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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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*Ex parte* BART VANDERHAEGEN

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Appeal 2019-006654  
Application 14/372,432  
Technology Center 1700

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Before TERRY J. OWENS, CATHERINE Q. TIMM, and  
MERRELL C. CASHION, JR., *Administrative Patent Judges*.

CASHION, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellant<sup>1</sup> appeals under 35 U.S.C. § 134(a) from a final rejection of claims 1–4 and 11. We have jurisdiction under 35 U.S.C. § 6.

We AFFIRM and designate our affirmance as a NEW GROUND OF REJECTION pursuant to 37 C.F.R. § 41.50(b) because our decision relies on a translation of the primary reference to Paulaner that is not of record and

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<sup>1</sup> We use the word “Appellant” to refer to “applicant” as defined in 37 C.F.R. § 1.42. Appellant identifies Anheuser-Busch InBev S.A. as the real party in interest. Appeal Br. 3.

was used by the Examiner to support the facts and reasoning for the rejections.<sup>2</sup>

The invention relates to a low alcohol or alcohol free fermented malt based beverage, such as beer having a flavor profile very close to regular lager beer. Spec. 1. Claim 1 is illustrative of the subject matter on appeal and is reproduced below:

1. Alcohol free or low alcohol fermented malt based beverage having an alcohol content of not more than 1.0 vol.%, comprising:

(a) 7.00-30.00 ppm ethyl acetate, and

(b) 0.01-0.10 ppm ethyl butyrate, that together contribute with esters and higher alcohols to defining a flavoring profile of the alcohol free or low alcohol fermented malt based beverage close to a lager beer.

Appellant requests review of the following rejections from the Examiner's Final Office Action:

I. Claims 1 and 2 rejected under pre-AIA 35 U.S.C. § 103(a) as unpatentable over Paulaner (DE 20 2005 021 293 U1, published September 6, 2007, and relying on an Derwent English Abstract and an English machine translation, both dated February 22, 2017), ESTERS (document from beersencoryscience.wordpress.com dated July 14, 2014), and Cha (KR 2003-0039830 A, published May 22, 2003).

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<sup>2</sup> The Examiner relied on an English machine translation of DE 20 2005 021 293 U1 to Paulaner dated February 22, 2017. This translation is not of record. In addition, our staff contacted Appellant's representative and, at best, Appellant's representative is not aware of this translation. Out of abundance of caution, we designate our decision as a new ground of rejection to afford Appellant a fair opportunity to consider the translation the Examiner relied upon.

II. Claims 3, 4, and 11 rejected under pre-AIA 35 U.S.C. § 103(a) as unpatentable over Paulaner, ESTERS, Cha, and Chicoye (US 4,068,005, issued January 10, 1978).

Appellant presents arguments only for independent claim 1 and relies on these arguments to address the respective rejections of claim 2–4 and 11. *See generally* Appeal Br. Accordingly, we select claim 1 as representative of the claimed subject matter and decide all issues for this appeal based on the arguments for patentability of claim 1.

### OPINION

After review of the respective positions that Appellant provides in the Appeal Brief<sup>3</sup> and the Examiner provides in the Final Action and the Answer, we AFFIRM the Examiner’s prior art rejections of claims 1–4 and 11 for the reasons the Examiner presents. We add the following for emphasis.

#### *Claim 1*

Claim 1 recites a non-alcoholic beer comprising specific amounts of ethyl acetate and ethyl butyrate to provide a flavoring profile close to a lager beer.

The Examiner finds Paulaner teaches a non-alcoholic beer having desired organoleptic properties that are characteristics of the regular alcoholic beer. Final Act. 2; Paulaner 1. The Examiner finds that Paulaner’s non-alcoholic beer comprises the claimed amount of ethyl acetate. Final Act. 3–4. As the Examiner explains, Paulaner discloses an exemplary non-alcoholic white beer comprising an ethyl acetate content of 18.8 mg/l or

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<sup>3</sup> Appellant did not file a Reply Brief.

ppm,<sup>4</sup> which falls within the claimed concentration of 7.00–30.00 ppm for this component. Ans. 16; Paulaner 9. The Examiner finds that Paulaner does not teach (1) a non-alcoholic beer comprising ethyl butyrate or (2) a non-alcoholic beer having a flavoring profile close to a lager beer. Final Act. 4, 7. Regarding difference (1), the Examiner relies on the combined teachings of the ESTERS document and Cha to establish that it is known to use ethyl butyrate as a beer component to provide a specific flavoring to a beer product. Final Act. 4; ESTERS 3; Cha 1. Regarding difference (2), the Examiner finds that Paulaner’s disclosure of making non-alcoholic beers by removing alcohol from a regular beer would have motivated one skilled in the art desirous of making a non-alcoholic beer having a taste profile close to a lager beer to do so by subjecting a regular lager beer to a dealcoholization process as taught by Paulaner. Final Act. 2, 6; Paulaner 1. The Examiner determines that it would have been obvious to one skilled in the art to arrive at the claimed invention from the teachings of the cited art. Final Act. 6–8.

