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Table with 5 columns: APPLICATION NO., FILING DATE, FIRST NAMED INVENTOR, ATTORNEY DOCKET NO., CONFIRMATION NO.
12/983,344 01/03/2011 Matthias Sunder H 08084 1159

49641 7590 12/08/2016
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Table with 1 column: EXAMINER

ROBINSON, LISBETH C

Table with 2 columns: ART UNIT, PAPER NUMBER

1611

Table with 2 columns: NOTIFICATION DATE, DELIVERY MODE

12/08/2016

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte MATTHIAS SUNDER, MARIO STURM, TOBIAS SEGLER, and
NOELLE WRUBBEL¹

Appeal 2015-005448
Application 12/983,344
Technology Center 1600

Before JEFFREY N. FREDMAN, RICHARD J. SMITH, and
DEVON ZASTROW NEWMAN, *Administrative Patent Judges*.

NEWMAN, *Administrative Patent Judge*.

DECISION ON APPEAL

This appeal under 35 U.S.C. § 134 involves claims to a particle for use in cleaning products such as laundry detergent. The Examiner entered final rejections for obviousness and double patenting.

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

STATEMENT OF THE CASE

Background

The Specification discloses:

¹ Appellants identify the Real Party in Interest as Henkel AG & Co. KGAA. App. Br. 3.

[t]he present invention relates to particles suitable for use in laundry-detergent products, cleaning products and care products. The particles have a water-soluble or water-dispersible carrier and active ingredient microcapsules. Furthermore, the present invention relates to a method for producing such particles, as well as detergents, cleaning agents or care agents containing such particles.

Spec. ¶ 2.

The Claims

Claims 1, 5–10, 12, 13, and 16–18 are on appeal. Claim 1 is illustrative and reads as follows:

1. Particle suitable for use in laundry-detergent, cleaning-agent or care products, comprising:
 - a water-soluble or water-dispersible carrier, and
 - microcapsules comprising one or more active ingredients, the water-soluble or water-dispersible carrier being in the form of crystals and
 - comprising a carbohydrate chosen from dextrose, fructose, galactose, isoglucose, glucose, sucrose, raffinose or mixtures thereof, and
 - a coating comprising a mixture of thermoplastic polymer and microcapsules.

App. Br. Claims App'x. 15.

The Issues

The following rejections are before us on appeal:

A. Claims 1, 5–10, 12, 13, 16, and 17 are rejected under 35 USC § 103(a) as obvious over Mayer² and Denome.³ Ans. 2.

B. Claims 1, 5–10, 12, 13, and 16–18 are rejected under 35 USC § 103(a) as obvious over Mayer, Denome, and Barthel.⁴ Ans. 3.

C. Claims 1, 5–10, 12, 13, and 16–18 are rejected under 35 USC § 103(a) as obvious over Mayer and Aouad.⁵ Ans. 3.

D. Claims 1, 5, 16, and 17 are rejected on the ground of nonstatutory obviousness-type double patenting as obvious over claims 1–10 of Dreja.⁶ Ans. 4.

OBVIOUSNESS

Appellants do not separately argue the rejection of claims 1, 5–10, 12, 13, and 16–18 over Mayer, Denome and Barthel or the rejection of claims 1, 5–10, 12, 13, and 16–18 over Mayer and Aouad, but instead rely on their argument regarding the rejection of claim 1 over Mayer and Denome. App. Br. 14. Accordingly, we address these rejections together and find it necessary to consider only Mayer and Denome.

We select claim 1 as representative of the claims subject to this ground of rejection. 37 C.F.R. § 41.37(c)(iv).

² WO 2007/113326 A1, published October 11, 2007. The Examiner has relied upon U.S. Pre-Grant Pub. 2009/0042766 A1 to Mayer for the English language translation (collectively referred to herein as “Mayer”).

³ WO 2007/130685 A1, published Nov. 15, 2007 (“Denome”)

⁴ WO 2008/040620 A1, published Apr. 10, 2008 (“Barthel”)

⁵ US 2008/0131695 A1, published June 5, 2008 (“Aouad”)

⁶ US 8,399,395 B2, issued Mar. 19, 2013 (“Dreja”)

The Examiner finds that Mayer teaches

a textile care agent having a water-soluble carrier comprising carbohydrates selected from the group comprising dextrose, fructose, galactose, isoglucose, glucose, sucrose, raffinose, isomalt and mixtures thereof as carbohydrate carriers . . . and [] an embodiment with 1-4 mm sucrose crystals which are coated with a thermoplastic polymer (PEG 4000) (Table I, with 15% by weight thermoplastic polymer, and 10% by weight water-softening clay (bentonite)).

