



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.
11/875,579	10/19/2007	Dmitriy V. ZASYPKIN	P49096	4633

7055 7590 12/01/2016
GREENBLUM & BERNSTEIN, P.L.C.
1950 ROLAND CLARKE PLACE
RESTON, VA 20191

EXAMINER

LEBLANC, KATHERINE DEGUIRE

ART UNIT	PAPER NUMBER
----------	--------------

1791

NOTIFICATION DATE	DELIVERY MODE
-------------------	---------------

12/01/2016

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):

gbpatent@gbpatent.com
greenblum.bernsteinplc@gmail.com

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte DMITRIY V. ZASYPKIN ¹

Appeal 2014-009319
Application 11/875,579
Technology Center 1700

Before CHUNG K. PAK, N. WHITNEY WILSON, and JEFFREY R. SNAY,
Administrative Patent Judges.

PAK, *Administrative Patent Judge.*

DECISION ON APPEAL

This is a decision on an appeal under 35 U.S.C. § 134(a) from the Examiner's decision² finally rejecting claims 1–3, 5, 6, 8, 12, 14, 16, 18, 20, and 24–48, which are all of the claims pending in the above identified application. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

¹ The real party in interest is said to be McCormick and Company, Inc. of Sparks, Maryland. Appeal Brief filed April 29, 2014 (“App. Br.”) at 1.

² Final Action entered September 13, 2013 (“Final Act.”) at 1–11 and the Examiner's Answer entered July 31, 2014 (“Ans.”) at 3–12.

STATEMENT OF THE CASE

The subject matter on appeal is directed to “a reduced sodium composition imparting salty taste” used in “food, seasonings, and flavorings[.]” Spec. 1, ll. 9–13. According to page 11, lines 15–17, of the Specification, the reduced sodium composition “can significantly reduce the amount of sodium chloride in food, seasonings or flavorings and provide a good salty taste to food.” This reduced sodium composition is used to meet “a significant need to reduce dietary sodium intake much of which (up to 75%) comes with processed foods manufactured by the food industry and related food service sector” (*Id.* at 2, l. 21–3, l. 1) and is a substitute for sodium chloride (table salt) known for seasoning or flavoring food (*Id.* at 1, ll.9–17).

Details of the appealed subject matter are recited in illustrative claims 1, 26, 27, 28, and 30, which are reproduced below from the Claims Appendix of the Appeal Brief (with disputed limitations in italicized form):

1. A reduced sodium composition having salty taste, comprising:
 - a) *66.3 to 95% by weight of sodium chloride, wherein % by weight is based on the total weight of a), b), c) and d) in the composition;*
 - b) 0 to 90% by weight of potassium chloride,
 - c) 0.1 to 4.5% by weight of at least one food acid selected from the group consisting of citric acid, lactic acid, malic acid and salts thereof,

wherein the food acid is not potassium malate or potassium citrate,

wherein the ratio of the total amount of lactic acid and salts thereof to the total amount of potassium chloride is below 0.2 when lactic acid or a salt of lactic acid, and potassium chloride are present in the composition,
 - d) 0.1 to 5% by weight of at least one amino acid or a salt thereof selected from the group consisting of lysine, arginine, aspartic acid, histidine, a

salt of lysine, a salt of arginine, a salt of aspartic acid, a salt of histidine, and glutamic acid,

further comprising 0.01 % to 1.24% by weight of a yeast extract based on the total weight of a), b), c), d) and the yeast extract.

26. The reduced sodium composition of claim 1, wherein *the sodium chloride is present in an amount of 76.8 to 95% by weight.*

27. The reduced sodium composition of claim 26, wherein the amount of sodium is reduced in comparison to a composition which contains only sodium chloride and no potassium chloride.

