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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|------------------------|------------------|
| 13/097.666 | 04/29/2011 | CYNTHIA A. IRVIN | AA-007-US-01 | 6983 |
| 27091 | 7590 | 11/01/2016 | EXAMINER | |
| H.B. FULLER COMPANY Patent Department 1200 WILLOW LAKE BLVD. P.O. BOX 64683 ST. PAUL, MN 55164-0683 | | | MCNURLEN, SCOTT THOMAS | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 3782 | |
| | | | NOTIFICATION DATE | DELIVERY MODE |
| | | | 11/01/2016 | ELECTRONIC |

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte CYNTHIA A. IRVIN, DENNIS A. BRADSHAW,
and ROBERT A. KASZUBOWSKI JR.

Appeal 2014-009526
Application 13/097,666¹
Technology Center 3700

Before STEFAN STAICOVICI, WILLIAM A. CAPP, and
SEAN P. O'HANLON, *Administrative Patent Judges*.

STAICOVICI, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Cynthia A. Irvin et al. (Appellants) appeal under 35 U.S.C. § 134(a) from the Examiner's final decision rejecting claims 1, 5–18, 21, 22, and 24–32.² We have jurisdiction over this appeal under 35 U.S.C. § 6(b).

SUMMARY OF DECISION

We AFFIRM-IN-PART.

¹ According to Appellants, the real party in interest is H.B. Fuller Co. Br. 1 (filed May 19, 2014).

² Claims 2–4, 19, 20, and 23 are cancelled. Br., Claims App.

INVENTION

Appellants' invention relates to a container reinforced with an adhesive-coated reinforcing tape or string. Spec. 4, ll. 7–9.

Claims 1, 16, 17, 22, 24, and 25 are independent. Claim 1 is illustrative of the claimed invention and reads as follows:

1. A container comprising:
 - at least one panel or flap configured to at least partially form a bottom or at least one wall of the container, wherein the panel or flap comprises a corrugated paper board, and the panel or flap includes an inside surface and an outside surface; and
 - at least one reinforcing tape or string adhesively affixed to at least one panel or flap of the container, wherein the reinforcing tape or string comprises an adhesive disposed on a substrate, the reinforcing tape or string has a chord modulus of at least 100 grams/denier between 0% and 4% elongation, and the reinforcing tape or string has a width of equal to or less than 10 mm,
 - wherein the corrugated paper board has a flute direction, the reinforcing tape or string has a longitudinal direction, and the reinforcing tape or string is located so that the longitudinal direction of the reinforcing tape or string is perpendicular to the flute direction of the corrugated paper board, and wherein the container has a length direction that is longer than a width direction, and the longitudinal direction of the reinforcing tape or string is parallel to the length direction of the packaging container.

REJECTIONS

The following rejections are before us for review:

- I. The Examiner rejected claims 1, 5, 8–11, 13, 15, 24, 26, 29, and 31 under 35 U.S.C. § 103(a) as being unpatentable over Renzetti (US 7,477,150 B2, iss. Jan. 13, 2009) and Karass (EP 0 169 043 A2, pub. Jan. 22, 1986).

- II. The Examiner rejected claims 6 and 7 under 35 U.S.C. § 103(a) as being unpatentable over Renzetti, Karass, and Townsend (US 4,911,356, iss. Mar. 27, 1990).
- III. The Examiner rejected claims 12 and 14 under 35 U.S.C. § 103(a) as being unpatentable over Renzetti, Karass, and Porter (US 6,739,232 B2, iss. May 25, 2004).
- IV. The Examiner rejected claims 16, 22, and 32 under 35 U.S.C. § 103(a) as being unpatentable over Renzetti and Porter.
- V. The Examiner rejected claims 17, 18, 21, 25, 27, and 30 under 35 U.S.C. § 103(a) as being unpatentable over Renzetti.
- VI. The Examiner rejected claims 26 and 29 under 35 U.S.C. § 103(a) as being unpatentable over Renzetti, Karass, and Tynan (US 2008/0085388 A1, pub. Apr. 10, 2008).
- VII. The Examiner rejected claims 27, 28, and 30 under 35 U.S.C. § 103(a) as being unpatentable over Renzetti and Tynan.

ANALYSIS

Claims 1, 5–15, 17, 18, 21, 24–27, and 29–31

Each of independent claims 1, 17, 24, and 25 requires, *inter alia*, a corrugated paperboard having a flute direction and a reinforcement tape having a longitudinal direction, wherein the longitudinal direction is oriented perpendicular to the flute direction. *See Br., Claims App.*

The Examiner finds that:

Renzetti discloses wherein the corrugated paper board has a flute direction, the reinforcing tape or string has a longitudinal direction, and the reinforcing tape or string is located so that the longitudinal direction of the reinforcing tape or string is

perpendicular to the flute direction of the corrugated paper board (Fig. 7).

Final Act. 2–3 (transmitted Oct. 11, 2013).

