

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

In re Patent of:	William Thompson et al.
U.S. Patent No.:	8,898,812
Issue Date:	December 2, 2014
Appl. Serial No.:	13/282,148
Filing Date:	October 26, 2011
Title:	GARMENT HAVING INTEGRATED PERSPIRATION BARRIERS

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**PETITION FOR *INTER PARTES* REVIEW OF UNITED STATES PATENT
NO. 8,898,812**

Pursuant to 35 U.S.C. § 311 and 37 C.F.R. § 42.100, *inter partes* review is respectfully requested for claim 15 of U.S. Patent No. 8,898,812.

This petition requests review of one claim. Therefore, no excess claim fees are necessary. Petitioner authorizes the director to charge Deposit Account No. 22-0261 for the \$23,000 fee per 37 C.F.R. § 42.15, along with any additional fees required.

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LIST OF EXHIBITS

The following is a list of exhibits in support of this petition:

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| Exhibit 1001 | U.S. Patent No. 8,898,812 to William Thompson et al.
(“the ’812 Patent”) |
| Exhibit 1002 | Prosecution History of the ’812 Patent |
| Exhibit 1003 | WO 2004/089614 A2 to Van Emden <i>et al.</i> (“Van Emden”), published October 21, 2004 |
| Exhibit 1004 | US 2008/0052802 A1 to Bryan (“Bryan”), published March 6, 2008 |
| Exhibit 1005 | US 2008/0096001 A1 to Van Emden <i>et al.</i> (“Van Emden II”), published April 24, 2008 |
| Exhibit 1006 | Declaration of David Brookstein Sc.D. |
| Exhibit 1007 | Curriculum Vitae of David Brookstein Sc.D. |

I. INTRODUCTION

Wearable Confidence, LLC (“Petitioner” or “Wearable Confidence”) petitions for *Inter Partes* Review (“IPR”) under 35 U.S.C. §§ 311–319 and 37 C.F.R. § 42 of claim 15 (“the challenged claim”) of U.S. Patent No. 8,898,812 (“the ’812 Patent,” attached as Exhibit 1001), which is believed to be assigned to 3 Pak Holdings, LLC (“Patent Owner” or “3 Pak”). As evidenced by the prior art references cited in this Petition and the accompanying Declaration of David Brookstein, Sc.D., the claimed garment having integrated perspiration barriers was well known before the earliest priority date of the ’812 Patent.

II. GROUND FOR STANDING UNDER § 42.104(a)

Petitioner certifies that the ’812 Patent is available for *inter partes* review. Petitioner is not barred or estopped from requesting this review on the below-identified grounds.

As further detailed below, claim 15 of the ’812 Patent is unpatentable under 35 U.S.C. § 103. Thus, for the reasons set forth below, “there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition.” 35 U.S.C. § 314(a).

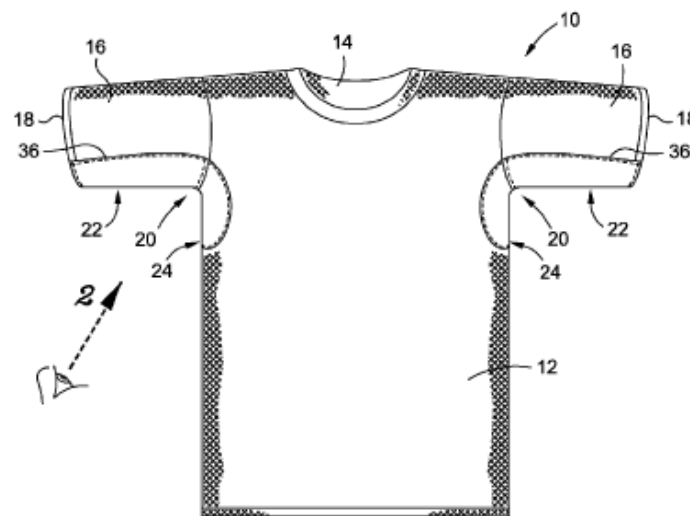
III. OVERVIEW OF THE '812 PATENT AND PRIOR ART

A. The Filing Date of the '812 Patent

The '812 Patent was filed on October 26, 2011, and issued on December 2, 2014. Ex. 1001. The '812 Patent claims the benefit of U.S. provisional application No. 61/436,841 filed on January 27, 2011.

B. Summary of the '812 Patent

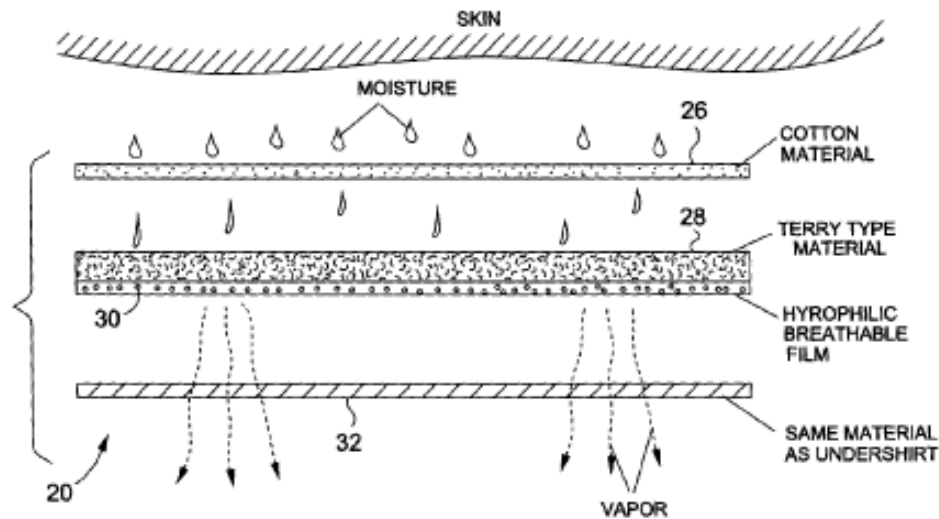
The '812 Patent describes a garment with a pair of perspiration barriers “integrated into the sleeve and torso portions of the garment” such that the “perspiration barriers actually define the underarm portions” of the garment. Ex. 1001 at Abstract; 2:39-44. Figure 1 below depicts a front elevation view of an undergarment constructed in accordance with the '812 Patent. Ex. 1001 at FIG. 1; 2:66-67.



'812 Patent at FIG. 1

The claimed “garment 10” is a T-shirt with “identically configured pair of perspirations barriers ... integrated into the ... garment.” Ex. 1001 at 3:23-42.

“[E]ach perspiration barrier 20 [depicted below in FIG. 4] is provided with a four-layer construction.” Ex. 1001 at 3:49-50; FIG. 4.



'812 Patent at FIG. 4

The first layer is “normally in direct contact with the skin” of the user and “preferably fabricated from 100% cotton.” Ex. 1001 at 3:50-55. “Positioned against the first layer 26 is a second layer 28 which, according to one embodiment, is formed from a loosely woven material, preferably a terry-cloth material fabricated from 80%-20% canon/polyester blend.” Ex. 1001 at 3:59-62. “The third layer 30 is preferably a hydrophilic breathable film.” Ex. 1001 at 4:1-5. “The fourth layer 32 is preferably made of the same material as the torso and sleeve

As shown in Figure 2, reproduced below, “[o]nce each perspiration barrier 20 has been fabricated or assembled ... it is sewn into the torso portion 12 and a corresponding sleeve portion 16 of the garment 10 using a continuous overlock stitch which extends solely along the peripheral edge thereof.” Ex. 1001 at 4:63-67.



C. Overview of the Prosecution History of the '812 Patent

The '812 Patent issued from U.S. Patent Application No. 13/282,148 filed on October 26, 2011, which was initially filed with 20 original claims. *See* Ex. 1002 at pp. 207-223. Original claim 20 resulted in claim 15 of the granted '812 Patent.

After receipt of a Final Office Action, the patentee filed a request for continued examination and amended original claim 20 to further define the structure of the perspiration barriers, as shown below. Ex. 1002 at pp. 75-87.

a pair of perspiration barriers defining respective barrier peripheral edge regions, each barrier peripheral edge region being coupled to and at least partially circumvented by a corresponding peripheral edge region collectively defined by the torso portion and a respective one of the sleeve portions ... such that each of the perspiration barriers defines a portion of the external surface of the garment.

The Applicant argued that the amended claim was patentable because the prior art failed to disclose the perspiration barriers coupled to the respective sleeve and torso portions at corresponding peripheral edge regions thereof, which collectively circumvent at least a portion of the perspiration barrier, such that the

perspiration barriers define a portion of the external surface of the garment. *See* Ex. 1002 at pp. 92-93. However, as demonstrated below, that feature was known in the prior art well before the earliest filing date of the '812 Patent.

D. Overview of the Prior Art

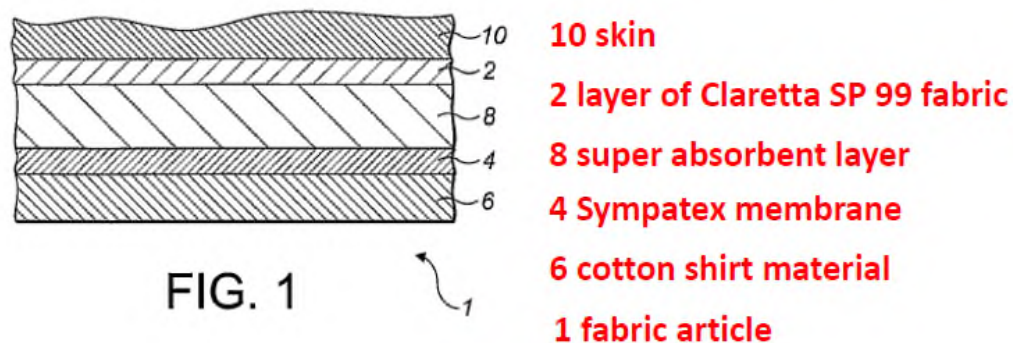
1. Van Emden

PCT International Publication Number WO 2004/089614 A2 (“Van Emden”) entitled “IMPROVMENTS IN OR RELATING TO FABRICS” was published on October 21, 2004, which is more than one year prior to the January 27, 2011 provisional filing date of the '812 Patent. (Ex. 1003). Therefore, Van Emden qualifies as prior art to the '812 Patent under 35 U.S.C. Section 102(b). Van Emden does not appear on the list of references considered by the Examiner during the prosecution of the '812 Patent, nor was it referenced or cited by the patentee of the '812 Patent. *See* Ex. 1001 at References Cited; *see also* Ex. 1002.