28. The reduced sodium composition of claim 1, wherein *the amount of sodium is reduced in comparison to the amount of sodium in sodium chloride providing an equivalent salty taste.*

30. A reduced sodium composition having salty taste, comprising:

a) *66.3 to 95% by weight of sodium chloride, wherein % by weight is based on the total weight of a), c) and d) in the composition;*

c) 0.1to4.5% by weight of at least one food acid selected from the group consisting of citric acid, lactic acid, malic acid and salts thereof,

e) 0.1 to 5% by weight of at least one amino acid or a salt thereof selected from the group consisting of lysine, arginine, aspartic acid, histidine, a salt of lysine, a salt of arginine, a salt of aspartic acid, a salt of histidine, and glutamic acid,

further comprising 0.01 % to 2% by weight of a yeast extract based on the total weight of a), c), d) and the yeast extract,

wherein the reduced sodium composition does not contain potassium chloride.

App. Br., Claims Appendix i, iii, and iv.

The Examiner maintains, and Appellant seeks review of, the following grounds of rejection:

1. Claims 1, 2, 6, 14, 16, 18, 20, 24, 26–29, and 47³ under 35 U.S.C. §103(a) as unpatentable over the combined teachings of Moritz (US 4,068,006 issued to Moritz on January 10, 1978), Allen (US 4,216,244 issued to Allen, Jr. et al., on August 5, 1980), and Murray (US 5,064,663 issued to Murray et al., on November 12, 1991);

2. Claims 3, 8, 12, 25, and 45 under 35 U.S.C. §103(a) as unpatentable over the combined teachings of Moritz, Allen, Murray, and Mohlenkamp (US 4,243,691 issued to Mohlenkamp, Jr et al., on January 6, 1981);

3. Claim 5 under 35 U.S.C. §103(a) as unpatentable over the combined teachings of Moritz, Allen, Murray, and Aromild (Product Info, Mitsubishi International Corporation, “Aromild,” <http://web.archive.org/web/20030116083246/http://www.micchem.com/products/Aromild.htm> (Jan. 16, 2003));

4. Claims 30, 31, 34, 35, 37–40, 42–44, and 48 under 35 U.S.C. §103(a) as unpatentable over the combined teachings of Murray, Salemme (US

³ The Examiner’s inadvertent omission of claim 47 in this statement of the rejection is apparent from the Examiner’s rejection of claim 47 in the body of the rejection. *See* Final Act. 6; Ans. 7.

2006/0286275 published in the name of Salemme et al., on December 21, 2006) and Allen;

5. Claims 32 and 41 under 35 U.S.C. §103(a) as unpatentable over the combined teachings of Murray, Salemme, Allen, and Berglund (US 5,897,908 issued to Berglund et al., on April 27, 1999); and

6. Claims 33, 36, and 46 under 35 U.S.C. §103(a) as unpatentable over the combined teachings of Murray, Salemme, Allen, and Mohlenkamp. Final Act. 2–11; Ans. 3–12; App. Br. 10.

DISCUSSION

Upon consideration of the evidence on this appeal record in light of the respective positions advanced by the Examiner and Appellants, we determine that a preponderance of the evidence supports the Examiner's determination that the applied prior art would have rendered the subject matter recited in claims 1–3, 5, 6, 8, 12, 14, 16, 18, 20, and 24–48 obvious to one of ordinary skill in the art within the meaning of 35 U.S.C. § 103(a). Accordingly, we sustain the Examiner's § 103(a) rejections of the above claims for the reasons set forth in the Final Action and the Answer. We add the following primarily for emphasis and completeness.

I. REJECTIONS 1–3

We initially note that Appellants only focus on claims 1, 26, 27, and 28 and do not separately argue the limitations in claims 2, 3, 5, 6, 8, 12, 14, 16, 18, 20, 24, 25, 29, 45, and 47. App. Br. 10–17. Therefore, we decide the appeal as to all claims rejected in the first three grounds of rejection on the basis of claims 1, 26, and 27. 37 C.F.R. § 41.37(c)(1)(iv) (2013). In deciding these claims, we will not consider any new arguments raised in the Reply Brief, which could have been raised in the Appeal Brief, unless good cause is shown. 37 C.F.R. § 41.37(c)(1)(iv)

(“Except as provided for in §§ 41.41 , 41.47 and 41.52 , any arguments or authorities not included in the appeal brief will be refused consideration by the Board for purposes of the present appeal.”). *See also Ex parte Borden*, 93 USPQ2d 1473, 1474 (BPAI 2010) (Informative) (explaining that under the previous rules, which are similar to the current rules, “the reply brief [is not] an opportunity to make arguments that could have been made in the principal brief on appeal to rebut the Examiner’s rejections, but were not.”).

