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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte ROBERT VOGT, KARSTEN KOHRS, STEVEN WADE
FISHER, THOMAS CAMPBELL, and MICHAEL PRENCIPE¹

Appeal 2017-008143
Application 13/985,536
Technology Center 1600

Before DEMETRA J. MILLS, FRANCISCO C. PRATS, and JOHN G.
NEW, *Administrative Patent Judges*.

MILLS, *Administrative Patent Judge*.

DECISION ON APPEAL

This is an appeal under 35 U.S.C. § 134. The Examiner has rejected the claims for obviousness. We have jurisdiction under 35 U.S.C. § 6(b).

We affirm.

¹ The Appeal Brief identifies the Real Party in Interest as Colgate-Palmolive Co. App. Br. 2.

STATEMENT OF CASE

The following claim is representative.

1. An oral care composition comprising:
 - a) a flavor component comprising:
 - i) a taste-masking agent comprising: cinnamic aldehyde; eugenol; and eucalyptol; and
 - ii) flavoring agents comprising: L-menthol; N-ethyl-para-menthan-3-carboxamide; anethole; peppermint oil; spearmint oil; com mint oil;
 - b) one or more zinc salts selected from: zinc oxide; zinc sulfate; zinc chloride; zinc citrate; zinc lactate; zinc gluconate; zinc malate; zinc tartrate; zinc carbonate; zinc phosphate; and a combination of two or more thereof ; and
 - c) an orally acceptable carrier;

wherein the flavor component is present at a concentration of from about 0.5 to about 2.5%, by weight; the total concentration of said one or more zinc salts is from about 0.01 to about 5%, by weight of the composition; the flavor component comprises greater than 0.1 %, by weight, cinnamic aldehyde, greater than 0.1 %, by weight, eugenol and greater than 0.5%, by weight, eucalyptol.

Ground of Rejection

Claims 1, 2, 8, and 17–22 are rejected under pre-AIA 35 U.S.C. § 103(a) as being unpatentable over Ramji (US 2008/0008665 A1; published Jan. 10, 2008).

FINDINGS OF FACT

The Examiner's findings of fact are set forth in the Answer at pages 3–15. The following facts are highlighted.

PRINCIPLES OF LAW

In making our determination, we apply the preponderance of the evidence standard. *See, e.g., Ethicon, Inc. v. Quigg*, 849 F.2d 1422, 1427 (Fed. Cir. 1988) (explaining the general evidentiary standard for proceedings before the Office).

“The combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results.” *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 416 (2007).

The motivation to combine references does not have to be identical to the applicants' to establish obviousness. *In re Kemps*, 97 F.3d 1427, 1430 (Fed. Cir. 1996).

Obviousness Rejection

Claims 1, 2, 8, and 17–22 are rejected under pre-AIA 35 U.S.C. § 103(a) as being unpatentable over Ramji.

The Examiner finds that

Ramji et al. disclose[s] flavors for oral compositions. The flavor systems are present in the oral composition in an amount from about 0.01 % to about 5% by weight of the compositions. Flavors include peppermint oil (which comprises menthol), corn mint oil and spearmint oil. The mint oil is present in an amount of from 2 to 1300 ppm (paragraph 0025). Protectants are used and include cinnamaldehyde. In addition to the mint oils and the protectant other flavors are added. These include

menthol, eugenol, eucalyptol and anethole (paragraph 0033). The flavors may be used in mixtures. The flavors may also include cooling agents including N-ethyl-p-menthan-3-carboxamide (WS-3) and menthol (includes L-menthol) (paragraph 0034). Anti-calculus agents include zinc citrate (paragraph 0043). An example is disclosed comprising 40% corn mint, 15% anethole, 10% menthol, 30% peppermint and 5% cinnamaldehyde (based on 2.5% of flavor by weight of the composition, the amount of cinnamaldehyde claimed) (Example I). Another flavor example comprises 10% WS-3, 15% spearmint oil, 30% peppermint oil, 4% anethole and 24% menthol (EXAMPLE II). The compositions also comprise sodium fluoride (EXAMPLE III). Zinc salts also include zinc carbonate (1 % to 2%), zinc oxide and zinc lactate (2.5%).

The prior art [Ramji] discloses the individual elements of applicant's claimed combination L-menthol, zinc salt, WS-3, anethole, peppermint oil, spearmint oil, corn oil, and a combination of cinnamic aldehyde, eugenol and eucalyptol, but does not appear to disclose their combination in an anticipatory fashion. Nevertheless, it would have been obvious to have made this combination because the combination was suggested. Since this modification of the prior art represents nothing more than "the predictable use of prior art elements according to their established functions" a *prima facie* case of obviousness exists.

Ans. 3–4.

Appellants contend that Ramji discloses that malodor may result from the combination of stannous fluoride and mint. App. Br. 6. Appellants argue that

Ramji does not teach or suggest that *zinc* salts would cause this kind of "off odor" or "off taste" or that any off-flavors relating to zinc ions could be prevented in the same way. There is no evidence of record showing that zinc salts have anything to do with the off odor or off taste disclosed in Ramji. Ramji merely teaches that the flavor system prevents generation of off odor

and off taste caused by the reaction of stannous ion and mint oil (see abstract, claim 1, paragraphs [0002], [0023] and [0092]). In particular, there is no indication that Ramji's flavor would be effective to mask the taste of **zinc salts** - where the guidance is directed to compositions containing **stannous ion and mint oil**.

Id. Appellants further argue that

Even assuming that the flavor in Example 3 of Ramji would mask the taste of zinc salts (which the art does not teach and the Examiner has not demonstrated), it would not be obvious to one of ordinary skill in the art to then *modify* the Ramji's flavor to arrive at the claimed flavor as recited in claim 1, with a reasonable expectation of success that the modified flavor would mask the taste of zinc salts.