Van Emden discloses a laminate structure suitable for use in fabric articles and, in particular, to articles of clothing, footwear, headgear and other items likely to come in contact with a person's skin and associated perspiration. Ex. 1003 at p. 1, lines 3-7. A laminate according to Van Emden “includes in its definition a layered item comprising two or more layers.” Ex. 1003 at p. 5, lines 29-30. Like the '812 Patent, the purpose of Van Emden is to “provide fabric articles ... which include breathable material as an integral part of the article, which have sanitary

properties, and preferably which prevents visible moisture build-up on or within the article.” Ex. 1003 at p. 3, lines 5-10. Van Emden accomplishes this purpose in the same way as the ’812 Patent by providing a laminate incorporated into “an article of clothing in which perspiration from a user is firstly [neutralized] in terms of [odor] and bacteria by the second layer 2 [of the laminate]; large quantities of perspiration are absorbed by the intermediate super absorbent layer 8; liquid perspiration is retained within the super absorbent layer 8 whilst [vapor] is wicked through the liquid impermeable, [vapor] permeable first layer 4 and out of the fabric of the outer layer 6.” Ex. 1003 at p. 28, lines 17-25; *see also* p. 36, lines 1-22.

Figure 1 is a preferred embodiment of the fabric article incorporating the Van Emden laminate. Ex. 1003 at p. 26, line 30 – p. 27, line 1. Dr. David Brookstein annotated Figure 1 of Van Emden below to identify each layer of the laminate structure in relation to the skin of the user. *See* Ex. 1006 at ¶26.



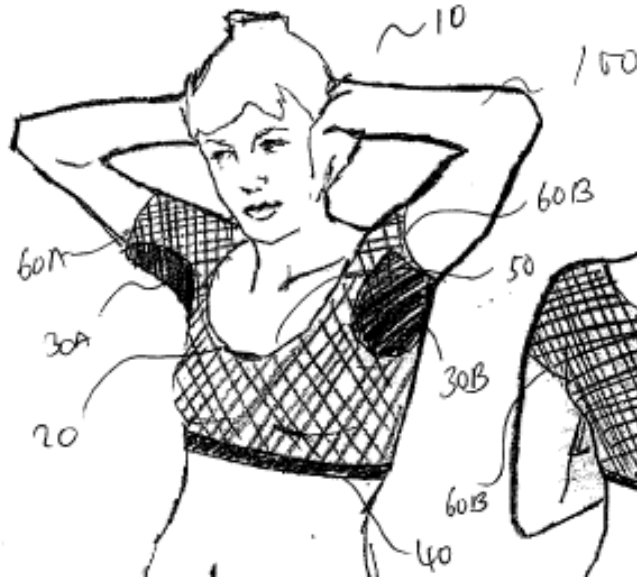
Van Emden at FIG. 1, annotated

Like the '812 Patent, “the fabric layer [of the integrated Van Emden laminate] forms at least part of the exterior layer ... of the article of clothing. Ex. 1003 at p. 37, line 30-p. 38, line 1.

2. Bryan

US 2008/0052802 (“Bryan”) entitled “ELASTIC UPPER-BODY UNDERWEAR” was published on March 6, 2008, which is more than one year prior to the January 27, 2011 provisional filing date of the '812 Patent. (“Ex. 1004”). Therefore, Bryan qualifies as prior art to the '812 Patent under 35 U.S.C. Section 102(b). Bryan does appear on the face of the '812 Patent, but was not cited or substantively discussed by the Examiner during the prosecution of the '812 Patent, nor was it considered in combination with Van Emden. *See* Ex. 1001 at *References Cited*; *see also* Ex. 1002.

Bryan discloses an elastic upper-body undergarment with absorbent material integrated into the arm pits regions of the garment to provide sweat protection. Ex. 1004 at Abstract. Similar to the '812 Patent and Van Emden, Bryan discloses a garment having a multi-layer construction in the armpit region. Ex. 1004 at [0010]. Figure 1A of Bryan, reproduced below, shows an “upper undergarment 10 ... [with] a body portion 20 with two armpit regions 30A and 30B, an edge 40, a neckline 50 and sleeves 60A and 60B on a user 100.” Ex. 1004 at [0028].



Bryan at FIG. 1A

Bryan discloses that “[p]referably, armpit regions 30A and 30B are made of an absorbent material that can absorb sweat while being worn and prevent stains from forming on the consumers outer garment.” Ex. 1004 at [0033]. In a preferred embodiment of the garment, Bryan discloses that “the armpit regions ... have been cut out as a hole” and “[a]round the edge of the hole is a thin area of the absorbent material.” Ex. 1004 at [0047]. “The armpit pads in this preferred method would have an outer edge with adhesive that attaches to the thin area of the absorbent material around the hole.” *Id.*

IV. PERSON OF ORDINARY SKILL IN THE ART

For the subject matter of the '812 Patent, as of the applicable priority date, the relevant technical field was wearing apparel. *See* Ex. 1006 at ¶¶ 17-19 and Ex. 1001 at 1:21-25. At this time, a person of ordinary skill in the art would have had a

four-year degree in textile engineering, mechanical engineering, or a related field of study and two years of experience in one of the relevant fields of textile engineering, textile technology, or mechanical engineering. Ex. 1006 at ¶20. A person of ordinary skill in the art could also have had either a Master's degree in textile engineering, mechanical engineering, or a related field. This description is approximate, and a higher level of training might make up for less education, and vice-versa. Ex. 1006 at ¶20.

V. STATEMENT OF PRECISE RELIEF REQUESTED

Pursuant to 37 C.F.R. § 42.104(b), Petitioner requests *inter partes* review of claim 15 of the '812 Patent, and a finding that each claim is unpatentable under 35 U.S.C § 103, as set forth herein and as supported by the Declaration of David Brookstein, Sc.D. *See* Ex. 1006 and Ex. 1007.

A. Statutory Grounds of Challenge

The statutory ground under 35 U.S.C. § 103 on which the challenge to the claim is based, and the prior art relied upon for the ground is as follows:

Claim	Basis for Rejection under 35 U.S.C. § 103
15	Van Emden and Bryan

B. Claim Construction

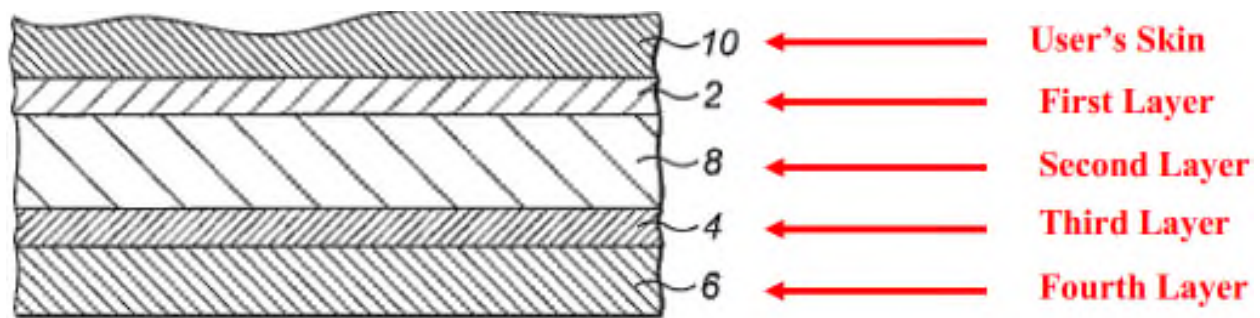
A claim subject to IPR is given its “broadest reasonable construction in light of the specification of the patent in which it appears.” 37 C.F.R. § 42.100(b).

Because the standards of claim construction used by the federal courts are different from the standards used by the Patent Office in claim examination proceedings (including this IPR), any claim interpretations used or applied in these proceedings (either express or implicit) are neither binding upon Petitioner in patent infringement litigation or on any other litigants, nor do such claim interpretations correspond to the construction of claims under the legal standards used by the courts. Any constructions in this proceeding should be viewed only under the “broadest reasonable construction” standard required here.

Accordingly, Petitioner submits that the claim terms should be given their plain meaning.

V. DETAILED REASONS FOR UNPATENTABILITY**A. Claim 15 is Obvious in view of Van Emden and Bryan**

Before turning to the individual claim elements, the following annotated version of Van Emden Figure 1 is provided to identify where each of the “first,” “second,” “third,” and “fourth” layers of the “perspiration barrier” of claim 15 are found in Van Emden.



Van Emden at FIG. 1, annotated

1. Independent Claim 15

Independent claim 15 of the '812 Patent is obvious under 35 U.S.C. § 103(a) in view of Van Emden and Bryan. Letters [a] through [h] have been added before each limitation of claim 15, below, for reference.