In the “DETAILED DESCRIPTION OF THE INVENTION” section, Moritz describes a salt seasoning formulation comprising between 35% and 65% by weight of sodium chloride, about 40% by weight, for example, of potassium chloride, and 0.5 to 1.5% by weight of citric acid to counteract the bitterness taste of potassium chloride and permit the salty taste of sodium chloride, with its Example 1 employing 55% sodium chloride, 44% potassium chloride, and 1% citric acid. Ans. 4; Moritz, col. 2, ll. 4–21 and 53–55. The Examiner acknowledges that Moritz does not specifically mention using 66.3 to 95% by weight of sodium chloride, 0.1 to 5% by weight of at least one amino acid or a salt thereof, such as glutamic acid, and 0.01 to 1.24% by weight of a yeast extract, as recited in claim 1 or using 76.8 to 95% by weight of sodium chloride as recited in claims 26 and 27. Ans. 4–6.

To account for these missing features in Moritz, the Examiner initially relies upon Allen and Murray to show the obviousness of including the amounts of glutamic acid and yeast extract recited in claim 1 in the salt seasoning formulation taught by Moritz. Ans. 4–6. The Examiner finds that Allen teaches the employment of glutamic acid to enhance the flavor of a low sodium composition containing potassium chloride and to mask the bitter taste of potassium chloride. *Id.* at 4; Allen, col. 2, ll. 30–60. The Examiner also finds that Murray teaches the

employment of “yeast [(inclusive of yeast extract) and ammonium chloride] to reduce the bitterness of, and enhances the saltiness of, potassium chloride” in its low sodium composition. Ans. 5; Murray, col. 1, 11–20, col. 2, ll. 45–63, col. 3, ll. 44–51, and col 4, l. 62–col. 5, l. 5.

To address the amount of sodium chloride recited in claims 1, 26, and 27, the Examiner also determines that one of ordinary skill in the art would have been led to employ the recited amount of sodium chloride in the salt seasoning formulation taught by Moritz because the amount of sodium chloride (65%) taught by Moritz and the amount of sodium chloride (66.3%) recited in claim 1 “are close enough so that one skilled in the art would have expected them to have same [or similar] properties” or because the use of more sodium chloride and less potassium chloride, as recited in claims 1, 26, and 27, to reduce the bitterness associated with potassium chloride and enhance the saltiness tastes associated with sodium chloride is within the ambit of one of ordinary skill in the art in view of the prior art teachings.⁴ Ans. 4 and 6, citing *Titanium Metals Corp. v. Banner*, 778 F.2d 775, 783 (Fed. Cir. 1985) (explaining that a *prima facie* case of obviousness exists when the claimed range and the prior art range do not overlap but are close enough such that one skilled in the art would have expected them to have the same or similar properties.) and *In re Woodruff*, 919 F.2d 1575, 1578 (Fed. Cir. 1990) (“The law is replete with cases in which the difference between the claimed invention and the prior art is some range or other variable within the claims... [and] in such a situation, the applicant must show that the particular range is

⁴ *In re Muchmore*, 433 F.2d 824, 827 (CCPA 1970) (“since the narrower claims were properly rejected for obviousness, the rejection of the broader claims on that ground must also be *affirmed*”)

critical, generally by showing that the claimed range achieves unexpected results relative to the prior art range” (citations omitted)).

Appellant contends that one of ordinary skill in the art would not have been led to employ the amounts of sodium chloride recited in claims 1, 26, and 27 because “[t]he 35–65% range of sodium chloride described Moritz is mutually exclusive of the 66.3–95% [or 76.8–95%] range of sodium chloride recited in the present claims” and because *Woodruff* and *Titanium Metals Corp.* relied upon by the Examiner are not applicable to the present situation. App. Br. 11–12.

