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Table with 5 columns: APPLICATION NO., FILING DATE, FIRST NAMED INVENTOR, ATTORNEY DOCKET NO., CONFIRMATION NO. Includes details for application 13/412,321 filed 03/05/2012 by Jean-Francois Lecostaouec, attorney 66181.7900, confirmation 1830. Also includes examiner PIZIALI, ANDREW T, art unit 1789, notification date 12/30/2019, and delivery mode ELECTRONIC.

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte JEAN-FRANCOIS LECOSTAOUEC
and
PAUL PEREA

Appeal 2019-001956
Application 13/412,321
Technology Center 1700

Before ROMULO H. DELMENDO, JEFFREY T. SMITH, and
MARK NAGUMO, *Administrative Patent Judges*.

DELMENDO, *Administrative Patent Judge*.

DECISION ON APPEAL

The Appellant¹ appeals under 35 U.S.C. § 134(a) from the Primary Examiner’s decision to reject claims 1–3, 6–10, and 21–24.² We have jurisdiction under 35 U.S.C. § 6(b).

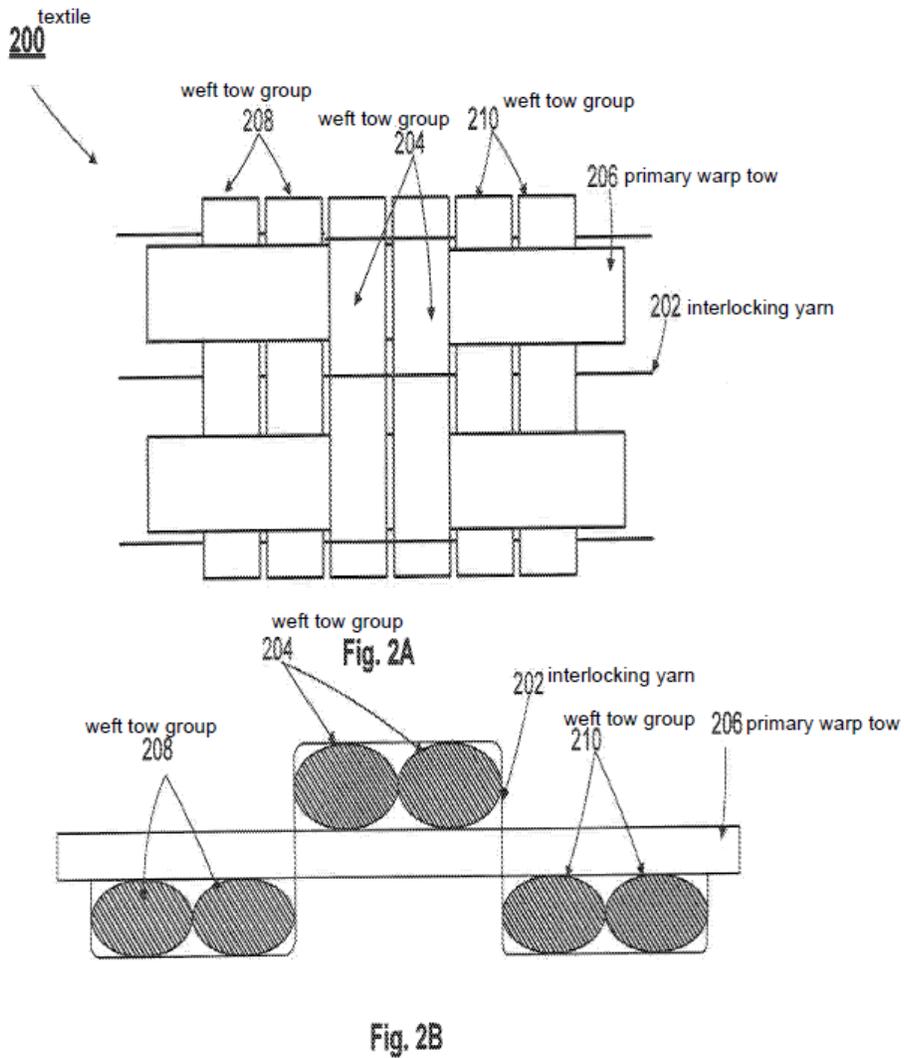
We reverse.

