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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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*Ex parte* FRÉDÉRIC MALET

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Appeal 2017-002276  
Application 13/807,783<sup>1</sup>  
Technology Center 1600

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Before DONALD E. ADAMS, ERIC B. GRIMES, and JOHN G. NEW,  
*Administrative Patent Judges.*

ADAMS, *Administrative Patent Judge.*

DECISION ON APPEAL

This appeal under 35 U.S.C. § 134(a) involves claims 1–3, 5–12, 21, and 22 (Final Act.<sup>2</sup> 1).<sup>3</sup> Examiner entered a rejection under 35 U.S.C. § 103(a).<sup>4</sup> We have jurisdiction under 35 U.S.C. § 6(b).

We REVERSE.

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<sup>1</sup> Appellant identifies the real party in interest as “ARKEMA FRANCE” (App. Br. 1).

<sup>2</sup> Office Action mailed June 29, 2015.

<sup>3</sup> Pending claims 13–20 stand withdrawn from consideration (Final Act. 1).

<sup>4</sup> Application 14/359,923 was abandoned on June 27, 2017. Therefore, Examiner’s provisional obviousness-type double patenting rejection is moot and will not be discussed further.

STATEMENT OF THE CASE

Appellant's disclosure "relates to a cosmetic composition comprising an elastomeric thermoplastic polymer, in particular a copolymer with polyether blocks and polyamide blocks (PEBA . . .)" (Spec. 1). Appellant's claims 1 and 5 are representative and reproduced below:

1. A composition comprising:
  - from 0.1 to 30 wt% of polyether-block-amide copolymer (PEBA) and
  - from 70 to 99.9 wt% of *a medium that is acceptable in cosmetics, in perfumery and/or in pharmacy, comprising an aqueous phase comprising at least 50% water,*said composition having at least one of the following forms: dispersion, solution, emulsion, microemulsion, nanoemulsion, dry emulsion, suspension, aerosol, gel, compact gel, gum, plastic gum, paste, mousse, cream, powder, loose powder, compact powder, expanded powder, butter, film, elastic film, or a mixture thereof.
  
5. The composition as claimed in claim 1, in which said medium *further comprises an oily phase comprising at least 50% of organic solvent selected from fatty esters, fatty alcohols, fatty acids and mixtures thereof.*

(App. Br. 7 (emphasis added).)

The claims stand rejected as follows:

Claims 1–3, 5–12, 21, and 22 stand rejected under 35 U.S.C. § 103(a) as unpatentable over the combination of Pavlin<sup>5</sup> and Sugihara.<sup>6</sup>

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<sup>5</sup> Pavlin, US 2004/0186263 A1, published Sept. 23, 2004.

<sup>6</sup> Sugihara et al., EP 2 053 093 A1, published Apr. 29, 2009.

ISSUE

Does the preponderance of evidence relied upon by Examiner support a conclusion of obviousness?

FACTUAL FINDINGS (FF)

We adopt Examiner's findings concerning the scope and content of the prior art (Ans. 3–6), and provide the following findings for emphasis.

FF 1. Pavlin discloses that although,

the active ingredient(s) [of a product] determine the ultimate performance utility of the product, the carrier formulation is critical to the commercial success of the product in that it largely determines the consistency of the product. The rheology of the carrier or “base” largely determines the manner in which the consumer will apply or use the product. Many commercial and would-be commercial products depend upon the availability of materials called “gelling agents” that have the ability to modify various rheological properties, in order to allow formulation of a successful product.

Products are often desired to be “gels,” in that they maintain their shape when undisturbed but flow upon being sheared. Transparent gelled carriers are especially desired by formulators who develop products wherein a colorant is an active ingredient, for example in a lipgloss or rouge, because a transparent carrier (as opposed to an opaque carrier) will minimally, if at all, interfere with the appearance of the colorant.

(Pavlin ¶¶ 4–5; *see also id.* ¶ 28 (Pavlin “provides-polyamide block copolymers having significant amounts of linked internal polyether blocks and internal fatty blocks, such that the copolymers have advantageous physical properties and gelling abilities”).)

FF 2. Pavlin discloses “polyamide-polyether block copolymers and the use of polyamide-polyether block copolymers as gellants for liquids in, for example, air fresheners and personal care products” (Pavlin ¶ 2; *see also id.*

¶¶ 182–184 (disclosing the use of a polyamide-polyether copolymer, within the scope of Pavlin’s disclosure for use in personal care (e.g., cosmetics), household, or industrial products; *see* Ans. 3 and 10).

