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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte AGNIESZKA KOCINSKA, JENNIFER GRONLUND,
HALLENA STROTMAN, and SUMAN CHOPRA¹

Appeal 2019-005125
Application 15/846,944
Technology Center 1600

Before JEFFREY N. FREDMAN, DEBORAH KATZ, and
JOHN G. NEW, *Administrative Patent Judges*.

NEW, *Administrative Patent Judge*.

DECISION ON APPEAL

¹ We use the word “Appellant” to refer to “applicant” as defined in 37 C.F.R. § 1.42. Appellant identifies Colgate-Palmolive Company as the real party-in-interest. App. Br. 2.

SUMMARY

Appellant files this appeal under 35 U.S.C. § 134(a) from the Examiner's Final Rejection of claims 1–14 and 17. Specifically, claims 1–14 and 17 stand rejected as unpatentable under 35 U.S.C. § 103 over Maloney et al. (WO 2015/095709 A1, June 25, 2015) (“Maloney”).

Claims 9 and 10 stand rejected as unpatentable under 35 U.S.C. § 103 over the combination of Maloney and Brignoli et al. (US 2008/0152599 A1, June 26, 2008) (“Brignoli”).

Claims 1–14 and 17 also stand provisionally rejected as unpatentable under the nonstatutory doctrine of obviousness-type double patenting over claims 1–4, 7, 9, 11, 25, 31, 35, 41, 43, and 44 of US Application No. 15/106,412 (the “412 application”).

We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

NATURE OF THE CLAIMED INVENTION

Appellant's invention is directed to a teeth whitening dentifrice composition with a longer-lasting whitening benefit. Spec. ¶ 10.

REPRESENTATIVE CLAIM

Claim 1 is representative of the claims on appeal and recites:

1. A whitening dentifrice composition comprising:

a blue coloring agent comprising a blue pigment, wherein the blue coloring agent has a blue to blue-violet color with a hue angle in the CIELAB system ranging from 200 degrees to 320 degrees;

from about 15 to about 25 weight% of a zinc core shell silica (Zn-CSS) particle, wherein the Zn-CSS particle comprises

a silica core, and a surface of the silica core etched with a metal silicate, wherein the metal silicate is a silicate of zinc ion and optionally a monovalent metal ion; and

an orally acceptable vehicle comprising a non-aqueous solvent and water, wherein the whitening dentifrice composition is free from peroxide whitening agents and oxidants.

ISSUES AND ANALYSIS

We agree with, and expressly adopt, the Examiner's findings, reasoning, and conclusion that the claims are obvious over the combined cited prior art. We address below the arguments raised by Appellant.

A. Claims 1–14 and 17 under 35 U.S.C. § 103

Issue

Appellant argues the claimed range of from about 15 to about 25 weight % of a zinc core shell silica ("Zn-CSS") particle provides for an unexpected increase in the retention time of a blue pigment on teeth. App. Br. 4.

Analysis

The Examiner finds Maloney teaches a tooth whitening composition including a blue dye with a hue angle in the CIELAB system ranging from 200 to 320 degrees. Final Act. 3–4 (citing Maloney, Abstr.). The Examiner finds Maloney teaches the tooth whitening composition includes an amount of Zn-CSS particle in the range of about 2 weight %. *Id.* at 4 (citing Maloney ¶¶ 54, 147). The Examiner finds Maloney teaches the tooth whitening composition includes an orally acceptable vehicle including a

non-aqueous solvent and water, but is free of peroxide whitening agents. *Id.* at 5 (citing Maloney, Abstr. ¶ 23).

The Examiner acknowledges that Maloney teaches a concentration of Zn-CSS particles outside of the range recited in claim 1. Final Act. 4. However, the Examiner finds Maloney teaches the concentration of Zn-CSS particles is “a result-effective variable because the concentration affects the antibacterial and anti-malodor properties of the composition.” *Id.* at 4–5 (citing Maloney ¶¶ 43, 45). The Examiner determines “it would not have been inventive to have discovered the optimum or workable ranges of the concentration of the Zn-CSS particle by routine experimentation.” *Id.* at 4.