Appellant also contends that “Moritz teaches away from [using] an amount of sodium chloride greater than [its] maximum 65% by weight.” *Id.* at 12, (bolding omitted). In support of this contention, Appellant refers to the effect of sodium chloride on human health discussed at column 1, lines 11–25, of Moritz. *Id.* at 12–13.

We are not persuaded by Appellant’s contentions because they not only ignore “the prior art [teachings] as a whole” (*Dystar Textilfarben GmbH & Co. Deutschland KG v. C.H. Patrick*, 464 F.3d 1356, 1368 (Fed. Cir. 2006)), but also ignore “the background knowledge possessed by a person having ordinary skill in the art” and “the inferences and create steps that a person of ordinary skill in art would employ” (*KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 418 (2007)).

Although Moritz describes in the “DETAILED DESCRTIPTION OF THE INVENTION” section a seasoning or flavoring formulation containing “between 35 and 65% by weight” of sodium chloride and “about, for example, 40%” by weight of potassium chloride as indicated *supra*, it is not limited to using such amounts of sodium chloride and potassium chloride in its seasoning or flavoring formulation. *In re Lamberti*, 545 F.2d 747, 750 (CCPA 1976) (“[T]he fact that a specific [embodiment] is taught to be preferred is not controlling, since all

disclosures of the prior art, including unpreferred embodiments, must be considered.”). Moritz broadly teaches that “[t]he present invention is directed to a salt formulation having a potassium chloride mixed with sodium chloride and containing a citric acid as a bitterness suppressor for the potassium chloride taste.” Moritz, 1:60–63. Consistent with such broad teaching, Moritz, after stating “[s]alt or sodium chloride [(a commercially available table salt containing approximately 100% sodium chloride)]...as a [known] seasoning and as a [known] dietary necessity[,]” explains using known “formulations, of which class the present invention belongs, [that] dilute sodium chloride with other additives [such as potassium chloride]” to minimize the adverse health effect on persons tending toward hypertension, high blood pressure and/or high body fluid retention resulting from their significant sodium intake. Moritz 1: 5–47. Implicit in these teachings of Moritz is that diluting sodium chloride with any amount of potassium chloride minimizes or reduces the adverse health effect associated with using 100% sodium chloride (commercially available table salt), thus suggesting the employment of the amounts of sodium chloride and potassium chloride recited in claims 1, 26, and 27, with a reasonable expectation of successfully forming seasoning or flavoring formulations having a reduced amount of sodium chloride that minimizes or reduces the adverse health risk and/or water retention associated with using about 100 % sodium chloride.⁵ See also *Woodruff*, 919 F.2d at 1578. Thus, on this

⁵ As our reviewing court stated in *In re Peterson*, 315 F.3d 1325, 1329 (Fed. Cir. 2003) (citing *Titanium Metals Corp. v. Banner*, 778 F.2d at 783), “[w]e have also held that a prima facie case of obviousness exists when the claimed range and the prior art range do not overlap but are close enough such that one skilled in the art would have expected them to have the same [or similar] properties.” Consistent with our reviewing court’s interpretation of *Titanium Metals*, we find no reversible error in the Examiner’s determination that the amount of sodium chloride (65%) taught by Moritz and the amount of sodium chloride (66.3%) recited in claim 1

record, Appellant does not show that Moritz as a whole would have discouraged one of ordinary skill in the art from employing the amounts of sodium chloride and potassium chloride recited in claims 1, 26, and 27 in its seasoning or flavoring formulation. *DePuy Spine, Inc. v. Medtronic Sofamor Danek, Inc.*, 567 F.3d 1314, 1327 (Fed. Cir. 2009) (“A reference does not teach away... if it merely expresses a general preference for an alternative invention but does not ‘criticize, discredit, or otherwise discourage’ investigation into the invention claimed.” (quoting *In re Fulton*, 391 F.3d 1195, 1201 (Fed. Cir. 2004)); *Para-Ordnance Mfg., Inc. v. SGS Importers Int’l., Inc.*, 73 F.3d 1085, 1088 (Fed. Cir. 1995) (“What the prior art