FF 3. Examiner finds that Pavlin discloses a composition within the scope of Appellant’s claimed invention, but for “an aqueous phase with at least 50% water, or an oily phase having at least 50% organic solvent which are fatty esters, fatty alcohols or mixtures thereof” and relies on Sugihara to make up for these deficiencies in Pavlin (Ans. 4).

FF 4. Sugihara’s disclosure “relates to an aqueous dispersion of rubber elastic body and a method of producing the same and in particular to an aqueous dispersion of polyamide rubber elastic body and a method of producing the same” (Sugihara ¶ 1; *see generally* Ans. 4–5).

FF 5. Sugihara’s “aqueous dispersion of polyamide rubber elastic body . . . contains an aqueous medium and a polyamide rubber elastic body emulsified and dispersed in the aqueous medium in the presence of a surfactant” (Sugihara ¶ 6; *see generally* Ans. 4–5).

FF 6. Sugihara discloses that “[t]he polyamide rubber elastic body used in [Sugihara’s] aqueous dispersion is, for example, one of copolymers among a polyether block amide copolymer and a polyether ester block amide copolymer” (Sugihara ¶¶ 7 and 52; *see* Ans. 5).

FF 7. Sugihara’s surfactant “is, for example, at least one member selected from the group consisting of,” *inter alia*, “a fatty acid salt” (Sugihara ¶¶ 7, 26, 29, and 39; *see* Ans. 5).

FF 8. Sugihara discloses mixing “an organic phase containing a polyamide rubber elastic body dissolved in an organic solvent . . . with an aqueous

phase containing a surfactant dissolved in an aqueous medium to prepare an emulsion” (Sugihara ¶ 35; *see* Ans. 4).

FF 9. Sugihara discloses that “[t]he organic solvent used in the preparation of the organic phase is not particularly limited,” wherein:

Examples of the organic solvent include aromatic hydrocarbon solvents such as toluene, xylene, ethyl benzene and tetralin, alicyclic hydrocarbon solvents such as cyclohexane and decalin, aliphatic hydrocarbon solvents such as hexane and heptane, halogenated hydrocarbon solvents such as chloroform and 1,2-dichloroethane, and alcohol solvents such as methanol, ethanol, isopropyl alcohol and t-butanol. These organic solvents can be used as a mixture of two or more thereof.

(Sugihara ¶ 35; *see* Ans. 4–5.)

FF 10. Sugihara discloses that the “aqueous medium . . . is essentially water” (Sugihara ¶ 15).

FF 11. Sugihara exemplifies the preparation of “an aqueous dispersion of polyamide rubber elastic body,” wherein:

A 500-ml separable flask was charged with 16 g of a polyether ester block amide copolymer (trade name: Pebax 2533SA01, melting point 134°C, manufactured by Arkema, Ltd.), 123 g of toluene and 61 g of isopropyl alcohol, and the copolymer was dissolved at 80°C under stirring for 4 hours. To the resulting organic phase solution was added an aqueous solution prepared by dissolving 5.3 g of sodium polyoxyalkylene lauryl ether sulfate (trade name: Trax ET-314, 30 wt% active ingredient, manufactured by NOF Corporation) in 100 g of water. The resulting mixture was stirred and mixed for 2 minutes by means of a homomixer (trade name: TK Homomixer Type M, manufactured by Tokushu Kika Kogyo Co., Ltd.) to give an emulsion. The number of revolutions and temperature during stirring and mixing were set at 12,000 rpm and 40°C, respectively. The resulting emulsion was heated to 40 to 70°C at a reduced pressure of 40 to 90 kPa thereby

distilling off toluene and isopropyl alcohol, to yield an aqueous dispersion of polyamide rubber elastic body.

(Sugihara ¶ 52; *see* Ans. 5; *see also* Ans. 11 (Examiner finds that Sugihara’s Example 1 discloses an emulsion composition comprising, *inter alia*, 8 wt % PEBA, 61.5% toluene, and 30.5 wt % isopropyl alcohol, in 100 g of water, thereby, “meeting the percentage limitations of [Appellant’s] claim 1”).)

FF 12. Sugihara discloses that an

aqueous dispersion of polyamide rubber elastic body according to [its] . . . [disclosure] can be utilized in various applications as a material for producing packaging films, automobile parts, sport-related products and medical devices; a coating agent for nylon fibers and polyester fibers used in clothing materials, carpets and air-bags; a coating agent and a gas barrier agent for paper and film; a raw material for foam rubber; a binder for fibermaterials such as synthetic fibers, natural fibers and glass fibers; and a material for producing hoses, tubes, belts, gaskets, and packing.