Appellant argues that there is no basis in Paulaner or otherwise to conclude that the beer disclosed by Paulaner necessarily include ethyl acetate at all or in the recited concentrations. Appeal Br. 7. According to Appellant, the Examiner has not demonstrated that the taste of Paulaner’s beer is due to the presence or concentration of ethyl acetate, or whether the regular beer disclosed in Paulaner necessarily included ethyl acetate. *Id.* Appellant also contends that the Examiner does not state grounds sufficient for a finding of disclosure by inherency. *Id.* at 7–9.

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<sup>4</sup> A concentration of 1 mg/l is approximately 1 ppm. *See* <https://www.unitconverters.net/concentration-solution/milligram-liter-to-part-million-ppm.htm>.

Appellant's arguments do not identify reversible error in the Examiner's determination of obviousness. As the Examiner notes in the Answer, Paulaner discloses an exemplary non-alcoholic white beer comprising an ethyl acetate content of 18.8 ppm, which falls within the claimed concentration of 7.00–30.00 ppm for this component. Ans. 16; Paulaner 9. Appellant has not refuted this finding by the Examiner.

Appellant argues that the ESTERS reference merely shows that ethyl acetate and various esters can be found in beer. Appeal Br. 8. According to Appellant, claim 1 recites a particular combination of features that requires ethyl acetate in the claimed amount to achieve a synergistic effect. *Id.* In addition, Appellant contends that the claimed amount of ethyl butyrate combined with the claimed amount of ethyl acetate synergistically result in an advantageous flavor and organoleptic profile. *Id.* That is, Appellant contends that the recited ranges for ethyl acetate and ethyl butyrate result unexpectedly in an advantageous flavor and organoleptic profile for the claimed non-alcoholic beer. In support of this contention, Appellant directs attention to data presented in Table 1 in the Specification as evidence of synergistic results. *Id.* at 10; Spec. 12 (Table 1).

When evidence of secondary considerations is submitted, we begin anew and evaluate the rebuttal evidence along with the evidence upon which the conclusion of obviousness was based. *In re Rinehart*, 531 F.2d 1048, 1052 (CCPA 1976). The burden of establishing unexpected results rests on the Appellant. Appellant may meet this burden by establishing that the difference between the claimed invention and the closest prior art was an unexpected difference. *See In re Klosak*, 455 F.2d 1077, 1080 (CCPA 1972). Appellant must establish the unexpected results with factual

evidence; attorney statements are insufficient to establish unexpected results. *See In re Geisler*, 116 F.3d 1465, 1470–71 (Fed. Cir. 1997). Further, a showing of unexpected results with evidentiary support must be reasonably commensurate in scope with the degree of protection sought by the claims on appeal. *In re Grasselli*, 713 F.2d 731, 743 (Fed. Cir. 1983); *In re Clemens*, 622 F.2d 1029, 1035 (CCPA 1980).

We have considered Appellant’s evidence of unexpected results and agree with the Examiner’s analysis that the evidence is insufficient to show nonobviousness. Ans. 16.

First, there is no recognition in the Specification that claimed amounts of ethyl acetate and ethyl butyrate lead to synergistic results. While the Specification discloses that “[i]t is surprising to observe that all the comparative beers on the market comprise relatively small amounts of ethyl acetate” (Spec. 11), this disclosure is insufficient to show unexpected results for the claimed invention. Moreover, as the Examiner finds, ESTERS teaches that the claimed amounts for ethyl acetate and ethyl butyrate are commonly found in beer products and can provide a fruity aroma. Ans. 12; Esters 2–3. The disclosure that experts sitting in panel tasting sessions concluded that the inventive non-alcoholic beers have an overall flavor profile closer to the ones typical of alcoholic lager beers than the comparative examples (Spec. 16) is equally insufficient because there are no details as to how the tasting sessions were conducted. In addition, it is not clear that Appellant has compared the claimed invention against the closest prior art (Paulaner). Further, Appellant compares only two inventive examples of non-alcoholic beers against various comparative examples. The inventive examples have an ethyl acetate concentration of 16.90 and 18.13

ppm and an ethyl butyrate concentration of 0.037 and 0.034 ppm. Appellant does not explain why these two inventive non-alcoholic beers are representative of the broad scope of non-alcoholic beers claimed.