“are close enough so that one skilled in the art would have expected them to have same [or similar] properties” for the reasons indicated *supra*, especially in the context of a sodium chloride substitute flavoring or seasoning composition (using few percentages more than the preferred amount of sodium chloride taught by Moritz would be expected to mimic or expected to be similar to the flavor of a salt (a sodium chloride flavor)). Although Appellants refer to *In re Patel*, 566 Fed. Appx. 1005 (Fed. Cir. 2014) (non-precedential) in support of their position in the Reply Brief, it is not controlling in this case because its facts are different from the present facts. *Note also In re Dillon* 919 F.2d 688, 692-93 (Fed. Cir. 1990)(*en banc*)(explaining that the closeness of the prior art and claimed chemical structures and functions involved, like the closeness of the ranges or compositions involved in *Titanium Metals*, provides the requisite motivation to one of ordinary skill in the art to make the claimed invention); *In re Payne*, 606 F.2d 303, 313-14 (CCPA 1979) (“An obviousness rejection based on similarity in chemical structure and function entails the motivation of one skilled in the art to make a claimed compound, in the expectation that compounds similar in structure will have similar properties.”). In any event, as explained by the Examiner, it is well within the ambit of one of ordinary skill in the art to employ the amounts of sodium chloride and potassium chloride recited in claim 1, 26, and 27 to reduce the bitterness associated with potassium chloride and enhance the saltiness tastes associated with sodium chloride in view of the teachings of Moritz and/or Murray discussed *supra*.

teaches and whether it teaches toward or away from the claimed invention . . . is a determination of fact.” (citing *In re Bell*, 991 F.2d 781, 784 (Fed. Cir. 1993)).

Consistent with Moritz, Murray also teaches that “it is known that a reduction of sodium intake alone will accomplish a reduction in the hypertensive state.” Murray 1:25–27. Murray then teaches “a sodium chloride substitute flavoring system comprising autolyzed yeast and ammonium chloride[,] which improves the saltiness of foods, reduces the bitterness of sodium chloride substitutes [(potassium chloride)] and is suitable...for processed meats and snack foods.” Murray 1:11–16. Murray goes on to teach (col. 4, l. 62–col. 5, l. 19) that:

The amount of the sodium chloride substitute flavoring system utilized also varies according to the particular food system in which it is being used. When the flavoring system is used in conjunction with potassium chloride. Routine experimentation will determine the quantity of the additive which is necessary to disguise the bitterness of the potassium chloride while providing *the desired salt flavor*.....

In processed meat products, the sodium chloride substitute flavoring system can be used in conjunction with potassium chloride to replace *up to two-thirds* [(0 to 66.7%)] of the sodium chloride while maintaining acceptable flavors, texture and low bacterial growth. [(Emphasis added.)]

In addition to the above teachings by Murray, Appellant does not dispute the Examiner’s finding that Murray exemplifies using 2% by weigh of autolyzed yeast that corresponds to the yeast extract recited in claim 1. App. Br. 16. Thus, Murray, like Moritz, would also have suggested using the amounts of sodium chloride and potassium chloride recited in claims 1, 26, and 27, together with the claimed amounts of autolyzed yeast (inclusive of yeast extract) and ammonium chloride, in a seasoning (or flavoring) formulation.⁶

⁶ We will not consider Appellant’s new arguments at pages 6 and 7 of the Reply Brief that the claimed composition does not include Murray’s ammonium chloride