Fin. Act. 3–4.⁷

The Examiner finds Mayer does not teach a perfume that is microencapsulated, or liquid perfumes. *Id.* at 5. The Examiner finds Denome teaches “a film comprising a thermoplastic polymer (polyvinyl alcohol) and liquid perfume (perfume oil) encapsulated in water-insoluble microcapsules (with a wall of urea/formaldehyde), wherein the film comprises about 2-40% by weight perfume.” *Id.* The Examiner further finds Denome teaches “layering techniques to produce a multilayered material having different functional materials in each layer whereby a functionalized substrate comprising one perfume is overlaid with a film comprising perfume microcapsules,” and “that the film compositions (functional substrates) may comprise a mixture of microcapsules and neat perfume.” *Id.* The Examiner further finds Denome teaches that

the use of perfume microcapsules provides one or more of the following advantages: (i) the ability to use a reduced total perfume level, e.g., in neat perfume (direct add); in perfume microcapsules; or combinations thereof, (ii) avoiding cost in processing and lost material through processing; (iii) delivering

⁷ Final Action, mailed June 9, 2014.

a high level of perfume while not affecting process product disposition or process parameters or product stability or product physical properties (one example is viscosity); and (iv) delivering a high level of perfume to fabric while avoiding a high level of neat product odor, which can be a consumer negative; (v) delivering improved fabric odor longevity performance compared to neat perfume; and (vi) delivering improved odor from fabrics under stress conditions (one example is while wearing clothing during physical activity or exercise).

Id. at 5–6.

Based on the teachings of these references, the Examiner concludes that it would have been “obvious for a person of ordinary skill in the art to overlay the particles of Mayer [] with one or more of the films comprising microcapsules of liquid perfume taught in Denome [] because Denome et al. suggest multilayered substrates with a combination of neat perfume and perfume microcapsules.” *Id.* at 6. The Examiner finds a “skilled artisan would have been motivated to apply the film layer of Denome et al. to accommodate higher loading capacity and to control release of the functional materials (e.g., whereby the presence of an outer layer controls the release of an inner layer),” the artisan “would have been capable of applying the known microcapsule film layering technique in the same way as taught in Denome,” and “the results from the multilayered particle would have been predictable to one of ordinary skill in the art, in view of the advantages taught in Denome.” *Id.*

The issue with respect to this rejection is whether a preponderance of the evidence supports the Examiner’s conclusion that Mayer and Denome suggest the subject matter of claims 1, 5–10, 12, 13, 16, and 17.

Findings of Fact (FF)

1. Mayer teaches “[a]solid textile care composition in which the water-soluble carrier is present in particulate form and has an envelope composed of the water-soluble polymer, the textile care compound and the perfume.” Mayer Abstract.

2. Mayer teaches “[t]he water-soluble carrier may comprise in particular a carbohydrate selected from the group comprising dextrose, fructose, galactose, isoglucose, glucose, sucrose, raffinose, isomalt and mixtures thereof. The carbohydrate used may be, for example, candied sugar or sugar crystals.” *Id.* at ¶ 38.

3. Mayer discloses sample textile care compositions as follows:

TABLE 1

	E1	E2	E3	E4
NaCl crystals (1-3 mm)	88.99	---	88.99	---
Sucrose crystals (1-4 mm)	---	60.99	---	60.99
Bentonite (powder)	10	10	10	10
Perfume	5	5	5	5
Polydimethylsiloxane	---	---	6	6
PEG 4000	15	15	15	15
Dye	0.01	0.01	0.01	0.01

Id. at ¶ 177.

4. Denome teaches a “functionalized substrate” (e.g., film) using polyvinyl alcohol resin as a thermoplastic polymer and liquid perfume (perfume oil) encapsulated in water-insoluble microcapsules. Denome 34–35.

5. Denome teaches layering techniques to produce multilayered functional substrates and layering comprising perfume microcapsules:

In one embodiment where the film comprises multi-layers, the composition of a first layer of film is different than the composition of a second layer of film. In another embodiment, the functional material of a first layer of film is different than the functional material of a second layer of film. Examples of different functional materials can include embodiments where the first functional material comprises a PMC [perfume microcapsule] and the second functional material can be a functional material other than PMC; or where the first functional material comprises a first PMC and the second functional material comprises a second PMC, wherein the encapsulated perfume components are different. These different encapsulated perfumes components can have different chemical formulas or create different scent effects. In another embodiment, the present invention comprises more than two layers wherein each layer comprises a functional material, and wherein at least two of the layers have different functional materials.