Thus, on this record, Appellant has not explained adequately why one of ordinary skill in the art would have found the evidence relied upon unexpected or why that evidence is reasonably commensurate in the scope with the claims.

Appellant argues that “Cha merely discloses using ethyl butanoate[, also known as ethyl butyrate,] for its commonly known purpose to provide a pineapple flavor or aroma to alcoholic beer in order to yield a pineapple flavored beer.” Appeal Br. 9. Appellant also argues that “Cha does not disclose adding ethyl butanoate to non-alcoholic beer and does not disclose or suggest the importance of ethyl butyrate in enhancing flavor of non-alcoholic beer to compensate for loss of ethanol.” *Id.* at 10. In addition, Appellant argues that Cha uses ethyl butyrate at 0.145 mg/l, which is outside the claimed 0.01 to 0.10 ppm range. *Id.*

This argument also fails to identify reversible error in the Examiner’s determination of obviousness.

Cha is generally directed to beer products having a fruity aroma/flavor. Cha 1. As the Examiner explains, Cha is relied upon to show that it is known to combine different esters, such as ethyl acetate and ethyl butyrate, to achieve a desired aroma/flavor. Ans. 13. In terms of the claimed amounts for the components, the Examiner relies on ESTERS. *Id.* at 12–13. Thus, Appellant’s arguments do not address the rejection the Examiner presents. Moreover, ESTERS recognizes that both ethyl acetate and ethyl butyrate add a fruity aroma to the beer product. “It is *prima facie*



obvious to combine two compositions each of which is taught by the prior art to be useful for the same purpose, in order to form a third composition which is to be used for the very same purpose.” *In re Kerkhoven*, 626 F.2d 846, 850 (CCPA 1980).

While Appellant argues that Cha and ESTERS are directed to alcoholic beers (Appeal Br. 8–10), Appellant does not explain adequately why the addition of flavoring esters commonly used in alcoholic beer products would not be suitable for non-alcoholic beers given that non-alcoholic beer products are conventionally made from alcoholic beers and Paulaner teaches the use of these esters in non-alcoholic beers.

We have considered Appellant’s arguments about the distinction between lager and ale style beers. Appeal Br. 11–12. Appellant, however, fails to provide a technical explanation why esters typically used in beer products to provide aroma/flavor would not be suitable for lager style beers.<sup>5</sup>

Accordingly, we affirm the Examiner’s prior art rejection of claims 1–4 and 11 under 35 U.S.C. § 103(a) for the reasons the Examiner presents and the reasons we give above.

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<sup>5</sup> Appellant directs us to an article entitled “Lager Beer vs. Ale Beer - Does It Matter?” in support of the argument. Appeal Br. 11. However, the article is not of record nor provided as an appendix to the Appeal Brief.

DECISION SUMMARY

In summary:

<b>Claims Rejected</b>	<b>35 U.S.C. §</b>	<b>References/Basis</b>	<b>Affirmed</b>	<b>Reversed</b>	<b>New Ground</b>
1, 2	103(a)	Paulaner, ESTERS, Cha	1, 2		1, 2
3, 4, 11	103(a)	Paulaner, ESTERS, Cha, Chicoye	3, 4, 11		3, 4, 11
<b>Overall Outcome</b>			<b>1-4, 11</b>		<b>1-4, 11</b>

TIME PERIOD FOR RESPONSE

This decision contains a new ground of rejection pursuant to 37 C.F.R. § 41.50(b). 37 C.F.R. § 41.50(b) provides “[a] new ground of rejection pursuant to this paragraph shall not be considered final for judicial review.”

Section 41.50(b) also provides:

When the Board enters such a non-final decision, the appellant, within two months from the date of the decision, must exercise one of the following two options with respect to the new ground of rejection to avoid termination of the appeal as to the rejected claims:

(1) *Reopen prosecution*. Submit an appropriate amendment of the claims so rejected or new Evidence relating to the claims so rejected, or both, and have the matter reconsidered by the examiner, in which event the prosecution will be remanded to the examiner. The new ground of rejection is binding upon the examiner unless an amendment or new Evidence not previously of Record is made which, in the opinion of the examiner, overcomes the new ground of rejection designated in the decision. Should the examiner reject the

claims, appellant may again appeal to the Board pursuant to this subpart.

(2) *Request rehearing*. Request that the proceeding be reheard under § 41.52 by the Board upon the same Record. The request for rehearing must address any new ground of rejection and state with particularity the points believed to have been misapprehended or overlooked in entering the new ground of rejection and also state all other grounds upon which rehearing is sought.

Further guidance on responding to a new ground of rejection can be found in the Manual of Patent Examining Procedure § 1214.01.

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; 37 C.F.R. § 41.50(b)