With respect to Appellant’s argument regarding unexpected results, the Examiner determines the disclosed results are insufficient to overcome *prima facie* obviousness in view of the prior art. Ans. 7. First, the Examiner finds the results are not unexpected because “the skilled artisan would have expected that a larger percentage of tooth whitening active (i.e., Zn-CSS) would have resulted in a greater amount of tooth whitening.” *Id.* at 7–8. Second, the Examiner finds Appellant’s data unclear. *Id.* at 8. The Examiner finds the data indicates that a composition containing 0 weight % Zn-CSS particles, i.e., Control 3 in Table 4, shows better retention than a composition containing 10 weight % Zn-CSS particles, i.e., Example 2 in Table 2. *Id.* (citing Spec. 29 (Table 2), 32 (Table 4)).

Appellant asserts that the Specification includes empirical data that demonstrates the claimed range of Zn-CSS particles is critical to the retention time of pigment on the teeth. App. Br. 4. Appellant contends that the empirical data shows a Zn-CSS particle concentration of 10 weight % shows a significant decrease in retention time of pigment on teeth in contrast

with a 22 weight % concentration which shows no decrease in retention time. *Id.* (citing Spec. 28–29 (Tables 1 and 2); 32 (Table 4)). Appellant contends that “[t]his increase of the retention time is unexpected in view of Maloney,” particularly where “every formulation disclosed in Maloney shows a decrease in [retention] over time.” *Id.*

Appellant does not address the Examiner’s comparison of Example 2 to Control 3. Reply Br. 2. Rather, Appellant reiterates that Example 3, containing 22% Zn-CSS particles, has unexpected improvement in color retention as compared to Control 3, containing 0% Zn-CSS particles. *Id.*

In the Reply Brief, Appellant submits a new argument that the proposed modification to Maloney is improper because Maloney indicates amounts of Zn-CSS as little as 1–2 weight % are preferred.² Reply Br. 2–3. Appellant raises a new argument in the Reply Brief and without good cause. *Ex parte Borden*, 93 U.S.P.Q.2d 1473–1474 (B.P.A.I. 2010) (informative) (“The reply brief is not an opportunity to make arguments that could have been made during prosecution, but were not. Nor is the reply brief 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”). Also, because “[a]ny bases for asserting error, whether factual or legal, that are not raised in the principal brief are waived,” we do not consider these belated arguments. *Id.*

We are not persuaded by Appellant’s evidence of alleged unexpected results because the evidence does not establish “that there is a difference

² We note that disclosed examples and preferred embodiments do not constitute a teaching away from a broader disclosure or non-preferred embodiments. *In re Susi*, 440 F.2d 442, 446 n.3 (C.C.P.A. 1971)

between the results obtained and those of the closest prior art, and that the difference would not have been expected by one of ordinary skill in the art at the time of the invention.” *Bristol-Myers Squibb Co. v. Teva Pharms. USA, Inc.*, 752 F.3d 967, 977 (Fed. Cir. 2014).

We begin with what would have been expected in view of the prior art. We agree with the Examiner that Maloney teaches the amount of core shell silica, e.g., Zn-CSS, is a result-effective variable. Final Act. 4–5. Contrary to Appellant’s argument, Maloney expressly teaches “the addition of CSS to the formula results in similar deposition of blue dye but an increase in the retention time of the dye on teeth.” *See* Maloney ¶ 148. Maloney further teaches that additional components of the formulation may affect retention time as “a low water formula containing CSS can improve the retention of blue dye on teeth.” *Id.* ¶¶ 149, 152. In summary, Maloney teaches that it was not unexpected that the combination of several factors, including the addition of Zn-CSS, would have improved the retention time of the whitening dentifrice.

Moreover, were we persuaded that the results were indeed unexpected, the data in the Specification is not commensurate with the scope of the claims. *In re Harris*, 409 F.3d 1339, 1344 (Fed. Cir. 2005). Appellant compares data for a 10 weight % Zn-CSS formulation with a 22 weight % Zn-CSS formulation to argue that the range of “from about 15 to about 25 weight %” is critical. *See* App. Br. 4. However, there is no data regarding the lower end of the range, e.g., about 15 weight %. *See Spec. supra*. Because Appellant cites only a single data point that is “at or near the midpoint of the claimed range ... the record does not show that the improved

performance would result if the weight-percentages were varied within the claimed range.” *Harris*, 409 F.3d at 1344.

