

The opinion in support of the decision being entered today was **not** written for publication and is **not** binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte SAMUEL MARK GILLETTE, JAMES WILLIAM FLIPPIN,
WALTER GOMER JONES, ZAREH MIKAELIAN
and ALFRED FRANK BALDWIN, JR.

Appeal No. 2006-0778
Application No. 10/266,917

ON BRIEF

Before FRANKLIN, WARREN, and TIMM, **Administrative Patent Judges**.

FRANKLIN, **Administrative Patent Judge**.

DECISION ON APPEAL

This is an appeal under 35 U.S.C. § 134 from the examiner's final rejection of claims 1 through 55. Claims 1-32, 36-41, and 53-55 are rejected, and claims 33-35 and 42-52 have been withdrawn from consideration. Answer, page 2.

Claims 1 and 53 are representative of the subject matter on appeal and are set forth below:

1. A loop component for use in a hook and loop fastening system, comprising a spunlaced fabric having a plurality of loop structures formed by entangling a plurality of non-interbonded fibers in a fibrous web of material.

53. A hook and loop fastening system, comprising:
a hook component having a hook density between about 30 and 400 hooks per square centimeter; and

a loop component, comprising a spunlaced fabric having a plurality of loop structures formed by entangling a plurality of

Appeal No. 2006-0778
Application No. 10/266,917

non-interbonded fibers in a fibrous web of material, wherein the loop structures of the spunlaced fabric are configured to engage hooks from the hook component.

The examiner relies upon the following references as evidence of unpatentability:

Goulait	5,326,612	Jul. 5, 1994
Menzies et al. (Menzies)	6,503,855	Jan. 7, 2003

Claims 1, 3, 8, 10 through 23, 25 through 32, 36, and 38 through 39 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Goulait. Claims 1 through 32, 36 through 41, and 53 through 55 stand rejected under 35 U.S.C. § 103 as being obvious over Goulait in view of Menzies.

To the extent that appellants provide specific arguments regarding patentability, with respect to a particular claim, we consider such claim in this appeal. We therefore consider claims 1 and 53. See 37 CFR § 41.37(c)(1)(vii)(September 2004); formerly 37 CFR § 1.192(c)(7)(2003). Also see Ex parte Schier, 21 USPQ2d 1016, 1018 (Bd. Pat. App. & Int. 1991).

OPINION

I. The 35 U.S.C. § 102(b) Rejection of Claims 1, 3, 8, 10 through 23, 25 through 32, 36, 38, and 39

Appellants argue that the female component according to their invention is formed by entangling fibers in a **spunlaced** [emphasis added] fabric to form loop structures without requiring any bonding (either to other fibers or to a backing layer) to form the loop structures. Appellants argue that it is the entangling process that forms the loop structures for the female component without the necessity for any bonding. Appellants argue that Goulait does not teach or suggest forming loop structures by entangling unbonded fibers in a **spunlaced**

Appeal No. 2006-0778
Application No. 10/266,917

[emphasis added] fabric. Appellants refer to the Declaration of A. Frank Baldwin, Jr. in support thereof. Appellants also reproduce Fig 4A of Goulait on page 4 of the brief for showing that the example in Goulait has bonded fibers. Appellants argue that Goulait teaches that the loop structures require bonding of fibers (to each other and/or to a backing layer).

The examiner admits that Goulait does not disclose use of a spunlaced material. Answer, page 3. The examiner finds that Goulait teaches that there can be "no interfiber bonds." The examiner refers to column 12, lines 41 through 49 of Goulait in this regard. Answer, page 14.

A spunlaced fabric means a fabric formed by mechanical entanglement of the fibers by jet entanglement or hydraulically needling, and therefore has a specific meaning in the art. We appreciate the examiner's finding that Goulait teaches that there can be "no interfiber bonds." However, Goulait does not specifically disclose use of a "spunlaced" fabric. The examiner offers no factual foundation and/or technical explanation that the resultant fabric would be identical to a spunlaced fabric.¹ In fact, the examiner places the burden upon appellants to show that the fabric in Goulait is no different from a spunlaced fabric. Answer, page 3. However, the examiner's placement of such burden is incorrect. We note that when a examiner relies upon a theory of inherency, "the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic

¹ The examiner makes a statement that the article is identical to the claimed article, and discusses the nature of product-by-process claims, but does not support these statements with facts or technical reasoning. Answer, pages 3-4.

Appeal No. 2006-0778
Application No. 10/266,917

necessarily flows from the teachings of the applied prior art." Ex parte Levy, 17 USPQ2d 1461, 1464 (Bd. Pat. App. & Int. 1990). Inherency "may not be established by a probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient." Ex parte Skinner, 2 USPQ2d 1788, 1789 (Bd. Pat. App. & Int. 1986). Also, the examiner has the initial burden of providing such evidence or technical reasoning. See In re Spada, 911 F.2d 705, 708, 15 USPQ2d 1655, 1657 (Fed. Cir. 1990); In re King, 801 F.2d 1324, 1327, 231 USPQ 136, 138-39 (Fed. Cir. 1986).

