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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte KATHLEEN MARIE LAWSON,
HARALD HERMANN HUNDORF, HOLGER BERUDA,
HORST BLESSING, PETER DZIEZOK, AXEL KRAUSE,
MATTIAS SCHMIDT, and LUTZ STELZIG

Appeal 2015-001423
Application 12/182,386
Technology Center 3700

Before DONALD E. ADAMS, JEFFREY N. FREDMAN, and TIMOTHY G. MAJORS, *Administrative Patent Judges*.

PER CURIAM

DECISION ON APPEAL

This is an appeal[1] under 35 U.S.C. § 134 involving claims to a disposable absorbent article. The Examiner rejected the claims as obvious. We have jurisdiction under 35 U.S.C. § 6(b). We affirm.

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[1] Appellants identify the Real Party in Interest as The Procter & Gamble Company of Cincinnati, Ohio (*see* Br. 1).

Statement of the Case

Background

Appellants' "invention generally relates to an absorbent article, and more particularly to a disposable absorbent article with absorbent particulate polymer material, such as a diaper" (Spec. 1:8–9).

The Claims

Claims 1–20 are on appeal. Independent claim 1 is representative and reads as follows (emphasis added):

1. A disposable absorbent article comprising:

a chassis including a topsheet and a backsheet; and

a substantially cellulose free absorbent core located between the topsheet and the backsheet and including first and second absorbent layers, the first absorbent layer including a first substrate and the second absorbent layer including a second substrate, the first and second absorbent layers further including absorbent particulate polymer material deposited on the first and second substrates in respective patterns of land areas and junction areas between the land areas such that the absorbent particulate polymer material is discontinuously distributed on the first and second substrates and thermoplastic adhesive material covering the absorbent particulate polymer material on the respective first and second substrates, *the first and second absorbent layers combined together such that at least a portion of the thermoplastic adhesive material of the first absorbent layer contacts at least a portion of the thermoplastic adhesive material of the second absorbent layer, the absorbent particulate polymer material is disposed between the first and second substrates in an absorbent particulate polymer material area such that respective patterns of absorbent particulate polymer material are offset from one another and the absorbent particulate polymer material is substantially continuously distributed across the absorbent particulate polymer material area*, wherein the backsheet comprises a hydroenhanced

> nonwoven and wherein the backsheet has a water vapor transmission rate of greater than 2000 g/24h/m^2; wherein the nonwoven comprises a surface coating; wherein the width of the land areas is from about 8mm to about 12mm and the width of the junction areas is less than about 5mm.

The Issues[2]

A. The Examiner rejected claims 1, 2, and 8 under 35 U.S.C. § 103(a) as obvious over Suzuki,[3] Abuto,[4] Kauschke,[5] and Baratian[6] (Final Act. 2–6).

B. The Examiner rejected claims 3–5 under 35 U.S.C. § 103(a) as obvious over Suzuki, Abuto, Kauschke, Baratian, and Buell[7] (Final Act. 6).

C. The Examiner rejected claims 6 and 7 under 35 U.S.C. § 103(a) as obvious over Suzuki, Abuto, Kauschke, Baratian, and Minato[8] (Final Act. 7–8).

D. The Examiner rejected claim 9 under 35 U.S.C. § 103(a) as obvious over Suzuki, Abuto, Kauschke, Minato, and Baratian (Final Act. 8–11).

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[2] The Examiner relies upon Baratian for a limitation in claim 1, but inadvertently omits Baratian from the rejections B, C, and E–G, which address claims that depend from claims 1 and 9 and therefore necessarily also require Baratian, as indicated in our restatement of the issues. However, because there is no dispute regarding Baratian's teachings, we find the Examiner's typographical errors harmless on this record.

[3] Suzuki, M., EP 1 088 537 A2, published Apr. 4, 2001.

[4] Abuto et al., US 5,788,684, issued Aug. 4, 1998 ("Abuto").

[5] Kauschke et al., US 6,632,385 B2, issued Oct. 14, 2003 ("Kauschke").

[6] Baratian et al., US 2005/0164584 A1, published July 28, 2005 ("Baratian").

[7] Buell, US 4,147,580, issued Apr. 3, 1979.

[8] Minato et al., US 6,649,810 B1, issued Nov. 18, 2003 ("Minato").

E. The Examiner rejected claims 10 and 12 under 35 U.S.C. § 103(a) as obvious over Suzuki, Abuto, Kauschke, Baratian, and Minato (Final Act. 11–12).