In response, Appellants argue that “Fig. 7 is ‘a side sectional view of a substrate with embedded reinforcing tape’ (column 2, lines 35-37).” Br. 4. According to Appellants, “Fig. 7, nor any other figure of Renzetti, does not show the location or orientation of the reinforcing tape in a container.” *Id.*

To be more exact, we note that Figure 7 of Renzetti is a cross-sectional side-view of corrugated board substrate 40 shown in Figure 6, where corrugated layer 48, reinforcement tape 12, and exterior liner 42 are fed from different rollers into the same web direction and overlapped to form the structure of Figure 7. *See also* Renzetti, col. 7, ll. 19–51. As all the layers of corrugated board substrate 40 are fed into the same web direction, and Figure 7 is a cross-sectional view of Figure 6, the flute direction of corrugated layer 48 is in the same direction as the longitudinal direction of reinforcement tape 12; that is, a direction perpendicular to the page.

Therefore, in contrast to the Examiner’s finding, Renzetti does not disclose that the longitudinal direction of reinforcement tape 12 is oriented perpendicularly to the flute direction of corrugated paperboard 48, as called for by each of independent claims 1, 17, 24, and 25. The Examiner’s use of

the disclosure of Karass³, Townsend⁴, Porter⁵, and Tynan⁶, in various combinations, does not remedy the deficiency of Renzetti as discussed *supra*.

Accordingly, for the foregoing reasons, we do not sustain the rejections under 35 U.S.C. § 103(a) of claims 1, 5, 8–11, 13, 15, 24, 26, 29, and 31 as unpatentable over Renzetti and Karass; of claims 6 and 7 as unpatentable over Renzetti, Karass, and Townsend; of claims 12 and 14 as unpatentable over Renzetti, Karass, and Porter; of claims 17, 18, 21, 25, 27, and 30 as unpatentable over Renzetti; of claims 26 and 29 as unpatentable over Renzetti, Karass, and Tynan; and of claims 27 and 30 as unpatentable over Renzetti and Tynan.

Claims 16, 22, 28, and 32

Appellants argue that “Renzetti do[es] not disclose a container wherein a reinforcing tape is located at the bottom panel of the container,” as per independent claim 16, because “Figs. 7 and 9 of Renzetti are both

³ The Examiner employs Karass to disclose a “container [that] has a length direction that is longer than a width direction” and “[a] reinforcing tape or string [that] has a longitudinal direction . . . parallel to the length direction of the packaging container.” Final Act. 3 (citing Karass, Figs. 7, 11).

⁴ The Examiner uses the disclosure of Townsend to show a container with a continuous, seamless bottom panel and four sidewalls, but no top. *Id.* at 5 (citing Townsend, Fig. 10).

⁵ Porter is employed by the Examiner to show that Kevlar[®] is a liquid crystal polymer. *Id.* (citing Porter, col. 10, ll. 26–28).

⁶ Tynan is used by the Examiner to disclose a VECTRAN[®] reinforcement tape, which is not an aromatic polyamide fiber. *Id.* at 9 (citing Tynan, paras. 6, 10, 15, 18, and 20).

corrugated paper board/reinforcing tape side sectional views that do not show a container at all.” Br. 9.

Although we appreciate that Figures 7 and 9 of Renzetti are side cross-sectional views of a corrugated board substrate 40, nonetheless, we agree with the Examiner that Renzetti discloses “extending the tape the entire length of the container blank.” Ans. 11; *see also* Renzetti, col. 7, ll. 19–26 (“tape 12 extends the entire length of . . . corrugated board blank 46.”). We thus we agree with the Examiner that the resulting container would include reinforcement 12 at the bottom panel of the container as “any panel of the box could serve as the ‘bottom’.” Ans. 11.

Appellants further argue that the Examiner’s finding that the material properties of the claimed reinforcement tape, as per independent claims 16 and 22, are result-effective variables is improper. Br. 10. According to Appellants, “[t]here is nothing in Renzetti recognizing that chord modulus and creep are result effective variables, particularly in the context of minimizing or preventing sagging of a corrugated paper board bottom panel of a container or minimizing or preventing deflection of a corrugated paper board side wall of a container.” *Id.*

We are not persuaded by Appellants’ arguments because the Examiner also finds that Renzetti discloses the use of Kevlar[®] for making reinforcement tape 12. Final Act. 6 (citing Renzetti, col. 4, l. 22). Appellants’ Specification also describes Kevlar[®] as a suitable material for the claimed reinforcement tape. *See* Spec. 6, ll. 1–7. Therefore, as Renzetti discloses the same material as described by Appellants as a suitable material for the claimed reinforcement tape, namely, Kevlar[®], the Examiner is on solid ground to shift the burden to Appellants to prove Renzetti’s Kevlar[®]

does not possess the material properties of independent claims 16 and 22. *In re Spada*, 911 F.2d 705, 708 (Fed. Cir. 1990) (“[W]hen the PTO shows sound basis for believing that the products of the applicant and the prior art are the same, the applicant has the burden of showing that they are not.”).

With respect to the rejection of claim 28, Appellants rely on the arguments presented *supra* in the rejection of independent claim 22 from which claim 28 depends. *See* Br. 12. We are not persuaded for the same reasons as discussed above.

In conclusion, for the foregoing reasons, we sustain the rejections under 35 U.S.C. § 103(a) of claims 16, 22, and 32 as unpatentable over Renzetti and Porter, and of claim 28 as unpatentable over Renzetti and Tynan.

SUMMARY

The Examiner’s decision to reject claims 1, 5–18, 21, 22, and 24–32 is affirmed as to claims 16, 22, 28, and 32, and reversed as to claims 1, 5–15, 17, 18, 21, 24–27, and 29–31.

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-IN-PART