Id. at 26–27.

6. Denome teaches:

[a]nother aspect of the invention provides a functional composition comprising a perfume composition comprising at least one of the following: (a) perfume microcapsule comprising a perfume carrier and an encapsulated perfume composition, wherein said perfume microcapsule is selected from a moisture-activated microcapsule, a heat-activated microcapsule, a friable microcapsule, or mixtures or combinations thereof.; (b) a pro-perfume; (c) a low odor detection threshold perfume ingredients; (d) neat perfume; and (e) combinations thereof. In one embodiment, the article is free or substantially free of any one or more of the aforementioned perfume components. A non-limiting example of a moisture-

activated perfume microcapsule includes one that comprises cyclodextrin.

Id. at 13.

7. Denome teaches the use of perfume microcapsules provides one or more advantages:

(i) the ability to use a reduced total perfume level, e.g., in neat perfume (direct add); in perfume microcapsules; or combinations thereof, (ii) avoiding cost in processing and lost material through processing; (iii) delivering a high level of perfume while not affecting process product disposition or process parameters or product stability or product physical properties (one example is viscosity); and (iv) delivering a high level of perfume to fabric while avoiding a high level of neat product odor, which can be a consumer negative; (v) delivering improved fabric odor longevity performance compared to neat perfume; and (vi) delivering improved odor from fabrics under stress conditions (one example is while wearing clothing during physical activity or exercise).

Id. at 12.

8. Denome teaches “[b]enefits for multi-layered systems include, but are not limited to, providing higher loading capacity, promoting substrate stability, isolating interaction between certain functional materials, etc.” *Id.* at 27.

Principles of Law

“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).

Wrigley found a “strong case of obviousness based on the prior art references of record. [The claim] recites a combination of elements that were

all known in the prior art, and all that was required to obtain that combination was to substitute one well-known ... agent for another.” *Wm. Wrigley Jr. Co. v. Cadbury Adams USA LLC*, 683 F.3d 1356, 1364 (Fed. Cir. 2012).

Analysis

The Examiner provides sound fact-based reasoning for combining Mayer and Denome. We adopt and incorporate by reference the Examiner’s findings and conclusions regarding the scope and content of the prior art (Final Action 3–8, Answer, 2–3, FF 1–6) and agree that the claimed particle would have been obvious over the teachings of Mayer and Denome. We address Appellants’ arguments below.

Appellants argue the Examiner’s rationale for obviousness of claim 1 is incorrect because **“nowhere within Denome is any reference made to multilayered substrates with a combination of neat perfume and perfume microcapsules”** and **“nowhere within Denome is any reference made to an ability to accommodate higher loading capacity as compared to inclusion of neat perfume in film layers.”** App. Br. 11–12 (emphasis original). These arguments are unpersuasive as Denome indeed suggests the points cited by the Examiner: Denome teaches “perfume microcapsules comprising a perfume carrier and an encapsulated perfume composition” and “neat perfume” along with “combinations thereof” and that “benefits for multi-layered systems include . . . providing higher loading capacity” and references perfume as a functional material for inclusion in the layers. FF 5–7. Moreover, it is well established that prior art references need not disclose an express motivation to combine the teachings in order to motivate

the combination. *See In re Kemps*, 97 F.3d 1427, 1430 (Fed. Cir. 1996) (“[T]he motivation in the prior art to combine the references does not have to be identical to that of the applicant to establish obviousness.”). Denome teaches that perfume microcapsules provide one or more advantages that would motivate one of skill in the art to make particles using them. FF 7. In addition, our reviewing court has held that improvement-related factors may implicitly motivate a combination:

[A]n implicit motivation to combine exists not only when a suggestion may be gleaned from the prior art **as a whole**, but when the “improvement” is technology-independent and the combination of references results in a product or process that is more desirable, for example because it is stronger, cheaper, cleaner, faster, lighter, smaller, more durable, or more efficient. Because the desire to enhance commercial opportunities by improving a product or process is universal—and even common-sensical— . . . there exists in these situations a motivation to combine prior art references even absent any hint of suggestion in the references themselves. In such situations, the proper question is whether the ordinary artisan possesses knowledge and skills rendering him *capable* of combining the prior art references.