Hence, in view of the examiner's own recognition that Goulait does not specifically disclose the use of a spunlaced fabric, and the examiner's failure to meet his burden (as discussed above), we reverse the 35 U.S.C. § 102(b) rejection of claims 1, 3, 8, 10 through 23, 25 through 32, 36, 38, and 39 as being anticipated by Goulait.

II. The 35 U.S.C. § 103 Rejection of claims 1 through 32, 36-41 and 53-55 as being obvious in view of Goulait in view of Menzies

The examiner's position for this rejection is set forth on pages 7 through 13 of the answer.

Appellants' position for this rejection is set forth on pages 5 through 7 of the brief. Appellants again assert that Goulait fails to teach or suggest the recitations of appellants' independent claims 1 and 53 for the reasons expressed, supra, in connection with the anticipation rejection. Appellants argue that Menzies does not cure these asserted deficiencies of Goulait.

While Goulait does not specifically provide an example of use of a spunlaced fabric in making the nonwoven web 30, as discussed, supra, Goulait teaches that the nonwoven web 30 can be any suitable nonwoven material. Goulait teaches that the term "nonwoven" refers to fabrics made of fibers held together by **interlocking** [emphasis added] or bonding. Interlocking suggests mechanical entanglement.² Goulait teaches that the nonwoven web 30 can be formed by carding.³ See column 10, lines 61-67 and column 13, lines 46-50 of Goulait. Carding is a form of mechanical entanglement.⁴ Goulait does teach that the nonwoven

² **in•ter•lock**

v., -locked, -lock•ing, -locks.
v.tr.

1. To unite or join closely as by hooking or dovetailing.
2. To connect together (parts of a mechanism, for example) so that the individual parts affect each other in motion or operation.

v.intr.

To become united or joined closely, as by hooking or dovetailing.

See http://www.answers.com/main/ntquery?method=4&dsid=501&dekey=interlock&curtab=501_1&linktext=interlock.

³ Appellants' claim 18 recites that the fibrous web is formed by carding.

⁴ **Card•ing**

a.

1. The act or process of preparing staple for spinning, etc., by carding it. See the Note under [CARD](#), v. t.
2. A roll of wool or other fiber as it comes from the carding machine.

Carding engine, Carding machine, a machine for carding cotton, wool, or other fiber, by subjecting it to the action of cylinders, or drums covered with wire-toothed cards, revolving nearly in contact with each other, at different rates of speed, or in opposite directions. The staple issues in soft sheets, or in slender rolls called *slivers*. See <http://www.answers.com/topic/carding?method=22>.

Appeal No. 2006-0778
Application No. 10/266,917

web can be an unbonded layer of loose fibers. See column 12, lines 43-49 of Goulait. Goulait also teaches that the nonwoven web can be in the form of a web of entangled fibers. See column 22, lines 39-51 of Goulait. See also the examiner's findings on page 14 of the answer in this regard.

In view of the above teachings of Goulait, we agree with the examiner that Goulait suggests appellants' claimed subject matter. While Goulait does not specifically disclose a "spunlaced" fabric, Goulait suggests the use of a web formed by mechanical entanglement, such as by carding. Spunlacing is a well-known mechanical entanglement process. Absent evidence that spunlacing provides for unexpectedly superior results in the resultant nonwoven web, we affirm the obviousness rejection.

With regard to appellants' argument that the claims do not provide for bonding of the fibers via bonding to a backing layer, we agree with the examiner's position on this issue. That is, at the bottom of page 14 of the answer, the examiner states that appellants do not claim a loop structure comprising entangled fibers without a backing layer. Also, dependent claims 21-32 and 36 through 41 recite that the spunlaced fabric is bonded to a backing layer. Hence, we are not convinced by appellants' argument that the loop structures are formed without requiring any bonding (either to other fibers or to a backing layer). On this issue, we are also not convinced by the declaration of A. Frank Baldwin, Jr. in this regard.

In view of the above, we affirm the 35 U.S.C. § 103 rejection of claims 1 through 32, 36 through 41, and 53 through 55.

Appeal No. 2006-0778
Application No. 10/266,917

III. Conclusion

The rejection of claims 1, 3, 8, 10 through 23, 25 through 32, 36, and 38 through 39 under 35 U.S.C. § 102(b) as being anticipated by Goulait is reversed.

The rejection of claims 1 through 32, 36 through 41, and 53 through 55 under 35 U.S.C. § 103 as being obvious over Goulait in view of Menzies is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a)(1)(iv)(effective Sept. 13, 2003; 69 Fed. Reg. 49960 (Aug. 12, 2004); 1286 Off. Gaz. Pat., Office 21 (Sept. 7, 2004)).

AFFIRMED

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CHARLES F. WARREN)	
Administrative Patent Judge)	BOARD OF PATENT
)	APPEALS AND
)	INTERFERENCES
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BEVERLY A. FRANKLIN)	
Administrative Patent Judge)	

Appeal No. 2006-0778
Application No. 10/266,917

Timm, **Administrative Patent Judge**, concurring.

