



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.
14/979,313	12/22/2015	Christopher Michael MACNEILL	463150US99	5364
22850	7590	10/04/2019	EXAMINER	
OBLON, MCCLELLAND, MAIER & NEUSTADT, L.L.P. 1940 DUKE STREET ALEXANDRIA, VA 22314			BASQUILL, SEAN M	
			ART UNIT	PAPER NUMBER
			1613	
			NOTIFICATION DATE	DELIVERY MODE
			10/04/2019	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):

OBLONPAT@OBLON.COM
iahmadi@oblon.com
patentdocket@oblon.com

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte CHRISTOPHER MICHAEL MACNEILL, XIANZHI ZHOU,
TSANG-MIN HUANG, ALINE AUDE GUIMONT, CHUNHUA LI,
HY SI BUI, and RONNI LYNN WEINKAUF

Appeal 2018-007183
Application 14/979,313
Technology Center 1600

Before DONALD E. ADAMS, RICHARD M. LEBOVITZ, and
RYAN H. FLAX, *Administrative Patent Judges*.

FLAX, *Administrative Patent Judge*.

DECISION ON APPEAL

This is a decision on appeal under 35 U.S.C. § 134(a) involving claims to a nail composition. Appellant¹ appeals the Examiner's rejection of claims 1–4, 10–13, 15, and 17–19 under 35 U.S.C. § 103 is appealed.² We have jurisdiction under 35 U.S.C. § 6(b).

We affirm.

¹ “Appellant” herein refers to the “applicant” as defined by 37 C.F.R. § 1.42. Appellant identifies itself, “L’Oréal,” as the real party-in-interest. Br. 2.

² Oral argument was heard on September 24, 2019; a transcript of the hearing will be made a part of the record in due course.

STATEMENT OF THE CASE

The Specification states that “[t]he present invention relates to nail compositions comprising at least one dispersion of acrylic polymer particles and at least one inorganic gelling agent.” Spec. ¶ 1. At times, the Specification refers to the dispersion of acrylic polymer particles as an oily dispersion and to the gelling agent as a silica. The Specification states that the invention meets the needs for “a UV gel product which has one or more of the following properties (preferably, all of the following properties): good water-resistance, good wear and/or good adhesion, without prolonging the amount of time needed for removal from nails.” *Id.* ¶ 6.

Independent claim 1, reproduced below, is representative:

1. A nail composition comprising at least one photocrosslinkable compound, at least one photoinitiator, at least one dispersion of acrylic polymer particles, and at least one inorganic gelling agent,

wherein the at least one dispersion of acrylic polymer particles comprises 80% to 100% by weight of C1-C4 alkyl (meth)acrylate and of 0 to 20% by weight of ethylenically unsaturated acid monomer, relative to the total weight of the polymer in a hydrocarbon based oil.

Br. 13 (Claims Appendix). Dependent claims narrow the components of claim 1 to specific compounds and amounts. Claims 2 and 15 further require a specific range of ratios (20:1 to 1:5) of the polymer dispersion particles and gelling agent.

The following rejection is on appeal:

Claims 1–4, 10–13, 15, and 17–19 stand rejected under 35 U.S.C. § 103 over *Lein*,³ *Viala*,⁴ *Farcet*,⁵ and *L’Alloret*.⁶ Final Action 5–6.

DISCUSSION

“[T]he examiner bears the initial burden, on review of the prior art or on any other ground, of presenting a *prima facie* case of unpatentability. [Once] . . . that burden is met, the burden of coming forward with evidence or argument shifts to the applicant.” *In re Oetiker*, 977 F.2d 1443, 1445 (Fed. Cir. 1992). Arguments made by Appellants in the Appeal Brief have been considered (no Reply Brief was submitted); arguments not so-presented are waived. *See* 37 C.F.R. § 41.37(c)(1)(iv) (2017); *see also Ex parte Borden*, 93 USPQ2d 1473, 1474 (BPAI 2010) (informative) (“Any bases for asserting error, whether factual or legal, that are not raised in the principal brief are waived.”).

“The combination of familiar elements [or steps] 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). “One way for a patent applicant to rebut a *prima facie* case of obviousness is to make a showing of ‘unexpected results,’ i.e., to show that the claimed invention exhibits some superior property or advantage that a person of ordinary skill

³ WO 2013/192515 A1 (published Dec. 27, 2013) (“*Lein*”).

⁴ WO 2015/022438 A1 (published Feb. 19, 2015); *see* US 2016/0213596 A1 (published July 28, 2016, in English, as the related counterpart U.S. published application) (“*Viala*”).

⁵ US 2011/0243864 A1 (published Oct. 6, 2011) (“*Farcet*”).

