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15/190,656	06/23/2016	Anne Germaine Bringuier	HI13-162	4604
21495	7590	02/04/2020	EXAMINER	
CORNING INCORPORATED INTELLECTUAL PROPERTY DEPARTMENT, SP-TI-3-1 CORNING, NY 14831			RADKOWSKI, PETER	
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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* ANNE GERMAINE BRINGUIER,  
RODNEY MAURICE BURNS, KEITH AARON GREER,  
WARREN WELBORN McALPINE, and JOEL LAINE PARKER

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Appeal 2019-002213  
Application 15/190,656  
Technology Center 2800

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Before LINDA M. GAUDETTE, GEORGE C. BEST, and  
MICHAEL G. McMANUS, *Administrative Patent Judges*.

BEST, *Administrative Patent Judge*.

DECISION ON APPEAL

Pursuant to 35 U.S.C. § 134(a), Appellant<sup>1</sup> appeals from the Examiner's decision to reject claims 1–20 of Application 15/190,656. Final Act. (January 30, 2017). We have jurisdiction under 35 U.S.C. § 6.

For the reasons set forth below, we *reverse*.

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<sup>1</sup> We use the word “Appellant” to refer to “applicant” as defined in 37 C.F.R. § 1.42. Appellant identifies Corning Optical Communications, LLC, as the real party in interest. Appeal Br. 1.

## I. BACKGROUND

The '656 Application describes a “dry” fiber optic cable. Spec. ¶¶ 2–3. Such fiber optic cables use components that include water-swella-  
ble material to block water flow through the spaces between cable components. *Id.* ¶ 3. In a conventional dry fiber optic cable, the water-swella-  
ble powder is carried on a yarn or between nonwoven laminates in a tape. *Id.* The dry fiber optic cable described in the '656 Application is constructed in a manner that eliminates the need for the water-swella-  
ble powder carrier yarn or tape. *Id.* ¶¶ 3–5

Claim 1 is representative of the '656 Application's claims and is reproduced below from the Claims Appendix of the Appeal Brief.

1. A fiber optic cable, comprising:

a core assembly comprising:

an optical fiber, and

a tube through which the optical fiber extends; a polymeric sleeve surrounding the core assembly, wherein the polymeric sleeve is continuous peripherally around the core assembly, forming a continuous closed loop when viewed in cross-section, and continuous lengthwise along a length of the cable that is at least 10 meters, wherein the polymeric sleeve conforms to an exterior geometry of the core assembly, thereby limiting the space for water to flow between the polymeric sleeve and the core assembly;

water-swella-  
ble powder partially embedded in the polymeric sleeve such that the particles of the water-swella-  
ble powder have a portion thereof submerged in the polymeric sleeve passing partly through a surface plane of the polymeric sleeve and another portion thereof exposed partially projecting away from the service plane of the polymeric sleeve; and

a jacket surrounding the polymeric sleeve.

Appeal Br. 18.

## II. REJECTIONS

On appeal, the Examiner maintains the following rejections:

1. Claims 1–5, 11, and 12 are rejected under 35 U.S.C. § 103 as unpatentable over the combination of Kang,<sup>2</sup> Bambara,<sup>3</sup> and Bringuier.<sup>4</sup> Final Act. 4.
2. Claims 6–10 and 13–20 are rejected under 35 U.S.C. § 103 as unpatentable over the combination of Kang, Bambara, Bringuier, and Burns.<sup>5</sup> Final Act. 8.

## III. DISCUSSION

### A. *Rejection of claims 1–5, 11, and 12 under 35 U.S.C. § 103 over the combination of Kang, Bambara, and Bringuier*

Appellant argues that the rejection of claims 1–5, 11, and 12 should be reversed based upon claim 1’s limitations. Appeal Br. 5–10. Claims 2–5, 11, and 12 depend from claim 1. Because we reverse the rejection of independent claim 1, we do not address Appellant’s additional arguments regarding claims 4 and 11.

Appellant argues that the rejection of claim 1 should be reversed because the combination of Kang, Bambara, and Bringuier does not describe or suggest the claimed “polymeric sleeve surrounding the core assembly . . . wherein the polymeric sleeve conforms to an exterior geometry of the core assembly.” *Id.* at 5.

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<sup>2</sup> US 2009/0016687 A1, published January 15, 2009.

<sup>3</sup> WO 02/074843 A2, published September 26, 2002.

<sup>4</sup> US 5,684,904, issued November 4, 1997.

<sup>5</sup> US 2011/0135816 A1, published June 9, 2011.