F. The Examiner rejected claims 11, 17, and 18 under 35 U.S.C. § 103(a) as obvious over Suzuki, Abuto, Minato, Baratian, and Kauschke (Final Act. 12–13).

G. The Examiner rejected claims 13–16 under 35 U.S.C. § 103(a) as obvious over Suzuki, Abuto, Minato, Kauschke, Baratian, and Buell (Final Act. 13–14).

H. The Examiner rejected claims 19 and 20 under 35 U.S.C. § 103(a) as obvious over Suzuki, Abuto, Kauschke, Minato, Buell, and Baratian (Final Act. 15–19).

Because the same issue is dispositive for all eight rejections, we will consider them together. Appellants focus on the combination of Suzuki and Abuto, recognizing that Kauschke and Baratian are cited for particular limitations of claims 1, 9, and 19 (*see* App. Br. 13) and so we address the Examiner's findings with respect to Suzuki and Abuto. Appellants do not argue separately the claims for these obviousness rejections.

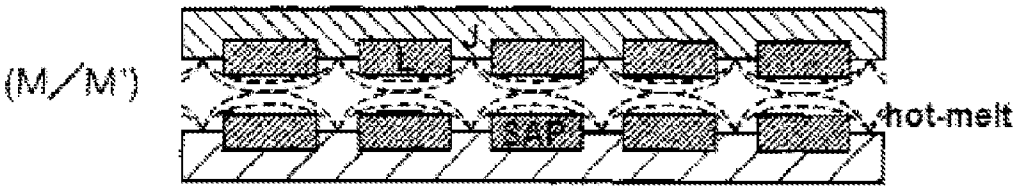
The Examiner finds that Suzuki discloses

> a disposable absorbent article comprising a chassis including a topsheet and a backsheet; and a substantially cellulose free absorbent core located between the topsheet and the backsheet ([0003;] Example 7, Page 19) and including first and second absorbent layers (Fig. 17, M/M'), the first absorbent layer including a first substrate and the second absorbent layer including a second substrate (Fig. 17, Nonwoven Substrate), the first and second absorbent layers further including absorbent particulate polymer material deposited on the first and second

substrates (Fig. 17, SAP) in respective patterns of land areas (see Fig. 17 below, "L") and junction areas (see Fig. 17 below, "J") between the land areas such that the absorbent particulate polymer material is discontinuously distributed on the first and second substrates and thermoplastic adhesive material covering the absorbent particulate polymer material on the respective first and second substrates (Fig. 17, Hotmelt), and the first and second absorbent layers combined together such that at least a portion of the thermoplastic adhesive material of the first absorbent layer contacts at least a portion of the thermoplastic adhesive material of the second absorbent layer (Fig. 17;) wherein the width of the land areas is from about 8mm to about 12 mm and the width of the junction areas is less than about 5 mm [0157.]

(Final Act. 2–3.) The Examiner's annotation of Suzuki's Figure 17 is reproduced below:

Fig. 17: Absorbent core of Suzuki exhibiting land and junction areas



The Examiner acknowledges that

Suzuki fails to provide an absorbent core wherein the absorbent particulate polymer material is disposed between the first and second substrates in an absorbent particulate polymer material area such that the respective patterns of absorbent particulate polymer material are offset from one another and the absorbent particulate polymer material is substantially continuously distributed across the absorbent particulate polymer material area, wherein the backsheet comprises a hydroenhanced

> nonwoven, and wherein the nonwoven comprises a surface coating.

(*Id.* at 3.)

The Examiner turns to Abuto and concludes that it would have been obvious to "offset the face-to-face SAP land areas of Suzuki (Fig. 17) according to the skewed land areas of Abuto (Fig. 4) for the benefit of improved absorbency (c. 7: 57–61[])" (*id.* at 4).

The issue with respect to these rejections is: Does the evidence of record support the Examiner's conclusion that the claims are prima facie obvious?

Findings of Fact

1. Suzuki teaches that "every shape of solid substances including particles, pellets, film or non-woven fabric like shape can be used as the highly water absorbing resin. In this specification, the term 'highly water absorbing solid resin' or 'solid SAP' is used to mean highly water absorbing resins of every such shape" (Suzuki ¶ 2; *see also* Final Act. 2–3).

