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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* GUROEN HE, TARUN AMLA, LARRY D. OLSON,  
and PEGGY CONN

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Appeal 2018-003077  
Application 13/839,978  
Technology Center 1700

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Before KAREN M. HASTINGS, N. WHITNEY WILSON, and  
CHRISTOPHER C. KENNEDY, *Administrative Patent Judges*.

HASTINGS, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellant<sup>1</sup> seeks our review under 35 U.S.C. § 134(a) of the Examiner's decision rejecting claims 1–3, 5, 8, 9, 11–16, 19–23, 25–30, 39 and 40 under 35 U.S.C. 103(a) as unpatentable over at least the basic combination of Fujimoto et al. (US 2010/0129676 A1, published May 27,

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<sup>1</sup> Appellant is the Applicant, Isola USA Corp., which is also stated to be the real party in interest (Appeal Br. 1).

2010) in view of Bartley et al. (US 2010/0280198 A1, published Nov. 4, 2010).<sup>2</sup>

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

We AFFIRM.

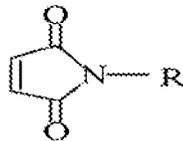
Independent claim 1 is illustrative of the subject matter on appeal (emphasis added to highlight key disputed limitation):

1. A varnish composition comprising:

(1) *from about 30 to about 80% by dry weight* of a base resin selected from a raw resin, a synthesized base resin and combinations thereof wherein the raw resin is a copolymer of butadiene and styrene in which the butadiene is present in the copolymer in an amount greater than 50 mole% and wherein the synthesized base resin is the product of the synthesis of an admixture of ingredients comprising:

i. a copolymer of butadiene and styrene wherein the butadiene is present in the copolymer in an amount greater than 50 mole%;

ii. at least one monomer of a mono maleimide having the following formula:



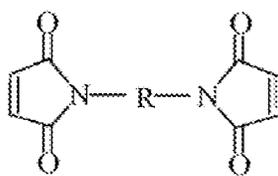
wherein R is alkyl, aryl and mixed alkyl-aryl; and

iii. *at least one reactive monomer*;

(2) *from about 1 to about 30% by dry weight* of at least one monomer of bismaleimide having the following formula:

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<sup>2</sup> While the Examiner applies additional prior art to dependent claim 27, Appellant does not present any argument against this rejection; the focus is on claim 1 (Appeal Br. 3, 6).



where R is alkyl, aryl, or mixed alkyl-aryl; and  
(3) an initiator.

### ANALYSIS

Upon consideration of the evidence on this record and each of Appellant's contentions, we find that the preponderance of evidence supports the Examiner's conclusion that the subject matter of Appellant's claim 1 is unpatentable over the applied prior art. We sustain the Examiner's § 103 rejections essentially for the reasons set out by the Examiner in the Answer and the Final Office Action.

We add the following primarily for emphasis.

Appellant's principal arguments in the Appeal Brief are 1) that the Examiner's proposed combination of Fujimoto with Bartley is improper because Bartley is non analogous art (Appeal Br. 6–9), and 2) that the Examiner has not shown that the claimed ingredient ranges are result effective variables, with the Appellant stating that "the varnish composition of Fujimoto include ingredients beyond those claimed" (Appeal Br. 10). In the Reply Brief, Appellant reiterates these arguments, and maintains that the rejection relies upon impermissible hindsight.

Appellant's arguments do not fully address the rejection and the inferences of these references that are presented on this record for our review.

It has been established that “the [obviousness] analysis need not seek out precise teachings directed to the specific subject matter of the challenged claim, for a court can take account of the inferences and creative steps that a person of ordinary skill in the art would employ.” *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 418 (2007). Likewise, it is also well settled that a reference stands for all of the specific teachings thereof as well as the inferences one of ordinary skill in the art would have reasonably been expected to draw therefrom. *See In re Fritch*, 972 F.2d 1260, 1264–65 (Fed. Cir. 1992). It is also well established that the obviousness inquiry does not ask “whether the references could be physically combined but whether the claimed inventions are rendered obvious by the teachings of the prior art as a whole.” *In re Etter*, 756 F.2d 852, 859 (Fed. Cir. 1985) (en banc); *see also In re Keller*, 642 F.2d 413, 425 (CCPA 1981) (stating “[t]he test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference”).