In rejecting claim 1, the Examiner found that Kang describes a fiber optic cable comprising a multilayer sleeve 40/50 that conforms to an exterior geometry of the core assembly. Final Act. 4 (citing Kang Fig. 2). The Examiner, however, found that Kang's multilayer sleeve is not described as polymeric. *Id.* at 5. The Examiner also found that Bambara describes a multilayer polymeric sleeve 22/21/23. *Id.*; Answer 3–4 (citing Bambara Fig. 4). The Examiner further found that it would have been obvious to use Bambara's polymeric multilayer sleeve in Kang's fiber optic cable to facilitate optimization of physical properties and mission-specific additives. Final Act. 5–6 (citing Bambara ¶¶ 14, 28). Thus, in the rejection, the Examiner proposes replacing Kang's multilayer sleeve 40/50 with Bambara's polymeric sleeve 22/21/23. Answer 4–5.

Appellant argues that the Examiner has not identified a sufficient reason to replace Kang's multilayer sleeve 40/50 with the sleeve made from a polymeric material as described by Bambara. Appeal Br. 8–10. In particular, Appellant argues that Bambara describes a foamed core material that is used in rigid, load-bearing structures that resist bending and flexing. *Id.* at 9–10. According to Appellant, “[t]here is simply no reason one would modify ‘waterproof tape 40’ and the ‘ECCS tape 50’ to provide any of the benefits of the laminate structure taught by Bambara et al.” Reply Br. 2.

We agree with Appellant. Bambara describes a multilayer laminate for use in reusable pallets and/or containers. As the Examiner found, Bambara describes its laminate as having enhanced physical properties such as shock attenuation and stiffness. Bambara ¶ 14. These properties may be useful in a material used to make shipping pallets. In this case, however, the record before us is devoid of evidence that a person having ordinary skill in the art

would have thought these properties important in a fiber optic cable. Nor has the Examiner provided sufficient reasoning in lieu of this evidence.

The Examiner also found that a person having ordinary skill in the art would have replaced Kang's sleeve 40/50 with Bambara's laminate to get the ability to optimize the use of mission-specific additives. Final Act. 5–6 (citing Bambara ¶ 28). Bambara, however, describes incorporation of these additives into an optional coating that can be applied to the multilayer laminate. Bambara does not describe incorporation of these additives directly in the material making up multilayer laminate 22/21/23. Thus, the Examiner erred by finding that the use of mission-specific additives would have motivated a person having ordinary skill in the art to combine Kang and Bambara.

For these reasons, we reverse the rejection of claims 1–5, 11, and 12.

*B. Rejection of claims 6–10 and 13–20 under 35 U.S.C. § 103 over the combination of Kang, Bambara, Bringuier, and Burns*

We divide the claims subject to this ground of rejection into two groups: (1) claims 6–10 and (2) claims 13–20. We discuss each group of claims separately.

1. Claims 6–10

Claims 6–10 depend from independent claim 1. As discussed above, we have reversed the rejection of claim 1 as unpatentable over the combination of Kang, Bambara, and Bringuier. Because the Examiner did not find that Burns remedied the defects in the rejection of claim 1, we also reverse the rejection of claims 6–10.

2. Claims 13–20

Claim 13 is independent. Claims 14–20 depend from claim 13. We, therefore, limit our discussion to claim 13.

Claim 13 reads:

13. A fiber optic cable, comprising:

a core assembly comprising an optical fiber;

a polymeric sleeve surrounding the core assembly, wherein the polymeric sleeve is continuous peripherally around the core assembly, forming a continuous closed loop when viewed in cross-section, and continuous lengthwise along a length of the cable that is at least 10 meters, wherein the polymeric sleeve comprises:

water-swelling segments extending lengthwise along the polymeric sleeve supporting water-swellaable powder;

bare segments, wherein the bare segments extend radially<sup>[6]</sup> around the full perimeter of the sleeve and are located between the water-swelling segments in the lengthwise direction; and

a jacket surrounding the polymeric sleeve.

Appeal Br. 20 (some indentation supplied).

Claim 13 includes the same polymeric sleeve limitation as claim 1. As discussed above, the Examiner failed to explain why a person of ordinary skill in the art would have replaced Kang’s sleeve 40/50 with Bambara’s multilayer laminate 22/21/23. The rejection of claim 13 does not cure this deficiency. We, therefore, also reverse the rejection of claim 13. Because we

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<sup>6</sup> Paragraph 62 of the Specification and Figure 8 suggest that the claimed full loop extends circumferentially, i.e., along the sleeve’s circumference, “around the full perimeter of the sleeve” rather than radially, i.e., outward along the sleeve’s radius.

reverse the rejection of claim 13, we also reverse the rejection of dependent claims 14–20.

#### IV. CONCLUSION

In summary:

<b>Claims Rejected</b>	<b>35 U.S.C. §</b>	<b>References/Basis</b>	<b>Reversed</b>
1–5, 11, 12	103	Kang, Bambara, Bringuier	1–5, 11, 12
6–10, 13–20	103	Kang, Bambara, Bringuier, Burns	6–10, 13–20
<b>Overall Outcome</b>			1–20

REVERSED