



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.
15/247,411	08/25/2016	Khushal BRIJWANI	2189-292720	9838
23644	7590	06/02/2020	EXAMINER	
Barnes & Thornburg LLP (CH)			BADR, HAMID R	
P.O. Box 2786			ART UNIT	PAPER NUMBER
Chicago, IL 60690-2786			1791	
			NOTIFICATION DATE	DELIVERY MODE
			06/02/2020	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):

Patent-ch@btlaw.com

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte KHUSHAL BRIJWANI, STEVEN E. HAVLIK,
RACHEL L. JORDAN, JOHN SCHUETTE, JIN-E SHIN, and
BRIAN SONG

Appeal 2019-004362
Application 15/247,411
Technology Center 1700

Before KAREN M. HASTINGS, JAMES C. HOUSEL, and
MICHELLE N. ANKENBRAND, *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, under 35 U.S.C. § 103, claims 1–28 as unpatentable over Paeschke (US 2012/0135109 A1, pub. May 31, 2012), and claims 7 and 13–15 as unpatentable over Paeschke in view of Gusek (US

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 Tropicana Products, Inc. Appeal Brief (“Appeal Br.”) filed December 12, 2018, at 2.

2013/0123374 A1, pub. May 16, 2013). We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

CLAIMED SUBJECT MATTER²

The invention relates to beverage and food products containing enzymatically-treated high fiber fruit and vegetable materials, such as pomace.³ Spec. ¶ 2. Appellant discloses that these beverage products exhibit a significantly reduced viscosity when compared to beverage products containing high fiber fruit and vegetable materials that have not been enzymatically treated. *Id.* In addition, Appellant discloses that the fiber content of the high fiber fruit and vegetable materials remains the same before and after enzymatic treatment. *Id.*

Claim 1, reproduced below from the Claims Appendix to the Appeal Brief, is illustrative of the claimed subject matter. The limitation at issue is italicized.

1. A beverage product comprising:

liquid; and

about 1–40 wt% enzymatically-treated pomace, wherein the enzymatically-treated pomace is derived from pomace

² This Decision also refers to the Specification (“Spec.”) filed August 25, 2016, the Examiner’s Answer (“Ans.”) dated March 21, 2019, and the Reply Brief (“Reply Br.”) filed May 14, 2019.

³ Appellant discloses that “pomace” refers to by-products remaining after fruit or vegetable juice pressing processes, wine crush operations, puree and concentrate operations, canning processes, and other food manufacturing processes. Spec. ¶ 16. Appellant further discloses that “pomace includes all by-products from fruit and vegetable juice, paste, puree and canning processes.” *Id.* ¶ 17.

selected from a group consisting of at least one fruit, at least one vegetable, and combinations thereof; and

wherein the enzymatically-treated pomace comprises an amount of fiber that is the same before and after enzymatic treatment.

Independent claim 16 recites a food product similarly including about 1–40 wt% enzymatically-treated pomace, wherein the enzymatically-treated pomace comprises an amount of fiber that is the same before and after enzymatic treatment. Appeal Br. 14 (Claims App'x).

Independent claim 18 recites a method of enzymatically treating pomace, wherein a fiber content of the pomace is the same before and after enzyme treatment. *Id.* at 15 (Claims App'x).

OPINION

We review the appealed rejections for error based upon the issues Appellant identifies, and in light of the arguments and evidence produced thereon. *Ex parte Frye*, 94 USPQ2d 1072, 1075 (BPAI 2010) (precedential) (cited with approval in *In re Jung*, 637 F.3d 1356, 1365 (Fed. Cir. 2011) (“[I]t has long been the Board’s practice to require an applicant to identify the alleged error in the examiner’s rejections.”). After considering the argued claims and each of Appellant’s arguments, we are not persuaded of reversible error in the appealed rejections.

Rejection 1: Obviousness over Paeschke

The Examiner rejects claims 1–28 under 35 U.S.C. § 103 as unpatentable over Paeschke. Ans. 3–6. The Examiner finds that Paeschke discloses beverage and food products containing enzymatically-treated pomace. *Id.* at 3–4. The Examiner further finds that the claims are directed

to products, and that the recitation that the amount of fiber is the same before and after enzymatic treatment is a process limitation. *Id.* at 4. As such, the Examiner treats the claims as product-by-process claims. *Id.* The Examiner notes that if a product in a product-by-process is the same as or obvious from a product of the prior art, the claim is unpatentable even though made by a different process. *Id.* (citing *In re Thorpe*, 777 F.2d 695, 698 (Fed. Cir. 1985)). In this regard, the Examiner finds that Appellant has not established that the amount of fiber in Paeschke's products differs from the amount of fiber in the claimed products. Ans. 5. In addition, the Examiner determines that the amount of fiber in Paeschke depends on the extent of enzymatic hydrolysis and, therefore, concludes that it would have been obvious to adjust the enzymatic hydrolysis to provide partial or complete hydrolysis. *Id.* at 5–6.