Claim 15 [Preamble]: A garment having an internal surface adapted to contact a wearer's skin and an external surface, the garment, comprising:

The following claim chart identifies examples of where each and every limitation of the preamble of claim 15 is disclosed by Van Emden.¹

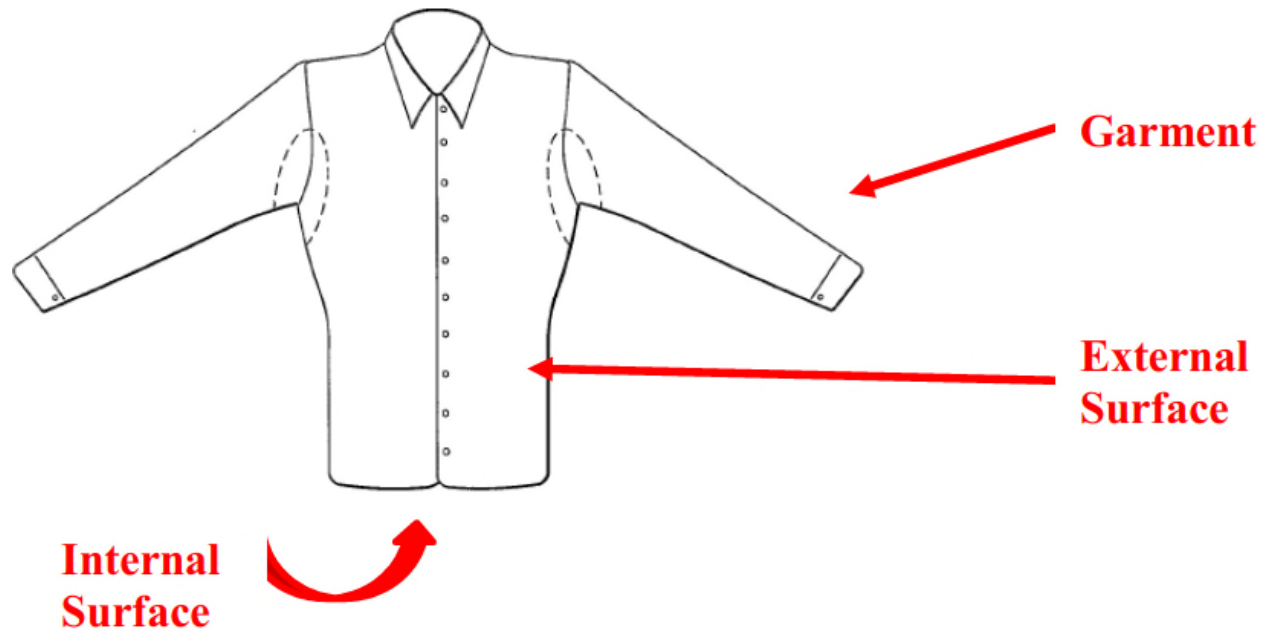
[Preamble]	A garment having an internal surface adapted to contact a wearer's skin and an external surface, the garment, comprising:	<p><i>See e.g., Van Emden at Abstract (“The present invention relates to a laminate structure suitable for use in fabric articles and on other surfaces that may have liquid water thereon.”).</i></p> <p><i>See e.g., Van Emden at p. 1, lines 3-7 (“The present invention relates to a laminate structure suitable for use in fabric articles and, in particular, to articles of clothing, footwear, headgear and other items likely to come into contact with a person's skin and its associated perspiration”).</i></p>
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Van Emden discloses “a laminate structure suitable for use in fabric articles and on other surfaces that may have liquid water thereon.” *See, e.g., Ex. 1003 at Abstract.* The laminate can be inserted into an article of clothing, such as a T-shirt,

¹ Petitioner does not assert a position as to whether the preamble is limiting or non-limiting, and explicitly reserves the right to assert either position in this or other proceedings. Regardless, the features recited in the preamble of claim 15 are disclosed in the prior art presented.

“likely to come into contact with a person’s skin and its associated perspiration.”

See, e.g., Ex. 1003 at p. 1, lines 3-7; FIG. 3; *see also* Ex. 1006 at ¶34. The T-shirt with laminate incorporated is depicted in annotated Figure 3 below. *See, e.g.*, Ex. 1003 at FIG. 3.



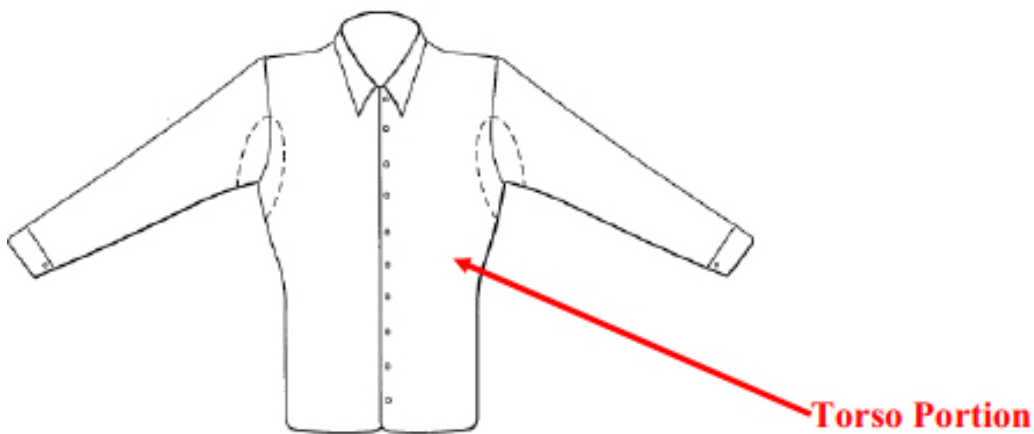
Van Emden at FIG. 3, annotated

Claim 15 [a]: a torso portion;

The following claim chart identifies examples of where each and every limitation of claim element 15[a] is disclosed by Van Emden.

15 [a]	a torso portion;	<i>See e.g., Van Emden at p. 26, lines 17-20; FIG. 3 (“Figure 3 illustrates an article of clothing of the present invention, more specifically a shirt in which the armpit regions of the shirt have a laminate construction”).</i>
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Figure 3 of Van Emden “illustrates an article of clothing of the present invention, more specifically a shirt in which the armpit regions of the shirt have a laminate construction” *See, e.g.*, Ex. 1003 at p. 26, lines 17-20; FIG. 3. Dr. Brookstein annotated Figure 3 of Van Emden below to depict the torso portion of the T-shirt. *See, e.g.*, Ex. 1006 at ¶35; Ex. 1003 at FIG. 3.



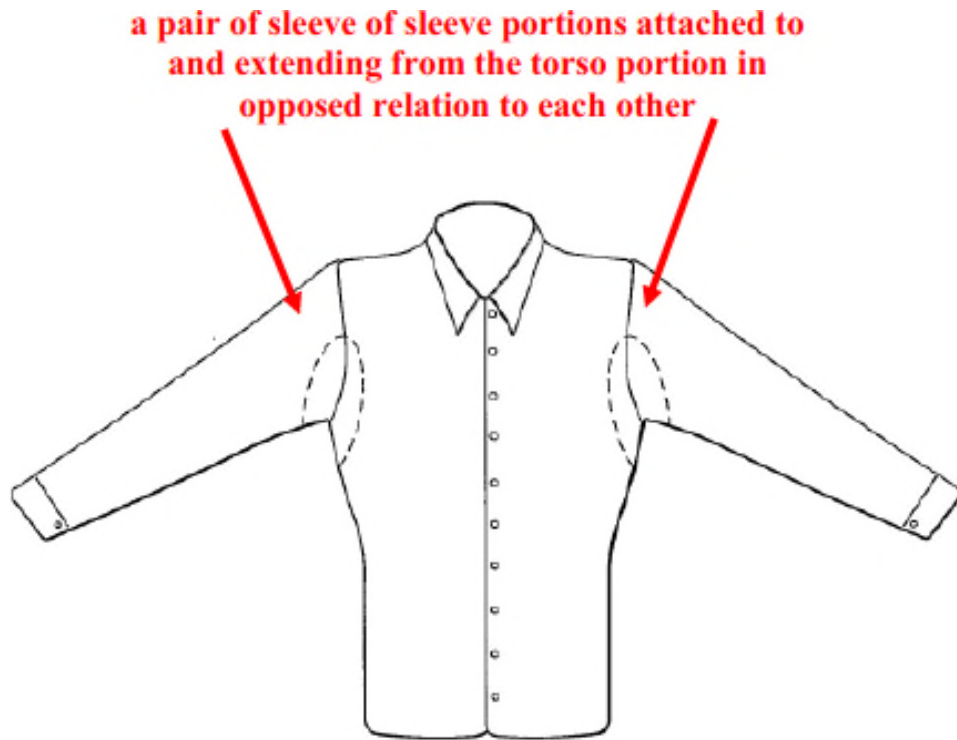
Van Emden at FIG. 3, annotated

Claim 15 [b]: a pair of sleeve portions attached to and extending from the torso portion in opposed relation to each other; and

The following claim chart identifies examples of where each and every limitation of claim element 15[b] is disclosed by Van Emden.

15[b]	a pair of sleeve portions attached to and extending from the torso portion in opposed relation to each other; and	<i>See e.g., Van Emden at p. 26, lines 17-20; FIG. 3 (“Figure 3 illustrates an article of clothing of the present invention, more specifically a shirt in which the armpit regions of the shirt have a laminate construction”).</i>
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Figure 3 of Van Emden “illustrates an article of clothing of the present invention, more specifically a shirt in which the armpit regions of the shirt have a laminate construction” *See, e.g.*, Ex. 1003 at p. 26, lines 17-20; FIG. 3. Dr. Brookstein annotated Figure 3 of Van Emden below to depict the pair of sleeve portions of the T-shirt. Ex. 1006 at ¶36; *see also* Ex. 1003 at FIG. 3.



Van Emden at FIG. 3, annotated

Claim 15 [c]: a pair of perspiration barriers, each of the perspiration barriers comprising:

The following claim chart identifies examples of where each and every limitation of claim element 15[c] is disclosed by Van Emden.

15[c]	a pair of perspiration barriers, each of the perspiration barriers comprising:	<p><i>See e.g., Van Emden at p. 5, line 29-p. 6, line 5 (“A ‘laminate’ includes in its definition a layered item comprising two or more layers. Said layers may be of different materials and may or may not be bonded together. At least part of the fabric layer is permeable to water vapour, but the entire fabric layer may be permeable to water vapour. The fabric layer may be impermeable or permeable to liquid water, depending on the intended use of the article of clothing.”).</i></p> <p><i>See e.g., Van Emden at p. 26, lines 17-20; FIG. 3 (“Figure 3 illustrates an article of clothing of the present invention, more specifically a shirt in which the armpit regions of the shirt have a laminate construction”).</i></p>
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Figure 3 of Van Emden “illustrates an article of clothing of the present invention, more specifically a shirt in which the armpit regions of the shirt have a laminate construction” *See, e.g., Ex. 1003 at p. 26, lines 17-20; p. 5, line 29-p. 6, line 5; FIG. 3.* The laminate construction integrated in the armpit and torso regions of the shirt of Van Emden form a pair of perspiration barriers. Dr. Brookstein annotated Figure 3 of Van Emden below to depict the pair of laminate constructions integrated in the armpit and torso region of the shirt, which form a pair of perspiration barriers. *See, e.g., Ex. 1006 at ¶37.*



Van Emden at FIG. 3, annotated

Claim 15 [d]: a first layer fabricated from a soft, pliable material adapted to permit the transmission of moisture therethrough;

The following claim chart identifies examples of where each and every limitation of claim element 15[d] is disclosed by Van Emden, with evidence from Van Emden II.