Appellant’s empirical results further indicate that retention time is not merely a function of the amount of Zn-CSS. Appellant contends that Example 3 containing 22 weight % Zn-CSS shows improved retention as compared to Control 3 containing 0 weight % Zn-CSS in Table 4, reproduced below.

TABLE 4

		Whitening Efficacy					
		Δb^*			ΔWIO		
Composition shown in Table 3		Initial	10 min saliva	30 min saliva	Initial	10 min saliva	30 min saliva
		Control 3	0% Zn CSS	-3.1	-2.7	-2.3	9
Example 3	22 weight % Zn-CSS delivering 1 weight % of zinc ion	-3.4	-3.6	-3.3	11	11	11

Spec. 32. Δb^* is a measurement of blue dye deposition and ΔWIO is the change in whiteness over time. *Id.* ¶¶ 124–128. As noted by the Examiner, Examples 1 and 2, each containing 10 weight % Zn-CSS, were characterized by lower ΔWIO after 30 minutes than the composition containing 0 weight % Zn-CSS, as shown in Tables 1 and 2, reproduced below.

TABLE 1

	Non-AQ Solution	Composition	Δb^* initial	ΔWIO initial	Δb^* after 30 min soak	ΔWIO after 30 min soak
Control 1	Dye Control	0.05 weight % FD&C #1 in glycerin	-1.9	7.63	0.4	0.24
Comparative Example A	Dye & CSS	0.05 weight % FD&C #1 and 10 weight % CSS in glycerin	-2.5	11.0	-0.8	5.1
Example 1	Dye & Zn-CSS	0.05 weight % FD&C #1 and 10 weight % Zn-CSS in glycerin	-3.8	13.72	-0.1	4.18

TABLE 2

	Non-AQ Solution	Composition	b* initial	Δ WIO initial	Δ b* after 30 min soak	Δ WIO after 30 min soak
Control 2	Pigment Control	0.05% blue pigment #15 in glycerin	-0.9	2.57	-0.4	1.82
Example 2	Pigment + Zn CSS	0.05 weight % blue pigment #15 and 10 weight % Zn-CSS in glycerin	-1.3	4.44	-0.6	2.17

Id. at 28–29. Rather than establish criticality, a comparison of the results between Examples indicates that some other non-claimed feature affects retention time. Notably, Examples 1 and 2 include 0.05 weight % dye/pigment and 10 weight % Zn-CSS in glycerin, in contrast to Control 3 and Example 3 which contain pigment, glycerin, polyethylene glycol, sorbitol, water, thickener, and sodium fluoride, in addition to 0 weight % or 22 weight % Zn-CSS. *Id.* at 30 (Table 3: Whitening Dentrifice Composition Comprising Blue Pigment). Because numerous factors other than the amount of Zn-CSS appear to affect retention time, Appellant’s evidence does not show that the alleged unexpected results are commensurate with the scope of the claims. Accordingly, we are not persuaded by Appellant’s arguments.

B. Claims 1–14 and 17 are unpatentable under the non-statutory doctrine of obviousness-type double patenting

The Examiner provisionally rejected claims 1–14 and 17 over claims 1–4, 7, 9, 11, 25, 31, 35, 41, 43, and 44 of Application No. 15/106,412. Final Act. 15–16. Appellant requests that the rejection be held in abeyance until at least one claim of the present application is in condition for allowance. App. Br. 5. Because Appellant does not substantively address

the rejection, we summarily affirm the Examiner's rejection on this ground.
See 37 C.F.R. § 41.37(c)(iv)

CONCLUSION

The rejection of claims 1–14 and 17 as unpatentable under 35 U.S.C. § 103 is affirmed.

The rejection of claims 1–14 and 17 as unpatentable under the non-statutory doctrine of obviousness-type double patenting 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).

AFFIRMED

Claims Rejected	35 U.S.C. §	Reference/Basis	Affirmed	Reversed
1–14, 17	103	Maloney	1–14, 17	
9, 10	103	Maloney, Brignoli	9, 10	
1–14, 17	Non-statutory double-patenting	Claims 1–4, 7, 9, 11, 25, 31, 35, 41, 43, 44 of Application No. 15/106,412	1–14, 17	
Overall Outcome			1–14, 17	