¹ We use the word “Appellant” to refer to “applicant” as defined in 37 C.F.R. § 1.42. The Appellant identifies “Goodrich Corporation” as the real party in interest (Appeal Brief filed September 4, 2018 (“Appeal Br.”) at 1).

² See Appeal Br. 7–16; Non-Final Office Action entered March 5, 2018 (“Non-Final Act.”) at 2–8; Examiner’s Answer entered November 2, 2018 (“Ans.”) at 3–12.

I. BACKGROUND

The subject matter on appeal relates to a textile (Specification filed March 5, 2012 (“Spec.”) ¶ 7). Annotated Figures 2A and 2B, which are reproduced from the Drawings filed March 5, 2012, illustrate embodiments of the claimed subject matter, as follows:



Figures 2A and 2B above show a textile **200** comprising a primary warp tow **206** with an interlocking yarn **202** and weft tow groups **208**, **204**, and **210**, wherein the interlocking yarn is disposed below weft tow group **208**, above

tow group **204**, and below weft tow group **210** (*id.* ¶ 37). As shown in Figures 2A and 2B, the interlocking yarn **202** extends, at least partly, in the warp direction next to or near (i.e., adjacent) the primary warp tow **206**, following the layout of the primary warp tows relative to the weft tow groups.

Representative claim 1, the sole independent claim on appeal, is reproduced from the Claims Appendix to the Appeal Brief, as follows:

1. A textile, comprising:
 - a first interlocking warp yarn;
 - a first weft tow;
 - a second weft tow; and
 - a first primary warp tow,wherein the first weft tow, the second weft tow, and the first primary warp tow comprise a carbon fiber precursor,
 - wherein the first primary warp tow comprises from about 6 thousand (K) to 50 K fibers,
 - wherein the first weft tow comprises from about 6 K to 50 K fibers,
 - wherein the second weft tow comprises from about 6 K to 50 K fibers,
 - wherein the first primary warp tow passes below the first weft tow and above the second weft tow,
 - wherein the first interlocking warp yarn passes above the first weft tow and below the second weft tow,
 - wherein the first interlocking warp yarn is adjacent to the first primary warp tow in a warp direction,***
 - wherein the first interlocking warp yarn has a diameter that is less than the diameter of the first primary warp tow,
 - wherein the first interlocking warp yarn is sacrificial and consists of at least one of cotton, wool, linen, polyester, silk, nylon, rayon, polypropylene, and acrylic.

(Appeal Br. 18 (emphases added)).

II. REJECTIONS ON APPEAL

On appeal, the Examiner maintains several rejections, as follows:

- A. Claims 1–3, 6–10, and 21–24 under pre-AIA 35 U.S.C. § 112, ¶ 2, as indefinite;
- B. Claims 1–3, 9, 10, and 21–24 under pre-AIA 35 U.S.C. § 103(a) as unpatentable over Clarke et al.³ (“Clarke”) and Levan;⁴
- C. Claims 6–8 under 35 U.S.C. § 103(a) as unpatentable over Clarke, Levan, and Parker et al.⁵ (“Parker”);
- D. Claims 1, 3, 9, 10, and 22–24 under 35 U.S.C. § 103(a) as unpatentable over Clarke and Jahn;⁶ and
- E. Claims 6–8 under 35 U.S.C. § 103(a) as unpatentable over Clarke, Jahn, and Parker.

III. DISCUSSION

Rejection A (Indefiniteness). The Examiner points out that claim 1 was amended on August 23, 2017 to recite “wherein the first interlocking warp yarn is adjacent to the first primary warp tow in a warp direction” (Ans. 9 (emphasis omitted)). Citing a dictionary defining the term “adjacent” as “lying near, close, or contiguous” (<http://www.dictionary.com/browse/adjacent>), the Examiner concludes “[i]t is unclear what distance the first interlocking warp yarn must be to the

³ US 5,952,075, issued September 14, 1999.

⁴ US 4,861,575, issued August 29, 1989.

⁵ US 4,506,611, issued March 26, 1985.