(Sugihara ¶ 51.)

#### ANALYSIS

Based on the combination of Pavlin and Sugihara, Examiner concludes that, at the time Appellant’s invention was made, it would have been *prima facie* obvious to combine Pavlin with Sugihara to formulate an aqueous dispersion that is “transparent, flexible, [has] impact [and] tensile strength, [and is] chemical . . . and heat resistant” (Ans. 5 (citing Sugihara ¶ 4)). We are not persuaded.

Appellant’s claim 1, reproduced above, requires, *inter alia*, “a medium that is acceptable in cosmetics, in perfumery and/or in pharmacy” (*see* App. Br. 7). Appellant’s claims 2, 3, 5–12, 21, and 22 depend directly

or indirectly from claim 1 (*see id.* at 7–8).<sup>7</sup> Examiner relies on Pavlin to disclose a formulation comprising polyamide-polyether block copolymers for use “in a cosmetic composition to form a gel stick” (Ans. 3). Pavlin “provides-polyamide block copolymers having significant amounts of linked internal polyether blocks and internal fatty blocks, such that the copolymers have *advantageous* physical properties and *gelling abilities*” (FF 1 (emphasis added)). In this regard, we note, as does Appellant, that Pavlin discloses the advantages of gels, particularly in the context of cosmetic formulations (*id.*; *see also* App. Br. 2; Reply Br. 1). As Examiner recognizes, in formulating compositions with advantageous gelling abilities, Pavlin does not disclose formulations comprising, *inter alia*, “an aqueous phase with at least 50% water” as is required by Appellant’s claimed invention (*see* FF 3; *see also* App. Br. 2; Reply Br. 1).

To make up for foregoing deficiency in Pavlin, Examiner turns to Sugihara for a disclosure of an emulsion composition comprising, *inter alia*, 8 wt % PEBA, 61.5% toluene, and 30.5 wt % isopropyl alcohol, in 100 g of water (FF 11). Examiner, however, fails to identify a disclosure in Sugihara that suggests the use of such a formulation as a cosmetic. To the contrary, as Examiner recognizes, Sugihara relates to formulations for household and industrial application (*see* FF 12). In this regard, we recognize Examiner’s reference to formulations within the scope of Pavlin that may be used for household or industrial applications (FF 2). Examiner, however, failed to establish that a person of ordinary skill in this art would have appreciated

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<sup>7</sup> We note that Appellant’s claim 9, as reproduced in the “CLAIMS APPENDIX” of Appellant’s Brief depends from cancelled claim 4 (*see* App. Br. 7–8). For the purposes of this Appeal, we treat Appellant’s claim 9 as depending from Appellant’s claim 1.

that the medium of Pavlin's emulsion composition—which includes toluene and isopropyl alcohol—would be acceptable for a composition intended for cosmetic application (*see, e.g.*, App. Br. 3).

Similarly, as discussed above, Examiner failed to establish an evidentiary basis on this record to support a conclusion that Sugihara's formulations for use in household and industrial applications may be used cosmetically (*see id.*; *see also id.* at 4 (The “characteristics [of Sugihara's formulations] are molding composition characteristics and irrelevant for the use in a cosmetic composition”); *see also* Reply Br. 2 (“Sugihara indicates that the organic solvent [may include] toluene, xylene, ethylbenzene, tetralin, cyclohexane, etc. . . ., [which] would be hazardous on application to the skin, in view of their nature”); *see* FF 9 and 11).

Further, Examiner failed to establish an evidentiary basis on this record to support a conclusion that the *gelling ability* of Pavlin's formulation would not be destroyed, or otherwise be rendered unsuitable, by adding, *inter alia*, an aqueous phase, as disclosed by Sugihara, to Pavlin's formulation (*see, e.g.*, App. Br. 2 (“one of ordinary skill in the art would not combine Pavlin and Sugihara, inasmuch as they . . . do not permit a reasonable expectation of success in maintaining the desired properties of the primary reference”); *see also id.* at 4 (“The . . . [addition of] water as argued to be obvious in view of Sugihara has an uncertain effect on the gels of . . . [Pavlin], whose rheology is said therein to be an important characteristic”); *see* Reply Br. 1; FF 1).

CONCLUSION OF LAW

The preponderance of evidence relied upon by Examiner fails to support a conclusion of obviousness. The rejection of claims 1–3, 5–12, 21, and 22 under 35 U.S.C. § 103(a) as unpatentable over the combination of Pavlin and Sugihara is reversed.

REVERSED