

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 HYUN SUNG LIM,
ROBERT A. MARIN, and
JEFFREY J. PETROFF

Appeal 2006-2455
Application 10/142,533
Technology Center 1700

Decided:

Before WARREN, WALTZ, and JEFFREY T. SMITH, *Administrative Patent Judges*.

JEFFREY T. SMITH, *Administrative Patent Judge*.

DECISION ON APPEAL

Applicants appeal the Examiner's final rejection of claims 2, 3, and 6-10, all of the pending claims. We have jurisdiction under 35 U.S.C. §134.

RECITATION OF REFERENCES

The Examiner relies upon the following references in rejecting the appealed claims:

Steuber	US 3,169,899	Feb. 16, 1965
Dempsey	US 3,920,874	Nov. 18, 1975

Claims 2, 3, and 6-10 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Steuber in view of Dempsey. (Answer 3-4).

Rather than reiterate the conflicting viewpoints advanced by the Examiner and the Appellants regarding the above-noted rejection, we make reference to the Appellants' Briefs and the Examiner's Answer.¹

OPINION

Appellants' invention relates to bulky fibrous fabric. The fibrous fabric comprises unbonded consolidated batt of fibers without scrim. The fibrous fabric is described as having a surface area of at least 2 m²/g and a thickness/basis weight ratio of at least 0.005 mm/g/m². Representative claim 2, as presented in the Brief, appears below:

2. A bulky fibrous fabric made by a process comprising:
 - a) obtaining an unbonded, consolidated batt of fibers without a scrim, wherein each fiber has a ribbon-shaped cross-section; and
 - b) needlepunching said batt to obtain the bulky fibrous fabric having a surface area of at least 2 m²/g and a thickness/basis weight ratio of at least 0.005 mm/g/m².

¹ In rendering this decision we have considered the Appellants' position presented in the Briefs filed January 5, 2006 and March 28, 2006. We have considered the Examiner's position presented in the Answer mailed March 3, 2006.

Upon careful review of the respective positions advanced by the Appellants and the Examiner, we affirm the rejection of claims 2, 3, and 6-10 for the reasons expressed in the Answer and add the following.²

The Examiner has found that Steuber discloses an unbonded consolidated loose batt fabric comprising fibers having a ribbon shaped cross section. (Answer 3). The Examiner has also found that Steuber discloses fibrous elements having a surface area greater than 2 m²/gm. (Answer 3).³ Steuber provides two methods for compacting the fibrous fabric. Specifically, Steuber describes contact-bonded sheets which are produced by light or moderate pressure consolidation of the fibrous fabric. Steuber states that this compaction process produces usefully strong sheets from a strengthless batt. (Col. 7, ll. 42-44) Steuber distinguishes the contact-bonded sheets from heat-fused sheets which are described as cohesively-bonded sheets. (Col. 7, ll. 51-54). Appellants (Br. 3) acknowledge that the "contact-bonded" sheets are equivalent to the "consolidated batts" of the present claims. The Examiner cites the Dempsey reference for teaching the method of needle-punching the loose batt. Dempsey specifically cites to the Steuber reference as a starting point for the

² Appellants have not presented separate arguments for the claims on appeal. Therefore, we select claim 2 as representative of the appealed claims and will limit our discussion thereto.

³ With regard to claim 2, the Examiner has not provided a discussion of the thickness/basis weight ratio of the disclosed fibrous fabric. We note that Appellants have not asserted that the Steuber reference does not disclose a fibrous fabric which meets the thickness/basis weight ratio of claim 2. (See Briefs generally).

described process. (Col. 2, ll. 33-34 and Col. 6, l. 16). The Examiner concludes that it would have been obvious to a person of ordinary skill in the art to needle-punch the fibrous fabric of Steuber. (Answer 3).

Appellants argue Dempsey's example employs the consolidated sheets of Steuber that have been cohesively bonded and not the contact bonded sheets. Appellants' arguments are not persuasive. Example IV of Steuber describes various contact bonded sheets and provides a Table (III) which describes the properties of various contact bonded sheets. A person of ordinary skill in the art would have readily understood that the use of needle-punching on the various consolidated sheets described in Steuber would provide porosity therein.

Appellants argue that a person of ordinary skill in the art would not have been motivated to needle-punch the contact bonded sheets of Steuber because of their known porosity, (Br. 4). Appellants' arguments are not persuasive. Steuber not only discloses the sheets are suitable for use as filters, Steuber discloses that the sheets can be after treated for a variety of different uses. (See col. 7, l. 72 to col. 8, l. 22). Consequently, a person of ordinary skill in the art who desires to have a more porous sheet would have been suitably motivated to needle-punch the sheet described by Steuber.

Based on our consideration of the totality of the record before us having evaluated the prima facie case in view of Appellants' arguments, we determine that the Examiner has established a prima facie case of obviousness that has not been adequately rebutted by Appellants. Accordingly, the Examiner's rejection under 35 U.S.C. § 103 is affirmed.

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Application 10/142,533

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(iv)(2004).

AFFIRMED

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