There are two rejections on appeal, an anticipation rejection and an obviousness rejection. My colleagues sustain only the obviousness rejection. I would sustain the rejection based upon anticipation by Goulat as well as the obviousness rejection. The crux of our disagreement lies in the significance of the word "spunlaced" in claim 1 and the threshold burden the Examiner must meet to show anticipation.

I, like the Examiner, view "spunlaced" as a process limitation within the claim. According to Appellants, "[a] spunlaced fabric is a fabric which has been formed by impinging a web (which can include preformed fabrics, spunmelt webs, air laid webs and carded webs) with jets of high pressure water." (specification, p. 2, ll. 13-17). Basically, a spunlaced fabric is a fabric that is hydroentangled (specification, p. 4, l. 34 to p. 5, l. 2 ("[n]on-interbonded fibers in a fibrous web of material are entangled to form a plurality of loop structures by directing one of more jets of high-pressure water at the fibrous web of material.")). Moreover, the amount of fiber entanglement due to spinlacing is variable (specification, p. 5, ll. 27-30 ("The degree of fiber entanglement provided by water jet impingement can control the degree to which the fabric fuzzes after repeated peels from a hook member.)).

The claims are directed to a loop component. This is a structural article. As such, it is the patentability of the product defined by the claim, rather than the process for making it that we must gauge in light of the prior art. In re Brown, 459 F.2d 531, 535, 173 USPQ 685, 688 (CCPA 1972). Spinlacing is a process resulting in an entangled nonwoven. Goulat describes

Appeal No. 2006-0778
Application No. 10/266,917

several alternative embodiments for forming a nonwoven web 30, one of which is a web of entangled fibers (Goulat, col. 22, ll. 39-51). Claim 1 does not limit the amount of entanglement generated by spinlacing and, therefore, in my view it is reasonable to conclude that nonwovens made by any method of entanglement have the structure required by the claim. The Examiner has properly shifted the burden to the appellants to show that, in fact, there is a patentable difference in structure and appellants have not met this burden. "Where a product-by-process claim is rejected over a prior art product that appears to be identical, although produced by a different process, the burden is upon the applicants to come forward with evidence establishing an unobvious difference between the claimed product and the prior art product." In re Marosi, 710 F.2d 799, 803, 218 USPQ 289, 292-93 (Fed. Cir. 1983).

Appellants argue that their "female component of a hook and loop fastening system is formed by entangling fibers in a spunlaced fabric to form loop structures ***without requiring any bonding (either to other fibers or to a backing layer) to form the loop structures.***" (Brief, p. 4). They emphasize that "[i]t is the entangling process that forms the loop structures for the female component without the necessary for ***any*** bonding." (Brief, p. 4). They further argue that Goulat requires some form of bonding to produce loop structures, either by bonding the fibers together or by bonding the fibers to a backing layer (Brief, p. 4).

I do not find this argument persuasive. First, I, like my colleagues, am not convinced that claim 1 excludes bonding the nonwoven fabric to a backing (see Majority opinion, Section II, last paragraph). Claim 1 only excludes interbonding of the

Appeal No. 2006-0778
Application No. 10/266,917

fibers. In fact, appellants themselves describe bonding their spunlaced nonwoven to a backing (specification, p. 2, ll. 26-31; p. 4, ll. 12-22; p. 6, l. 29 to p. 7, l. 17). Further, the fact that dependent claims are directed to bonding the spunlaced fabric to a backing is strong evidence that claim 1 is intended to encompass, rather than exclude, such bonding. Therefore, the fact that Goulat describes bonding to a backing does not persuade me that there is no anticipation.

Second, as stated by appellants "Goulat specifically states that his nonwoven web **30** used in the female component **22** refers to 'fabrics made of fibers held together by interlocking or bonding.'" (Brief, p. 4 citing Goulat, col. 8, ll. 55-56, emphasis added). While Appellants are correct that Figure 4A of Goulait depicts the interfiber bonding embodiment, Goulait also discloses embodiments in which there is no interbonding between fibers. Goulat specifically discloses that the female component 22 "could be made by bonding an unbonded layer of loose fibers to a backing material, in which case there may be no interfiber bonds." (Goulat, col. 12, ll. 46-49, emphasis added). Goulat further discusses this loose fiber embodiment in column 22, lines 42-46 and then further discloses that, "[i]n other alternative embodiments, rather than being in the form of a layer of loose fibers, the first material **118** could be in the form of a web of entangled fibers or a web of bonded fibers.

Appeal No. 2006-0778
Application No. 10/266,917

(Goulait, col. 22, ll. 39-51). There are three embodiments, one of which is the use of non-interbonded entangled fibers. This embodiment is sufficiently disclosed to constitute an anticipation of the subject matter of claim 1.

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Appeal No. 2006-0778
Application No. 10/266,917

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