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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
14/592,520	01/08/2015	Sathish Kumar RANGANATHAN	39795-1024US02	7758
77001	7590	06/15/2020	EXAMINER	
ULMER & BERNE LLP c/o Diane Bell 600 Vine Street SUITE 2800 Cincinnati, OH 45202			MURATA, AUSTIN	
			ART UNIT	PAPER NUMBER
			1712	
			NOTIFICATION DATE	DELIVERY MODE
			06/15/2020	ELECTRONIC

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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* SATHISH KUMAR RANGANATHAN, VIJAY MHETAR,  
SRINIVAS SIRIPURAPU, CODY R. DAVIS, and FRANK E. CLARK

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Appeal 2019-004478  
Application 14/592,520  
Technology Center 1700

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Before ADRIENE LEPIANE HANLON, KAREN M. HASTINGS, and  
BRIAN D. RANGE, *Administrative Patent Judges*.

HASTINGS, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellant<sup>1</sup> requests our review under 35 U.S.C. § 134(a) of the Examiner's decision rejecting claims 1–8 and 10–19 under 35 U.S.C. § 103 as unpatentable over the basic combination of Stowe (US 2004/0016503 A1; publ. Jan. 29, 2004) with Bauco (US 2015/0049992 A1; publ. Feb. 19, 2015).<sup>2</sup> The Examiner also rejects claim 1 and 9 under 35 U.S.C. § 103 as

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<sup>1</sup> We use the word “Appellant” to refer to the “applicant” as defined in 37 C.F.R. § 1.42. Appellant identifies General Cable Technologies Corporation as the real party in interest (Appeal Br. 1).

<sup>2</sup> While the Examiner rejects dependent claims 3, 11, and 18 using an additional reference for each claim as listed in the Summary Table at the end, no discussion of these references is needed for disposition of this

unpatentable over Stowe with Ryan (US 2010/0202741 A1; publ. Aug. 12, 2010).

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

We AFFIRM.

#### CLAIMED SUBJECT MATTER

Claim 1 is the sole independent claim and is illustrative of the subject matter on appeal (emphasis added to highlight key disputed limitations):

1. A method of increasing the emissivity of an overhead conductor to lower its operating temperature, the method comprising:
  - surrounding an overhead conductor with a polymer composition, *wherein the polymer composition comprises one or more of polyvinylidene difluoride and a cross-linked polyethylene*, and wherein the polymer composition is essentially solvent free; and
  - cooling the polymer composition to form a polymeric coating layer surrounding the overhead conductor; and
  - wherein the polymeric coating layer contacts at least a portion of the overhead conductor and defines a single outer layer having a thickness of about 10 microns to about 1,000 microns and the overhead conductor operates at a lower temperature than a bare overhead conductor when tested in accordance with ANSI C119.4; and
  - wherein the method is continuous.

Appellant's arguments focus on claim 1 (*see generally* Briefs).

Accordingly, we shall focus on claim 1.

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appeal. While the Examiner's statement of the rejection does not include dependent claim 14, this is harmless error, since claim 14 is addressed in the body of the rejection (Non-Final Act. 3, 5).

OPINION

Upon consideration of the evidence of record and each of Appellant's contentions as set forth in the Appeal Brief, as well as the Reply Brief, we determine that Appellant has not demonstrated reversible error in the Examiner's rejections (e.g., *see generally* Ans.). *In re Jung*, 637 F.3d 1356, 1365–66 (Fed. Cir. 2011) (explaining the Board's long-held practice of requiring Appellant(s) to identify the alleged error in the Examiner's rejection). We sustain the rejections for the reasons expressed by the Examiner in the Non-Final Office Action and the Answer.

We add the following primarily for emphasis.

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); *see also In re Fritch*, 972 F.2d 1260, 1264–65 (Fed. Cir. 1992) (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).

Appellant's main contentions are that each combination of Stowe/Bauco or Stowe/Ryan is improper because (1) neither of Bauco or Ryan disclose that its polymer jacket directly contacts the wire (Appeal Br. 17, 22), (2) neither of Bauco or Ryan contemplate increasing the emissivity of an overhead conductor as claimed herein (Appeal Br. 18; Reply Br. 5), and (3) each of Bauco and Ryan teach away from any combination with Stowe because of these differences, and because Bauco heats its cable (Appeal Br. 17, 22). Appellant also contends that the Examiner's reliance on paragraph

27 of Bauco that teaches application of its invention to power lines is misplaced (Reply Br. 2, 3).

Appellant's arguments are not persuasive of reversible error for reasons detailed by the Examiner (Ans. 4–6).

Appellant's arguments fail to consider the breadth of the claim language, the applied prior art as a whole, and the inferences that one of ordinary skill in the art would have made therefrom. Claim 1 requires no minimum amounts of the two specific polymer options listed herein.<sup>3</sup> There is no dispute that Stowe discloses the method steps claimed of encasing a metal wire within a polymer, except for describing the use of one of the two specific polymers listed in claim 1 and not explicitly describing increasing the emissivity of the overhead conductor (that is, a polymer encased wire versus a bare wire). Bauco and Ryan are merely relied upon for their descriptions of appropriate polymers to use for jackets that encase various types of wires (Bauco ¶ 57; Ryan ¶ 38; Ans. 4, 6).