Appellant also argues that Moritz does not teach or suggest “the amount of sodium... reduced in comparison to the amount of sodium in sodium chloride providing an equivalent salty taste” recited in claim 28. App. Br. 15. In so arguing, Appellant ignores the combined teachings of the applied prior art references. *In re Merck & Co.*, 800 F.2d 1091, 1097 (Fed. Cir. 1986) (“Non-obviousness cannot be established by attacking references individually where the rejection is based upon the teachings of a combination of references.”) (citing *In re Keller*, 642 F.2d 413, 425 (CCPA 1981). As indicated *supra*, Moritz, Allen, and/or Murray would have suggested using a *salt (sodium chloride) substitute* seasoning formulation containing a reduced sodium chloride, potassium chloride, and citric acid, glutamic acid, authorized yeast, and ammonium chloride, to reduce the bitterness of, and enhances the saltiness of, potassium chloride, to provide the desired salt (sodium chloride) flavor which is suggestive or inclusive of the equivalent salty taste recited in claim 28.

Accordingly, we find no reversible error in the Examiner’s determination that the applied prior art would have rendered the subject matter recited in claims 1–3, 5, 6, 8, 12, 14, 16, 18, 20, 24–29, 45, and 47 obvious to one of ordinary skill in the art within the meaning of 35 U.S.C. § 103(a).

II. REJECTIONS 4–6

We note that Appellant only focuses on claims 30 and 43 and do not separately argue claims 31–42, 44, 46, and 48. App. Br. 10–17. Therefore, we

and the recited yeast extract excludes Murray’s autolyzed yeast due to its cell walls, despite the transitional term “comprising” in claim 1 that does not exclude the presence of ammonium chloride or cell walls. Nor will we consider Appellant’s new argument directed to the disclosure of Mohlenkamp at page 6 of the Reply Brief. These new arguments were not timely raised in the Appeal Brief.

decide the appeal as to all claims rejected in the second three grounds of rejection on the basis of claims 30 and 43. 37 C.F.R. § 41.37(c)(1)(iv) (2013). We will not consider any new arguments in the Reply Brief, which could have been raised in the Appeal Brief, unless good cause is shown.

In rejecting claims 30–44, 46, and 48, the Examiner primarily relies upon the combined teachings of Murray, Salemme, and Allen. Ans. 9–12. The Examiner further relies upon Berglund or Mohlenkamp to show obviousness of employing the features recited in dependent claims 32, 33, 36, 41, and 46. *Id* at 11–12. The Examiner finds, and Appellant does not dispute, that

Murray teaches a table salt seasoning mixture comprising yeast and ammonium chloride. Murray teaches that up to two thirds of the sodium chloride can be replaced (column 5, line[sic s] 15-19). Therefore, sodium chloride comprises 33% to 100% of the composition...[based on] an original 100% sodium chloride composition. [*Compare* Ans. 9, with App. Br. 15; *see also* Murray 4:62–5:19.]

Nor does Appellant dispute the Examiner's determination that one of ordinary skill in the art would have been led to employ the claimed amounts of citric acid, glutamic acid, and yeast (inclusive of yeast extract) recited in claim 30 in the manner suggested by Salemme, Allen, and Murray in Murray's seasoning mixture. *Compare* Ans. 9–10 with App. Br. 15.

Appellant argues that Moritz neither teaches nor would have suggested a reduced sodium composition containing no potassium chloride as required by claim 30 or having an equivalent salty taste in comparison to sodium chloride as recited in claim 43. *Id*. However, we do not find this argument to be relevant to

the Examiner's rejections based on the collective teachings of Murray, Salemme, and Allen, with or without Berglund or Mohlenkamp.⁷

Accordingly, we find no reversible error in the Examiner's determination that the applied prior art would have rendered the subject matter recited in claims 30–44, 46, and 48 obvious to one of ordinary skill in the art within the meaning of 35 U.S.C. § 103(a).

ORDER

In view of the foregoing, the decision of the Examiner to reject claims 1–3, 5, 6, 8, 12, 14, 16, 18, 20, and 24–48 is AFFIRMED.

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

⁷ Appellant's new arguments relating to the disclosures of Mohlenkamp and Murray at pages 6 and 7 of the Reply Brief will not be considered as they were not timely submitted in the Appeal Brief.