	Multipart Description/PDF files in .zip description					
	Document De	Start	Start End			
	Transmitta	1				
	Information Disclosure State	2		2		
Warnings:						
Information:						
2	Non Patent Literature	2AU1_OA_3_29_13.pdf	1843992	no	5	
-	North atent Enclature	915914f88e7a1477177fef799b670f53fa5f4 4be		110		
Warnings:						
Information:						
		Total Files Size (in bytes)	19	63119		

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

Attorney Docket No.: 29712-0002003

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Susan Walvius et al. Art Unit: 3673

Serial No.: 13/272,977 Examiner: Nicholas F. Polito

Filed : October 13, 2011 Conf. No. : 4915

Title : FABRIC SYSTEM

MAIL STOP AMENDMENT

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT

Please consider the references listed on the enclosed PTO-1449 form. Non-patent literature is enclosed; the cited U.S. patent will be provided on request.

This statement is being filed after a request for continued examination and before the mailing of a first Office Action. Please apply any necessary charges or credits to Deposit Account 06-1050, referencing the above attorney docket number.

Respectfully submitted,

Reg. No. 62,653

Date: April 23, 2013	/Frank L. Gerratana/
	Frank L. Gerratana

Customer Number 26161 Fish & Richardson P.C.

Telephone: (617) 542-5070 Facsimile: (877) 769-7945

23019768.doc

Application Number	Re		Applicant(s)/Patent under Reexamination WALVIUS ET AL.		
Document Code - DISQ	·	Internal Doo	cument – DC	NOT MAIL	
TERMINAL DISCLAIMER	⊠ APPROVI	ΞD	☐ DISAPP	ROVED	
Date Filed : 24 JAN 2013	This patent is subject to a Terminal Disclaimer				
Approved/Disapproved by:					
AB					

U.S. Patent and Trademark Office

Sheet	1	of	1

	Substitute Disclosure Form	U.S. Department of Commerce Patent and Trademark Office	Attorney Docket No. 29712-0002003	Application No. 13/272,977
	Information Disclo by Appl		Applicant Susan Walvius et al.	
	(Use several sheet	s if necessary)	Filing Date	Group Art Unit
ı	(37 CFR §1.98(b))		October 13, 2011	3673

	U.S. Patent Documents							
Examiner	Examiner Desig. Document Publication Filing Date							
Initial								

	Foreign Patent Documents or Published Foreign Patent Applications						
Examiner Desig. Document Publication Country or Translation						Translation	
Initial	ID	Number	Date	Patent Office	Class	Subclass	Yes No

	Other Documents (include Author, Title, Date, and Place of Publication)				
Examiner	Desig.				
Initial	ID	Document			
	1	Chinese Office Action with English translation for Chinese Application no. 200980147643.6 issued November 23, 2012 (21 pages).			

Examiner Signature	Date Considered
EVALUATED 1-70-1-70-70-70-70-70-70-70-70-70-70-70-70-70-	

EXAMINER: Initials citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Electronic Ack	Electronic Acknowledgement Receipt			
EFS ID:	14795478			
Application Number:	13272977			
International Application Number:				
Confirmation Number:	4915			
Title of Invention:	Fabric System			
First Named Inventor/Applicant Name:	Susan Walvius			
Customer Number:	26161			
Filer:	Frank L. Gerratana/jennifer franco			
Filer Authorized By:	Frank L. Gerratana			
Attorney Docket Number:	29712-0002003			
Receipt Date:	25-JAN-2013			
Filing Date:	13-OCT-2011			
Time Stamp:	15:38:57			
Application Type:	Utility under 35 USC 111(a)			

Payment information:

Submitted with Payment	no
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File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Transmittal Letter	2003_IDS.pdf	48074	no	1
			c6f90de4776f665c8baf418b487a8bc8c4be ebc3		

Warnings:

Information:

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2	Information Disclosure Statement (IDS) Form (SB08)	2003_1449.pdf	65260	no	1
			68d0422c4dca0b6e4f6b077838c0c0150d5 a474b		
Warnings:					
Information	:				
This is not an U	ISPTO supplied IDS fillable form				
3	Non Patent Literature	2CN1_OA_11_23_12.pdf	1629906	no	21
J	2011_07_11_23_12.pdf		7920787716d47c0dc81cc1a10027078f317c 23bb		
Warnings:					
Information:	:				
		Total Files Size (in bytes)	17	743240	

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New Applications Under 35 U.S.C. 111

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National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

Attorney Docket No.: 29712-0002003

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Susan Walvius et al. Art Unit: 3673

Serial No.: 13/272,977 Examiner: Nicholas F. Polito

Filed : October 13, 2011 Conf. No. : 4915

Title : FABRIC SYSTEM

MAIL STOP AMENDMENT

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

Please consider the reference listed on the enclosed PTO-1449 form. The non-patent literature is enclosed.

This statement is being filed after a request for continued examination and before the mailing of a first Office Action. Please apply any necessary charges or credits to Deposit Account 06-1050, referencing the above attorney docket number.

Respectfully submitted,

Reg. No. 62,653

Date: January 25, 2013	/Frank L. Gerratana/
	Frank L. Gerratana

Customer Number 26161 Fish & Richardson P.C.

Telephone: (617) 542-5070 Facsimile: (877) 769-7945

22973812.doc

Attorney Docket No.: 29712-0002003

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Susan Walvius et al. Art Unit: 3673

Serial No.: 13/272,977 Examiner: Nicholas F. Polito

Filed : October 13, 2011 Conf. No. : 4915

Title : FABRIC SYSTEM

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

TERMINAL DISCLAIMER UNDER 37 C.F.R. §§ 3.73(b) AND 1.321(c)

Pursuant to 37 C.F.R. § 3.73(b), SHEEX, INC., a corporation, certifies that it is the assignee of the entire right, title, and interest in the present application (a 100% ownership interest) by virtue of:

- A chain of title from the inventors of the present patent application to the current assignee as shown below:
- From Susan Walvius and Michelle Marciniak to SHEEX, LLC. The document was recorded in the Patent and Trademark Office at Reel 024977, Frame 0417.
- From SHEEX, LLC to SHEEX, Inc. The document was recorded in the Patent and Trademark Office at Reel 027070, Frame 0067.

To the best of undersigned's knowledge and belief, title is in the assignee identified above.

The undersigned is empowered to act on behalf of the assignee.

Pursuant to 37 C.F.R. § 1.321(c), and to obviate a double patenting rejection, the assignee identified above hereby disclaims, except as provided below, the terminal part of the statutory term of any patent granted on the instant application that would extend beyond the expiration date of the full statutory term of the patents to issue from U.S. application serial nos. 12/569,659 and 13/271,884. The assignee hereby agrees that any patent granted on the instant application shall be enforceable only for and during such period that it is commonly owned with the patent to issue from U.S. application serial nos. 12/569,659 and 13/271,884.

The assignee identified above does not disclaim any terminal part of any patent granted on the present application that would extend to the expiration date of the full statutory term of the patents to issue from U.S. application serial nos. 12/569,659 and 13/271,884 in the event that the patents to issue from U.S. application serial nos. 12/569,659 and 13/271,884 later: expires for

Applicant: Susan Walvius et al. Attorney's Docket No.: 29712-0002003

Serial No.: 13/272,977 Filed: October 13, 2011

Page : 2 of 2

failure to pay a maintenance fee, is held unenforceable, is found invalid by a court of competent jurisdiction, is statutorily disclaimed in whole or terminally disclaimed under 37 C.F.R. § 1.321, has all claims cancelled by a reexamination certificate, is reissued, or is otherwise terminated prior to expiration of its full statutory term. The full statutory term of any patent includes any term adjustment as defined in 35 U.S.C. § 154 and § 173. Assignee herein does not disclaim or otherwise affect any part of the patents to issue from U.S. application serial nos. 12/569,659 and 13/271,884.

This disclaimer runs with any patent granted on the present application and is binding upon the grantee, its successors or assigns.

The fees in the amount of \$160 are being paid concurrently herewith under 37 C.F.R. § 1.20(d). In addition, please apply any other necessary charges or credits to Deposit Account 06-1050, referencing the above attorney docket number.

Respectfully submitted,

Date: January 24, 2013_____ /Frank L. Gerratana/____ Frank L. Gerratana Reg. No. 62,653

Fish & Richardson P.C. One Marina Park Drive Boston, Massachusetts 02210-1878

Telephone: (617) 542-5070 Facsimile: (877) 769-7945

22973408.doc

Attorney Docket No.: 29712-0002003

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Susan Walvius et al. Art Unit: 3673

Serial No.: 13/272,977 Examiner: Nicholas F. Polito

Filed : October 13, 2011 Conf. No. : 4915

Title : FABRIC SYSTEM

MAIL STOP AMENDMENT

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT

Please consider the references listed on the attached PTO-1449 form.

Copies of United States patent documents will be provided upon request. Copies of all non-U.S. patent documents and other documents are enclosed.

The United States patent applications and/or patents listed below contain material related to material in this application. Copies of the applications and/or patents, their current claims (in the case of patents), and their transaction histories from the patent office public PAIR website are enclosed (or were provided previously with information disclosure statements identified in the table).

The applicant invites the examiner to consider the claims and claim amendments of these other applications and/or patents, and the positions of the examiners and the applicant that appear in their prosecution histories. The applicant understands that the examiner has direct access to these papers at the patent office, but will be happy to provide copies to the examiner upon request.

Applicant: Susan Walvius et al. Attorney's Docket No.: 29712-0002003

Serial No.: 13/272,977 Filed: October 13, 2011

Page : 2 of 2

US serial number and filing date/ status	Examiner and group art unit	Is patent or application attached and listed on form 1449 and/or what is the date of a prior information disclosure statement with which it was submitted	In the case of an application, are claims attached or what is the date of a prior information disclosure statement with which they were submitted	Is current PAIR transaction history attached and listed on form 1449
61/101,049 09/29/2008 Expired	N/A	No	No	No
12/569,659 09/29/2009 Pending	Nicholas F. Polito GAU 3673	No - publication 2011/0000020 submitted 2/16/12	Yes	Yes
13/271,884 10/12/2011 Pending	Nicholas F. Polito GAU 3673	No - publication 2012/0024013 submitted 2/16/12	Yes	Yes

This statement is being filed after a request for continued examination and before the mailing of a first Office Action. Please apply any necessary charges or credits to Deposit Account 06-1050, referencing the above attorney docket number.

Respectfully submitted,

Date: January 24, 2013	/Frank L. Gerratana/
	Frank L. Gerratana
	Reg. No. 62,653

Customer Number 26161 Fish & Richardson P.C. Telephone: (617) 542-5070 Facsimile: (877) 769-7945

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Substitute Disclosure Form	U.S. Department of Commerce Patent and Trademark Office	Attorney Docket No. 29712-0002003	Application No. 13/272,977
Information Discl by App		Applicant Susan Walvius et al.	
(Use several shee	ets if necessary)	Filing Date October 13, 2011	Group Art Unit 3673

	U.S. Patent Documents						
Examiner	Desig.	Document	Publication				Filing Date
Initial	ID	Number	Date	Patentee	Class	Subclass	If Appropriate

	Foreign Patent Documents or Published Foreign Patent Applications							
Examiner Initial	Desig. ID	Document Number	Publication Date	Country or Patent Office	Class	Subclass	Trans Yes	lation No
	1	CN2841696	11/29/2006	China			X	
	2	JP8-256891	10/8/1996	Japan			X	
	3	CN102551442A	7/11/2012	China			Abst.	