Appellant argues that Paeschke fails to disclose a beverage comprising an enzymatically treated pomace, wherein the enzymatically-treated pomace comprises an amount of fiber that is the same before and after enzymatic treatment. Appeal Br. 6. In particular, Appellant contends that Paeschke's beverage does not comprise an amount of fiber that is the same before and after enzymatic treatment because Paeschke includes a filtration step or steps that remove larger, insoluble fiber from a desired molecular weight fraction of fiber in the permeate. *Id.* at 6–7. Appellant asserts that fully hydrolyzing pomace fiber would increase sugar content at the expense of fiber content, thereby reducing the amount of fiber. *Id.* at 7.

These arguments are not persuasive of reversible error because Appellant's claims do not exclude a filtration step, regardless of whether such a step reduces the amount of fiber in the enzymatically-treated pomace

used to make the beverage. Specifically, claim 1 recites that “the enzymatically-treated pomace comprises an amount of fiber that is the same before and after *enzymatic* treatment.” This recitation limits the amount of fiber being constant solely to the enzymatic treatment step, and does not exclude a subsequent filtration step. There is no dispute that Paeschke teaches an enzymatic treatment step that is the same as or similar to Appellant’s disclosed enzymatic treatment step. Thus, Paeschke’s pomace comprises an amount of fiber that is the same before and after enzymatic treatment, even though Paeschke may remove some insoluble fiber by subsequent filtration.

Notwithstanding the above, we further note that Paeschke teaches an intermediate product comprising liquid and enzymatically-treated pomace prior to filtration that is the same as or substantially similar to the beverage product of claim 1. We find no structural, functional, or process distinction between Paeschke’s product stream (i.e., between steps 140 and 150 of the processes of Figures 1a and 1b) and Appellant’s beverage product of claim 1.

Moreover, with regard to the Examiner’s finding that there is no difference between Paeschke’s beverage product and Appellant’s claim 1 beverage product, we note that Appellant fails to present any objective evidence that the amount of fiber in the beverage product of claim 1 is necessarily different from Paeschke’s. Indeed, as the Examiner finds, the amount of fiber in Paeschke’s beverage product may be varied to provide any desired amount of fiber and viscosity. Appellant fails to dispute or otherwise address this finding.

In addition, the Examiner finds that it would have been obvious to extend Paeschke's enzymatic hydrolysis in order to convert more insoluble fiber to lower molecular weight soluble fiber. Ans. 5–6. Although Appellant asserts that fully hydrolyzing pomace fiber would increase sugar content at the expense of fiber content, Appellant fails to direct our attention to any objective evidence that Paeschke's enzymatic hydrolysis would reduce fiber content.⁴ To the contrary, Paeschke teaches that such enzymatic treatment converts high molecular weight, insoluble fiber to low molecular weight and prebiotic soluble fiber. Paeschke ¶¶ 43, 44. We also note that Paeschke teaches use of the same enzymes, including pectinase, cellulase, and hemicellulase, that Appellant discloses to be capable of reducing fiber chain length without releasing sugars. *Compare* Spec. ¶ 20, *with* Paeschke ¶ 43. Thus, contrary to Appellant's assertion, an ordinary artisan would not have expected any reduction in fiber content, nor an increase in sugar content in Paeschke's enzymatic treatment.

Accordingly, for the reasons given in the Examiner's Answer and above, we sustain the Examiner's obviousness rejection of claim 1. Because Appellant argues claim 1 as representative of the claims and does not argue

⁴ To the extent that Appellant might rely on Specification paragraph 25, Table 1, we note that the amount of dietary fiber without enzymatic treatment is 3.5 wt% whereas, after enzymatic treatment, the amount of dietary fiber varies between 2.9–3.1 wt%. Appellant does not disclose the enzyme nor the conditions used in each of enzyme treatments 1–3. Thus, at best Table 1 is not probative of Appellant's assertion, and at worst establishes that the amount of fiber pre- and post-enzymatic treatment may be different by more than 17 wt%. Appellant's explanation in the Reply Brief (Reply Br. 3) that the difference is attributable to natural variation between samples and inherent fiber testing analytical variability lacks any support in the record.

claims 2–28 separately (Appeal Br. 6), we likewise sustain the Examiner’s obviousness rejection of claims 2–28.