App. Br. 7. Appellants argue that

The flavor as recited in claim 1 differs from the Ramji's flavors (Example I and II) in many ways. For example, claim 1 requires that the flavor comprises a taste-masking agent comprising cinnamic aldehyde, eugenol and eucalyptol, whereas Example 1 contains only cinnamaldehyde and Example 2 contains none of the three compounds. While the Appellants' claims require eugenol or eucalyptol, none of Ramji's exemplified flavors actually contain eugenol or eucalyptol.

App. Br. 8. Appellants argue that, "the Examiner has not demonstrated that the protectant components disclosed in Ramji would mask the taste of zinc salts." App. Br. 9.

ANALYSIS

We select claim 1 as representative claims, as individual claims are not argued separately. We agree with the Examiner's fact finding, statement

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of the rejection and responses to Appellants' arguments as set forth in the Answer. We find

that the Examiner has provided evidence to support a prima facie case of obviousness. We provide the following additional comment to the Examiner's argument set forth in the Final Rejection and Answer.

Appellants claim an oral care composition containing a metal salt comprising, among other things, a specific flavoring agent and a taste masking agent. Claim 1. It is noted that the claims are not directed to a method of masking the taste of a zinc salt with a taste masking agent and flavoring agent, but to an oral composition flavorant.

Ramji discloses a flavoring component for oral compositions that includes stannous (tin) ions. Abstract. Ramji's flavoring agent may include flavor oils derived from cinnamon (cinnamaldehyde), eucalyptol and eugenol. ¶¶ 16–17, 33. Optional anticalculus agents include zinc citrate trihydrate. ¶ 43. The Ramji composition can include anti-microbial agents, such as zinc/stannous/copper ion agents or their salts. ¶ 46. Alternatively, the zinc may be present in the form of a mineral. ¶ 49.

While Ramji primarily combined its flavoring agent to reduce odor produced from the combination of stannous fluoride and mint, the motivation to combine references (or disclosure from a single reference), does not have to be identical to the appellants to establish obviousness. *In re Kemps*, 97 F.3d 1427, 1430 (Fed. Cir. 1996). In other words, Appellants claim an oral composition which includes a flavoring agent and a taste masking agent, and Ramji discloses an oral composition comprising the claimed components. "When the claimed compositions are not novel they are not rendered patentable by recitation of properties, whether or not these

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properties are shown or suggested in the prior art.” *In re Spada*, 911 F.2d 705, 709, (Fed. Cir. 1990). Thus, notwithstanding the fact that Appellants

argue that the purpose of Ramji’s composition was not to mask the zinc metal component of the composition, Ramji’s composition may include the same claimed components.

Appellants argue that

The claimed ranges of eugenol and eucalyptol are not obvious over Ramji. Claim 1 requires that the flavor component comprises greater than 0.1 %, by weight, cinnamic aldehyde, greater than 0.1 %, by weight, eugenol and greater than 0.5%, by weight, eucalyptol. In contrast, Ramji does not disclose or teach anything regarding the amount of eugenol and eucalyptol.

App. Br. 9.

In response, the Examiner argues that

the prior mixtures include 1:1 weight ratios, which would encompass each flavor in equal parts. The amount of cinnamic aldehyde was disclosed by Ramji and anethole flavor was used in combination with cinnamic aldehyde. Ramji also discloses that the flavors may be used in mixtures. This would include mixtures comprising anethole, eucalyptol and eugenol. The instant claims supports a combination wherein each component is used in the same amount. Therefore it would have been obvious to use a mixture comprising the same amount of each flavoring such as anethole; eugenol and eucalyptol because this mixture is suggested by Ramji. Further Appellant does not appear to show the criticality of the amounts. There is also no specific amounts recited by the instant claims only that the amounts must be greater than a certain amount. These limitations are suggested and met by the examples and disclosure of Ramji.

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Ans. 12–13. We find that the Examiner has the better argument concerning flavoring component amounts and that Appellants have not sufficiently rebutted the Examiner’s arguments with appropriate evidence. Even if the exact amounts of flavoring components are not specifically disclosed in Ramji, clearly they are disclosed to be taste masking, flavoring agents. Ramji ¶ 4, 16, 21, 24, 26. Ramji, paragraph 31, discloses that the flavoring component is a result effective variable. In particular, Ramji discloses that

The amount of protectant component depends upon the specific protectant chosen, the specific mint oil and amount chosen, the amount of stannous ions, other flavor components added, and the desired flavor profile in the oral composition. Some of the protectants have flavoring properties and will provide flavor characters such as vanilla, smooth creamy or cinnamon. Each of these protectants can be used alone or with other protectants. The ratio of protectant to mint oil that has been found to be effective is from about 2:1 to about 1:300 by weight.

¶ 31. One of ordinary skill in the art would have optimized these agents to obtain palatable flavoring and taste masking, based on the desired flavor profile of the oral composition in view of Ramji. Determining the optimum values of result effective variables is ordinarily within the skill of the art. *See In re Boesch*, 617 F.2d 272, 276 (CCPA 1980). *In re Aller*, 220 F.2d 454, 456 (CCPA 1955) (“[W]here general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation.”). Therefore, one of ordinary skill in the art would have had a reasonable expectation of success of optimizing a flavoring and taste masking oral composition which includes zinc, based on the disclosure of Ramji.

The obviousness rejection is affirmed for the reasons of record.

CONCLUSION OF LAW

The cited references support the Examiner's obviousness rejection, which is affirmed for the reasons of record. All pending, rejected claims fall.

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