(Other Documents (include Author, Title, Date, and Place of Publication)					
Examiner Initial	Desig. ID	Document				
	4	Response to European Communication mailed March 12, 2012 from European application no. 09817024.4, filed April 25, 2012 (12 pages).				
	5	Canadian office action issued May 30, 2012 in Canadian application no. 2,738,658 (11 pages).				
	6	Office Action from Australian Patent Application No. 2012202375 mailed November 20, 2012 (5 pages).				
	7	Response to Office Action issued May 30, 2012 in Canadian Application No. 2,738,658 filed August 30, 2012 (21 pages).				
	8	Voluntary Amendment filed in Chinese Application No. 2011-10443469.9 on November 29, 2012 (1 page).				
	9	Response to Communication dated May 9, 2012 in European Application no. 09817024.4 filed on September 7, 2012 (9 pages).				
	10	European Communication mailed November 22, 2012 from European application no. 09817024.4 (24 pages).				
	11	Transaction history from PAIR of U.S. application no. 12/569,659 as of January 24, 2013.				
	12	Transaction history from PAIR of U.S. application no. 13/271,884 as of January 24, 2013.				
	13	Pending claims for U.S. application no. 12/569,659 as of January 24, 2013.				
	14	Pending claims for U.S. application no. 13/271,884 as of January 24, 2013.				

Examiner Signature	Date Considered
EXAMINER: Initials citation considered. Draw line through citation if no	t in conformance and not considered. Include copy of this form with
next communication to applicant.	

[19] The State Intellectual Property Office of the People's Republic of China

[51] Int. Cl. D04B 1/22 (2006.01) A47G 9/02 (2006.01)

[12] Patent Specifications for a New Utility Model Patent Number ZL 200520014944.0

[45] Date of authorized publication: November 29, 2006	[11] Authorized publication number CN 2841696Y
[22] Date of application: September 16,	[74] Patent agency: Tian Cheng Intellectual
2005	Property Agency Company Limited of
[21] Application number: 200520014944.0	Ningbo City
[73] Patentee: Lin Bo	Agent: Huang Xiaofan
Address: Li Sen (Ningbo) Company	
Limited, 6 th fl., Gu Lou Building, Number	1 page of claims, 2 pages of specifications
75 Zhong Shan Xi Lu, Ningbo City,	and 1 page of attached figure
Zhejiang Province, postal code 315010	
[72] Designer: Lin Bo	

[54] Name of new utility model A bedding with a knitted fabric [57] Excerpt

The present utility model discloses a bedding with a knitted fabric, comprising a weft knitted textile substrate and is characterized in that: on the edges of the aforementioned textile substrate, there are overseams comprising two needles and four threads or three needles and five threads. On the textile substrate, there may be reinforcement ribs comprising cutting needles. There may also be sock sockets on the textile substrate. A dustproof layer is placed on the textile substrate. The aforementioned dustproof layer comprises a water solution, which comprises a fluoride, organic silicone compounds, surfactants, adhesives and a nano ceramic and which is then applied on the textile substrate. The present new utility model has the following advantages: it is quite comfortable and soft; stiff, smooth, flexible and resistant to wrinkles; has good moisture absorption; is easy to treat for functions, such as dustproofing treatment, etc.; and is easy to clean.

- 1. A bedding with a knitted fabric, comprising a weft knitted textile substrates (1), which is characterized in that on the edges of the aforementioned textile substrate (1), there are overseams (2) comprising two needles and four threads or three needles and five threads.
- 2. The aforementioned bedding with a knitted fabric according to claim 1, which is characterized in that on the aforementioned textile substrate (1), there are reinforcement ribs (3) comprising cutting needles.
- 3. The aforementioned bedding with a knitted fabric according to claim 1, which is characterized in that there are sock sockets (4) on the aforementioned textile substrate (1).
- 4. The aforementioned bedding with a knitted fabric according to claim 1, which is characterized in that dustproof layer (5) is placed on the aforementioned textile substrate (1). The aforementioned dustproof layer (5) comprises a water solution, which comprises a fluoride, organic silicone compounds, surfactants, adhesives and a nano ceramic and which is then applied on the textile substrate (1).

A Bedding with a Knitted Fabric

Technical Field

The present new utility model relates to beddings, including bed covers, bed sheets, pillow covers and pillow cases, etc. More specifically, it is a bedding with a knitted fabric.

Background Technology

Existing beddings all use the woven fabrics made by warp machines. Though woven fabrics are resistant to washing and it is not easy for them to become deformed, they lack comfort and softness. With an improvement in the people's standards of living, people have a higher demand for the comfort and softness of beddings. The common knitted fabrics have the comfort and softness required, but certain technical measurements are required to be taken to achieve the use of the common knitted fabrics on beddings.

Contents of the Invention

The purpose of the present utility model is to overcome the deficiencies in the existing technology by providing an improved bedding, so that beddings are more comfortable and softer.

The technical solution used by the president utility model in resolving the aforementioned technical issue is: A bedding with a knitted fabric, comprising a weft knitted textile substrate. It is characterized in that on the edges of the aforementioned textile substrate, there are overseams comprising two needles and four threads or three needles and five threads.

To optimize the aforementioned technical solution, the measures adopted by the present new utility model also include:

On the textile substrate, there are reinforcement ribs comprising cutting needles. There are sock sockets on the textile substrate.

A dustproof layer is placed on the textile substrate. The aforementioned dustproof layer comprises a water solution, which comprises a fluoride, organic silicone compounds, surfactants, adhesives and a nano ceramic and which is then applied on the textile substrate.

Since the present new utility model has adopted the aforementioned technical measures, compared with the existing technology, it has the following advantages:

- 1. It is quite comfortable and soft;
- 2. It is stiff, smooth, flexible and resistant to wrinkles;
- 3. It has good moisture absorption;
- 4. It is easy to treat for functions, such as dustproofing treatment, etc.; and
- 5. It is easy to clean.

Specifications on the Drawing

Figure 1 is a structural diagram of the embodiment of the present new utility model.

Specific Embodiment

Following is a detailed for the description of the present new utility model in combination with the figure.

Refer to the figure. The present new utility model comprises a weft knitted textile substrate 1. On the edges of textile substrate 1, there are overseams 2 comprising two needles and four threads or three needles and five threads. To make the bedding stronger and more appealing, reinforcement ribs 3 comprising cutting needles can be formed on textile substrate 1. Based on the need, sock sockets 4 can also be placed on textile substrate 1. Weft knitting machines generally can only knit materials with a smaller breadth, whereas beddings are rather wide. To overcome the limits of conventional production equipment, a plurality of sewing equipment tables can be pieced together for operations. The sewing process is easy. Functional treatment can also be performed on the bedding in the present new utility model. A dustproof layer 5 is placed on textile substrate 1. The aforementioned dustproof layer 5 can comprise a water solution, which comprises a fluoride, organic silicone compounds, surfactants, adhesives and a nano ceramic and which is then applied on the textile substrate 1. The present utility model can be made into beddings such as bed covers, bed sheets, quilt covers and pillow cases, etc.

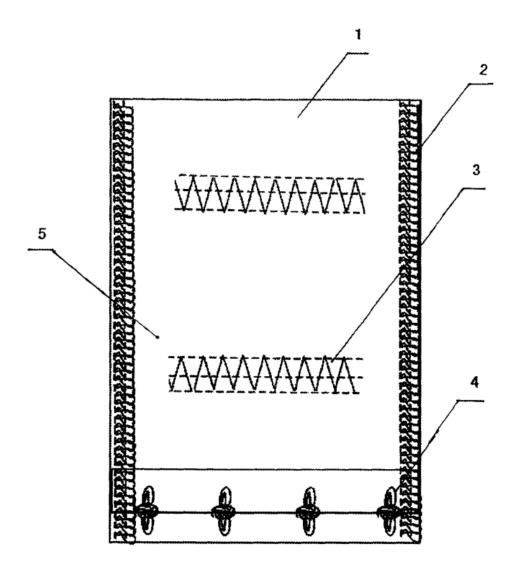


Figure 1

[19] 中华人民共和国国家知识产权局

[51] Int. Cl.

D04B 1/22 (2006.01)

A47G 9/02 (2006.01)



[12] 实用新型专利说明书

专利号 ZL 200520014944.0

[45] 授权公告日 2006 年 11 月 29 日

[11] 授权公告号 CN 2841696Y

[22] 申请日 2005.9.16

[21] 申请号 200520014944.0

[73] 专利权人 林 波

地址 315010 浙江省宁波市中山西路 75 号鼓 楼大厦 6 楼 立森 (宁波) 有限公司

[72] 设计人 林 波

[74] 专利代理机构 宁波市天晟知识产权代理有限公司

代理人 黄晓凡

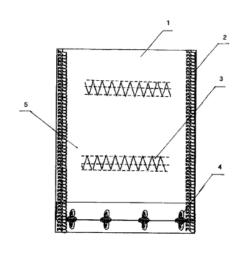
权利要求书1页 说明书2页 附图1页

[54] 实用新型名称

一种针织面料的床上用品

[57] 摘要

本实用新型公开了一种针织面料的床上用品,包括纬编的织物基体,其特征是:在所述的织物基体的边缘有由两针四线或三针五线组成的包缝边。在织物基体上可以有由三角针组成的加固筋。 在织物基体上还可以有套节。 在织物基体上设置一防尘层,所述的防尘层由氟化物、有机硅化合物、表面活性剂、胶粘剂、纳米陶瓷的水溶液涂复在织物基体上构成。 本实用新型具有如下优点:具有很好的舒适性和柔软性;挺括,有弹性,不易皱;收湿性强;功能性处理方便,如进行防尘处理等;便于清洗。



- I、一种针织面料的床上用品,包括纬编的织物基体(1),其特征是:在所述的织物基体(1)的边缘有由两针四线或三针五线组成的包缝边(2)。
- 2、根据权利要求 1 所述的针织面料的床上用品,其特征是:在所述的织物基体(1)上有由三角针组成的加固筋(3)。
- 3、根据权利要求 1 所述的针织面料的床上用品,其特征是:在所述的织物基体(1)上有套节(4)。
- 4、根据权利要求 1 所述的针织面料的床上用品,其特征是:在所述的织物基体(1) 上设置一防尘层(5),所述的防尘层(5)由氟化物、有机硅化合物、表面活性剂、胶粘剂、 纳米陶瓷的水溶液涂复在织物基体(1)上构成。

一种针织面料的床上用品

技术领域

本实用新型涉及一种床上用品,包括床罩、床单、被套、枕套等,更具体地说 是一种针织面料的床上用品。

背景技术

现有的床上用品均采用经纬机织造的梭织面料,虽然梭织布耐洗及不易变形,但 缺乏舒适性和柔软性。随着人民生活水平的提高,人们对床上用品的舒适性和柔软性 有了更高的要求。一般的针织面料具有床上用品所需要的的舒适性和柔软性,但是将 一般的针织面料用于床上用品需要采取一定的技术措施才能实现。

发明内容

本实用新型的目的在于克服已有技术的不足,提供一种改进的床上用品,使得床上用品具有更好的舒适性和柔软性。

本实用新型解决上述技术问题所采用的技术方案为:一种针织面料的床上用品,包括纬编的织物基体,其特征是:在所述的织物基体的边缘有由两针四线或三针五线组成的包缝边。

为优化上述技术方案,本实用新型所采取的措施还包括:

在所述的织物基体上有由三角针组成的加固筋。

在所述的织物基体上有套节。

在所述的织物基体上设置一防尘层,所述的防尘层由氟化物、有机硅化合物、表面活性剂、胶粘剂、纳米陶瓷的水溶液涂复在织物基体上构成。

由于本实用新型采取了上述的技术措施,它与现有技术相比具有如下优点:

- 1、具有很好的舒适性和柔软性:
- 2、挺括,有弹性,不易皱;
- 3、收湿性强;
- 4、功能性处理方便,如进行防尘处理等;
- 5、便于清洗。

附图说明

图 1 是本实用新型实施例的结构示意图。

具体实施方式

以下结合附图对本实用新型作进一步详细描述。

参照附图,本实用新型包括纬编的织物基体 1,织物基体 1 的边缘有由两针四线或三针五线组成的包缝边 2。为了使床上用品更加牢固,更加美观,可以在织物基体 1 上用三角针构成加固筋 3。根据需要还可以在织物基体 1 上设置套节 4。纬编机一般只能编制较小幅面的材料,而床上用品的幅面都较大,为了克服传统生产设备的局限性,可采用多张缝制设备桌拼在一起操作,缝制过程简便。还可以对本实用新型床上用品进行功能性处理,在织物基体 1 上设置一防尘层 5,所述的防尘层 5 可用由氟化物、有机硅化合物、表面活性剂、胶粘剂、纳米陶瓷的水溶液涂复在织物基体 1 上构成。本实用新型可以制作成床罩、床单、被套、枕套等床上用品。

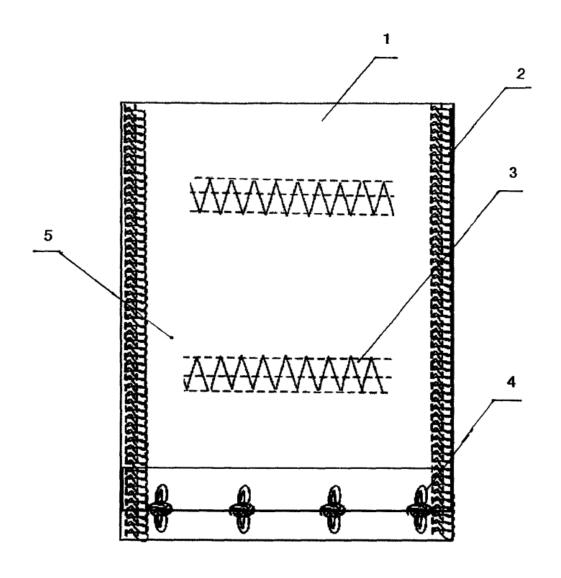


图 1

(19) Japanese Patent Office (JP)

(12) Official Gazette for Kokai Patent Applications (A)

(11) Japanese Patent No.
 Patent No.: Hei8(1996)-256891
 (43) Publication Date: October 8, 1996

(51) Int.Cl. ⁶	Identification Symbol	JPO File Number	FI	Tech.Indi	
A47G 9/02		A47G	9/02		A
A 4.7 C. 27/12		A 4 7 C	27/12		G

Request for Examination: Not Submitted Number of Claims: 1 OL (Total of 3 pages in the original Japanese)

(21) Application Number: Kokai No.: Hei7(1995)-68393

(22) Filing Date: March 27, 1995

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(54) [Title of the Invention] Functional bedding

(57) [Abstract]

[Purpose] The present invention is to provide bedding that is capable of replacing a part thereof so as to recover functionality in an arbitrary manner, or to allocate another functionality thereto.

[Constitution] Functional bedding comprising a multiple number of separate pieces that can be mutually freely attached or detached, wherein functionality is allocated to at least one of the separate pieces.

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[Claim]

[Claim 1] Functional bedding comprising a multiple number of separate pieces that can be mutually freely attached or detached, wherein functionality is allocated to at least one of the separate pieces.

[Detailed Explanation of the Invention]

[0001]

[Industrial Field of Application] The present invention relates to bedding that is obtained by the arbitrary allocation of functionality to at least a portion thereof.

[0002]

[Background Technologies] Traditionally, the allocation of functionality to bedding has been conducted by means of physical techniques that utilize unique characteristics possessed by the fibers themselves, such as insulating fiber materials, absorbent fiber materials, and the like. In some special cases, materials that have been processed by chemical treatments have been also utilized.

[00031

[Problem that the Invention is to Solve] However, in every case, the allocation of functionality to bedding has been conducted to the entire portion of the bedding cover or the bedding pad. Thus, when functionality has been allocated through chemical treatments, functions have been diminished by repeated washing. In an attempt to retain the initial functions, it has been necessary to replace the entire portion of the cover or the pad even when they have not at all been damaged, which has been problematic. Alternatively, if it has been necessary to allocate some other functions, it has been necessary to replace the entire portion of the cover or the pad even when the functions have been allocated through physical techniques. The present invention is designed to solve such traditional problems, and to provide bedding that is capable of replacing a part thereof so as to recover functionality in an arbitrary manner, or to allocate another functionality thereto.

[0004]

[Means for Solving the Problem] The present invention solves the problem stated above, by means of functional bedding that comprises a multiple number of separate pieces that can be mutually freely attached or detached, wherein functionality is allocated to at least one of the separate pieces.

[0005] The number of separate pieces that constitute the bedding of the present invention is not particularly limited; however, it is desirably in the range from 5 to 15. If it is smaller than 5, this is economically advantageous, but the separate pieces might not be positioned at a location that requires the functionality. Conversely, if it exceeds 15, the separate pieces may be positioned at a location requiring the functionality, but the cost involved in forming the bedding is increased; moreover, because the bedding is divided into many small pieces, the resulting bedding becomes rough, which makes it difficult to obtain comfortable sleep.

[0006] Moreover, "bedding" in the present invention collectively refer to items utilized for sleeping, such as comforters, mattresses, blankets, sofas, cushions, sleeping bags, blankets utilized in vehicles, and the like. "Functionality" in the present invention refers to various types of functions that are required for bedding, such as hygroscopicity, deodorization, antibacterial, fragrance, freshness, insulation, and the like. These functions are usually allocated to the cover or the pad of the bedding.

[0007] Figure 1 is a plan view showing an example of the functional bedding of the present invention, which has been embodied as a mattress comprising five separate pieces. Separate piece 1 is positioned at the head, and separate piece 5 is positioned at the feet. In this case, in order to render the separate pieces to be mutually freely attachable and detachable, desired connecting members, such as snaps, hooks, buttons, planar tapes, ribbons, and the like, may be provided on the sides of separate pieces 1 to 5.

[0008] Hygroscopicity can be allocated through the following methods: a hydrophilic compound such as polyethylene glycol and the like can be blended, a hydrophilic layer can be formed on the fiber surface, the cross-sectional surface can be rendered to take a polygonal shape, or multiple fine pores can be formed on the fiber surface. The separate pieces to which hygroscopicity has been allocated are desirably positioned at locations in contact with the back, arms, hands, etc. (separate pieces 2 and 3 shown in Figure 1). During the summer, by increasing the locations at which the separate pieces to which hygroscopicity has been allocated are positioned, the resulting bedding can be utilized as a comfortable bedding.

[0009] To achieve deodorization, fibers to which deodorization has been allocated through a well-known method, such as the method utilizing the neutralization reaction of acid group of zeolite, are utilized for the cover or the pad of the separate pieces, and the resulting separate pieces are positioned at locations

requiring deodorization as needed.

[0010] To achieve antibacterial effects, fibers to which a well-known antibacterial agent, such as quarternary ammonium salt and the like, has been allocated, are utilized to form the fibers with antibacterial effects, and the resulting separate pieces are positioned at locations requiring deodorization as needed.

[0011] To achieve fragrance, a fragrance with sedation effects or hypnotic effects is sealed in a microcapsule and the like, and the resulting capsule is caused to adhere [to the separate pieces] through the use of an appropriate binder so that [the resulting separate pieces] are rendered to be wash-resistant up to several times of washing. The allocation of fragrance may be achieved by utilizing the fragrant fibers to form the cover or the pad, or alternatively by allocating fragrance after the cover and the pad have been formed. The separate piece to which fragrance has been allocated is desirably positioned at the head (separate piece 1 shown in Figure 1).

[0012] To achieve freshness, a textile having a hemp-like texture or fabric having a rough surface may be utilized as the cover of the separate pieces. Similar to hygroscopicity, if such separate pieces to which freshness has been allocated are utilized for the majority of the bedding during the summer, the resulting bedding is rendered to be more comfortable.

[0013] Insulation may be achieved in the following manner: a fleece material may be utilized as the cover of the separate pieces, extremely fine fibers or hollow fibers may be utilized to retain air layers, or a textile with less thermal conductivity may be utilized. Moreover, fibers into which ceramic fine powder has been mixed therein may be utilized for the pad. The separate pieces to which insulation has been allocated may be positioned at locations requiring insulation as needed; in particular, during the winter, such separate pieces may be positioned at many locations such as at the locations of the hands, lower back, back, and feet, to obtain comfortable sleep (separate pieces 2 to 5 shown in Figure 1).

[0014] Figure 1 shows an example that consists of 5 separate pieces arranged in a vertical direction in consideration of the possible utilization of various functional materials and economic factors. However, depending on the type of the functional material, the bedding could consist of 6 pieces arranged in a horizontal direction. In addition, the separate pieces do not have to have the same size, and the size thereof may be changed as needed. Moreover, not only may multiple separate pieces with the same function be positioned at multiple locations, but multiple separate pieces with multiple different functions may also be positioned at multiple appropriate locations. For example, fragrance may be allocated to separate piece 1 to be positioned at the head, and antibacterial effects may be allocated to separate piece 5 to be positioned at the feet.

For the functional separate pieces, lighter separate pieces may be utilized; for example, a blanket may be utilized as the functionality piece for a mattress/comforter.

[0015]

[Effects of the Invention] The functional bedding of the present invention is constituted with multiple separate pieces that are mutually freely attachable and detachable. Therefore, it becomes possible to partially replace the separate pieces to which the functionality has been allocated, to recover the functionality in an arbitrary manner, or to allocate some other functionality to the bedding.

[Brief Explanation of the Drawings]

[Figure 1] Figure 1 is a plan view showing one example of the functional bedding of the present invention.