2. Suzuki teaches that "[h]ighly water absorbing composite sheet comprising a non-woven substrate sheet and solid SAP held on the surface of the non-woven substrate sheet has been used as an absorbent component in such absorbent products such as baby diapers, adult diapers, sanitary napkins, blood absorbent and mother's milk pads" (Suzuki ¶ 3; *see also* Final Act. 2).

3. Suzuki's Figure 17 is reproduced below:

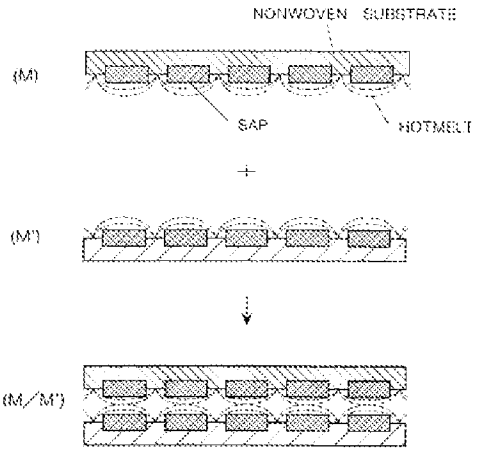


FIG.17

Figure 17 shows that

> composite absorbents of which surface has been treated with hot-melt adhesive are integrally bonded with each other on their surfaces where the hot-melt and SAP are existent so that a composite absorbent of more SAP contained and improved in performance can be obtained. That is to say, as shown in Fig. 17, by integrating a composite absorbent as a first layer (M) and a composite absorbent as a second layer (M') by utilizing hot-melt existent on their surfaces through heating, adhering and compressing, a highly absorbent composite having a structure of (M/M') can be obtained. The SAP and nonwoven fabric constituting (M) and (M') can be the same or different in terms of properties.

(Suzuki ¶ 111; *see also* Final Act. 2–4.)

4. Abuto teaches that

> The present invention is directed to a liquid-absorbing article which employs a high absorbency material such as superabsorbent particles. The particles are housed within discrete chambers formed within an absorbent core so as to

> provide access to incoming liquid and ample area for the particles to expand as they absorb the incoming liquid.

(Abuto Abstract; *see also* Final Act. 3–4.)

5. Abuto's Figure 4 is reproduced below:

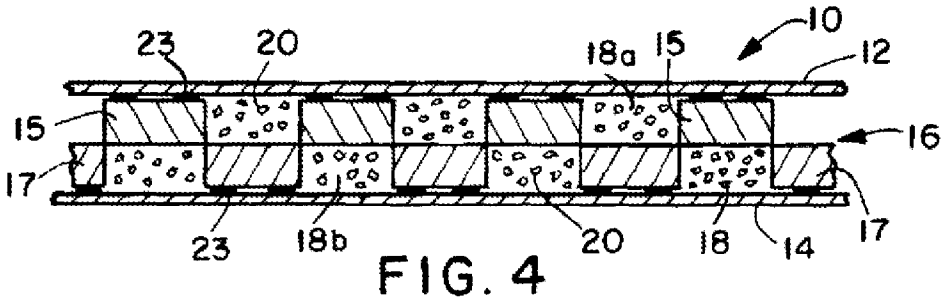


FIG. 4

Figure 4 shows

> a liquid-absorbing article **10** wherein the apertures **18*a*** in the first portion **15** of the absorbent core **16** are skewed from and therefore are not in vertical registry with the apertures **18*b*** in the second portion **17** of absorbent core **16**. This design, among other things, provides greater surface area per volume ratios for individual apertures **18** and thus for liquid contact with the high-absorbency material **20** contained within the apertures **18**.

(Abuto 7:53–61; *see also* Final Act. 3–4.)

Principles of Law

"The combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results." *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 416 (2007). "If a person of ordinary skill can implement a predictable variation, § 103 likely bars its patentability." *Id.* at 417.

Analysis

We adopt the Examiner's findings of fact and reasoning regarding the scope and content of the prior art (Final Act. 2–19; Ans. 2–9; FF 1–5) and agree that the claims are obvious. We address Appellants' arguments below.

Each of Appellants' independent claims 1, 9, and 19, requires, among other things,

> the first and second absorbent layers combined together such that at least a portion of the thermoplastic adhesive material of the first absorbent layer contacts at least a portion of the thermoplastic adhesive material of the second absorbent layer, the absorbent particulate polymer material is disposed between the first and second substrates in an absorbent particulate polymer material area such that respective patterns of absorbent particulate polymer material are offset from one another; and the absorbent particulate polymer material is substantially continuously distributed across the absorbent particulate polymer material area.