15[d]	a first layer fabricated from a soft, pliable material adapted to permit the transmission of moisture therethrough;	<p><i>See e.g., Van Emden at p. 11, line 25-p.12, line 17 (“The second layer may comprise a woven, knitted or non-woven textile material cover, finish or sheet. The textile sheet may comprise synthetic or natural material. Preferably, at least part of, and preferably all of, the second layer is suitable for wicking liquid water from a surface with which the second layer is in contact.”</i></p> <p><i>Suitable synthetic materials include polyesters, polyamides, polyvinyl alcohols, cellulose (for example Lyocell, rayon or viscose) and nylon, and mixtures thereof, for example. Suitable natural materials include</i></p>
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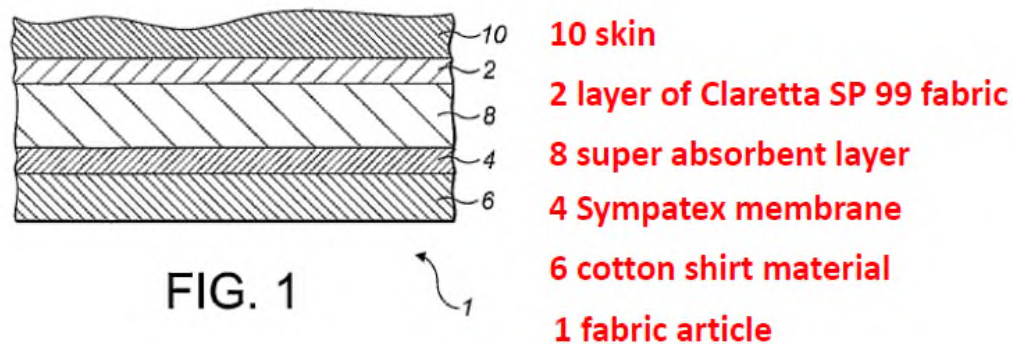
		<p><i>cotton, linen, flax, hemp, jute, wool and mixtures thereof, for example. The textile sheet may comprise a mixture of synthetic and natural materials.</i></p> <p><i>The second layer may comprise a single sheet or may comprise a plurality of layers and said layers may be laminated by heat, mechanical or chemical means.</i></p> <p><i>Particularly suitable sheet materials for use in the second layer include those containing Claretta (RTM) SP-99 fibres, manufactured by Kuraray Co., Ltd Japan and Takeda Chemical Industries Ltd, Japan as well as BIOSAFE (RTM) fibres, manufactured by Kanebo Ltd, Japan and Biofresh (RTM) antimicrobial fibres from Sterling Fibres, UK.”).</i></p> <p><i>See e.g., Van Emden at p. 27, lines 2-8; FIG. 1 (“More specifically, Figure 1 shows the laminate construction of said article. The fabric article 1 comprises a second layer 2 in the form of a layer of Claretta (RTM) SP-99 fabric, which comprises the sanitary agent having a double deodorising mechanism which provides (a) a chemical neutralising reaction and (b) a photocatalytic reaction.”).</i></p> <p><i>See e.g., Van Emden at p. 27, line 25-p. 28, line 2 (“In use the person puts on the fabric article 1, which is in the form of a shirt defined by the outer fabric 6. When the user perspires, perspiration from the skin 10 will firstly traverse to the second layer 2, where any bacteria and or odours will be neutralised, substantially, by the double deodorising mechanism, which provides deodorising and anti-microbial action. Any moisture will then travel through the second</i></p>
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		<p><i>layer 2 to the intermediate layer 8 where the moisture will be absorbed by the cotton of the intermediate layer 8 in order to wick the moisture from the skin 10 or the person.”).</i></p> <p><i>See e.g., Van Emden II at [0265]: (“This inner layer was Claretta SP-99-Shine UP, manufactured by Kuraray. The low denier fibres formed a very light, knitted fabric. The weight of the inner layer alone was approximately 70 gsm. The knit construction allowed the resultant fabric to be comfortable and have a drape and handle similar to a standard cotton shirt.”).</i></p> <p><i>See e.g., Van Emden II at [0268]: (“The inner wicking layer used was knitted-Claretta SP-99, which allowed the resultant fabric laminate to be relatively soft, light and supple. The fabric was able to wick liquid moisture, but allow the moisture to evaporate through the breathable layer.”).</i></p>
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The inner layer, also called the second layer, of the Van Emden laminate is a soft, pliable material adapted to permit the transmission of moisture. This inner or second layer “may comprise a woven, knitted or non-woven textile material cover, finish or sheet” including “synthetic or natural material.” *See, e.g.,* Ex. 1003 at p. 11, lines 25-30; FIG. 1. “Suitable natural materials include cotton, linen, flax, hemp, jute, wool and mixtures thereof, for example.” Ex. 1003 at p. 12, lines 2-4. All of these materials are soft, pliable, and adapted to transmit moisture through the inner layer 2 of the Van Emden laminate. Ex. 1006 at ¶38.

Figure 1 of Van Emden shows the laminate construction of an article of clothing including “a second layer 2 in the form of a layer of Claretta (RTM) SP-99 fabric” Ex. 1003 at p. 27, lines 2-5. As stated in Van Emden, “perspiration from the skin 10 will firstly traverse to the second layer 2” and ... “[a]ny moisture will then travel through the second layer 2.” Ex. 1006 at ¶38; *see also* Ex. 1003 at p. 27, lines 27-33.

Dr. David Brookstein annotated Figure 1 of Van Emden below to identify each layer of the laminate structure in relation to the skin of the user. *See* Ex. 1006 at ¶26. The layer identified by reference numeral 2 is the inner or second layer, which in one embodiment is a Claretta (RTM) SP-99 fabric.



Van Emden at FIG. 1, annotated

As evidenced by Van Emden II, which was published on April 24, 2008 and qualifies as prior art to the '812 Patent under 35 U.S.C. Section 102(b), one of ordinary skill in the art would have understood that Claretta (RTM) SP-99 fabric, as described in Van Emden, is a soft, pliable material adapted to permit

transmission of moisture therethrough. Ex. 1007 at 39-40. Van Emden II discloses that Claretta(RTM) SP-99 is similar to cotton in construction and function. Ex. 1006 at ¶40; *see also* Ex. 1005 at 26:62-65 (“This inner layer was Claretta SP-99-Shine UP, manufactured by Kuraray. The low denier fibres formed a very light, knitted fabric ... The knit construction allowed the resultant fabric to be comfortable and have a drape and handle similar to a standard cotton shirt.”). Therefore, the second layer 2 disclosed by Van Emden is soft, pliable, and permits that transmission of moisture.

Claim 15[e]: a second layer disposed adjacent the first layer and fabricated from a loosely woven material;

The following claim chart identifies examples of where each and every limitation of claim element 15[e] is disclosed by Van Emden and Bryan.

15[e]	a second layer disposed adjacent the first layer and fabricated from a loosely woven material;	<p><i>See e.g., Van Emden at p. 27, lines 11-13; FIG. 1 (“Connected to one side of the inner layer 2 is an intermediate layer 8 comprising 100% cotton to provide a super absorbent layer.”).</i></p> <p><i>See e.g., Van Emden at p. 27, line 25-p. 28, line 2 (“In use the person puts on the fabric article 1, which is in the form of a shirt defined by the outer fabric 6. When the user perspires, perspiration from the skin 10 will firstly traverse to the second layer 2, where any bacteria and or odours will be neutralised, substantially, by the double deodorising mechanism, which provides deodorising and anti-microbial action. Any</i></p>
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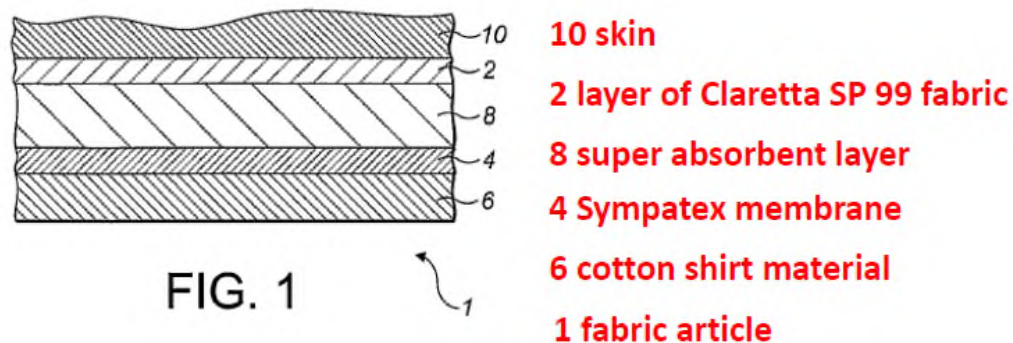
		<p><i>moisture will then travel through the second layer 2 to the intermediate layer 8 where the moisture will be absorbed by the cotton of the intermediate layer 8 in order to wick the moisture from the skin 10 or the person.”).</i></p> <p><i>See e.g., Van Emden at p. 28, lines 17-25 (“Thus the fabric article 1 provides an article of clothing in which perspiration from a user is firstly neutralised in terms of odour and bacteria by the second layer 2; large quantities of perspiration are absorbed by the intermediate super absorbent layer 8; liquid perspiration is retained within the super absorbent layer 8 whilst vapour is wicked through the liquid impermeable, vapour permeable first layer 4 and out of the fabric of the outer fabric 6.”).</i></p> <p><i>See e.g., Van Emden at p. 29, lines 24-27 (“The intermediate layer 8 is 100% cotton, which has excellent moisture absorbing properties. The cotton may be interweaved with the second layer 2 and or first layer 4, or may be laminated, connected or adhered thereto.”).</i></p> <p><i>See e.g., Bryan at [0034] (“The term “absorbent material” is used herein in a very broad sense to include any article that is able to receive and/or absorb and/or contain and/or retain fluids, especially bodily fluids. The absorbent material preferably is made of the same type of materials found in conventional panty liners, sanitary pads, incontinence pads and diapers. These type of absorbent materials include terry toweling fabric, bamboo, microfibre fabrics, hemp, wood pulp, sphagnum moss, etc. Even more preferably, the absorbent material is</i></p>
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		<p><i>customized that has the following characteristics: thin, flexible, stretchable under the armpit regions to be comfortable and inconspicuous.”).</i></p> <p><i>See e.g., Bryan at [0036] (“Another preferred absorbent material is made of cotton. Preferably, the absorbent material is a wicking cotton material, such as Egyptian or French terry cotton but most preferably, the absorbent material is a four way stretch cotton.”).</i></p> <p><i>See e.g., Bryan at [0043] (“Again, the materials for the armpit pads are absorbent materials that can absorb sweat during wearing and prevent stains form forming on the user's outer garment. The absorbent material preferably is made of the same type of materials found in conventional panty liners, sanitary pads, incontinence pads and diapers. These type of absorbent materials include terry toweling fabric, bamboo, microfibre fabrics, hemp, wood pulp, sphagnum moss, etc. Even more preferably, the absorbent material is customized that has the following characteristics: thin, flexible, stretchable under the armpit regions to be comfortable and inconspicuous.”).</i></p>
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The intermediate layer of the Van Emden laminate (*e.g.*, layer 8 in Figure 1 of Van Emden) is a disposed adjacent the first layer (*e.g.*, second or inner layer 2 of Figure 1 of Van Emden) and fabricated from loosely woven material. Ex. 1006 at ¶¶ 41-42. “Connected to one side of the inner layer 2 [of the Van Emden laminate] is an intermediate layer 8 comprising 100% cotton to provide a super