[Explanation of the Reference Numerals]

- 1: Separate piece to be positioned at the head
- 5: Separate piece to be positioned at the feet

[Figure 1]

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(19)日本国特許庁(JP) (12) 公開特許公報(A)

(11)特許出願公開番号

特開平8-256891

(43)公開日 平成8年(1996)10月8日

(51) Int.Cl. ⁶		識別記号	庁内整理番号	\mathbf{F} I		技術表示箇所
A 4 7 G	9/02			A47G	9/02	A
A47C	27/12			A47C	27/12	G

		審查請求	未請求 請求項の数1 OL (全 3 頁)
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(54) 【発明の名称】 機能性寝具

(57)【要約】

【目的】 その一部を部分的に取り替えて、任意に機能 性を回復したり別の機能性を付与したりすることのでき る寝具を提供する。

【構成】 相互に着脱自在の複数の分割片で構成され、 少なくとも一つの分割片に機能性が付与されている機能 性寝具。

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【特許請求の範囲】

【請求項1】 相互に着脱自在の複数の分割片で構成され、少なくとも一つの分割片に機能性が付与されていることを特徴とする機能性寝具。

【発明の詳細な説明】

[0001]

【産業上の利用分野】本発明は、少なくともその一部に 任意に機能性を付与し得る寝具に関するものである。

[0002]

【従来の技術】従来から、寝具への機能性の付与は、その殆どが保温性繊維や吸水性繊維等、繊維自体が持つ固有の特性を利用する物理的な手法によっていたが、特殊なケースとして化学的な処理を施したものを使用している場合もあった。

[0003]

【発明が解決しようとする課題】しかしながら、何れの場合も、寝具への機能性の付与は、カバーあるいは中綿の全体に施されており、特に化学的な処理による機能性付与は繰り返し洗濯等によって機能が低下し、初期の機能を維持しようとすれば、カバーや中綿の損傷が殆どないにもかかかかわらずそれらの全体を取り替えなければならないという問題があった。また別の機能を付与したい場合は、物理的な手法で機能を付与したものであってもカバーや中綿全体を取り替えねばならなかった。本発明は、かかる従来の問題点を解消し、その一部を部分的に取り替えて、任意に機能性を回復したり別の機能性を付与したりすることのできる寝具を提供するものである。

[0004]

【課題を解決するための手段】本発明は、相互に着脱自 在の複数の分割片で構成され、少なくとも一つの分割片 に機能性が付与されていることを特徴とする機能性寝具 によって、上記課題を解決するものである。

【0005】本発明の寝具を構成する分割片の数は特に限定されないが、5~15であることが望ましい。5未満では経済的ではあるが、人体において、機能性を必要とする部位に分割片を配置できない場合がある。反対に15を越えると、必要とする部位に分割片を配置できるが、寝具形成上コスト高になり、また細分化されることにより凹凸部分が多く発生し、快適な睡眠も得られにくくなる。

【0006】尚、本発明でいう寝具とは、掛け布団、敷布団、毛布、ソファー、クッション、寝袋、車両用シート等就寝時に使用するものの総称である。また本発明でいう機能性とは、吸水性、消臭性、抗菌性、芳香性、清涼感、保温性等、寝具に要求される各種の機能性であり、これらの機能性は通常寝具のカバーまたは中綿部分に付与されている。

【0007】図1は、敷き布団を5分割した分割片で構成した本発明の機能性寝具の一例を示す平面図であり、

分割片 1 が頭部、分割片 5 が足部に該当する。この場合 各分割片を相互に着脱自在とするには、各分割片 $1\sim5$ の側面にスナップ、ホック、ボタン、面状テープ、リボン等所望の連結具を設ければよい。

【0008】吸水性の付与は、ポリエチレングリコールなどの親水性化合物をプレンドしたり、繊維表面に親水性層を形成させたり、繊維断面を多角形にしたり、繊維表面に多数の微細孔を形成させたりするなどの方法で行う。吸水性を付与した分割片は背中、腕、手等が接する部位(図1の分割片2、3)に配置することが望ましい。夏期においては吸水性付与の分割片の配置箇所を増加させることにより快適な寝具として用いることが可能である。

【0009】消臭性に関しては、ゼオライトの酸性基に よる中和反応を使用する等既知の方法で消臭性を付与し た繊維を分割片のカバーまたは中綿に用い、必要とする 部位に適宜配置する。

【0010】抗菌性も第4級アンモニウム塩等といった 既知の抗菌剤を付与して抗菌性能をもつ繊維を使用し、 必要部位に適宜配置する。

【0011】芳香性は、鎮静効果や催眠作用等の効用のある香りをマイクロカプセル等に封じ込め適当なバインダーで付着させ洗濯にも数回程耐えられるような形態で付与する。芳香性の付与は、予め繊維に付与したものを用いてカバーや中綿としてもよく、カバーや中綿を形成後付与しても差し支えない。芳香性を付与した分割片は頭部(図1の分割片1)への配置が望ましい。

【0012】清涼感は、例えば麻様の形態をもつ織物や 凹凸感のある表面をもつ布地を分割片のカバーに用いる ことで付与できる。吸水性と同様に夏期には寝具の大部 分に配置するとより快適な寝具となる。

【0013】保温性は分割片のカバーに起毛織編物を用いたり、極細繊維や中空糸を使用して空気層を保持し、熱伝導を抑えた織編物を活用するなどして付与する。また、中綿にセラミックスの微粉末を練り込んだ繊維を用いてもよい。保温性付与の分割片は適宜必要とされる部位に配置し、特に冬期には手、腰、背中、足をはじめ多くの部位(図1の分割片2~5)に配置することで安眠が得られる。

【0014】図1においては各種の機能性材料への対応 及び経済的な要素を加味して寝具の縦方向に5分割とし た例を示しているが、使用する機能材の種類によって寝 具の横方向とし分割数も6以上とすることも可能であ る。また分割片は必ずしもそれぞれ均等である必要はな く、適宜分割片の大きさを替えることも可能である。ま た、同一の機能性分割片を複数箇所に配置するだけでな く、異なる機能性を有する複数の分割片をそれぞれ適当 な部位に配置してもよい。例えば芳香性を頭部の分割片 1に付与し、抗菌性を足元の下端部の分割片5に付与す る等である。また機能性分割片としては、他の分割片と 比較して軽量なもの、例えば布団に毛布を機能性分割片 として用いてもよい。

[0015]

【発明の効果】本発明の機能性寝具は、相互に着脱自在の複数の分割片で構成されているので、機能性を付与した分割片を部分的に取り替えて、任意に機能性を回復したり別の機能性を付与したりすることが可能である。

【図面の簡単な説明】

【図1】本発明の機能性寝具の一例を示す平面図である。

【符号の説明】

- 1 頭部に位置する分割片
- 5 足部に位置する分割片

図1]

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Patent Record Full View

Thursday, January 24 2013 THOMSON INNOVATION

Patent/Publication: CN102551442A

Bibliography

DWPI Title

Making method of finished fabric for use in manufacturing beddings for residential settings or in marine, boating and recreational vehicle environments involves joining discrete performance fabric portions to form the finished fabric

English Title

Fabric system

Assignee/Applicant

Standardized: SHEEX LLC Original: SHEEX LLC, US

DWPI Assignee/Applicant

SHEEX INC (SHEE-N); SHEEX LLC (SHEE-N)

Inventor

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DWPI Inventor

MARCINIAK M; MARCINIAK M M; WALVIUS S; WALVIUS S K

Publication Date (Kind Code)

2012-07-11 (A)

DWPI Accession / Update

2010-D87957 / 201259

Application Number / Date

CN201110443469A / 2009-09-29

Priority Number / Date / Country

US2008101049P / 2008-09-29 / US

Abstract

DWPI Abstract

(WO2010037082A2)

Novelty

The making method involves forming at least two discrete performance fabric portions and joining at least two discrete performance fabric portions to form the finished fabric. The formation of at least two discrete

performance fabric portions comprises knitting at least two discrete performance fabric portions.

Detailed Description

An INDEPENDENT CLAIM is included for a method of making bed sheet at least 90 inches wide from performance fabric.

Use

Making method of finished fabric (claimed) at least 90 inches wide for use in manufacturing beddings for residential settings or in marine, boating and recreational vehicle environments.

Advantage

Provides the bedding system that utilizes the beneficial properties of performance fabrics, the design of which acknowledges and addresses limitations in the manufacture of the fabrics. Obtains a high gauge circular knit fabric for use in bedding which has superior performance properties while allowing for manufacture by machinery presently available and in use. Provides the performance fabric with advanced breathability which enables heat and moisture transfer through evaporative cooling, thus, keeping the user is cooler, drier and more comfortable than with cotton. Provides the bedding which holds a distinct advantage over cotton in enabling, accommodating and maintaining optimum thermal conditions for sleep, which in turn can lead to faster sleep initiation and deeper, more restorative sleep. Provides sheets that offer enhanced drape and comfort compared to traditional cotton bedding, and are as fine as silk, yet provide the benefits of high elasticity and recovery along with superior breathability, body-heat transport, and moisture management as compared to traditional cotton bedding.

Drawing Description

The drawing shows an illustration of a non-rectangular shaped sheet.

- 14 Stitching.
- 16 Main portion.
- 18 Interior edge.
- 20 Edge of sewn-on portion.

Abstract

The bedding material, comprising a first fabric and second fabric portions, wherein the first fabric portion for performance fabric and has the first side and a second side, wherein the second fabric portion attached to the first fabric portion of the first side surface. In addition, also can be attached to the third fabric part is on a second side of the first part of the surface fabric. The first fabric portion is attached to the second fabric part by flat lock stitch. The first fabric portion may include a first region and a second region, containing different function properties of a second region in which the first region, and the first area is provided with wicking radiating or reducing moisture.

Classes/Indexing

Current IPC	Invention	Version	Additional	Version
Full	A47G 9/02	20060101	-	-
Main Group	-	-	-	-
Subclass	-	-	-	-

Original IPC	Invention	Version	Additional	Version
Advanced/Full	A47G 9/02	20060101	-	-
Core/Main Group	-	-	-	-
Subclass	-	-	-	-

ECLA

D04B 1/18 A47G 9/02B1

DWPI Class

F03 F04

DWPI Manual Codes



Expand DWPI Manual Codes

Legal Status

INPADOC Legal Status

Gazette Date	Code	Description	
2012-09-12	C10	REQUEST OF EXAMINATION AS TO SUBSTANCE	
2012-07-11	C06 +	PUBLICATION	7

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Family

Family

INPADOC Family (14)

Publication Number	Publication Date	Inventor	Assignee/Applicant	Title
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WO2010037082A3	2010-07-08	WALVIUS Susan Katherine	SHEEX LLC	FABRIC SYSTEM

DWPI Family (14)