⁶ FR 11 61453, publication No. FR 2 983 719 (registered Dec. 12, 2011); *see* EPO/Google-produced machine-generated English translation (“*L’Alloret*”).

in the relevant art would have found surprising or unexpected.” *In re Soni*, 54 F.3d 746, 750 (Fed. Cir. 1995). First, “[t]he evidence presented to rebut a *prima facie* case of obviousness must be commensurate in scope with the claims to which it pertains.” *In re Dill*, 604 F.2d 1356, 1361 (CCPA 1979); *see also In re Kao*, 639 F.3d 1057, 1068 (Fed. Cir. 2011) (“If an applicant demonstrates that an embodiment has an unexpected result and provides an adequate basis to support the conclusion that other embodiments falling within the claim will behave in the same manner, this will generally establish that the evidence is commensurate with [the] scope of the claims.”). Second, “[t]o be particularly probative, evidence of unexpected results must establish that there is a difference 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); *see also In re Baxter Travenol Labs.*, 952 F.2d 388, 392 (Fed. Cir. 1991) (“[W]hen unexpected results are used as evidence of nonobviousness, the results must be shown to be unexpected compared with the closest prior art.”). Third, “[m]ere improvement in properties does not always suffice to show unexpected results. In our view, however, when an applicant demonstrates *substantially* improved results . . . and *states* that the results were *unexpected*, this should suffice to establish unexpected results *in the absence of* evidence to the contrary.” *In re Soni*, 54 F.3d at 751 (emphasis original). However, “‘differences in degree’ of a known and expected property are not as persuasive in rebutting obviousness as differences in ‘kind’—i.e., a new property dissimilar to the known property.” *Bristol-Myers*, 752 F.3d at 977.

With these standards in mind, we address the Examiner's rejection and Appellant's arguments there-over.

The Examiner determined that the claims would have been obvious over the combination of Lein, Viala, Farcet, and L'Alloret. Final Action 5–11 and Answer 3–12 (collectively citing Lein ¶¶ 9, 16, 33, 37, 40, 43, 50–51; Viala ¶ 99; Farcet ¶¶ 7–8, 17–19, 37, 47, 51, 117–119, 171–176, 180–181; L'Alloret 5, 22, 28, 30, 35). To summarize, the Examiner determined that Lein disclosed a nail composition having all the elements recited by claim 1 except for the dispersion of acrylic polymer particles (Lein disclosed urethanes, hydroxyls, a photoinitiator, and thixotropic gelling agents). For the specific types of gelling agents and amounts thereof, as recited in the dependent claims, the Examiner cited and, combined with Lein, the Viala (nail varnish) disclosure of 0–20% of, e.g., Aerosil R972, Aerosil R974, CAB-O-SIL TS-610, or CAB-O-SIL TS-720.

For the acrylic polymer dispersion, the Examiner further cited the disclosures of Farcet and L'Alloret, which disclosed the advantages of including a polymer dispersion in cosmetics (including in nail compositions) and the particular polymer dispersion components, as claimed.

As confirmed at oral argument, there is no real dispute that the cited prior art combination discloses each element of the claims or that each reference would be analogous art (nail cosmetics). Appellant argues that Lien discloses that nail compositions were found to have stability issues and, therefore, there would not have been motivation to casually add components to Lein's composition for fear of destabilizing the composition. *See* Appeal Br. 4–5. Appellant also argues that it has presented evidence of unexpected results sufficient to overcome the Examiner's case for obviousness. *Id.* at 6–

11. In support of this argument Appellant submitted the MacNeill Declaration,⁷ which explained Examples 10 and 11 in the Specification and contended they provide sufficient evidence that the claimed invention produced a nail gel composition that was unexpectedly easier to remove than comparative compositions, while maintaining good cosmetic qualities. MacNeill Declaration ¶¶ 5–16. Appellant also raises a separate argument that claims 2 and 15, which require a ratio of from 20:1 to 1:5 for the dispersion and gelling agent components, would not have been obvious over the cited art.

Appellant’s arguments are not persuasive for the reasons below.

Regarding Appellant’s argument over whether Lein would or would not have been modified over stability concerns, as noted by the Examiner, Lein explains that omitting tin from its compositions maintains stability and Lein also expressly invites the addition of other typical ingredients found in commercial nail polish. *See* Lein ¶¶ 33, 40. It is not disputed that Lein and each of the other cited prior art references relate to ingredients for cosmetic nail compositions and the components of these other references could be included in Lein’s composition without also introducing unwanted tin. Because Lein invites their incorporation, the skilled artisan would have had reason to do so for the advantages expressed in the references.