Appellant’s arguments that Bartley is non analogous art because Bartley is only drawn to a solid polymer as opposed to a varnish or resin are not persuasive of error in the Examiner’s rejection for the reasons set out by the Examiner (Ans. 13, 14 (explaining that Bartley discusses the use of a polymeric coating for a wide variety of substrates including electronic components)). There is no dispute that varnish composition of claim 1 encompasses the varnish composition of Fujimoto except that Fujimoto lacks explicit description of the recited ranges of ingredient amounts and lacks an explicit description of “at least one reactive monomer” (Ans. 4; Appeal Br. *generally*). Bartley exemplifies that one of ordinary skill in the art would have known that a reactive monomer may be used in an acrylate

polymer coating composition to improve adhesion to various substrates (see, e.g., Bartley ¶¶ 8, 28, 31, 43, 52, abstract; Ans. 5, 13, 14). Appellant has not shown reversible error in the Examiner's determination that a person of ordinary skill in the art would have, using no more than ordinary creativity, used a reactive monomer such as exemplified in Bartley in the varnish composition of Fujimoto (e.g., Ans. 11, 12). Appellant has also not shown that use of the reactive monomer has any criticality; indeed, Appellant's Specification states that reactive monomers are "optional ingredients" (Spec. 17, section (6) (a)).

Furthermore, in *KSR Int'l Co.*, 550 U.S. at 419–420, the Supreme Court observed that:

In determining whether the subject matter of a ... claim is obvious, neither the particular motivation nor the avowed purpose of the patentee controls. What matters is the objective reach of the claim. If the claim extends to what is obvious, it is ... [unpatentable] under § 103.

*See also Wyers v. Master Lock Co.*, 616 F.3d 1231, 1238 (Fed. Cir. 2010) (“[t]he Supreme Court’s decision in *KSR* . . . directs us to construe the scope of analogous art broadly,” stating that “*familiar items may have obvious uses beyond their primary purposes*, and a person of ordinary skill often will be able to fit the teachings of multiple patents together like pieces of a puzzle”).

Here, Bartley can be seen to exemplify that a reactive monomer is useful in a polymeric coating in a wide variety of applications (e.g., Bartley ¶¶ 43, 52). Appellant has not shown error in the Examiner's determination that one of ordinary skill would have readily appreciated that a reactive monomer would have had an obvious use in e.g., a varnish polymeric composition of Fujimoto.

We “take account of the inferences and creative steps that a person of ordinary skill in the art would employ,” and find a person of ordinary skill in the art would have overcome any difficulties in including such a reactive monomer in the varnish of Fujimoto within their level of skill. *KSR Int’l* 550 U.S. at 418; *see also id.* at 421 (“A person of ordinary skill is also a person of ordinary creativity, not an automaton.”); *Ball Aerosol & Specialty Container, Inc. v. Limited Brands, Inc.*, 555 F.3d 984, 993 (Fed. Cir. 2009) (under the flexible inquiry set forth by the Supreme Court, the PTO must take account of the “inferences and creative steps,” as well as routine steps, that an ordinary artisan would employ (emphasis omitted)).

Appellant’s argument that Fujimoto allows other ingredients in his varnish (Appeal Br. 10) is not persuasive since claim 1 uses open ended language, e.g., “comprising”, and thus also permits other ingredients to be included therein. Determining workable amounts of the ingredients would have been well within the level of skill in the art (Ans. 15). One of ordinary skill would have readily appreciated that the amount of each component in a composition would affect its properties (Fujimoto ¶ 21; Ans. 5, 15). “A recognition in the prior art that a property is affected by the variable is sufficient to find the variable result-effective.” *In re Applied Materials, Inc.*, 692 F.3d 1289, 1297 (Fed. Cir. 2012). It is well settled that it would have been obvious for an artisan with ordinary skill to develop workable or even optimum ranges for result-effective parameters. *In re Woodruff*, 919 F.2d 1575, 1577 (Fed. Cir. 1990); *In re Boesch*, 617 F.2d 272, 276 (CCPA 1980); *In re Aller*, 220 F.2d 454, 456 (CCPA 1955). Notably, Appellant does not rely upon any evidence of secondary considerations, such as unexpected results.

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Accordingly, we affirm the Examiner's prior art rejections of the claims under 35 U.S.C. § 103(a) for the reasons given above and presented by the Examiner.

#### DECISION

The Examiner's § 103 rejections are affirmed.

#### 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)(1).

AFFIRMED