Publication	DWPI Update	Publication Date	IPC Code	Language
WO2010037082A2	201025	2010-04-01	D04B002114	English
Designated States: (Regior MC MK MT NL NO PL PT RC EA	SE SI SK SM TR (DA BW GH GM KE LS N	IW MZ NA SD SL S	SZ TZ UG ZM ZW
(National) AE AG AL AM AC DM DO DZ EC EE EG ES FI LC LK LR LS LT LU LY MA M RU SC SD SE SG SK SL SM	GB GD GE GH GM 1D ME MG MK MN 1	GT HN HR HU ID IL II MW MX MY MZ NA NG	N IS JP KE KG KM NI NO NZ OM PE F	KN KP KR KZ LA PG PH PL PT RO R:
Local Applications: WO200	9US58716A filed 2	009-09-29		
WO2010037082A3	201045	2010-07-08	D04B002114	English
Designated States: (Regior MC MK MT NL NO PL PT RC EA				
ÒM DO DŹ EC EE EG ES FI LC LK LR LS LT LU LY MA M	GB GD GE GH GM ID ME MG MK MN I	GT HN HR HU ID IL II MW MX MY MZ NA NG	N IS JP KE KG KM NI NO NZ OM PE F	KN KP KR KZ LA PG PH PL PT RO RS
ÒM DO DŹ EC EE EG ES FI LC LK LR LS LT LU LY MA M RU SC SD SE SG SK SL SM	GB GD GE GH GM 1D ME MG MK MN I I ST SV SY TJ TM T	GT HN HR HU ID IL II MW MX MY MZ NA NG 'N TR TT TZ UA UG US	N IS JP KE KG KM NI NO NZ OM PE F	KN KP KR KZ LA PG PH PL PT RO RS
ÒM DO DZ EC EE EG ES FI LC LK LR LS LT LU LY MA M RU SC SD SE SG SK SL SM Local Applications: WO200	GB GD GE GH GM 1D ME MG MK MN I I ST SV SY TJ TM T	GT HN HR HU ID IL II MW MX MY MZ NA NG 'N TR TT TZ UA UG US	N IS JP KE KG KM NI NO NZ OM PE F	KN KP KR KZ LA PG PH PL PT RO RS
(National) AE AG AL AM AC DM DO DZ EC EE EG ES FI LC LK LR LS LT LU LY MA M RU SC SD SE SG SK SL SM Local Applications: WO200° US20110000020A1 Local Applications: US2008 US2009569659A filed 2009	GB GD GE GH GM ID ME MG MK MN I I ST SV SY TJ TM T 9US58716A filed 2 201104 8101049P filed 200	GT HN HR HU ID IL II MW MX MY MZ NA NG N TR TT TZ UA UG US 009-09-29 2011-01-06	N IS JP KE KG KM NI NO NZ OM PE F UZ VC VN ZA ZM	KN KP KR KZ LA PG PH PL PT RO RS ZW
DM DO DZ EC EE EG ES FI LC LK LR LS LT LU LY MA M RU SC SD SE SG SK SL SM Local Applications: WO200 US20110000020A1 Local Applications: US2008	GB GD GE GH GM ID ME MG MK MN I I ST SV SY TJ TM T 9US58716A filed 2 201104 8101049P filed 200	GT HN HR HU ID IL II MW MX MY MZ NA NG N TR TT TZ UA UG US 009-09-29 2011-01-06	N IS JP KE KG KM NI NO NZ OM PE F UZ VC VN ZA ZM	KN KP KR KZ LA PG PH PL PT RO RS ZW
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DM DO DZ EC EE EG ES FILC LK LR LS LT LU LY MA MEU SC SD SE SG SK SL SM Local Applications: WO2006 US20110000020A1 Local Applications: US2008 US2009569659A filed 2009 AU2009296195A1 Local Applications: based of AU2009296195A filed 2009	GB GD GE GH GM ID ME MG MK MN II I ST SV SY TJ TM T 9US58716A filed 2 201104 8101049P filed 200 9-09-29 201127 on WO2010037082	GT HN HR HU ID IL II MW MX MY MZ NA NG N TR TT TZ UA UG US 009-09-29 2011-01-06 8-09-29	N IS JP KE KG KM NI NO NZ OM PE F UZ VC VN ZA ZM A47G000902	KN KP KR KZ LA PG PH PL PT RO R ZW English
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Designated States: (Region LV MC MK MT NL NO PL P			FI FR GB GR HR HU	IE IS IT LI LT LU
Local Applications: based WO2009US58716A filed 2 EP2009817024A filed 200	009-09-29	082		
CN102245822A_	201201	2011-11-16	D04B002114	Chinese
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ES2368481T1	201205	2011-11-17	D04B002114	Spanish
Local Applications: EP200 based on EP2344691	9817024A filed 2	2009-09-29		
DE202009018490U1	201206	2012-01-19	D04B002114	German
Local Applications: DE202	.009018490U file	d 2009-09-29		
US20120024013A1	201210	2012-02-02	D04B000900	English
Local Applications: US200 US2009569659A filed 200 US13271884A filed 2011-)9-09-29	2008-09-29		
US20120030874A1	201211	2012-02-09	A47G000902	English
Local Applications: US200 US2009569659A filed 200 US13272977A filed 2011-)9-09-29	2008-09-29		
HK1154058A0	201251	2012-04-20	=	English
Local Applications: based WO2009US58716A filed 2 HK2011108432A filed 201	009-09-29	082		
AU2012202375A1	201255	2012-05-17	D04B002114	English
Local Applications: AU200 AU2012202375A filed 201		2009-09-29		
CN102551442A_	201259	2012-07-11	A47G000902	Chinese
Local Applications: CN201	1104424604 61-	1 2000 00 20		

Claims

Claims

All Claims (28)

Claims (English)

- 1. An artificial fibre fabric comprises the bed sheet, the fabric has high permeability and cotton fabric, heat resistance, and high moisture wicking characteristic.
- 2. Bed according to claim 1, wherein said fabric comprises fabric, the finished fabric comprises the fabric part is a cylindrical knitting; And the second cylindrical knitted fabric part; At least one of the fabric part comprises performance fabric part; The first and the second fabric portion is separated and combined to form the finished fabric.
- 3. The bed according to claim 1, comprising border.
- 4. Bed according to claim 2, wherein the first and second fabric portions is provided with different

characters.

- 5. Bed according to claim 4, wherein at least one of the fabric property comprises moisture control.
- 6. Bed according to claim 1, wherein the fabric is a knit fabric of synthetic fibre.
- 7. Bed according to claim 1, wherein the fabric has a length that is at least 17 of the knitting needle.
- 8. Bed according to claim 1, wherein the fabric is a cylindrical knitting.
- 9. Bed according to claim 1, the sheet is stretched to adapt the baby bed and the adult bed.
- 10. Bed according to claim 1, it can be adequately stretching to adapt standard rectangular bed and smaller, non-rectangular sea bed.
- 11. Bed according to claim 1, it can be fully stretched to the adult bed adapted baby bed or standard.
- 12. The bed according to claim 1, wherein at least 90 inches wide.
- 13. Bed according to claim 1, it is provided with about 102 inches length and size of approximately 91 of an inch.
- 14. Bed according to claim 1, the bed sheet comprises a pull line, the pull line belt capable of stretching is to increase the tension around the edge of the bed sheet.
- 15. Bed according to claim 4, wherein at least one of the fabric property is UV protection.
- 16. Bed according to claim 4, wherein at least one of the fabric characters are as antimicrobial.
- 17. Bed according to claim 4, wherein at least one of the fabric property is heat.
- 18. Bed according to claim 4, wherein at least one of the fabric property is wind.
- 19. Bed according to claim 4, wherein at least one of the fabric property is anti-water.
- 20. Comprising a cylindrical fabric for bed sheet, the cylindrical knitted fabric comprises high performance artificial fibre.
- 21. The bed according to claim 20, wherein at least 90 inches wide.
- 22. Bed according to claim 20, wherein said sheet comprises at least two cylindrical knitted fabric.
- 23. Bed according to claim 20, wherein fabric comprises polyurethane-polyurea copolymer fibre.
- 24. When bed according to claim 23, wherein polyurethane-polyurea copolymer fiber comprise of the fabric, such that, if the cylindrical knitting the knitting needle number is , under the condition without damaging the integrity of the polyurethane-polyurea copolymer fibre fabric can be knitted to not exceed 72.5 circumference.
- 25. A cover of bed of the bed, the bed sheet comprises artificial fibre fabric, the fabric is compared with the cotton fabric with high air permeability, high heat conductivity and high moisture wicking characteristic.
- 26. According to claim bed according to claim 25, wherein fabric comprises cylindrical knitted fabric.

- 27. Bed according to claim 25, wherein the bed sheet is at least 90 inches wide.
- 28. A single bed, the bed sheet comprises a cylindrical knitting artificial fibre fabric, the fabric is provided with knitting needle number is at least 17, and the fabric with the cotton fabric with high air permeability, high heat conductivity and high moisture wicking characteristic.

Translation from Thomson Reuters

Description

Background/Summary

Background/Summary

-

DWPI Drawing Description

The drawing shows an illustration of a non-rectangular shaped sheet.

- 14 Stitching.
- 16 Main portion.
- 18 Interior edge.
- 20 Edge of sewn-on portion.

Drawing Description

Drawing Description

-

Description

Description

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Citations

Citation

Citing Patents (0)

Cited Patents (0)

Cited Non-patents (0)

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Attorney / Agent

Liu Shen & Associates, CN, CN

DWPI Title Terms

METHOD FINISH FABRIC MANUFACTURE RESIDENCE SET MARINE BOAT RECREATION VEHICLE ENVIRONMENT JOIN DISCRETE PERFORMANCE PORTION FORM

Custom Fields

Test

Relevance

Product Name

Docket number

Notes

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(12) 发明专利申请

(10)申请公布号 CN 102551442 A (43)申请公布日 2012.07.11

- (21)申请号 201110443469.9
- (22)申请日 2009.09.29
- (**30**) 优先权数据 61/101, 049 2008. 09. 29 US
- (62) 分案原申请数据 200980147643.6 2009.09.29
- (71) 申请人 希克斯股份有限公司 地址 美国南卡罗来纳州
- (72) 发明人 苏珊.K. 瓦尔维厄斯 米歇尔.M. 马西尼亚克
- (74) 专利代理机构 北京市柳沈律师事务所 11105

代理人 曲莹

(51) Int. CI.

A47G 9/02 (2006.01)

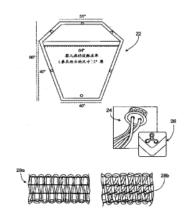
权利要求书 1 页 说明书 6 页 附图 4 页

(54) 发明名称

织物系统

(57) 摘要

寝具材料,包括第一织物部分和第二织物部分,所述第一织物部分用性能织物制成并具有第一侧面和第二侧面,所述第二织物部分附着在所述第一织物部分的所述第一侧面上。另外,还可在所述第一织物部分的第二侧面上附着第三织物部分。所述第一织物部分可通过平式锁缝线迹附着在第二织物部分上。所述第一织物部分可包括第一区域和第二区域,其中所述第一区域包含不同于第二区域的功能特性,而且所述第一区域可具有芯吸散热或散湿特性。



Electronic Patent Application Fee Transmittal					
Application Number:	13:	13272977			
Filing Date:	13	13-Oct-2011			
Title of Invention:	Fabric System				
First Named Inventor/Applicant Name:	Susan Walvius				
Filer:	Frank L. Gerratana/jennifer franco				
Attorney Docket Number:	29712-0002003				
Filed as Large Entity					
Utility under 35 USC 111(a) Filing Fees					
Description		Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Basic Filing:					
Pages:					
Claims:					
Miscellaneous-Filing:					
Petition:					
Patent-Appeals-and-Interference:					
Post-Allowance-and-Post-Issuance:					
Extension-of-Time:					

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Miscellaneous:				
Statutory or terminal disclaimer	1814	1	160	160
	Tot	al in USD	(\$)	160

Electronic Acknowledgement Receipt				
EFS ID:	14786301			
Application Number:	13272977			
International Application Number:				
Confirmation Number:	4915			
Title of Invention:	Fabric System			
First Named Inventor/Applicant Name:	Susan Walvius			
Customer Number:	26161			
Filer:	Frank L. Gerratana/jennifer franco			
Filer Authorized By:	Frank L. Gerratana			
Attorney Docket Number:	29712-0002003			
Receipt Date:	24-JAN-2013			
Filing Date:	13-OCT-2011			
Time Stamp:	17:59:54			
Application Type:	Utility under 35 USC 111(a)			
Payment information:				

Submitted with Payment	yes
Payment Type	Deposit Account
Payment was successfully received in RAM	\$160
RAM confirmation Number	5598
Deposit Account	061050
Authorized User	

File Listing:

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Warnings:								
Information:								
3	Information Disclosure Statement (IDS)	2003_1449.pdf	89073	no	1			
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5 Foreign Reference	Foreign Reference	JP1996256891.pdf	324726	no	7			
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6 Foreign Reference		CN102551442A.pdf	421547	no	9			
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7	Non Patent Literature	2EP1_RCOMM_4_25_12.pdf	235775	no	12			
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13	Non Patent Literature	2001_TH_1_24_13.pdf	111922	no	1
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14 Non Patent Li	Non Patent Literature	2002_TH_1_24_13.pdf	145175	no	2
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15	Non Patent Literature	2001_PendingClaims.pdf	53298	no	6
15	Non Faterit Literature	2001_PendingClaims.pdi	e096d5211ff9de0e86e19a23d8b629bf99a4 bdf9	no	
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Total Files Size (in bytes):	9606329

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New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

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Request for Continued Examination (RCE) Transmittal

Address to:
Mail Stop RCE
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Application Number	13/272,977
Filing Date	October 13, 2011
First Named Inventor	Susan Walvius
Art Unit	3673
Examiner Name	Nicholas F. Polito
Attorney Docket Number	29712-0002003

This is a Request for Continued Examination (RCE) under 37 CFR 1.114 of the above-identified application.

