

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 LEIF WALLSTROM

Appeal No. 2005-0580
Application No. 09/732,871

ON BRIEF

Before FRANKFORT, MCQUADE and BAHR, Administrative Patent Judges.

Per Curiam

DECISION ON APPEAL

Leif Wallstrom appeals from the final rejection (mailed August 20, 2003) of claims 1 through 3, 6, 8, 9 and 16, all of the claims pending in the application.

THE INVENTION

The invention relates to "an absorbent structure in an absorbent article such as a diaper, incontinence guard, sanitary napkin, wound dressing, bed protection and the like, formed from at least two superposed layers of one or more web-shaped

absorption materials" (specification, page 1). Representative claims 1, 2, and 9 read as follows:

1. An absorbent structure suitable for use in an absorbent article, comprising:

first, second, and third superposed strips of at least one web-shaped absorption material, said first, second, and third strips being dimensioned and arranged so that a perimeter of the first strip lies entirely inside of a perimeter of the second strip, and a perimeter of the second strip lying entirely inside a perimeter of the third strip;

the absorbent structure (4) comprised of said strips having been compressed to a thickness which is substantially the same over the structure, so that the structure has a higher density in the area thereof where the strips overlap each other and a lower density in other areas.

2. An absorbent structure suitable for use in an absorbent article, comprising:

a sheet of web-shaped absorption material (5) which has been folded back and forth upon itself to produce a plurality of effective layers arranged so that a number of the effective layers in a center of the absorbent structure is greater than a number of the effective layers in a peripheral area on each side of the center area, and the folded sheet having been compressed to a thickness which is substantially the same over the structure, so that in cross-section the structure has a higher density in the center area where the effective layers overlap each other and a lower density in the peripheral areas.

9. A method for making an absorbent structure in an absorbent article, comprising the steps of:

placing first, second, and third strips of at least one web-shaped absorption material superposed with each other, said first, second, and third strips being dimensioned and arranged so that a perimeter of the first strip lies entirely inside of a perimeter of the second strip, and a perimeter of the second strip lying entirely inside a perimeter of the third strip; and

compressing said strips to form the structure having a thickness which is substantially the same over the structure, so that the structure will obtain a higher density in the area thereof where the strips overlap each other and a lower density in other areas.

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THE PRIOR ART

The references relied on by the examiner to support the final rejection are:

Hochstrasser et al. (Hochstrasser)	3,508,548	Apr. 28, 1970
Gravdahl	3,545,441	Dec. 08, 1970
Tunc	3,800,797	Apr. 02, 1974
Karami	4,027,672	Jun. 07, 1977

THE REJECTIONS

Claims 1 through 3 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Gravdahl and, in the alternative, under 35 U.S.C. § 103(a) as being unpatentable over Gravdahl.

Claims 8 and 16 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Gravdahl in view of Tunc.

Claims 1, 6 and 9 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Gravdahl in view of Karami and Hochstrasser.

Attention is directed to the main and reply briefs (filed March 22, 2004 and September 09, 2004) and the answer (mailed July 12, 2004) for the respective positions of the appellant and the examiner regarding the merits of these rejections.

DISCUSSION

I. The 35 U.S.C. § 102(b) and 35 U.S.C. § 103(a) rejections of claims 1 through 3 based on Gravdahl

Gravdahl discloses an absorbent fibrous core for use in sanitary napkins, diapers, compresses, etc. In contrast to the conventional layered core shown in Figure 1, Gravdahl's core 10 (see Figure 2) has a substantially uniform thickness and a mass density which varies from relatively high at its center to relatively low at its lateral and longitudinal edges. Gravdahl teaches that this core "is suitably made by having the core material, for instance defibrated [cellulose] continuously produced in the shape of a web in per se known machinery" (column 2, lines 7 through 10).