DyStar Textilfarben GmbH & Co. Deutschland KG v. C.H. Patrick Co., 464 F.3d 1356, 1368 (Fed. Cir. 2006) (bold emphasis added).

Appellants further argue Mayer “**fails to teach or suggest inclusion of any type of solid particle** in the thermoplastic coating of the particles described herein” and instead “clearly involves different considerations than forming polymeric films through casting, blow-moulding, extrusion or blown extrusion of the polymeric material.” *Id.* at 12 (emphasis original). According to Appellants, “Mayer fails to suggest that there are any

difficulties with inclusion of perfume **directly** within the thermoplastic coating” and instead teaches “including the perfume within the thermoplastic polymer coating,” meaning “there is no suggestion that any further protection measures need to be taken.” *Id.* at 12–13.

We do not find this argument persuasive because it fails to address the combined teachings of Mayer and Denome. The Examiner’s reasoning is that because Denome suggests multilayered substrates with a combination of neat perfume and perfume microcapsules (FF 6), one of ordinary skill in the art would have been motivated to use the particles of Mayer in the combination suggested by Denome. Fin. Act. 6. In the Answer, the Examiner further explains:

the modification articulated by the Examiner does not require adding the perfume microcapsules of Denome et al. to the thermoplastic coating of Mayer et al. Instead, the Examiner has found that the coated particles of Mayer et al. can be overlaid by a film composition of Denome et al. comprising encapsulated perfume to produce a multilayered coated particle.

Ans. 5.

Thus, Appellants’ argument is inapposite. The Examiner reasonably explains that a “skilled artisan would have been motivated to apply the film layer of Denome et al. to achieve the benefits disclosed therein (e.g., to accommodate higher loading capacity and to control release of the functional materials) and the artisan would have had the requisite knowledge and skill to apply the known microcapsule film layering technique in the same way as taught in Denome, with predictable results. *Id.*

Appellants next argue the “teachings of Denome are still within the context of a composite film structure and any such benefits would not necessarily inure to coated particles” such that “a person of ordinary skill in the art would **not** reasonably have been expected to exploit such further teachings of Denome in regards to modification of a coated particle as taught in Mayer, especially given the desire in Mayer to provide perfume that is transported to the laundry directly at the start of the washing operation.” *Id.* at 13. Appellants further argue the “benefits of the particles as highlighted by Mayer would be negatively impacted by overlaying the coated particles of Mayer with the films of Denome and [] the production methods for the film taught by Denome do not lend themselves as feasible for producing a coating on a particle.” Rep. Br. 5.

Appellants have not provided any evidence to support their contentions that the benefits would not inure to coated particles or that the modifications suggested by the Examiner would have a negative impact or be unfeasible. The Examiner has stated a strong prima facie case of obviousness, which Appellants’ arguments, without more, does not overcome. *See In re Geisler*, 116 F.3d 1465, 1470 (Fed. Cir. 1997) (“[A]ttorney argument [is] not the kind of factual evidence that is required to rebut a prima facie case of obviousness”).

Appellants next argue there are “unrecognized benefits associated with including the microcapsules in the coating that includes the thermoplastic polymer as claimed in claims 1 and 18.” App. Br. 13. We agree with the Examiner that Appellants have not provided evidence to

establishing that the results are unexpected, unobvious or commensurate in scope with the claims (Ans. 10), and are not persuaded by this argument.

Conclusion of Law

We affirm the rejection of claim 1 as obvious over Mayer and Denome. Claims 5–10, 12, 13, 16, and 17 have not been argued separately and therefore fall with claim 1. 37 C.F.R. § 41.37(c)(1)(iv).

As discussed above, Appellants have waived arguments directed to Barthel and Aouad. We therefore also affirm the rejection of claims 1, 5–10, 12, 13, and 16–18 as obvious over Mayer, Denome, and Barthel and the rejection of claims 1, 5–10, 12, 13, and 16–18 as obvious over Mayer and Aouad. *See Hyatt v. Dudas*, 551 F.3d 1307, 1314 (Fed. Cir. 2008) (“In the event of such a waiver, the PTO may affirm the rejection of the group of claims that the examiner rejected on that ground without considering the merits of those rejections.”).

DOUBLE PATENTING

The Examiner finds that

claim 1 teaches detergent particles suitable for use in laundry-detergent, cleaning-agent or care products, comprising: a water-soluble or water-dispersible carrier (support particulate), and a coating comprising a mixture of thermoplastic polymer and perfume, and patented claim 7 teaches that the perfume is encapsulated.