Request for Continued Examination (RCE) practice under 37 CFR 1.114 does not apply to any utility or plant application filed prior to June 8,

1995, or to any design application. See instruction Sheet for RCEs (not to be submitted to the USP10) on page 2.						
 Submission required under 37 CFR 1.114 Note: If the RCE is proper, any previously filed unentered amendments and amendments enclosed with the RCE will be entered in the order in which they were filed unless applicant instructs otherwise. If applicant does not wish to have any previously filed unentered amendment(s) entered, applicant must request non-entry of such amendment(s). 						
 a. Previously submitted. If a final Office action is outstanding, any amendments filed after the final Office action may be considered as a submission even if this box is not checked. 						
i. Consider the arguments in the Appeal Brief or Reply Brief previously filed on						
ii. Other						
b. Enclosed						
i. Amendment/Reply iii. Information Disclosure Statement (IDS)						
ii. Affidavit(s)/ Declaration(s) iv. Other						
2. Miscellaneous						
Suspension of action on the above-identified application is requested under 37 CFR 1.103(c) for a						
a. period of months. (Period of suspension shall not exceed 3 months; Fee under 37 CFR 1.17(i) required)						
b. Other						
3. Fees The RCE fee under 37 CFR 1.17(e) is required by 37 CFR 1.114 when the RCE is filed. The Director is hereby authorized to charge the following fees any underpayment of fees or credit any overpayments to						
a. Deposit Account No. <u>06-1050</u> .						
i. RCE fee required under 37 CFR 1.17(e)						
ii Extension of time fee (37 CFR 1.136 and 1.17)						
iii 🔀 Other any deficiencies						
b. Check in the amount of \$ enclosed						
b. Check in the amount of \$ enclosed c. Payment by credit card (Form PTO-2038 enclosed)						
c. Payment by credit card (Form PTO-2038 enclosed) WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information should not be included on this form.						
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c. Payment by credit card (Form PTO-2038 enclosed) WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038. SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT REQUIRED						
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C. Payment by credit card (Form PTO-2038 enclosed) WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038. SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT REQUIRED Signature /Frank L. Gerratana/ Date November 30, 2012 Name (Print/Type) Frank L. Gerratana Registration No. 62,653 CERTIFICATE OF MAILING OR TRANSMISSION I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Mail Stop RCE, Commissioner for Patents, P. O. Box 1450, Alexandria, VA 22313-1450 or facsimile transmitted to the U.S. Patent and Trademark						

This collection of information is required by 37 CFR 1.114. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS



Attorney Docket No.: 29712-0002003

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Susan Walvius et al. Art Unit: 3673

Serial No.: 13/272,977 Examiner: Nicholas F. Polito

Filed : October 13, 2011 Conf. No. : 4915

Title : FABRIC SYSTEM

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

PETITION FOR THREE-MONTH EXTENSION OF TIME UNDER 37 C.F.R. §1.136

Please extend the period for response to the action dated May 31, 2012, for three months to and including November 30, 2012.

The fees in the amount of \$1290 are being paid concurrently herewith. In addition, please apply any other necessary charges or credits to Deposit Account 06-1050, referencing the above attorney docket number.

Respectfully submitted,

Date: November 30, 2012_____/Frank L. Gerratana/____

Frank L. Gerratana Reg. No. 62,653

Customer Number 26161 Fish & Richardson P.C.

Telephone: (617) 542-5070 Facsimile: (877) 769-7945

22947634.doc

Attorney Docket No.: 29712-0002003

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Susan Walvius et al. Art Unit: 3673

Serial No.: 13/272,977 Examiner: Nicholas F. Polito

Filed : October 13, 2011 Conf. No. : 4915

Title : FABRIC SYSTEM

MAIL STOP AF

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

REPLY TO ACTION DATED MAY 31, 2012

Serial No.: 13/272,977 Filed: October 13, 2011

Page : 2 of 7

<u>List of claims</u> (replacing all prior versions):

1-13. (Cancelled)

- 14. (Currently Amended) A bed sheet comprising
- a fabric of a man-made fiber,

the fabric having been knit at a high gauge 17 gauges or higher,

the fabric having an elasticity such that the fabric has a tendency to sag by an amount that is greater than a threshold amount of sag determined by a finishing process, such that the sag would interfere with the finishing process if the fabric were circularly knit at greater than a 72.5 inch circumference, and

the fabric having higher breathability, higher heat transfer, and higher moisture wicking characteristics than a cotton fabric.

- 15. (Previously Presented) The bed sheet of claim 14 wherein the fabric comprises a finished fabric comprising:
 - a first circular knitted fabric portion; and
 - a second circular knitted fabric portion;
 - at least one of the fabric portions comprising a performance fabric portion;
 - the first and second fabric portions being discrete and joined to form the finished fabric.
 - 16. (Previously Presented) The bed sheet of claim 14, comprising piping.
- 17. (Previously Presented) The bed sheet of claim 15, wherein the first and second fabric portions have different fabric characteristics.

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18. (Previously Presented) The bed sheet of claim 17, wherein at least one of the fabric characteristics comprises moisture management.

- 19. (Previously Presented) The bed sheet of claim 14 in which the fabric is knit of the man-made fiber.
- 20. (Previously Presented) The bed sheet of claim 14 in which the fabric has a gauge of at least 17 gauges.
- (Previously Presented) The bed sheet of claim 14 in which the fabric is circularly knit.
- 22. (Previously Presented) The bed sheet of claim 14 being stretchable to fit either a baby crib and an adult bed.
- 23. (Previously Presented) The bed sheet of claim 14 that is sufficiently stretchable to fit a standard rectangular bed and a smaller, non-rectangular marine bed.
- 24. (Previously Presented) The bed sheet of claim 14 that is sufficiently stretchable to fit either a crib or a standard adult bed.
 - 25. (Previously Presented) The bed sheet of claim 14 that is at least 90 inches wide.
- 26. (Previously Presented) The bed sheet of claim 14 having dimensions of approximately 102 inches in length and approximately 91 inches in width.
- 27. (Previously Presented) The bed sheet of claim 14 comprising a pull tie that can be cinched to increase tension around an edge of the bed sheet.

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28. (Previously Presented) The bed sheet of claim 17, wherein at least one of the fabric characteristics is UV protection.

- 29. (Previously Presented) The bed sheet of claim 17, wherein at least one of the fabric characteristics is anti-microbial fabric.
- 30. (Previously Presented) The bed sheet of claim 17, wherein at least one of the fabric characteristics is thermo-regulation.
- 31. (Previously Presented) The bed sheet of claim 17, wherein at least one of the fabric characteristics is wind resistance.
- 32. (Previously Presented) The bed sheet of claim 17, wherein at least one of the fabric characteristics is water resistance.
- 33. (Currently Amended) A bed sheet comprising a fabric circularly knit at a high gauge 17 gauges or higher and including a high performance man-made fiber, the fabric having an elasticity such that the fabric has a tendency to sag by an amount that is greater than a threshold amount of sag determined by a finishing process, such that the sag would interfere with the finishing process if the fabric were circularly knit at greater than a 72.5 inch circumference.
 - 34. (Previously Presented) The bed sheet of claim 33 that is at least 90 inches wide.
- 35. (Previously Presented) The bed sheet of claim 33 in which the bed sheet comprises at least two portions of the circularly knit fabric.
- 36. (Previously Presented) The bed sheet of claim 33 in which the fabric comprises polyurethanepolyurea copolymer fiber.

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37. (Previously Presented) The bed sheet of claim 36 in which the polyurethanepolyurea copolymer fiber is included in the fabric in a proportion such that, if circularly knit at a high gauge, the fabric could be knit at no more than a 72.5 inch circumference without losing integrity of the polyurethanepolyurea copolymer fiber.

- 38. (Withdrawn) A bed covered by a bed sheet comprising a fabric of a man-made fiber, the fabric having higher breathability, higher heat transfer, and higher moisture wicking characteristics than a cotton fabric.
- 39. (Withdrawn) The bed of claim 38 in which the fabric comprises comprising a circularly knit fabric.
 - 40. (Withdrawn) The bed of claim 38 wherein the bed sheet is at least 90 inches wide.
- 41. (Currently Amended) A bed sheet comprising a fabric circularly knit of a man-made fiber,

the fabric having a gauge of at least 17 gauges,

the fabric having an elasticity such that the fabric has a tendency to sag by an amount that is greater than a threshold amount of sag determined by a finishing process, such that the sag would interfere with the finishing process if the fabric were circularly knit at greater than a 72.5 inch circumference, and

the fabric having higher breathability, higher heat transfer, and higher moisture wicking characteristics than a cotton fabric.

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REMARKS

This application is related to co-pending application 12/569,659, and the amendments in this response are made in part based on discussions held with the examiner in that case.

Claims 14-25, 28-37 and 41 were provisionally rejected on the ground of non-statutory obviousness-type double patenting as allegedly being unpatentable over claims 1-4 and 28 of copending Application No. 12/569,659 and claims 25-43 of co-pending Application No. 13/271,884. In response, the applicant will consider filing a terminal disclaimer once the pending claims have been found to be allowable.

Claims 14-26, 28, 30-35 and 41 were rejected under 35 U.S.C. 102(b) as allegedly being anticipated by Murphy et al. (U.S. Patent No. 6,823,548) in view of Taniguchi et al. (U.S. Pub No. 2005/0132754). In response, claim 14 has been amended to recite "the fabric having an elasticity such that the fabric has a tendency to sag by an amount that is greater than a threshold amount of sag determined by a finishing process, such that the sag would interfere with the finishing process if the fabric were circularly knit at greater than a 72.5 inch circumference." The references are not understood to have described or made obvious at least this feature of the claim.

Claims 33 and 41 have been amended in a manner similar to claim 14 and are patentable for at least similar reasons as given for claim 14.

All of the dependent claims are patentable for at least similar reasons as those for the claims on which they depend are patentable.

The applicant thanks the examiner for the indication of allowable subject matter in claim 37.

Canceled claims, if any, have been canceled without prejudice or disclaimer.

Any circumstance in which the applicant has (a) addressed certain comments of the examiner does not mean that the applicant concedes other comments of the examiner, (b) made arguments for the patentability of some claims does not mean that there are not other good reasons for patentability of those claims and other claims, or (c) amended or canceled a claim

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does not mean that the applicant concedes any of the examiner's positions with respect to that claim or other claims.