Appellant has not shown reversible error in the Examiner's position that it would have been obvious for one of ordinary skill to have used known polymer wire coating/jacket material(s) as exemplified in either of Bauco or Ryan for the polymeric coating of the electrically conductive wires of Stowe (e.g., copper and aluminum) (*generally* Ans.). *See KSR*, 550 U.S. at 417 (the predictable use of known prior art elements or steps performing the same functions they have been known to perform is normally obvious; the

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<sup>3</sup> Appellant's Specification discloses that a non-limiting list of a vast array of polymers are suitable for use in the invention (e.g., Spec. ¶¶ 25, 26, 28). Appellant has not shown or argued that there is any criticality with respect to the polymer choice.

combination of familiar elements/steps is likely to be obvious when it does no more than yield predictable results); *Ball Aerosol & Specialty Container, Inc. v. Ltd. 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); *see also In re Kerkhoven*, 626 F.2d 846, 850 (CCPA 1980) (“It is [generally considered] prima facie obvious to combine two compositions each of which is taught by the prior art to be useful for the same purpose, in order to form a third composition which is to be used for the very same purpose.”).<sup>4</sup>

Likewise, any argument that may be considered as a lack of motivation to combine the cited art is also unpersuasive for the reasons given above. That is, the arguments fail to account for “the inferences and creative steps that a person of ordinary skill in the art would employ.” *See KSR*, 550 U.S. at 418. Furthermore, the Supreme Court has stated that it is error to “look only to the problem the patentee [or applicant] was trying to

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<sup>4</sup> Appellant’s arguments that Bauco and Ryan teach away from use of its polymer in Stowe (e.g., Appeal Br. 10) is not persuasive. Whether the prior art teaches away from the claimed invention is a question of fact, *In re Harris*, 409 F.3d 1339, 1341 (Fed. Cir. 2005). It is well established that a prior art reference must be considered in its entirety, i.e., as a whole, when determining if it would lead one of ordinary skill in the art away from the claimed invention. *W.L. Gore & Assocs., Inc. v. Garlock, Inc.*, 721 F.2d 1540, 1550 (Fed. Cir. 1983). One of ordinary skill in the art would have readily appreciated that the polymers of Bauco and Ryan may be used as a wire polymeric coating as discussed in Stowe. *Cf. In re Susi*, 440 F.2d 442, 446 n.3 (CCPA 1971) (Disclosed examples and preferred embodiments do not constitute a teaching away from a broader disclosure or non-preferred embodiments).

solve.” *KSR*, 550 U.S. at 420; *see also In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006); *In re Beattie*, 974 F.2d 1309, 1312 (Fed. Cir. 1992) (“[T]he law does not require that the references be combined for the reasons contemplated by the inventors.”). Appellant’s argument that one would not combine Bauco or Ryan with Stowe because of various specific features of those references is not persuasive. *In re Keller*, 642 F.2d 413, 425 (CCPA 1981) (“The test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference. . . . Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art”); *In re Nievelt*, 482 F.2d 965, 968 (CCPA 1973) (“Combining the *teachings* of references does not involve an ability to combine their specific structures”).

Appellant’s argument that the references do not discuss increasing emissivity is not persuasive of reversible error in the Examiner’s rejection. The discovery of a previously unappreciated property of a known or obvious composition is not a sufficient basis for patentability. *Cf. In re Dillon*, 919 F.2d 688, 693 (Fed. Cir. 1990) (en banc) (“In particular, the statement [in *In re Wright*] that a *prima facie* obviousness rejection is not supported if no reference shows or suggests the newly-discovered properties and results of a claimed structure is not the law.”) (overruling-in-part *In re Wright*, 848 F.2d 1216 (Fed. Cir. 1988)); *also Dillon*, 919 F.2d at 692 (explaining that where the prior art gives reason or motivation to make the claimed invention, the burden and opportunity to produce evidence such as unexpected results then falls on an applicant to rebut that *prima facie* case).

Accordingly, we sustain the Examiner’s rejections of independent claims 1 as well as all claims dependent thereon, noting that no dependent

claims are separately argued, even those separately rejected (Appeal Br. *generally*).

### CONCLUSION

In summary:

<b>Claims Rejected</b>	<b>35 U.S.C. §</b>	<b>Reference(s)/Basis</b>	<b>Affirmed</b>	<b>Reversed</b>
1, 2, 4–8, 12–17, 19	103	Stowe, Bauco	1, 2, 4–8, 12–17, 19	
3	103	Stowe, Bauco, Galbraith	3	
11	103	Stowe, Bauco, Keogh	11	
18	103	Stowe, Bauco, Smedberg	18	
1, 9	103	Stowe, Ryan	1, 9	
<b>Overall Outcome</b>			1–9, 11–19	

### 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)(iv).

AFFIRMED