⁶ US 3,917,884, issued November 4, 1975.

primary warp tow to be considered adjacent” (*id.* at 3). In addition, the Examiner states that “it is not clear how a warp yarn and a warp tow can be adjacent in a warp direction” (*id.* (analogizing that “a motel may be adjacent a highway, but it’s not clear how a motel may be adjacent a highway in the highway direction”)). Moreover, the Examiner states that the term “adjacent” has two different meanings—i.e., (a) immediately preceding or following or (b) not distant—and, therefore, under *Ex parte Miyazaki*, No. 2007-3300, 2008 WL 5105055, at *5 (BPAI 2008) (precedential), the claim is indefinite as being amenable to two or more plausible claim constructions (*id.* at 8).

The Appellant acknowledges that the Specification uses the term “adjacent” in the context of describing, e.g., a weft tow group **204** that is adjacent a weft tow group **208** in a warp direction (Appeal Br. 8 (citing Spec. ¶ 37); *see also* Figs. 2A and 2B above). But the Appellant further contends that “[t]he dictionary definitions [for ‘adjacent’] do not require the recitation of a particular distance, but merely that two objects are ‘immediately preceding or following’ or ‘not distant[.]’” (Appeal Br. 10). In support of this contention, the Appellant relies on <https://www.merriam-webster.com/dictionary/adjacent> (*id.* at 13–14 n. 24). The Appellant argues that “the first interlocking warp yarn may be construed to be ‘immediately preceding or following’ or ‘not distant’ from the primary warp tow when traveling in the warp direction” and, “[t]hus, the plain meaning of the term adjacent and the usage in the [S]pecification make this definite” (*id.* at 10).

We agree with the Appellant. Contrary to the Examiner’s position, the definiteness requirement under 35 U.S.C. § 112, ¶ 2, does not require the term “adjacent” to be limited to a specific distance. As our reviewing court

explained, the definiteness “requirement, applied to the real world of modern technology, does not contemplate in every case a verbal precision of the kind found in mathematics.” *In re Packard*, 751 F.3d 1307, 1313 (Fed. Cir. 2014).

“Rather, how much clarity is required necessarily invokes some standard of reasonable precision in the use of language in the context of the circumstances.” *Id.* Here, we conclude that, in the context of the Specification and Drawings absent an express definition for the term, the disclosure would have reasonably indicated to a person having ordinary skill in the art that the term “adjacent” has its ordinary meaning (i.e., lying near, close, or contiguous; immediately preceding or following—i.e., not having any other object between the primary warp tow and the first interlocking yarn tow; or not distant). Therefore, we conclude that the Specification and Drawings would have reasonably apprised a person having ordinary skill in the art as to the meaning of the language “wherein the first interlocking warp yarn is adjacent to the first primary warp tow in a warp direction” as recited in claim 1.

The Examiner’s reliance on *Miyazaki* is misplaced. *Miyazaki* does not stand for the proposition that the usage of a term with multiple definitions automatically renders a claim indefinite. Under the standard urged by the Examiner, most claims—if not all—would be indefinite as most words have multiple dictionary meanings. Instead, *Miyazaki* concerned a situation in which the applicant attempted to claim the height of the paper feeding unit in relation to a user of a specific height who is performing operations on the printer without specifying a positional relationship of the user and the printer

to each other, thus resulting in multiple inconsistent claim constructions.

Miyazaki at *7.

Here, the multiple definitions proffered by the Examiner and the Appellant for the term “adjacent” are not so inconsistent among one another such as to create an ambiguity that warrants an indefiniteness rejection. When the claim language is construed in light of the Specification and Drawings, we conclude that the person having ordinary skill in the art would have understood its meaning.