absorbent layer.” *See, e.g.*, Ex. 1003 at p. 27, lines 11-13; FIG. 1. Dr. David

Brookstein annotated Figure 1 of Van Emden below to identify each layer of the laminate structure in relation to the skin of the user. *See* Ex. 1006 at ¶26. The layer identified by reference numeral 8 in the Van Emden laminate is the claimed second layer disposed adjacent the first layer and fabricated from a loosely woven material.



Van Emden at FIG. 1, annotated

The “intermediate layer 8 [can be] 100% cotton, which has excellent moisture absorbing properties.” Ex. 1003 at p. 29, lines 24-25. Van Emden discloses that the cotton may be interweaved with the second layer 2 and/or first layer 4, or may be laminated, connected or adhered thereto.” Ex. 1003 at page 29, lines 25-27 (emphasis added); *see also* Ex. 1006 at ¶42. As explained by Dr. Brookstein, one of ordinary skill in the art would have understood the intermediate layer 8 to be a woven material in order to be interweaved with the second layer 2 and/or first layer 4. Given the moisture “super absorb[ing]”

properties of Van Emden's second layer of cotton, one of ordinary skill would have understood the second layer to be loosely woven to facilitate absorption of liquid or perspiration. Ex. 1006 at ¶42.

To the extent Van Emden does not expressly disclose that the intermediate layer is loosely woven, Bryan discloses loosely woven materials, such as terry towel or terry cloth are used for their super absorbent properties in perspiration barriers or pads. For example, Bryan discloses terry towel cotton material that is the same loosely woven material disclosed in the specification of the '812 Patent. *See e.g.*, Ex. 1001 at 3:59-62 ("Positioned against the first layer 26 is a second layer 28 which, according to one embodiment, is formed from a loosely woven material, preferably a terry-cloth material fabricated from 80%-20% canon/polyester blend."); Ex. 1004 at [0034], [0036], [0043]; *see also* Ex. 1006 at ¶43. This absorbent material is described in Bryan "in a very broad sense to include any article that is able to receive and/or absorb and/or contain and/or retain fluids, especially bodily fluids." Ex. 1004 at [0034]. This terry cloth "can absorb sweat during wearing and prevent stains [from] forming on the user's outer garment." Ex. 1004 at [0043].

As explained by Dr. Brookstein, one of ordinary skill in the art would have been motivated to form Van Emden's cotton intermediate layer 8 as a "loosely woven" cotton material (*e.g.*, terry cloth), as described by Bryan, in order to

achieve the “super absorbent layer” with “excellent moisture absorbing properties” described by Van Emden. Ex. 1006 at 44. One of ordinary skill in the art would have known that the use of Bryan’s terry cloth (a type of woven cotton material) as the cotton intermediate layer 8 of Van Emden would have led to the predictable result of providing absorbency. *Id.* Additionally, one of ordinary skill in the art would have known that the substitution of Bryan’s terry cloth (a loosely woven cotton material) for Van Emden’s woven cotton intermediate layer 8 would have provided the predictable result of providing absorbency. *Id.*

Claim 15 [f]: a third layer disposed adjacent the second layer and fabricated from a hydrophilic breathable film

The following claim chart identifies examples of where each and every limitation of claim element 15[f] is disclosed by Van Emden.

15[f]	a third layer disposed adjacent the second layer and fabricated from a hydrophilic breathable film; and	<p><i>See e.g., Van Emden at p. 7, line 8-p. 8, line 3 (“The first layer preferably comprises at least one sheet or membrane having a resistance to moisture vapour permeability (breathability) of no more than 15m² Pa/W, more preferably no more than 10m² Pa/W, still more preferably no more than 6m² Pa/W, most preferably no more than 4m² Pa/W especially no more than 2m² Pa/W.</i></p> <p><i>The breathability can be measured using the ISO DIS 11092 test.</i></p> <p><i>The first layer may comprise a woven, knitted or non- woven material, but typically is a coating, film or membrane. The liquid water-impermeable, water vapour- permeable sheet</i></p>
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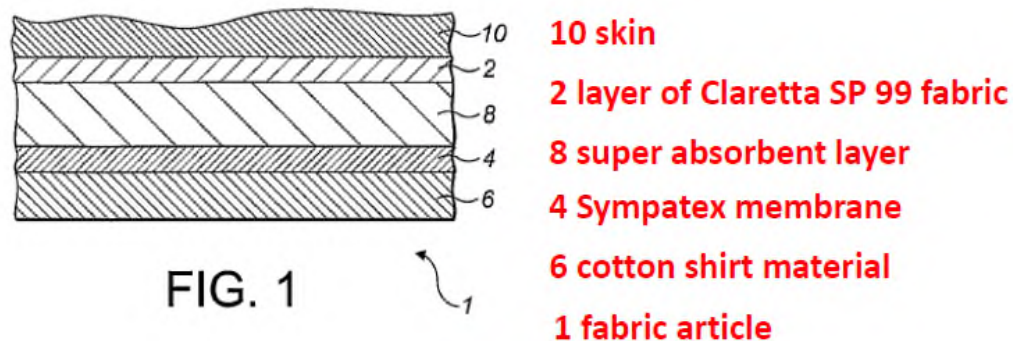
		<p><i>or membrane is preferably non-porous, but may be micro-porous. The sheet or membrane may comprise any suitable materials, such as polytetrafluoroethylene, rubbers, silicones, polyurethanes, acrylates, polyethers, polyesters, polyolefins, polyamino acids, polyamides or copolymers thereof, for example. Suitable commercially available materials include Sympatex (RTM), manufactured by Sympatex Technologies Limited, UK or Faitplast (RTM) films, Faitgom(RTM), thermoplastic polyurethane films or Faitex(RTM) manufactured by Faitplast Corporation. The sheet or membrane may preferably comprise hydrophilic and/or hydrophobic materials.</i></p> <p><i>Preferably, the sheet or membrane includes hydrophilic components.”).</i></p> <p><i>See e.g., Van Emden at p. 27, lines 13-16 (“Connected to the other side of the intermediate layer 8 is a first layer 4 consisting of a Sympatex (RTM) 10-micrometre membrane, which is liquid impermeable but vapour permeable.”).</i></p> <p><i>See e.g., Van Emden at p. 28, lines 2-32 (“The moisture present in the intermediate layer 8 will then contact the first layer 4 of Sympatex (RTM) . The Sympatex (RTM) fabric membrane enables water vapour to traverse through the first layer 4 but prevents liquid moisture from traversing the layer 4. Thus perspiration in the form of vapour is able to traverse the first layer 4 whereas any patches of liquid perspiration will remain within the absorbent intermediate layer 8, until the person's body heat vaporises the liquid, such as it may then traverse through the first layer</i></p>
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		<p><i>4. Any vapour passing through the first layer 4 will then traverse to the fabric 6, which consists of the polyester shirt fabric, and be wicked out of the fabric article 1.</i></p> <p><i>Thus the fabric article 1 provides an article of clothing in which perspiration from a user is firstly neutralised in terms of odour and bacteria by the second layer 2; large quantities of perspiration are absorbed by the intermediate super absorbent layer 8; liquid perspiration is retained within the super absorbent layer 8 whilst vapour is wicked through the liquid impermeable, vapour permeable first layer 4 and out of the fabric of the outer fabric 6. Thus bacteria and liquid, which discolour normal clothing fabrics, are prevented from reaching the fabric material of the fabric 6, and thus discolouration is prevented or mitigated. Furthermore, the liquid impermeable first layer 4 prevents any liquid falling on the outside of the fabric article 1 from passing the first layer 4, and through the intermediate 8 and second 2 layers to the wearer's skin 10.”).</i></p>
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The first layer 4 of the Van Emden laminate is a third layer adjacent to the second layer (*e.g.*, super absorbent intermediate layer 8 of Figure 1 f Van Emden) and “may comprise a woven, knitted or non- woven material, but typically is a coating, film or membrane.” Ex. 1003 at p. 7, lines 18-20. This first layer of the Van Emden laminate is breathable, “having a resistance to moisture vapour permeability (breathability).” Ex. 1003 at p. 7, lines 7-13. “Preferably, the sheet or membrane [that makes up this first layer] includes hydrophilic components,”

thereby forming a hydrophilic layer. Ex. 1003 at p. 8, lines 2-3. Dr. David

Brookstein annotated Figure 1 of Van Emden below to identify each layer of the laminate structure in relation to the skin of the user. *See* Ex. 1006 at ¶26. The layer identified by reference numeral 4 in the Van Emden laminate is the hydrophilic breathable film layer. Ex. 1006 at ¶¶ 26, 45, 46.



Van Emden at FIG. 1, annotated

In one embodiment, the first layer 4 of the Van Emden laminate is a Sympatex (RTM) 10-micrometre membrane that is liquid impermeable but vapor permeable, just like the hydrophilic breathable layer shown in Figure 4 of the '812 Patent. Ex. 1006 at ¶45; *see also* Ex. 1003 at p. 27, lines 14-16 and Ex. 1001 at Figure 4. Further, Van Emden also discloses that the first layer 4 of the laminate is “a non-porous polyester membrane comprising hydrophilic zones,” and can be a polyurethane film exactly like the polyurethane film disclosed in the '812 Patent. *See* Ex. 1003 Van Emden at p. 30, lines 15-18; p. 7, lines 18-30 (“The first layer ... typically is a coating, film or membrane ... such as ... polyurethanes”); *see also*

Ex. 1001 at 4:5-6 (“The third layer 30 is preferably a hydrophilic breathable film which is fabricated from polyurethane.”). Therefore, the first layer 4 of the Van Emden laminate constitutes the third layer of hydrophilic, breathable film recited by limitation 15[f] of the ’812 Patent. Ex. 1006 at ¶46.

Claim 15 [g]: and a fourth layer disposed adjacent the third layer,

The following claim chart identifies examples of where each and every limitation of claim element 15[g] is disclosed by Van Emden.

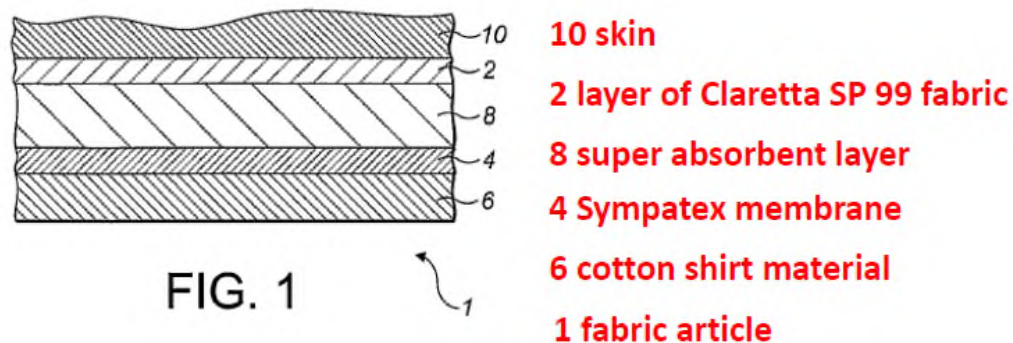
<p>15[g]</p>	<p>and a fourth layer disposed adjacent the third layer,</p>	<p><i>See e.g., Van Emden at p. 16, lines 22-25 (“By ‘outer fabric’, this is meant relative to the other fabrics in the laminate when in use and does not preclude other exterior fabrics being present on the ‘outer fabric’.”).</i></p> <p><i>See e.g., Van Emden at p. 17, lines 13-14 (“a fabric layer, at least part of which is permeable to water vapour, said fabric layer being optionally the exterior layer of said article of clothing”).</i></p> <p><i>See e.g., Van Emden at p. 27, lines 13-26 (“Connected to the other side of the intermediate layer 8 is a first layer 4 consisting of a Sympatex(RTM)10-micrometre membrane, which is liquid impermeable but vapour permeable. Integral with the first layer 4 is an outer fabric 6 consisting of the fabric material of a cotton shirt. Integration of the first layer 6 and fibre 6 is achieved by weaving the fibres of the first layer 4 into the fabric 6 during manufacture of the article 1. The fabric article 1 shown in Figure 1 is shown next to a person's skin 10 such that the second layer 2 is</i></p>
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		<p><i>located abutting the person's skin 10. In use a person puts on the fabric article 1, which is in the form of a shirt defined by the outer fabric 6.”).</i></p> <p><i>See e.g., Van Emden at p. 28, lines 12-15 (“Any vapour passing through the first layer 4 will then traverse to the fabric 6, which consists of the polyester shirt fabric, and be wicked out of the fabric article 1.”).</i></p> <p><i>See e.g., Van Emden at p. 28, lines 17-25 (“Thus the fabric article 1 provides an article of clothing in which perspiration from a user is firstly neutralised in terms of odour and bacteria by the second layer 2; large quantities of perspiration are absorbed by the intermediate super absorbent layer 8; liquid perspiration is retained within the super absorbent layer 8 whilst vapour is wicked through the liquid impermeable, vapour permeable first layer 4 and out of the fabric of the outer fabric 6.”).</i></p> <p><i>See e.g., Van Emden at p. 37, line 30-p. 38, line 1 (“In the article of clothing of the present invention, preferably the fabric layer forms at least part of the exterior layer, in use, of the article of clothing. The fabric layer may form substantially all of, or all of, the exterior layer of the article of clothing.”).</i></p>
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Van Emden discloses an outer fabric layer that can form the exterior layer of the article of clothing. Ex. 1003 at p. 17, lines 13-14; *see also* p. 16, lines 22-25 (“By ‘outer fabric’, this is meant relative to the other fabrics in the laminate when in use”). This outer fabric layer, identified as element 6 of the Van Emden

laminate, constitutes a fourth layer in the laminate structure that is disposed adjacent to the liquid impermeable but vapor permeable first layer 4 (*i.e.*, third layer appearing in the Van Emden laminate structure). *See* Ex. 1003 at FIG. 1 and p. 27, lines 13-16; Ex. 1006 at ¶47. The fourth outer fabric layer of the laminate disclosed in Figure 1 of Van Emden consists of the fabric material of a cotton shirt. Ex. 1003 at 27, lines 16-18; Ex. 1006 at ¶47.

Dr. David Brookstein annotated Figure 1 of Van Emden below to identify each layer of the laminate structure in relation to the skin of the user. *See* Ex. 1006 at ¶26. The layer identified by reference numeral 6 in the Van Emden laminate is the fourth outer fabric layer of the laminate that forms the exterior of the underarm area of the T-shirt. Ex. 1006 at ¶ 26, 47.



Van Emden at FIG. 1, annotated

Claim 15 [h]: the pair of perspiration barriers defining respectively barrier peripheral edge regions, each barrier peripheral edge region being coupled to and at least partially circumvented by a corresponding peripheral edge region collectively defined by the torso portion and a respective one of the sleeve portions such that the external surface of an underarm area of the garment is collectively formed by each of the fourth layers of the perspiration barriers and the respective torso and sleeve portions.

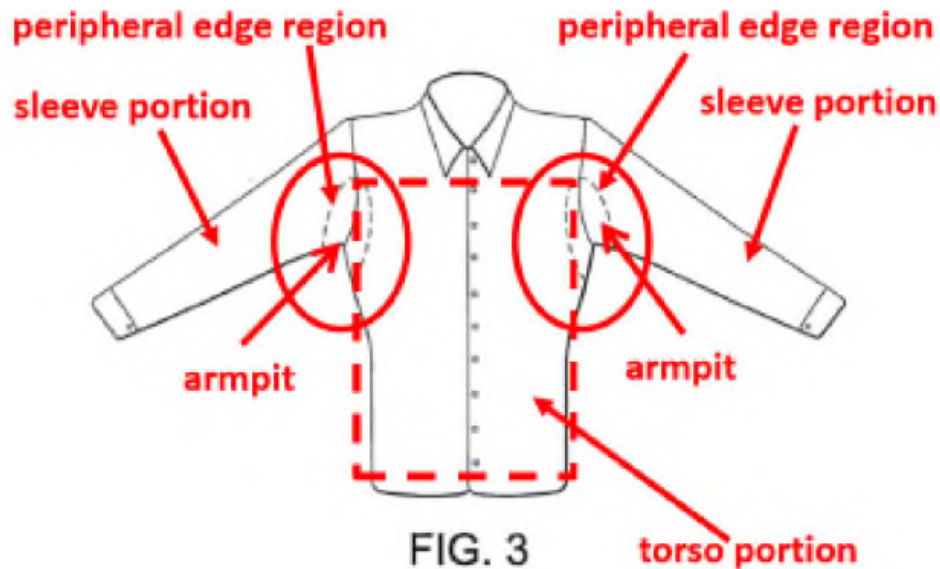
The following claim chart identifies examples of where each and every limitation of claim element 15[h] is disclosed by Van Emden and Bryan.

15[h]	the pair of perspiration barriers defining respectively barrier peripheral edge regions, each barrier peripheral edge region being coupled to and at least partially circumvented by a corresponding peripheral edge region collectively defined by the torso portion and a respective one of the sleeve portions such that the external surface of an underarm area of the garment is collectively	<p><i>See e.g., Van Emden at p. 16, lines 22-25 (“By ‘outer fabric’, this is meant relative to the other fabrics in the laminate when in use and does not preclude other exterior fabrics being present on the ‘outer fabric’.”).</i></p> <p><i>See e.g., Van Emden at p. 17, lines 12-14 (“a fabric layer, at least part of which is permeable to water vapour, said fabric layer being optionally the exterior layer of said article of clothing”).</i></p> <p><i>See e.g., Van Emden at p. 27, lines 16-18 (“Integral with the first layer 4 is an outer fabric 6 consisting of the fabric material of a cotton shirt.”).</i></p> <p><i>See e.g., Van Emden at p. 28, lines 12-15 (“Any vapour passing through the first layer 4 will then traverse to the fabric 6, which consists of the polyester shirt fabric, and be wicked out of the fabric article 1.”).</i></p> <p><i>See e.g., Van Emden at p. 28, lines 17-25 (“Thus the fabric article 1 provides an article of clothing in which perspiration from a user</i></p>
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	<p>formed by each of the fourth layers of the perspiration barriers and the respective torso and sleeve portions.</p>	<p><i>is firstly neutralised in terms of odour and bacteria by the second layer 2; large quantities of perspiration are absorbed by the intermediate super absorbent layer 8; liquid perspiration is retained within the super absorbent layer 8 whilst vapour is wicked through the liquid impermeable, vapour permeable first layer 4 and out of the fabric of the outer fabric 6.”).</i></p> <p><i>See e.g., Van Emden at p. 37, lines 1-5 (“The location of the multiple layered waterproof breathable "fabric" construction can be either as a localised panel, such as under the armpit region of a shirt or T-shirt, or as a complete garment.”).</i></p> <p><i>See e.g., Van Emden at p. 37, line 30-p. 38, line 1 (“In the article of clothing of the present invention, preferably the fabric layer forms at least part of the exterior layer, in use, of the article of clothing. The fabric layer may form substantially all of, or all of, the exterior layer of the article of clothing.”).</i></p> <p><i>See e.g., Bryan at [0028] (“In FIGS. 1A and 1B, a upper undergarment 10 generally shows a body portion 20 with two armpit regions 30A and 30B, an edge 40, a neckline 50 and sleeves 60A and 60B on a user 100.”).</i></p> <p><i>See e.g., Bryan at [0033] (“Preferably, armpit regions 30A and 30B are made of an absorbent material that can absorb sweat while being worn and prevent stains from forming on the consumers outer garment.”).</i></p> <p><i>See e.g., Bryan at [0037] (“One preferred method is to have the absorbent material sewn directly into the armpit regions. This can be</i></p>
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		<p><i>achieved by using any sewing or knitting machine that preferably would generate a one piece of undergarment with the absorbent material. Other preferred methods include knitting, weaving or rousing the absorbent material into the armpit region to allow for greater absorbent density to absorb sweat. The goal is to provide an undergarment that not only is functional in terms of absorbing sweat but also can provide comfort and be inconspicuous.”).</i></p> <p><i>See e.g., Bryan at [0047] (“Yet another preferred method is to have the area where the armpit regions would have been cut out as a hole. Around the edge of the hole is a thin area of the absorbent material. The armpit pads in this preferred method would have an outer edge with adhesive that attaches to the thin area of the absorbent material around the hole.”).</i></p>
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Figure 3 of Van Emden illustrates a T-shirt “in which the armpit regions have a laminate construction.” Ex. 1003 at p. 26, lines 17-19. The armpit, sleeves, and torso of the T-shirt and perspiration barriers that make up peripheral edge regions of the Van Emden laminate are illustrated below in annotated Figure 3. Ex. 1006 at ¶48; Ex. 1003 at FIG. 3.