As for Appellant’s arguments that the 20:1 to 1:5 (claims 2, 15) ratio range for the claimed dispersion and gelling agent components is a patentable distinction, the Examiner points out that the amounts of these components taught in the cited prior art would result in ratios of the

⁷ Declaration Under 37 C.F.R. § 1.132, dated Aug. 1, 2017 (“MacNeill Declaration”).

components overlapping the claimed range. *See, e.g.*, Answer 5 (polymer particles included in compositions at 5–40 wt.%, citing Farcet ¶¶ 172–173), *id.* at 4 (thixotropic agent included in composition at 0.1–10 wt.%, and ≥ 0 to ≤ 20 wt.%, *see* Lein ¶¶ 49–51, and Viala ¶¶ 98–99, respectively); *see also id.* at 11–12 (discussing claims 2 and 15). We find this to be correct.

Appellant’s evidence of unexpected results is not sufficient to overcome the Examiner’s *prima facie* case for obviousness. While Appellant has presented some evidence of improvements with an embodiment falling within the scope of the invention over comparative examples, the evidence is (1) not commensurate in scope with the claims, (2) does not clearly compare the results achieved in the invention with the closest prior art, and (3) does not clearly show an improvement in kind versus a mere improvement by degree so as to be particularly persuasive. *See In re Dill*, 604 F.2d at 1361; *Bristol-Myers Squibb*, 752 F.3d at 977; and *In re Soni*, 54 F.3d at 751.

The Examiner takes issue with the style of experiment described in the Specification at Examples 10 and 11 and as discussed by the MacNeill Declaration. The Examiner determined that the evidence was too subjective and the methods not scientific enough to draw reliable conclusions therefrom. *See* Answer 9–11. We do not necessarily share these concerns, although a more scientific methodology, controlling for a single variable, using a significant number of samples, would make it easier to discern actual, substantial improvements in one or a range of samples versus comparative samples.

Our concern is that looking at Example 10, which includes the data cited by Appellant as showing unexpected improvements, it is not possible

to discern what might be the closest prior art or results achieved therewith, thus, it is not apparent whether a real comparison is made between the invention and the closest prior art. Dr. MacNeill did not identify the closest prior art in his declaration nor did the Appeal Brief.

At oral argument, Appellant suggested that “Comparative 3” might be representative of Lein (the closest prior art). First, on the record before us we do not know whether this is correct and, second, even assuming *arguendo* “Comparative 3” did represent Lein, the results of “Inventive 1” are only marginally better than those of “Comparative 3”—a score of 4 versus 3 (presumably, *pretty easy* to pierce versus *easy* to pierce, i.e., one and two respective steps below the best score of 5, “very easy” to pierce, and two and three respective steps above the worst score of 1, “very difficult” to pierce, per Spec. ¶ 227). Improvements were shown in each comparative sample (adding oily dispersion in No. 2 or silica agent in No. 3) over a baseline nail composition having no dispersion or silica, thus, these comparative samples (prior art, if equated to Lein) show that adding such components would have been expected to improve a nail composition’s removability. That combining the two together further improved the composition in this same way would also, logically, be expected.

Most critically, the “Inventive 1” sample relates to a single, specific embodiment having 48.17% bis-HEMA IPDL, 10.58% di-HEMA trimethylhexyl dicarbomate, 25.45% tetrahydrofurfuryl methacrylate, 1.6% butyl acetate and acrylates copolymer, 10% oil dispersion (having 31% solids content; a dispersion in isododecane of polymethyl acrylate particles stabilized with an isobornyl acrylate/methyl acrylate (85/15)), 3.2% ethyl trimethylbenzoyl phenylphosphinate, and 1% silica dimethyl silyate. Claim

1, on the other hand, includes any photocrosslinkable compound, any photoinitiator, any gelling agent, and some C1-C4 alkyl (meth)acrylate polymer as 80–100% of a dispersion in any hydrocarbon based oil. The “Inventive 1” sample may fall within the scope of this claim, but there is no persuasive evidence before us on appeal that this single example provides an adequate basis to conclude that the entirety of the scope of claim 1 would have similar results. The MacNeill Declaration does not support that this single sample is commensurate in scope with, and representative of the scope of claim 1, but suggests that small changes in components may result in significant changes in the composition’s properties. *See* MacNeill Declaration ¶¶ 8–11 (only the single combination of specific polymer dispersion and specific film former worked, while other film formers failed). Thus, we find the evidence of record is not commensurate in scope with the claims.

We discern no error in the Examiner’s determinations, which we conclude presented a prima facie case for the claims’ obviousness over the cited prior art combination. We have considered Appellant’s arguments over the rejections in their entirety, but find them unpersuasive on the record on appeal.

CONCLUSION

In summary, the obviousness rejection of claims 1–4, 10–13, 15, and 17–19 is affirmed.

Claims Rejected	Basis	Affirmed	Reversed
1–4, 10–13, 15, 17–19	§ 103 Lein, Viala, Farcet, L’Alloret	1–4, 10–13, 15, 17–19	

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). *See* 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED