

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

Paper No. 17

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte SAMUEL EDWARD MARMON,
ELISHA SEIDAH WAZEERUD-DIN,
and
BRETT PETER SAMUELS

Appeal No. 2004-1583
Application No. 09/760,962

ON BRIEF

Before PAK, OWENS, and DELMENDO, Administrative Patent Judges.

DELMENDO, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on an appeal under 35 U.S.C. § 134 (2004) from the examiner's refusal to allow claims 28, 29, and 32 through 45, which are all of the claims pending in the above-identified application.¹

¹ In reply to the final Office action mailed Feb. 20, 2003 (paper 6), the appellants submitted a 37 CFR § 1.116 (2003) (effective Feb. 5, 2001) amendment on May 8, 2003 (paper

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The subject matter on appeal relates to a process for preparing a nonwoven fabric. Further details of this appealed subject matter are recited in representative claim 28 reproduced from the May 8, 2003 amendment below:

28. A process of preparing a nonwoven fabric, comprising:
forming a substrate of continuous multicomponent fibers, said, continuous multicomponent fibers comprising a plurality of individual components having a portion exposed at an outer surface of the continuous multicomponent fiber;
pattern bonding from about 5% to about 50% of the surface area of the substrate of continuous multicomponent fibers to form a bonded substrate; and thereafter
entangling the bonded substrate wherein portions of the individual components become separated from said multicomponent fibers and further wherein said multicomponent fibers and said components separated therefrom become entangled to form an integrated nonwoven web.

The examiner relies on the following prior art references as evidence of unpatentability:

Haid et al. (Haid)	5,240,764	Aug. 31, 1993
Baravian	5,355,565	Oct. 18, 1994

8), proposing the cancellation of claims 30 and 31 and changes to claims 28, 29, 32, 33, 41, 42, and 45. The examiner indicated in the interview summary mailed Jun. 4, 2003 (paper 10) that the amendment will be entered for purposes of this appeal.

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Pike et al. (Pike '400)	5,382,400	Jan. 17, 1995
Pike et al. (Pike '926)	5,759,926	Jun. 02, 1998
Nozaki et al. (JP '936) (published JP application) ²	JP 6-166936	Jun. 14, 1994

Claims 28, 29, and 32 through 45 on appeal stand rejected under 35 U.S.C. § 103(a) as unpatentable over the combined teachings of Baravian, Pike '400, Haid, JP '936, and Pike '926. (Examiner's answer mailed Nov. 17, 2003, paper 15, pages 3-6.) Separately, claims 28, 29, and 32 through 45 on appeal stand rejected under 35 U.S.C. § 103(a) as unpatentable over the combined teachings of Pike '926, Baravian, and Pike '400.³ (Id. at 6-7.)

We affirm both rejections.⁴

To aid us in determining whether the examiner applied the prior art correctly against the appealed claims, we must first

² We attach to this decision a copy of the original Japanese patent document together with an English translation prepared by the Translation Branch of the United States Patent and Trademark Office (PTO).

³ The examiner inadvertently included canceled claims 30 and 31 in the statement of the rejection.

⁴ The appellants submit that the appealed claims stand or fall together. (Appeal brief filed Sep. 22, 2003, paper 14, p.

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consider the scope and meaning of certain terms that appear in representative claim 28. Gechter v. Davidson, 116 F.3d 1454, 1457, 1460 n.3, 43 USPQ2d 1030, 1032, 1035 n.3 (Fed. Cir. 1997); In re Paulsen, 30 F.3d 1475, 1479, 31 USPQ2d 1671, 1674 (Fed. Cir. 1994). It is well settled that, in proceedings before the PTO, claims in an application must be given their broadest reasonable interpretation, taking into account any enlightenment by way of definitions or otherwise found in the specification. In re Morris, 127 F.3d 1048, 1054, 44 USPQ2d 1023, 1027 (Fed. Cir. 1997); In re Zletz, 893 F.2d 319, 321-22, 13 USPQ2d 1320, 1322 (Fed. Cir. 1989) ("During patent examination the pending claims must be interpreted as broadly as their terms reasonably allow."); In re Yamamoto, 740 F.2d 1569, 1571, 222 USPQ 934,936 (Fed. Cir. 1984) ("The PTO broadly interprets claims during examination of a patent application since the applicant may 'amend his claim to obtain protection commensurate with his actual contribution to the art.'") (quoting In re Prater, 415 F.2d 1393, 1404-05, 162 USPQ 541, 550 (CCPA 1969)).

3.) Accordingly, we confine our discussion to claim 28. 37 CFR § 1.192(c)(7)(2003) (effective Apr. 21, 1995).

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Applying these principles, we find the following enlightenment in the specification (page 5, lines 9-16) regarding the term "continuous" recited in appealed claim 28.

The term "fiber" as used herein refers to an elongated extrudate formed by passing a polymer through a forming orifice such as a die. Unless noted as otherwise the term "fibers" include discontinuous strands having a definite length and continuous strands of material, such as filaments. The nonwoven fabric of the present invention may be formed from staple multicomponent fibers. Such staple fibers may be carded and bonded to form the nonwoven fabric. Desirably, however, the nonwoven fabric of the present invention is made with continuous multicomponent filaments which are extruded, drawn, and laid on a traveling forming surface.

From this description, one skilled in the relevant art would understand that "continuous multicomponent fibers" are not limited to have any particular length.⁵ Accordingly, we determine that the term "continuous multicomponent fibers" would encompass multicomponent fibers of any length "extruded, drawn, and laid on a traveling forming surface."

⁵ The term "multicomponent fibers" is defined as containing "at least two components that occupy distinct cross-sections along substantially the entire length of the fiber." (Specification, p. 1, ll. 18-20.)

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Rejection over Baravian, Pike '400, Haid,
JP '936, and Pike '926

As pointed out by the examiner (answer at 9), JP '936 describes a method of preparing a nonwoven fabric comprising: forming a substrate of multicomponent fibers (e.g., polyester-polypropylene or polyester-nylon); intermittently fusing (i.e., pattern bonding) 0.5-30% of the surface area using embossing rollers 12; and then splitting the bonded substrate by subjecting the fibers with a jet of high pressure water at 30 to 100 kg/cm².⁶ (Figures 2 and 3; abstract; paragraphs 0006-0015.) Furthermore, as we discussed at the outset, the term "continuous" recited in appealed claim 28 does not limit the lengths of the multicomponent fibers to any particular values.

Thus, contrary to the appellants' argument (appeal brief at 4), we determine that JP '936 describes each and every limitation of the invention recited in appealed claim 28. In re Schreiber, 128 F.3d 1473, 1477, 44 USPQ2d 1429, 1431 (Fed. Cir. 1997). While the examiner's rejection of appealed claim 28 has

⁶ The appellants do not dispute the examiner's determination (answer at 9) that the splitting step described in JP '936 necessarily results in hydroentangling as recited in appealed claim 28. In fact, the appellants admit that JP '936 teaches pattern bonding fibers prior to entangling and splitting. (Appeal brief at 5.)

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been made under 35 U.S.C. § 103(a), a prior art disclosure that fully describes the claimed invention also renders the claim obvious. In re Baxter Travenol Laboratories, 952 F.2d 388, 391, 21 USPQ2d 1281, 1284-85 (Fed. Cir. 1991); In re Fracalossi, 681 F.2d 792, 794, 215 USPQ 569, 571 (CCPA 1982); In re May, 574 F.2d 1082, 1089, 197 USPQ 601, 607 (CCPA 1978).

The appellants' argument that the claimed invention solves a problem and provides surprising results is also unavailing because it is unsubstantiated by objective evidence. Moreover, even if the appellants' allegation were to be proven, such evidence cannot constitute a factual basis to overcome a rejection that fully described the claimed invention. In re Malagari, 499 F.2d 1297, 1302, 182 USPQ 549, 553 (CCPA 1974).

We do not have to discuss Baravian, Pike '400, Haid, and Pike '926 because they are not necessary to support the examiner's rejection of appealed claim 28.

Rejection over Pike '926, Baravian, and Pike '400

Pike '926 describes a method of forming nonwoven fabric comprising: forming a nonwoven web of conjugate fibers containing at least two incompatible polymers; and then splitting before or after the nonwoven web is bonded to form a structurally stable nonwoven fabric. (Column 2, lines 2-16;

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column 8, lines 20-32; Figures 1-8.) According to Pike '926, the bonding step may be carried out by pattern bonding. (Column 9, lines 43-36.) Pike '926 further teaches that the splitting step may be performed by using a spray of hot steam (e.g., spraying about 4.5 m³/min of 104°C steam through a nozzle sprayer having a 0.3 cm slot onto the web for about 0.5 seconds). (Column 8, lines 33-46; Example 9.)

From the teachings of Pike '926 alone, we determine that one of ordinary skill in the art would have found it prima facie obvious to reverse the bonding and splitting steps described in Example 9 as suggested by the express teachings found at column 8, lines 27-32, thus arriving at a method encompassed by appealed claim 28. While Pike '926 does not expressly state that the steam treatment results in hydroentangling, the steam treatment is nevertheless the same or substantially the same as the hydroentangling described in the present specification (pages 13-14). Under these circumstances, the burden of proof is on the appellants to prove that the steam treatment described in the reference would not inherently or necessarily result in hydroentangling. Cf. In re Schreiber, 128 F.3d at 1478, 44 USPQ2d at 1432; In re Fitzgerald, 619 F.2d 67, 70, 205 USPQ 594,

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596 (CCPA 1980); In re Best, 562 F.2d 1252, 1255, 195 USPQ 430, 433-34 (CCPA 1977).

The appellants argue that U.S. Patent No. 5,718,972 issued to Murase et al. on Feb. 17, 1998 teaches away from the claimed invention. (Appeal brief at 6 and 7.) Specifically, the appellants urge (id. at 6):

Murase states that it is not desirable to split continuous multicomponent fibers using water jet needling since damage to the heat bonded areas will occur (see column 7, lines 42-45). This teaching is in direct contrast to the present invention. Therefore, one skilled in the art would be directed away from splitting and entangling the fibers using a needling or water jet (hydroentangling), as suggested by the Examiner.

This argument is unpersuasive. Murase merely teaches the advantages of wrinkling over hydroentangling of heat bonded bicomponent conjugate filaments. Murase never states that hydroentangling would render a method for forming nonwoven bonded fabric to be inoperable. To the contrary, Murase suggests that such a method was well known in the art and further supports the obviousness of the claimed invention. (Column 7, lines 27-30.) In re Gurley, 27 F.3d 551, 553, 31 USPQ2d 1130, 1132 (Fed. Cir. 1994).

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We do not have to discuss Baravian and Pike '400 because they are unnecessary to support the examiner's rejection of appealed claim 28.

Summary

In summary, we affirm the examiner's rejections under 35 U.S.C. § 103(a) of appealed claims 28, 29, and 32 through 45 as unpatentable over: (i) the combined teachings of Baravian, Pike '400, Haid, JP '936, and Pike '926; and (ii) the combined teachings of Pike '926, Baravian, and Pike '400.

The decision of the examiner is affirmed.

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

AFFIRMED

Chung K. Pak)	
Administrative Patent Judge)	
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)	BOARD OF PATENT
Terry J. Owens)	
Administrative Patent Judge)	APPEALS AND
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