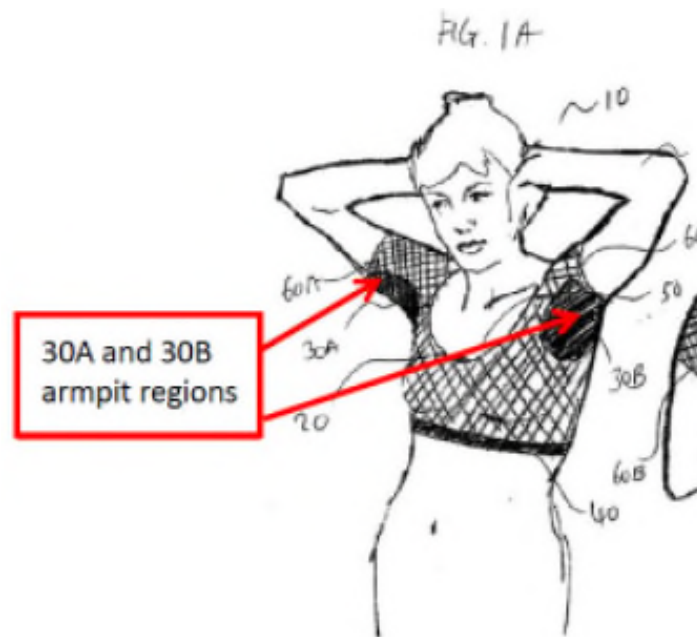
Van Emden at FIG. 3, annotated

The multiple layered waterproof breathable “fabric” construction of Van Emden “can be ... a localized panel, such as under the armpit region of the T-shirt. Ex. 1003 at p. 37, lines 2-5. As shown in annotated Figure 3, above, when formed as a localized panel, each laminate defines a peripheral edge region defined by the torso portion and a respective sleeve portion of the shirt. Ex. 1006 at ¶49.

The fabric layer of the Van Emden laminate is expressly disclosed as forming “at least part of the exterior layer ... of the article of clothing” as shown in the armpit region of the T-shirt in Figure 3. Ex. 1003 at p. 37, line 30 - p. 38, line 1; FIG. 3; *see also* p.17, lines 12-14. The external surface of the underarm area of the garment is therefore collectively formed by each of the fabric layer 6 and the respective torso and sleeve portions. Ex. 1006 at ¶50; *see also* Ex. 1003 at FIG. 3.

To the extent Van Emden does not expressly disclose that “each barrier

peripheral edge region being coupled to and at least partially circumvented by a corresponding peripheral edge region collectively defined by the torso portion and a respective one of the sleeve portions”, Bryan, which is in the same field of endeavor as Van Emden, discloses this limitation. For example, Bryan discloses an “upper undergarment 10 [with] a body portion 20 with two armpit regions 30A and 30B... and sleeves 60A and 60B.” Ex. 1004 at [0028]. These features are depicted in Figure 1A of Bryan, Dr. Brookstein’s annotated version of which is reproduced below. Ex. 1006 at ¶51.

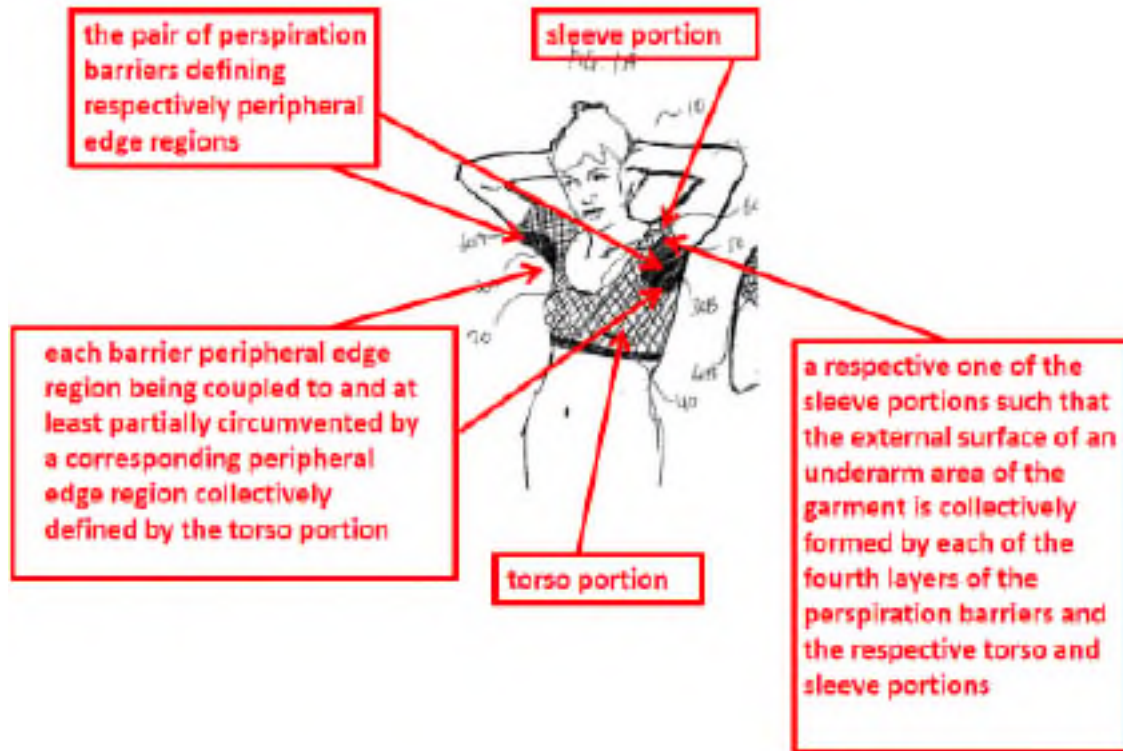


Bryan at FIG. 1A, annotated

Preferably, armpit regions 30A and 30B of the Bryan garment are made of an absorbent material or absorbent pad that can absorb sweat while being worn and prevent stains from forming on the garment. Ex. 1004 at [0033]; *see also* Ex. 1006 at

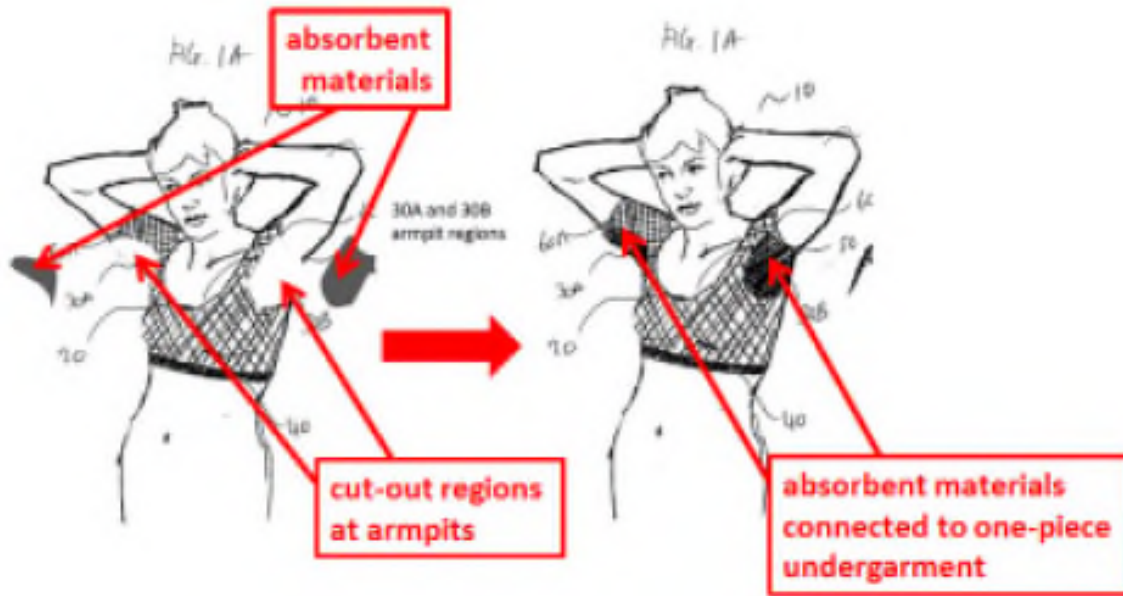
¶52. The absorbent material of Bryan can be sewn directly to the armpit region of the garment by “using any sewing or knitting machine that preferably would generate a one piece of undergarment with the absorbent material.” Ex. 1004 at [0037]; *see also* Ex. 1006 at ¶52.