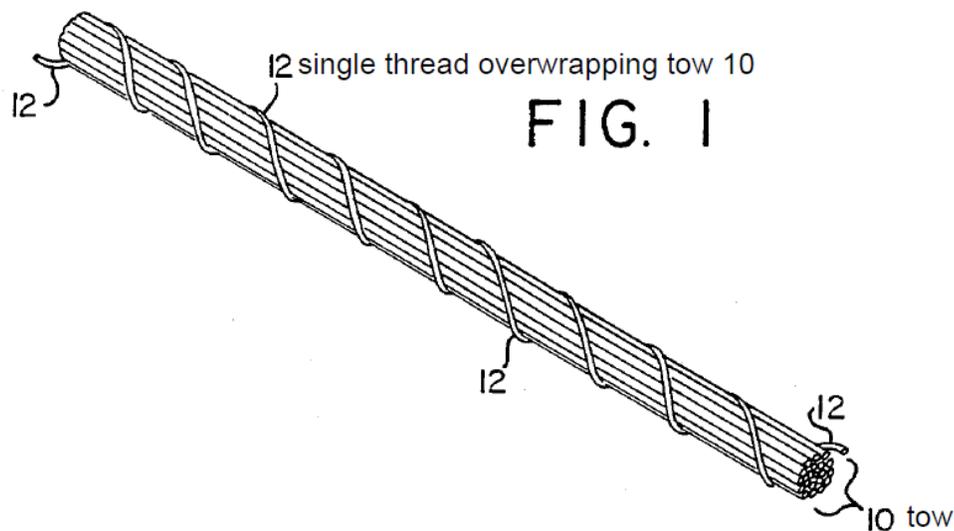
For these reasons, we do not sustain the Examiner’s rejection on this ground.

Rejections B and C (Obviousness Based on Clarke & Levan). The Examiner finds that Clarke describes a textile including most of the limitations recited in claim 1 but acknowledges that “Clarke does not appear to mention overwrapping the tows” (Ans. 4) (citing, e.g., “entire document including Figure 4, column 4, lines 10-33, column 5, line 41 through column 6, line 24, and column 8, lines 9-31”). To resolve this perceived difference, the Examiner relies on Levan (Ans. 4). Specifically, the Examiner finds that Levan teaches overwrapping a tow with a small diameter cotton or rayon fiber to provide tows having better visual quality and reduced fraying (*id.* (citing Levan, col. 2, l. 46–col. 3, l. 23; Fig. 1)). According to the Examiner, “[t]he warp overwrap fiber corresponds to the [Appellant’s] claimed first interlocking warp yarn having a diameter that is less than the diameter of the first primary warp tow” (*id.*). Based on these findings, the Examiner concludes that “it would have been obvious to one having ordinary skill in the art . . . to wrap the (warp and weft) tows of Clarke with an overwrap

fiber, as taught by Levan, motivated by a desire to provide tows with better visual quality and reduced fraying” (*id.*).

The Appellant contends that Levan teaches wrapping fiber “around” the tows, whereas the claimed invention requires interlocking yarns (Appeal Br. 12–13). The Appellant argues that “Levan’s ‘overwrapped . . . around a tow’ . . . cannot be reasonably construed to be a ‘first interlocking warp yarn . . . adjacent to the first primary warp tow in a warp direction’ . . . as presently recited in claim 1” (*id.* at 13).

We agree with the Appellant. Levan’s Figure 1 (annotated) is reproduced as follows:



Levan’s Figure 1 above depicts a perspective view of a multifilament tow **10** overwrapped with a single thread **12** (Levan, col. 2, ll. 5–6, 30–40, 47–55; *see also* Fig. 5). The Examiner does not adequately explain how Levan’s overwrapping thread **12** can be considered to be an *interlocking* yarn as required by claim 1.

Therefore, we cannot sustain the Examiner’s rejection of claim 1 (and claims dependent thereon) based on the combined teachings of Clarke and Levan.

Rejections D & E (Obviousness Based on Clarke & Jahn). The Examiner’s rejections based on Clarke and Jahn are also flawed for the same reason discussed above for Rejections B and C. Consistent with the Appellant’s argument (Appeal Br. 11), the Examiner does not explain how Clarke and Jahn collectively would have suggested an interlocking yarn as required by claim 1 (and claims dependent thereon).

Accordingly, we also do not sustain Rejections D and E.

IV. CONCLUSION

In summary:

Claims Rejected	35 U.S.C. §	Reference(s)/ Basis	Affirmed	Reversed
1–3, 6–10, 21–24	112, second paragraph	Indefiniteness		1–3, 6–10, 21–24
1–3, 9, 10, 21–24	103(a)	Clarke, Levan		1–3, 9, 10, 21–24
6–8	103(a)	Clarke, Levan, Parker		6–8
1, 3, 9, 10, 22–24	103(a)	Clarke, Jahn		1, 3, 9, 10, 22–24
6–8	103(a)	Clarke, Jahn, Parker		6–8
Overall Outcome				1–3, 6–10, and 21–24

REVERSED