Please apply the Petition for Extension of Time fee and any other charges or credits to deposit account 06-1050, referencing attorney docket 29712-0002003.

Respectfully submitted,

Reg. No. 62,653

Date: November 30, 2012	/Frank L. Gerratana/
	Frank L. Gerratana

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Facsimile: (8//) /69-/943

22854170.doc

Electronic Patent Application Fee Transmittal						
Application Number:	132	13272977				
Filing Date:	13-	Oct-2011				
Title of Invention:	Fabric System					
First Named Inventor/Applicant Name:	Susan Walvius					
Filer:	Frank L. Gerratana/jennifer franco					
Attorney Docket Number:	297	712-0002003				
Filed as Large Entity						
Utility under 35 USC 111(a) Filing Fees						
Description		Fee Code	Quantity	Amount	Sub-Total in USD(\$)	
Basic Filing:						
Pages:						
Claims:						
Miscellaneous-Filing:						
Petition:						
Patent-Appeals-and-Interference:						
Post-Allowance-and-Post-Issuance:						
Extension-of-Time:						
Extension - 3 months with \$0 paid	00	0654 ¹²⁵³	1	1290	1290	

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)		
Miscellaneous:						
Request for continued examination	1801	1	930	930		
Total in USD (\$) 222						

Electronic Acknowledgement Receipt					
EFS ID:	14352855				
Application Number:	13272977				
International Application Number:					
Confirmation Number:	4915				
Title of Invention:	Fabric System				
First Named Inventor/Applicant Name:	Susan Walvius				
Customer Number:	26161				
Filer:	Frank L. Gerratana/jennifer franco				
Filer Authorized By:	Frank L. Gerratana				
Attorney Docket Number:	29712-0002003				
Receipt Date:	30-NOV-2012				
Filing Date:	13-OCT-2011				
Time Stamp:	14:35:39				
Application Type:	Utility under 35 USC 111(a)				
Payment information:					

Payment Type Deposit Account Payment was successfully received in RAM \$2220 RAM confirmation Number 1128 Deposit Account 061050 Authorized User	Submitted with Payment	yes
RAM confirmation Number 1128 Deposit Account 061050	Payment Type	Deposit Account
Deposit Account 061050	Payment was successfully received in RAM	\$2220
· ·	RAM confirmation Number	1128
Authorized User	Deposit Account	061050
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File Listing:

Document Description	000696Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
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This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

Approved for use through 1/31/2007. OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
p.a. collection of information unless it displays a valid OMB control number.

PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875							Application or Docket Number			ing Date 13/2011	To be Mailed
APPLICATION AS FILED - PART I (Column 1) (Column 2)							SMALL ENTITY				HER THAN ALL ENTITY
FOR NUMBER FILED NUMBER EXTRA					Г	RATE (\$)	FEE (\$)		RATE (\$)	FEE (\$)	
BASIC FEE (37 CFR 1.16(a), (b), or (c))			N/A		N/A		N/A			N/A	
	SEARCH FEE (37 CFR 1.16(k), (i), (i)	or (m))	N/A		N/A		N/A			N/A	
	EXAMINATION FE (37 CFR 1.16(o), (p),		N/A		N/A		N/A			N/A	
TO'	TAL CLAIMS CFR 1.16(i))		mir	nus 20 = *		1	X \$ =		OR	X \$ =	
IND	EPENDENT CLAIM CFR 1.16(h))	S	m	inus 3 = *		1	X \$ =			X \$ =	
If the specification and drawings exceed 100 sheets of paper, the application size fee due is \$250 (\$125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).					n size fee due for each n thereof. See						
Ш	MULTIPLE DEPEN		-	477							
* If	the difference in colu						TOTAL		ı	TOTAL	
	APPI	(Column 1)	AMENE	OED - PART II (Column 2)	(Column 3)		OTHER THAN SMALL ENTITY OR SMALL ENTIT				
AMENDMENT	11/30/2012	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA		RATE (\$)	ADDITIONAL FEE (\$)		RATE (\$)	ADDITIONAL FEE (\$)
ME	Total (37 CFR 1.16(i))	· 28	Minus	** 28	= 0	1	X \$ =		OR	X \$62=	0
N.	Independent (37 CFR 1.16(h))	* 4	Minus	***4	= 0	1	X \$ =		OR	X \$250=	0
₹ME	Application Size Fee (37 CFR 1.16(s))										
_	FIRST PRESEN	TATION OF MULTIF	PLE DEPEN	DENT CLAIM (37 CFF	R 1.16(j))				OR		
Г							TOTAL ADD'L FEE		OR	TOTAL ADD'L FEE	0
ᆫ		(Column 1)		(Column 2)	(Column 3)						
		CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA		RATE (\$)	ADDITIONAL FEE (\$)		RATE (\$)	ADDITIONAL FEE (\$)
ENT	Total (37 CFR 1.16(i))	¥	Minus	**	=		X \$ =		OR	X \$ =	
ENDM	Independent (37 CFR 1.16(h))	*	Minus	***	=		X \$ =		OR	X \$ =	
EN	Application Si	ze Fee (37 CFR 1	.16(s))								
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							OR				
							TOTAL ADD'L FEE		OR	TOTAL ADD'L FEE	
** If	* If the entry in column 1 is less than the entry in column 2, write "0" in column 3. ** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20". *** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3". The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.										

This collection of information is required by 37 CFR 1.16. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS

ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
13/272,977	10/13/2011	Susan Walvius	29712-0002003	4915	
	7590 05/31/201 ARDSON P.C. (BO)	EXAMINER POLITO, NICHOLAS F			
P.O. BOX 1022	2				
MIINEAPOLI	S, MN 55440-1022	ART UNIT	PAPER NUMBER		
			3673		
			NOTIFICATION DATE	DELIVERY MODE	
			05/31/2012	ELECTRONIC	

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PATDOCTC@fr.com

		Application No.	Applicant(s)					
	Office Action Cummons	13/272,977	WALVIUS ET AL.					
	Office Action Summary	Examiner	Art Unit					
		Nicholas Polito	3673					
Period fo	The MAILING DATE of this communication app or Reply	ears on the cover sheet with the co	orrespondence address					
WHIC - Exter after - If NO - Failu Any r	A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION. - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication. - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication. - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).							
Status								
1) 又	Responsive to communication(s) filed on <i>06 Ap</i>	oril 2012						
		action is non-final.						
	An election was made by the applicant in response		set forth during the interview on					
٥,۵	; the restriction requirement and election		The state of the s					
4)	Since this application is in condition for allowan							
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6) \(\square \) 7) \(\square \) 8) \(\square \)	5) ☐ Claim(s) 14-41 is/are pending in the application. 5a) Of the above claim(s) 38-40 is/are withdrawn from consideration. 6) ☐ Claim(s) is/are allowed. 7) ☐ Claim(s) 14-36 and 41 is/are rejected. 8) ☐ Claim(s) 37 is/are objected to. 9) ☐ Claim(s) are subject to restriction and/or election requirement.							
Applicati	on Papers							
11)	 10) The specification is objected to by the Examiner. 11) The drawing(s) filed on is/are: a) accepted or b) objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d). 12) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152. 							
Priority u	ınder 35 U.S.C. § 119							
 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some * c) None of: 1. Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received. 								
Attachmen	t(s)							
1) Notice 2) Notice 3) Inform	e of References Cited (PTO-892) e of Draftsperson's Patent Drawing Review (PTO-948) mation Disclosure Statement(s) (PTO/SB/08) r No(s)/Mail Date	4) Interview Summary Paper No(s)/Mail Da 5) Notice of Informal Pa 6) Other:	te					

Application/Control Number: 13/272,977

Art Unit: 3673

DETAILED ACTION

Page 2

Double Patenting

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 14-25, 28-37 and 41 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-4 and 28 of copending Application No. 12/569,659 and claims 25-43 of copending Application No. 13/271,884. Although the conflicting claims are not identical, they are not patentably distinct from each other because they are drawn to the same subject matter but written separately as method and apparatus claims.

This is a <u>provisional</u> obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 103

- 3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
 - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 4. Claims 14-26, 28, 30-35 and 41 are rejected under 35 U.S.C. 102(b) as being anticipated by Murphy et al. (U.S. Patent No. 6,823,548) in view of Taniguchi et al. (U.S. Pub No. 2005/0132754).
- 5. Regarding claim 14, Murphy et al. teach in Figures 1-3 and column 5, lines 46 to 67 a bed sheet comprising a fabric of a man-made fiber, the fabric having higher breathability, higher heat transfer, and higher moisture wicking characteristics than a

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cotton fabric.

Murphy et al. do not teach the fabric having been knit at a high gauge. Taniguchi et al. teach in paragraphs 21, 22 and 35 a bed sheet having been knit at a high gauge. In view of Taniguchi et al., it would have been obvious to a person having ordinary skill in the art at the time the invention was made to knit the fabric of Murphy et al. at a high gauge as in Taniguchi et al. to increase softness, elasticity and flexibility.

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- 6. Regarding claim 15, Murphy et al. teach in Figures 1-3 the bed sheet of claim 14 wherein the fabric comprises a finished fabric comprising: a first circular knitted (Table 1, Ex. No. 1.3) fabric portion (22); and a second circular knitted fabric portion (24); at least one of the fabric portions comprising a performance fabric portion (col. 5, lines 46-67); the first and second fabric portions being discrete and joined to form the finished fabric (col. 6, lines 41-48).
- 7. Regarding claim 16, Murphy et al. teach the bed sheet of claim 14. Murphy et al. do not teach piping. The examiner takes official notice that it is commonly known in the art to provide piping to a fabric. Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to provide piping to the bed fabric of Murphy et al. to provide a finished edge.
- 8. Regarding claim 17, Murphy et al. teach in column 5, lines 20 to 29 the bed sheet of claim 15, wherein the first and second fabric portions have different fabric characteristics.

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- Regarding claim 18, Murphy et al. teach in column 5, lines 46 to 67 the bed sheet of claim 17, wherein at least one of the fabric characteristics comprises moisture management.
- 10. Regarding claim 19, Murphy et al. teach in column 5, lines 46 to 67 the bed sheet of claim 14 in which the fabric is knit of the man-made fiber.
- 11. Regarding claim 20, Taniguchi et al. teach in paragraph 21 the bed sheet of claim 14 in which the fabric has a gauge of at least 17 gauges.
- 12. Regarding claim 21, Murphy et al. teach in Table 1, Ex. No. 1.3 the bed sheet of claim 14 in which the fabric is circularly knit.
- 13. Regarding claim 22, Murphy et al. teach in column 3, lines 43 to 61, column 5, lines 46 to 64 and Table 1, Ex. No. 1.3 the bed sheet of claim 14 being stretchable to fit either a baby crib and an adult bed.
- 14. Regarding claim 23, Murphy et al. teach in column 3, lines 43 to 61, column 5, lines 46 to 64 and Table 1, Ex. No. 1.3 the bed sheet of claim 14 that is sufficiently stretchable to fit a standard rectangular bed and a smaller, non-rectangular marine bed.
- 15. Regarding claim 24, Murphy et al. teach in column 3, lines 43 to 61, column 5, lines 46 to 64 and Table 1, Ex. No. 1.3 the bed sheet of claim 14 that is sufficiently stretchable to fit either a crib or a standard adult bed.
- 16. Regarding claim 25, Murphy et al. teach the bed sheet of claim 14. Murphy et al. do not teach wherein the bed sheet is at least 90 inches wide. Murphy et al. do not teach wherein the finished fabric is at least 90 inches wide. Murphy et al. teach column 3, lines 42 to 45 wherein the finished fabric is for a mattress. The examiner takes official

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notice that it is commonly known in the art for a standard size mattress cover to be at least 90 inches wide. Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to make the finished fabric of Murphy et al. at least 90 inches wide to cover a standard mattress.