Rejection 2: Obviousness over Paeschke and Gusek

The Examiner rejects claims 7 and 13–15 under 35 U.S.C. § 103 as unpatentable over Paeschke in view of Gusek. Ans. 6–7. The Examiner finds that Paeschke fails to teach the inclusion of viscosity building materials and/or dairy products in comestible products, as the claims require. *Id.* at 7. For these features, the Examiner finds that Gusek teaches modified citrus fiber may be used as a viscosity building material for products including beverages, such as dairy drinks, wherein an enzyme such as pectinase, cellulase, and hemicellulase may enzymatically treat the citrus fiber. *Id.* The Examiner also finds that Gusek teaches that this fiber may be blended with other vegetable or grain fibers, including oat fiber, which has the ability to increase viscosity of beverages. *Id.* The Examiner concludes that it would have been obvious to modify Paeschke’s beverage by including viscosity building materials and/or dairy products as taught in Gusek with a reasonable expectation of success. *Id.*

Appellant argues that Paeschke teaches away from including Gusek’s viscosity building material because doing so would render Paeschke’s beverage unsuitable for its intended purpose. Appeal Br. 8. Appellant contends that Paeschke teaches an advantage of the enzymatically-treated fiber material is that it may be added to a comestible product without a concomitant significant increase in viscosity. *Id.* Because adding Gusek’s modified citrus fiber to Paeschke’s beverage would increase the beverage’s viscosity, Appellant urges that doing so is contradictory to Paeschke’s teaching. *Id.* Appellant also contends that Paeschke teaches another

advantage of the enzymatically-treated fiber material is that it was not made by a chemical modification process. *Id.* at 9. Because Gusek’s modified citrus fiber was made in a process including solvent extraction, Appellant urges that adding Gusek’s modified citrus fiber to Paeschke’s beverage is contradictory to Paeschke’s teaching. *Id.*

Appellant’s arguments are not persuasive of reversible error because, as the Examiner responds (Ans. 12–15), Paeschke does not teach away from the inclusion of Gusek’s modified citrus fiber as a viscosity building material. Although Paeschke does teach that the enzymatically-treated pomace does not significantly increase viscosity of the beverage to which it is added, the Examiner finds, without dispute, that nowhere does Paeschke teach that viscosity building materials may not also be included. *Id.* at 12–13. Appellant fails to show that Paeschke criticizes, discredits, or otherwise discourages the use of viscosity building materials, apart from the enzymatically-treated pomace fiber product, for producing a beverage. *In re Gurley*, 27 F.3d 551, 553 (Fed. Cir. 1994) (“A reference may be said to teach away when a person of ordinary skill, upon reading the reference, would be discouraged from following the path set out in the reference, or would be led in a direction divergent from the path that was taken by the applicant.”); *DePuy Spine, Inc. v. Medtronic Sofamor Danek, Inc.*, 567 F.3d 1314, 1327 (Fed. Cir. 2009) (citing *In re Fulton*, 391 F.3d 1195, 1201 (Fed. Cir. 2004)) (“A reference does not teach away, however, if it merely expresses a general preference for an alternative invention but does not ‘criticize, discredit, or otherwise discourage’ investigation into the invention claimed.”).

In addition, the Examiner finds, without dispute, that Gusek's solvent extraction is not a chemical modification of the fiber. Ans. 14. In any event, the Examiner relies on Gusek to teach the function of viscosity building materials in beverages, wherein a viscosity building material may be desirable when a lower fiber content is desired. *Id.* at 15. The Examiner also finds that Paeschke teaches that materials for modifying the taste, mouthfeel, and nutritional characteristics may be added, including oat fiber. *Id.* Appellant fails to dispute or otherwise address the Examiner's response, including these additional findings.

Further, even if Gusek's teaching is contrary to Paeschke's teaching that two advantages of the enzymatically-treated pomace fiber are that the product does not significantly increase the viscosity of beverages and the product is all-natural, one of ordinary skill in the art still would have found the claimed subject matter obvious over the combination of Paeschke and Gusek. As indicated above, the Examiner finds that Paeschke teaches that materials for modifying the taste, mouthfeel, and nutritional characteristics may be added. Our reviewing court has recognized that a given course of action often has simultaneous advantages and disadvantages, and this does not necessarily obviate any or all reasons to combine teachings, much less constitute teaching away from the combination. *See Winner Int'l Royalty Corp. v. Wang*, 202 F.3d 1340, 1349 n. 8 (Fed. Cir. 2000) ("The fact that the motivating benefit comes at the expense of another benefit, however, should not nullify its use as a basis to modify the disclosure of one reference with the teachings of another. Instead, the benefits, both lost and gained, should be weighed against one another.").

Accordingly, for the reasons given in the Examiner's Answer and above, we sustain the Examiner's obviousness rejection of claim 7. Because Appellant argues claim 1 as representative of the claims subject to this rejection and does not argue claims 13–15 separately (Appeal Br. 8), we likewise sustain the Examiner's obviousness rejection of claims 13–15.

CONCLUSION

The Examiner's decision to reject, under 35 U.S.C. §103, claims 1–28 as unpatentable over Paeschke and claims 7 and 13–15 as unpatentable over Paeschke in view of Gusek, is *affirmed*.

DECISION SUMMARY

In summary:

Claims Rejected	35 U.S.C. §	Reference(s)/Basis	Affirmed	Reversed
1–28	103	Paeschke	1–28	
7, 13–15	103	Paeschke, Gusek	7, 13–15	
Overall Outcome			1–28	

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