The examiner considers appealed claims 1 through 3 to be product-by-process claims, and that the absorbent structure defined thereby is either identical with or slightly different than (i.e., obvious over) the continuously formed core 10 disclosed by Gravdahl. In this regard, the examiner submits that the superposed strip construction set forth in independent claim 1 and the folded layer construction recited in independent claim 2 effectively cease to exist when compressed to a thickness which is substantially the same over the structure as recited in these claims. To support this position, the examiner points to Figure

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5 in the instant application as showing the claimed absorbent structure without strips or layers and to Figures 5, 5a and 5b of the Karami patent as extrinsic evidence that superposed strips or layers of web material lose their layered construction when compressed. The appellant's Figure 5, however, is a schematic drawing designed to depict densities rather than structural details. Furthermore, Karami's Figures 5, 5a, and 5b actually belie the examiner's position as Figure 5b shows that the layered construction is maintained after compression.

On the record before us, there is no reasonable basis for the examiner's assertion that the superposed strip or folded layer constructions recited in claims 1 and 2 would disappear when compressed to a thickness substantially the same over the structure. As Gravdahl does not teach, and would not have suggested, an absorbent structure having such a strip or layer construction, we shall not sustain the standing 35 U.S.C. § 102(b) and 35 U.S.C. § 103(a) rejections of independent claims 1 and 2, and dependent claim 3, based on Gravdahl.

II. The 35 U.S.C. § 103(a) rejection of claims 8 and 16 as being unpatentable over Gravdahl in view of Tunc

Independent claims 8 and 16 recite absorbent articles comprising a liquid pervious topsheet, a liquid impervious backsheets and an absorbent structure essentially identical to the

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absorbent structures respectively recited in claims 1 and 2. The examiner cites Tunc as disclosing an absorbent article comprising an absorbent structure arranged between a liquid pervious topsheet and a liquid impervious backsheet, which arrangement is conceded by the examiner to be lacking in Gravidahl. Although it is not disputed that Tunc teaches that for which it is applied, Tunc does not cure the above noted shortcomings of Gravidahl relative to the absorbent structure limitations in claims 8 and 16.

Accordingly, we shall not sustain the standing 35 U.S.C. § 103(a) rejection of claims 8 and 16 as being unpatentable over Gravidahl in view of Tunc.

III. The 35 U.S.C. § 103(a) rejection of claims 1, 6, and 9 as being unpatentable over Gravidahl in view of Karami and Hochstrasser

In this rejection, Karami and Hochstrasser are relied on by the examiner to show absorbent structures having regions of varying density formed by compressing multiple layers of material (see Figures 5 through 5b of Karami and Figure 9 of Hochstrasser). The examiner also relies on both the conventional layered absorbent core shown in Gravidahl's Figure 1 and the inventive core 10 shown in Gravidahl's Figure 2 as together showing "a core of at least three strips of various size as

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claimed being equivalent as far as fiber or material quantity in a specific location, i.e., having more in a center and gradually decreasing outwardly therefrom, to a monolithically formed fiber core" (answer, page 7). In combining the teachings of Karami and Hochstrasser with Gravidahl to reject claims 1, 6 and 9, the examiner appears to conclude that a person of ordinary skill in the art would have found it obvious to compress the three strips or layers of the core shown in Figure 1 of Gravidahl in the manner taught by Karami and Hochstrasser to obtain an absorbent article as shown in Figure 2 of Gravidahl (answer, page 7, line 6 through 13). In short, the only suggestion for this proposed combination of disparate prior art teachings stems from hindsight knowledge impermissibly derived from the appellant's disclosure.

Consequently, we shall not sustain the standing 35 U.S.C. § 103(a) rejection of claims 1, 6 and 9 as being obvious over Gravidahl in view of Karami and Hochstrasser.

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SUMMARY

The decision of the examiner to reject claims 1 through 3,
6, 8, 9, and 16 is reversed.

REVERSED

CHARLES E. FRANKFORT)	
Administrative Patent Judge)	
)	
)	
)	
)	BOARD OF PATENT
JOHN P. MCQUADE)	APPEALS
Administrative Patent Judge)	AND
)	INTERFERENCES
)	
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JENNIFER D. BAHR)	
Administrative Patent Judge)	

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