(*See* Appellants' claims 1, 9, and 19.)

Appellants contend that "Abuto teaches away from making the combination as suggested in the Office Action" because "Abuto provides: '[p]rior to the present invention, attempts to employ superabsorbents within localized and discrete areas within an absorbent core . . . such absorbent structures often did not perform adequately especially when used in such personal care absorbent articles as diapers'" (Br. 8–9; citing Abuto 5:19–35). Appellants contend that "Suzuki discloses an absorbent composite (M) having SAP covered by a hotmelt" and therefore contend that "one of ordinary skill in the art would not have combined the disclosure of Abuto with that of Suzuki" (Br. 9).

The Examiner responds that "rather than referring to Suzuki, who encapsulates superabsorbent particles in pockets created between a topsheet or backsheet and glue (thermoplastic,) column 7, lines 19–35 refers to inventors who encapsulate superabsorbent particles in pockets created between a topsheet glued to backsheet" (Ans. 4–5).

We find that the Examiner has the better position. Abuto specifically teaches a resolution to the concerns regarding prior art absorbent structures, by using an absorbent core with apertures and chambers (FF 4–5), providing a specific reason to modify the Suzuki absorbent articles in order to "provide[] greater surface area . . . for liquid contact" (FF 5). Thus, neither Suzuki nor Abuto discredit, criticize, or disparage the claimed patterns of absorbent particulate polymer material but instead Abuto suggests "a liquid-absorbing article **10** wherein the apertures **18*a*** in the first portion **15** of the absorbent core **16** are skewed from and therefore are not in vertical registry with the apertures **18*b*** in the second portion **17** of absorbent core **16**" (FF 5). Like our appellate reviewing court, "[w]e will not read into a reference a teaching away from a process where no such language exists." *DyStar Textilfarben GmbH & Co. Deutschland KG v. C.H. Patrick Co.*, 464 F.3d 1356, 1364 (Fed. Cir. 2006).

Appellants contend that "the Office Action fails to set forth a prima facie case of obviousness because the combination of references fails to teach or suggest all of the limitations of claims" (Br. 9). More particularly, Appellants contend that "Suzuki teaches only that the SAP of absorbent composite (M) is in line with the SAP of absorbent composite (M')" (*id.* at 9–10).

This argument is unpersuasive because it fails to account for Abuto's contribution to the combination of references of Suzuki, Abuto, Kauschke, and Baratian. It is Abuto that provides reasons for skewing the apertures to increase surface area and result in improved liquid contact (*see* FF 5). "Non-obviousness cannot be established by attacking references individually where the rejection is based upon the teachings of a combination of references. [The reference] must be read, not in isolation, but for what it fairly teaches in combination with the prior art as a whole." *In re Merck & Co.*, 800 F.2d 1091, 1097 (Fed. Cir. 1986).

Appellants contend that

> the absorbent core of Abuto is shown as a unitary member that includes apertures. Thus, by skewing the absorbent core 16 of Abuto . . ., one would not arrive at the invention as recited in independent claims 1, 9, and 19. Abuto fails to teach an offset as recited in each independent claim. Therefore, simply skewing, which appears to be shifting one layer with respect to the other layer, the absorbent composite of Suzuki would not lead to the invention as claimed.

(Br. 11.)

We are not persuaded. As the Examiner explains,

> no meaningful difference exists between the word "skewed," which Abuto uses to describe his SAP islands, and the word "offset," which [Appellants] use[] in [their] claims. Appellant[s] argue[] that Suzuki is not offset; however, by arguing in [their] remarks that Abuto is skewed (page 11[]) [Appellants] essentially argue[] the reverse of [their] point: that Abuto is offset.

(Ans. 7; FF 5.) The Examiner's interpretation of skewed, particularly in light of Figure 4 of Abuto, reasonably finds that the term is structurally equivalent to the claim term "offset." Appellants do not identify any claim

limitation or definition in the Specification that distinguishes Abuto's skewed layers.

> [D]uring patent prosecution when claims can be amended, ambiguities should be recognized, scope and breadth of language explored, and clarification imposed. . . . An essential purpose of patent examination is to fashion claims that are precise, clear, correct, and unambiguous. Only in this way can uncertainties of claim scope be removed, as much as possible, during the administrative process.

In re Zletz, 893 F.2d 319, 321 (Fed. Cir. 1989).

