt cheese. Appeal Br. 12 (“[T]here is no reason to believe that reducing the sodium content of St-Gelais's cheddar cheese could

or would result in a cheese with acceptable organoleptic properties.”); *id.* at 20 (“Furthermore, based on the teachings of St-Gelais, Al-Otaibi, and Lefier, a person having ordinary skill in the art would not have been able to predict that the recited cheese could have acceptable organoleptic properties.”); *id.* at 21 (“If the amount of NaCl were to be still further reduced (as required by the rationale of the obviousness rejection), a person having ordinary skill in the art would have great difficulty in predicting the organoleptic properties of the cheese.”). *See also* Reply Br. 3 (“[T]he cheesemaker would not have expected that acceptable organoleptic properties of the cheese could be obtained by simply employing whey salts as a substitute for NaCl.”).

Having considered the evidence presented, including Appellant’s arguments, we are not persuaded of reversible error.

First, Appellant does not point to any recitation in the claims that would require a particular organoleptic characteristic. Unclaimed features cannot impart patentability to claims. *In re Hiniker Co.*, 150 F.3d 1362, 1369 (Fed. Cir. 1998).

Moreover, even if reducing sodium in St-Gelais’ cheese were expected to unpredictably affect taste or texture, as Appellant suggests, a tradeoff of one advantage (health benefits) for another (taste and texture) is not persuasive of reversible error in the Examiner’s obviousness determination. *See Medichem, S.A. v. Rolabo, S.L.*, 437 F.3d 1157, 1165 (Fed. Cir. 2006) (“[A] given course of action often has simultaneous advantages and disadvantages, and this does not necessarily obviate motivation to combine.”).

That St-Gelais and Al-Otaibi exemplify different types of cheese does not preclude one of ordinary skill from applying the collective teachings of

those references. As the Examiner explains, “[t]he motivation for combining the references lies in the dual health benefits of providing a cheese that has low levels of both fat and sodium. That the two cheeses in the references are cheddar and feta does not require combining production techniques that are specific to those two types of cheeses.” Ans. 15–16. Here, St-Gelais discloses adding milk-based minerals in producing low-fat cheese. St-Gelais 740 (Conclusion). Al-Otaibi recognizes a health-related need for reduced sodium cheese. Al-Otaibi 903 (“Many people on sodium restricted or health-oriented diets avoid cheese consumption because of its high sodium content.”). Lefier teaches cheese having sodium at levels within the recited range for health benefits. Lefier 4 (identifying low-sodium cheese as having a sodium content of less than about 50 mg relative to 100 g of cheese). As outlined above, a preponderance of the evidence supports the Examiner’s finding that one of ordinary skill in the art would have had a reason to reduce sodium in St-Gelais’ cheese to a level within the recited concentration range.

Appellant also argues that Lefier teaches that substantial amounts of potassium and calcium can provide an unacceptable bitter taste, and that mineral compositions exemplified in the Specification and in St-Gelais include potassium and calcium. Appeal Br. 23–25. This argument is not persuasive of reversible error. Claim 10 neither requires nor precludes either potassium or calcium. And, as noted above, an expectation that reduction of sodium in the cheese of St-Gelais could negatively affect taste or texture would not, alone, negate the evidence of record that such reduction in sodium would have been beneficial and desired. *See Medichem, S.A. v. Rolabo, S.L.*, 437 F.3d at 1165.

For the foregoing reasons, Appellant has not persuasively demonstrated reversible error in the Examiner's obviousness determination with regard to claim 10. As mentioned, Appellant does not separately argue any other claim. Rejection I is sustained.

Rejections II–V

Appellant does not separately argue any of Rejections II–IV. These rejections, therefore, as sustained for the reasons set forth above in connection with Rejection I.

CONCLUSION

The Examiner's decision rejecting claims 1–10, 12–18, and 20–22 is affirmed.

DECISION SUMMARY

In summary:

Claims Rejected	35 U.S.C. §	Reference(s)/Basis	Affirmed	Reversed
1–3, 5, 9, 10, 21, 22	103(a)	St-Gelais, Al-Otaibi, Lefier	1–3, 5, 9, 10, 21, 22	
4	103(a)	St-Gelais, Al-Otaibi, Lefier, Harju	4	
6–8, 12	103(a)	St-Gelais, Al-Otaibi, Lefier, van der Burg-Koorevaar	6–8, 12	
13–18	103(a)	St-Gelais, Al-Otaibi, Lefier, Van Leeuwen	13–18	
20	103(a)	St-Gelais,	20	

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		Al-Otaibi, Lefier, Kosikowski		
Overall outcome			1-10, 12- 18, 20-22	

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

AFFIRMED