In an embodiment of Bryan, the armpit regions of the garment are cut out as holes, and “[t]he armpit pads in this preferred method would have an outer edge with adhesive that attaches to the thin area of the absorbent material around the hole.” Ex. 1004 at [0047]; *see also* Ex. 1006 at ¶53. After using this method of construction and attachment of the absorbent armpit pads, each of the armpit regions 30A, 30B and the body portion 20 of the Bryan garment define barrier peripheral edge regions (i.e., around the edge of the armpit pad). Ex. 1006 at ¶53. As shown in the Figure 1A of Bryan annotated by Dr. Brookstein below, corresponding peripheral edge regions defined by the torso portion and the respective sleeve portions of the garment circumvent and are coupled to respective peripheral edge regions of the armpit pads of Bryan. Ex. 1006 at ¶53.



Bryan at FIG. 1A, annotated

Using the method of construction and attachment described in Bryan, one of ordinary skill in the art would have understood that the one-piece garment includes a cut-out area where the absorbent pads are inserted and attached to the garment, with one side of the absorbent pads contacting the wearer's skin and the outside of absorbent pads forming the outside of the garment. *See* Ex. 1004 at FIG. 1A; *see also* Ex. 1006 at ¶54. Dr. Brookstein annotated Figure 1A below to depict holes in the armpit region (including torso and sleeve portions) of the garment of Bryan and how the perspiration barriers are inserted and attached to the holes. Ex. 1006 at ¶54.



Bryan at FIG. 1A, annotated

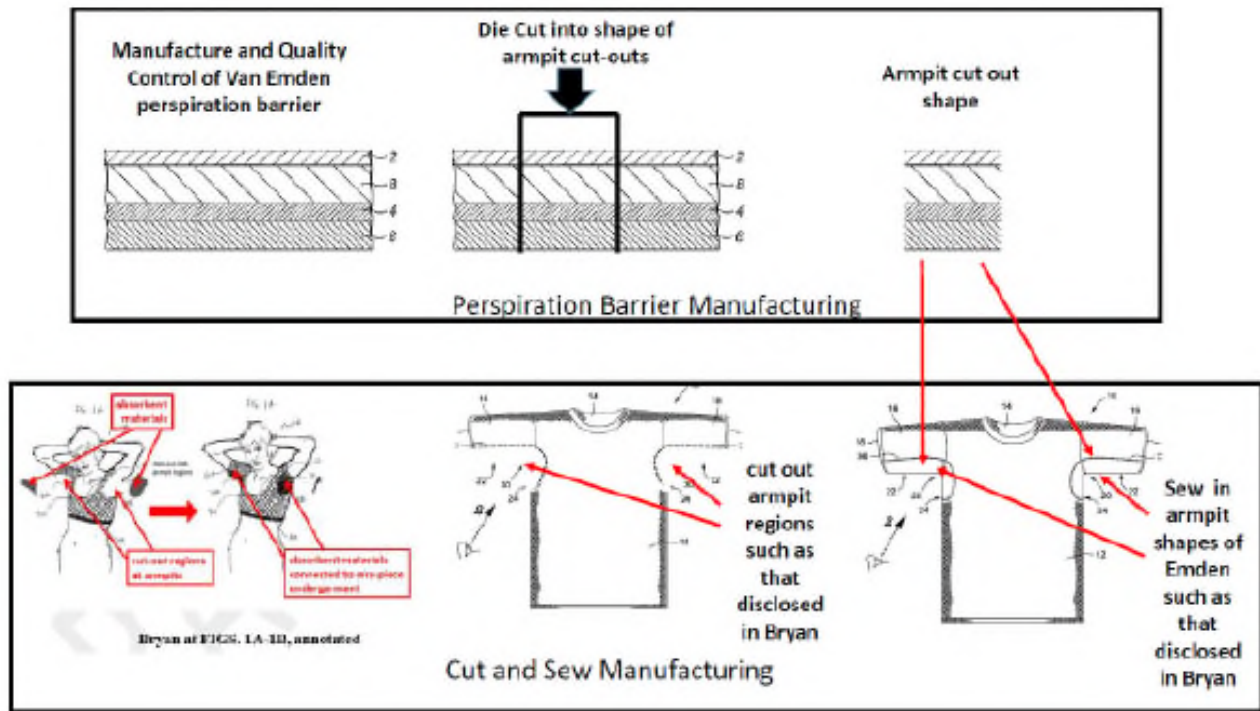
One of ordinary skill in the art would have been motivated to insert and attach the laminate perspiration barriers of Van Emden into holes defined by the sleeve and torso regions of Van Emden's article 1 (shirt), as described and depicted in annotated Figure 1A of Bryan, for several reasons, resulting in barrier peripheral edge regions of the Van Emden laminate being coupled to and at least partially circumvented by corresponding peripheral edge regions of the torso and sleeve portions of the T-shirt disclosed in Van Emden. Ex. 1006 at ¶55. This known method of attachment results in the external surface of the armpit regions of Van Emden's article 1 being collectively defined by the fabric layer 6 of Van Emden's laminate, including the respective torso and sleeve portions of the fabric article 1. Ex. 1006 at ¶55.

Based on the method of construction and attachment of absorbent pads disclosed

in Bryan, one of ordinary skill in the art would have been motivated to manufacture and construct the laminate perspiration barriers disclosed in Van Emden in continuous sheets and then die cut to the shape that fits the armpit of a shirt, such as the shapes disclosed in Figure 3 of the '812 Patent. Ex. 1006 at ¶56. Because Van Emden and Bryan both disclose perspiration barriers forming the outer layer of the garment, the resulting finished garment would also include continuous, die cut, integrated perspiration barriers forming the outer layer of the garment. Ex. 1006 at ¶56. Therefore, it would have been obvious to one of ordinary skill to make the Van Emden perspiration barrier separately from the garment, die-cut the Van Emden perspiration barrier into the required shape to fit into the cut-out armpit of the garment, and couple the Van Emden perspiration barrier to the cut-out armpit of the garment as disclosed by Bryan. Ex. 1006 at ¶56.

Due to typical functional performance requirements of perspiration barriers disclosed by the '812 Patent and prior art cited herein (e.g., high levels of evaporative cooling and vapor transmission), one of ordinary skill in the art would have understood that manufacturing perspiration barriers separately facilitates quality control procedures for the perspiration barriers independent of the finished article of clothing and prior to sewing the perspiration barrier into to the cut-out armpit region of the clothing. Ex. 1006 at ¶57. This is shown in the drawing that Dr. Brookstein prepared and provided below for illustration of the method of manufacture and attachment

disclosed in Bryan. Ex. 1006 at ¶57.



Ex. 1006 at ¶57

One of ordinary skill in the art would have also been motivated to apply Bryan's method of constructing and attaching sweat pads, such as the laminate structures disclosed in Van Emden, in order to achieve manufacturing efficiency. *See* Ex. 1006 at ¶58. Additionally, the combination of Van Emden and Bryan is simply combining prior art elements of Van Emden and Bryan according to known attachment and construction methods to yield a predictable result of manufacturing efficiency. *See* Ex. 1006 at ¶58. Bryan's disclosed method of attaching perspiration barriers to holes in a T-shirt is a simple substitution of one known method of attachment of a sweat pad for another to obtain predictable results. *See* Ex. 1006 at ¶58. The method of attaching a

sweat pad to holes in a shirt described in Bryan is a simple, well-known technique and preferred method of attachment as indicated in Bryan. *See* Ex. 1006 at ¶58. There are a finite number of identified, predictable methods of attaching perspiration barriers to a shirt in the prior art, one of which is attaching the perspiration barrier through a cut-out in the torso and sleeve region (*e.g.* armpit region) of the shirt, as described in Bryan. Ex. 1006 at ¶58. Finally, the method of construction and attachment described in Bryan applied to the laminate structure of Van Emden still maintains the required perspiration protection as disclosed in Van Emden, and additionally enhances manufacturing efficiency and facilitates quality control. Ex. 1006 at ¶58.

In view of the foregoing, each and every limitation of claim 15 is disclosed by the combination of Van Emden and Bryan. Claim 15 is unpatentable as obvious over Van Emden and Bryan. *See* Ex. 1006 at ¶59.

VI. MANDATORY NOTICES UNDER 37 C.F.R. § 42.8(A)(1)

A. Real Party-In-Interest Under 37 C.F.R. § 42.8(b)(1)

As required by 37 C.F.R. § 42.8(b)(1), the Petitioner lists the following entities as real parties in interest: Wearable Confidence, LLC.

B. Related Matters Under 37 C.F.R. § 42.8(b)(2)

The '812 Patent is currently the subject of a patent infringement lawsuit filed on November 11, 2016 in the Central District of California styled: *3 Pak Holdings, LLC v. Aussie Armor, LLC d/b/a EJIS, Inc.* CACD-8-16-cv-02044. Wearable Confidence is a party to this lawsuit. The '812 Patent was also the subject of a

patent infringement lawsuit filed on March 30, 2015 and dismissed on January 20, 2016 in the Central District of California styled: *3 Pak Holdings, LLC v. Daniel Clark et al.* CACD-8-15-cv-00491. Wearable Confidence was not a party to this lawsuit.

C. Lead And Back-Up Counsel and Service Information

In accordance with 37 C.F.R. § 42.8(b)(3), Petitioner designates Alper T.

Ertas as lead counsel and Steven J. Schwarz as backup counsel, along with service information for both:

Lead Counsel	Backup Counsel
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VII. CONCLUSION

The references identified in this Petition indicate a reasonable likelihood of success as to Petitioner's assertion that claim 15 of the '812 Patent is not patentable pursuant to the grounds presented. Petitioner respectfully requests that the Board institute trial against claim 15. Further, Petitioner requests an order cancelling claim 15.

Dated: June 6, 2017

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CERTIFICATE OF COMPLIANCE

Pursuant to 37 CFR §§ 42.24(d), the undersigned certifies that the foregoing Petition, exclusive of the exempted portions as provided in 37 C.F.R. § 42.24(a), contains no more than 14,000 words and therefore complies with the type-volume limitations of 37 C.F.R. § 42.24(a). The word count was calculated by starting with Microsoft Word's total document word count and subtracting the words for the Table of Contents, the Exhibit List, the Mandatory Notices, the Certificate of Compliance, and the Certificate of Service.

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CERTIFICATE OF SERVICE

Pursuant to 37 CFR §§ 42.6(e)(4)(i) *et seq.* and 42.105(b), the undersigned certifies that a complete and entire copy of this Petition for *Inter Partes* Review and all supporting exhibits was served on June 6, 2017, by Express Mail, or by means at least as fast and reliable as Express Mail, to the following address of record for the subject patent:

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