...

In Table 1 of the '395 patent, sucrose crystals are described as the “water-soluble support particulate.” Thus, the instant limitation wherein the water-soluble or water-dispersible carrier being in the form of crystals and comprising sucrose is an obvious variant of the patented claims.

[] For Claim 17, patented claim 2 teaches that the carrier can comprise one or more materials chosen from inorganic alkali metal salts, organic alkali metal salts, inorganic alkaline earth metal salts, organic alkaline earth metal salts, organic acids, silicates, urea or mixtures thereof.

Fin. Act. 16–17.

The issue with respect to this rejection is whether a preponderance of the evidence weighs in favor of the Examiner’s conclusion that claims 1–10 of Dreja suggest the invention of claims 1, 5, 16, and 17.

Findings of Fact

8. Dreja is a continuation of PCT/EP2010/062897, filed on Sep. 2, 2010, and claims priority to a German application filed Sept 9, 2009.

9. The instant application is a continuation of PCT/EP2009/056906, filed June 5, 2009, and claims priority to a German application filed July 3, 2008.

10. Claim 1, the sole independent claim of Dreja, recites:

1. A solid scent-imparting composition comprising:
 - a. a water-soluble support particulate;
 - b. a water-soluble polymer;
 - c. a malodor-absorbing compound; and
 - d. a perfume,

wherein said support particulate has at least a partial envelope comprising said water-soluble polymer, said malodor-absorbing compound, and said perfume, and wherein the envelope further comprises a detergent compound at least partially incorporated therein.

Analysis

Appellants argue, *inter alia*, that the two-way obviousness test should apply:

In accordance with MPEP 804(II)(B)(1.)(b), an appropriate obviousness-type double patenting analysis requires a two-way obviousness analysis if (A) there is administrative delay on the part of the Office causing delay in prosecution of the earlier filed application; and (B) the applicant could not have filed the conflicting claims in a single (i.e., the earlier filed) application.

Rep. Br. 7.

Appellants argue “the instant application was filed earlier than Dreja” and “Appellants have not taken any extensions of time in responding to any official actions [and are thus] not responsible for the later issuance of the instant application in comparison to Dreja.” *Id.* Appellants further argue “the conflicting claims could not have been filed in the earlier application because Dreja expressly requires a malodor-absorbing compound to also be present in the envelop[e] (see claim 1 of Dreja), and there is no disclosure whatsoever of a malodor-absorbing compound within the compositions as described in the instant application.” *Id.* According to Appellants, the two-way obviousness test cannot be met “because there is no basis for concluding that inclusion of a malodor-absorbing compound within the envelop[e] of Dreja, as claimed, would be obvious over the teachings of the instant application.” *Id.* In addition, Appellants argue that “Dreja contains no claims directed to particles with a coating that includes a mixture of thermoplastic polymer and microcapsules.” *Id.* at 6.

We agree with Appellants that the two-way obviousness test applies to this inquiry as the instant application predates the application leading to the Dreja patent (FF 8–9) and Appellants aver that all delays in the prosecution of the application are solely attributable to the Office. Rep. Br. 7. *See In re Berg*, 140 F.3d 1428, 1435 (Fed. Cir. 1998) (“The two-way exception can only apply when the applicant could not avoid separate filings, and even then, only if the PTO controlled the rates of prosecution to cause the later filed species claims to issue before the claims for a genus in an earlier application”).

Under this analysis, we begin by considering whether claims 1–10 of Dreja are obvious over the claims at issue. As Appellants note, claims 1–10 of Dreja require inclusion of a malodor compound within the envelope. FF 10. We find the Examiner has not established in this rejection that the subject matter of claims 1–10 could have been filed with descriptive support in the instant specification: the Examiner does not establish that the claims or Specification of the instant application support this claim element or cite to a second reference providing evidence that it would have been obvious for an ordinarily skilled artisan to include a malodor compound at the time of the invention. Accordingly, we find that because the two-way test for obviousness-type double patenting applies and Dreja’s claims are not obvious over the instant claims, the evidence does not support a finding of obviousness-type double patenting, and we reverse the rejection.

Conclusion of Law

We reverse the double patenting rejection of claims 1, 5, 16, and 17.

Appeal 2015-005448
Application 12/983,344

SUMMARY

We affirm the obviousness rejections and reverse the double patenting rejection.

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).

AFFIRMED