Appellants further contend that

> based on the disclosure of Abuto, one of ordinary skill in the art would be taught that the absorbent material would need space to expand. Thus, one of ordinary skill in the art may be taught only to skew the absorbent core of Suzuki to leave adequate space for the absorbent material to expand. However, simply skewing the absorbent core does not disclose an ***offset*** as claimed.

(Br. 11.)

We do not find this argument persuasive. As the Examiner explains, "modifying Suzuki with Abuto would leave Suzuki with space to expand, since Suzuki's land areas are larger than his junction areas" (Ans. 7; FF 1–5). *See In re Merck & Co.*, 800 F.2d at 1097. *See also In re Geisler*, 116 F.3d 1465, 1470 (Fed. Cir. 1997) ("[A]ttorney argument [is] not the kind of factual evidence that is required to rebut a prima facie case of obviousness").

Appellants argue that "there is no motivation to modify Suzuki, as cited, in the manner suggested in the Office Action" (Br. 14). Appellants also argue that "the Office Action fails to state some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness and is therefore conclusory" (*id.* at 15).

We find that the Examiner has the better position. As the Examiner explains,

> the principal operation in both Abuto and Suzuki is that of acquiring and absorbing liquid in an effective manner. Suzuki discloses SAP pockets that directly overlap in Fig. 17, and Abuto discloses SAP pockets that directly overlap in Fig. 3. However, in Fig. 4 Abuto goes further by showing skewed SAP pockets. Abuto states that Fig. 4's skewed or offset design provides greater surface area per volume ratios for individual apertures 18 and thus greater liquid contact with the SAP islands 20 contained within apertures 18 (c. 7: 50–65[]).

(Ans. 8.) The Examiner further explains that

> by offsetting the first absorbent core layer 15 and second absorbent core layer 17, Abuto also creates an additional third surface through which *SAP islands* 20 acquire liquid. In other words, when viewed from a perspective above the topsheet, Fig. 4 exhibits a greater surface area of exposed SAP islands 20 per volume absorbent core 16 than Fig. 3. One of ordinary skill in the art would reasonably expect the greater surface area to improve liquid acquisition and absorption. Thus, far from teaching away from SAP offsetting, Abuto teaches it would have been obvious to one of ordinary skill in the art at the time the invention was made to offset Suzuki's SAP islands for the benefit of improving liquid acquisition and absorption.

(*Id.*)

Appellants contend that "substrates 12 and 14 of Abuto do ***not*** form part of the absorbent core 16" (Br. 15).

We do not find this argument persuasive because it fails to account for Suzuki's contribution to the combination that includes Suzuki and Abuto (FF 1–5). The Examiner relies on Abuto and concludes that it would have been obvious to "offset the face-to-face SAP land areas of Suzuki (Fig. 17) according to the skewed land areas of Abuto (Fig. 4) for the benefit of

improved absorbency (c. 7: 57–61[])" (Final Act. 4). *See also In re Merck & Co.*, 800 F.2d at 1097.

Appellants further contend that

> since layers 12 and 14 [of Abuto] are not part of the absorbent core, and since the absorbent material 20 is disposed within the apertures 18, then Abuto arguably changes the principle operation of an absorbent core comprising absorbent particulate polymer material deposited on the first and second substrates in a respective pattern.

(Br. 15.)

We are not persuaded for the reasons discussed above (*see* Ans. 8). *See also In re Geisler*, 116 F.3d at 1470.

Appellants do not contend that the Examiner erred in combining the teachings of Kauschke, Baratian, Minato, and Buell, other than the reasons discussed above (*see* Br. 13–14, 16).

SUMMARY

In summary, we affirm the rejection of claim 1 under 35 U.S.C. § 103(a) as obvious over Suzuki, Abuto, Kauschke, and Baratian. Claims 2 and 8 fall with claim 1.

We affirm the rejection of claims 3–5 under 35 U.S.C. § 103(a) as obvious over Suzuki, Abuto, Kauschke, Baratian, and Buell.

We affirm the rejection of claims 6, 7, 9, 10–12, 17, and 18 under 35 U.S.C. § 103(a) as obvious over Suzuki, Abuto, Kauschke, Baratian, and Minato.

We affirm the rejection of claims 13–16, 19, and 20 under 35 U.S.C. § 103(a) as obvious over Suzuki, Abuto, Minato, Kauschke, Baratian, and Buell.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a).

AFFIRMED