- 17. Regarding claim 26, Murphy et al. teach the bed sheet of claim 14. Murphy et al. do not teach wherein the bed sheet has dimensions of approximately 102 inches in length and approximately 91 inches in width. Murphy et al. teach column 3, lines 42 to 45 wherein the finished fabric is for a mattress. The examiner takes official notice that it is commonly known in the art for a standard size mattress cover to have dimensions of approximately 102 inches in length and approximately 91 inches in width. Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to make the finished fabric of Murphy et al. 102 inches in length and approximately 91 inches in width to cover a standard mattress.
- 18. Regarding claim 28, Murphy et al. teach in column 5, lines 46 to 67 the bed sheet of claim 17, wherein at least one of the fabric characteristics is UV protection.
- 19. Regarding claim 30, Murphy et al. teach in column 5, lines 46 to 67 the bed sheet of claim 17, wherein at least one of the fabric characteristics is thermo-regulation.
- 20. Regarding claim 31, Murphy et al. teach in column 5, lines 46 to 67 the bed sheet of claim 17, wherein at least one of the fabric characteristics is wind resistance.
- 21. Regarding claim 32, Murphy et al. teach in column 5, lines 46 to 67 the bed sheet of claim 17, wherein at least one of the fabric characteristics is water resistance.

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22. Regarding claim 33, Murphy et al. teach in column 5, lines 46 to 67 a bed sheet comprising a circularly knit fabric including a high performance man-made fiber.

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Murphy et al. do not teach a fabric knit at a high gauge. Taniguchi et al. teach in paragraphs 21, 22 and 35 a bed sheet having been knit at a high gauge. In view of Taniguchi et al., it would have been obvious to a person having ordinary skill in the art at the time the invention was made to knit the fabric of Murphy et al. at a high gauge as in Taniguchi et al. to increase softness, elasticity and flexibility.

- 23. Regarding claim 34, Murphy et al. teach the bed sheet of claim 33. Murphy et al. do not teach wherein the bed sheet is at least 90 inches wide. Murphy et al. do not teach wherein the finished fabric is at least 90 inches wide. Murphy et al. teach column 3, lines 42 to 45 wherein the finished fabric is for a mattress. The examiner takes official notice that it is commonly known in the art for a standard size mattress cover to be at least 90 inches wide. Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to make the finished fabric of Murphy et al. at least 90 inches wide to cover a standard mattress.
- 24. Regarding claim 35, Murphy et al. teach in Table 1, Ex. No. 1.3 the bed sheet of claim 33 in which the bed sheet comprises at least two portions of the circularly knit fabric.
- 25. Regarding claim 41, Murphy et al. teach in Figures 1-3 a bed sheet comprising a fabric circularly knit (Table 1, Ex. No. 1.3) of a man-made fiber (col. 5, lines 46-67), and the fabric having higher breathability, higher heat transfer, and higher moisture wicking characteristics than a cotton fabric.

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Murphy et al. do not teach the fabric having a gauge of at least 17 gauges.

Taniguchi et al. teach in paragraphs 21, 22 and 35 a bed sheet having a gauge of at least 17 gauges. In view of Taniguchi et al., it would have been obvious to a person having ordinary skill in the art at the time the invention was made to knit the fabric of Murphy et al. at a high gauge as in Taniguchi et al. to increase softness, elasticity and flexibility.

- 26. Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Murphy et al. in view of Ford (U.S. Patent No. 2,804,632).
- 27. Regarding claim 27, Murphy et al. teach the bed sheet of claim 14. Murphy et al. do not teach a pull tie that can be cinched to increase tension around an edge of the bed sheet. Ford teaches in Figures 1-3 a bed sheet comprising a pull tie (44, 47) that can be cinched to increase tension around an edge of the bed sheet. In view of Ford, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to combine the pull tie of Ford with the bed sheet of Murphy et al. to fit a cover to a mattress.
- 28. Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Murphy et al. in view of Porter et al. (U.S. Patent No. 4,690,859).
- 29. Regarding claim 29, Murphy et al. teach the finished fabric of claim 17. Murphy et al. do not teach wherein at least one of the fabric characteristics comprises antimicrobial properties. Porter et al. teach in column 4, lines 4 to 14 a finished fabric comprising anti-microbial properties. In view of Porter et al., it would have been obvious to a person having ordinary skill in the art at the time the invention was made to

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combine the anti-microbial properties of Porter et al. with the finished fabric of Murphy et al. to prevent the growth of microorganisms.

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- 30. Claim 36 is rejected under 35 U.S.C. 103(a) as being unpatentable over Murphy et al. in view of Link et al. (U.S. Pub. No. 2007/0283493).
- 31. Regarding claim 36, Murphy et al. teach the finished fabric of claim 33. Murphy et al. do not teach a knit fabric that includes polyurethanepolyurea copolymer fiber. Link et al. teach in paragraph 28 a knit fabric that includes polyurethanepolyurea copolymer fiber. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use polyurethanepolyurea copolymer fiber, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416. See also *Ballas Liquidating Co. v. Allied industries of Kansas, Inc.* (DC Kans) 205 USPQ 331.

Allowable Subject Matter

- 32. Claim 37 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
- 33. The following is a statement of reasons for the indication of allowable subject matter: Murphy et al. and Link et al., taken either alone or in combination, do not teach "polyurethanepolyurea copolymer fiber is included in the knit fabric in a proportion that, if circularly knit at a high gauge, the knit fabric could be knit at no more than a 72.5 inch circumference without losing integrity of the polyurethanepolyurea copolymer fiber."

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Response to Arguments

34. Applicant's arguments filed 4/6/2012 have been fully considered but they are not persuasive.

35. In response to applicant's arguments that Murphy et al. do not teach a fabric being knit at a high gauge, the combination of Murphy et al. in view of Taniguchi et al. teach a fabric being knit at a high gauge.

Conclusion

36. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nicholas Polito whose telephone number is (571)270-5923. The examiner can normally be reached on Monday-Friday 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Cuomo can be reached on (571) 272-6856. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Nicholas Polito/ Examiner, Art Unit 3673

/ROBERT G. SANTOS/ Primary Examiner, Art Unit 3673

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*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).) Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

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	Substitute Form PTO-1449 (Modified)	U.S. Department of Commerce Patent and Trademark Office	Attorney Docket No. 29712-0002003	Application No. 13/272,977
Information Disclosure Statement by Applicant		Applicant Susan Walvius et al.		
I	(Use several sheet	s if necessary)	Filing Date	Group Art Unit
I	(37 CFR §1.98(b))		October 13, 2011	3673

	U.S. Patent Documents						
Examiner	Desig.	Document	Publication				Filing Date
Initial	ID	Number	Date	Patentee	Class	Subclass	If Appropriate

Foreign Patent Documents or Published Foreign Patent Applications							
Examiner	Desig.	Document	Publication	Country or			Translation
Initial	ID	Number	Date	Patent Office	Class	Subclass	Yes No

	Other Documents (include Author, Title, Date, and Place of Publication)					
Examiner	Desig.					
Initial	ID	Document				
	1	Response to Office Action dated January 16, 2012 from Canadian Application No. 2738658, filed April 16, 2012 (25 pages).				
	2	Voluntary Amendment filed in Australian Application No. 2009296195 filed April 24, 2012 (12 pages).				
	3	Copy of Publication Notice of Hong Kong Application No. 11108432.6 dated April 25, 2012 (1 page).				

Examiner Signature	Date Considered
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Search Notes 1327297

Application/Control No.	Applicant(s)/Patent Under Reexamination
13272977	WALVIUS ET AL.
Examiner	Art Unit
NICHOLAS POLITO	3673

SEARCHED						
Class	Subclass	Date	Examiner			
5	482 - 484, 486, 496, 497, 499 - 502	12/21/2011	NP			
	Above Search Updated	5/22/2012	NP			

SEARCH NOTES					
Search Notes	Date	Examiner			
EAST Search History Attached	12/21/2011	NP			
EAST Search History Attached	5/22/2012	NP			

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Substitute Form PTO-1449 (Modified)	U.S. Department of Commerce Patent and Trademark Office	Attorney Docket No. 29712-0002003	Application No. 13/272,977
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(37 CFR §1.98(b))		October 13, 2011	3673

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Initial	ID	Number	Date	Patentee	Class	Subclass	If Appropriate	

Foreign Patent Documents or Published Foreign Patent Applications								
Examiner	Desig.	Document	Publication	Country or			Translation	
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(Other Documents (include Author, Title, Date, and Place of Publication)									
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Initial	ID	Document								
	1	European Communication mailed March 12, 2012 from European application no. 09817024.4 (5 pages).								
	2	Pending claims of U.S. application no. 12/569,659 as of April 10, 2012.								
	3	Pending claims of U.S. application no. 13/271,884 as of April 10, 2012.								
	4	Transaction history from PAIR of U.S. application no. 12/569,659 as of April 10, 2012.								
	5	Transaction history from PAIR of U.S. application no. 13/271,884 as of April 10, 2012.								

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EAST Search History

EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp	
S1	1	12/569659 or 13/271884 or 13/272977	US- PGPUB; USPAT; USOCR	OR	OFF	2011/12/19 16:46	
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S3	118	((circle or circular) adj knit) and stitch and (heat adj set)	US- PGPUB; USPAT; USOCR	OR	ON	2011/12/19 16:52	
S4	18	((circle or circular) adj knit) same stitch same (heat adj set)	US- PGPUB; USPAT; USOCR	OR	ON	2011/12/19 16:52	
S5	3	"5"/.clas. and (((circle or circular) adj knit) and stitch and (heat adj set))	US- PGPUB; USPAT; USOCR	OR	ON	2011/12/19 16:57	
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S7	1867	((circle or circular) adj knit)	US- PGPUB; USPAT; USOCR	OR	ON	2011/12/20 14:21	
\$8	109	S6 and S7	US- PGPUB; USPAT; USOCR	OR	ON	2011/12/20 14:21	
S9	24359	(heat-set\$4) or (heat adj set\$4)	US- PGPUB; USPAT; USOCR	OR	ON	2011/12/20 14:23	
S10	11 S6 and S7 and S9		US- PGPUB; USPAT; USOCR	OR	ON	2011/12/20 14:24	
S11	23	flatlock near stitch\$3	US- PGPUB; USPAT; USOCR	OR	ON	2011/12/20 14:27	
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S18	12	5/482-502.ccls. and ((circle or circular or round) near knit\$3)	US- PGPUB; USPAT; USOCR	OR	OFF	2011/12/20 15:46
S19	8356	((circle or circular or round) adj knit\$4)	US- PGPUB; USPAT; USOCR	OR	ON	2011/12/20 15:59
S20	8586	((circle or circular or round) near knit\$4)	US- PGPUB; USPAT; USOCR	OR	ON	2011/12/20 15:59
S21	165 S6 and S20		US- PGPUB; USPAT; USOCR	OR	ON	2011/12/20 15:59
S22	9978	((circle or circular or round or jersey or fleece or terry or double) adj knit\$4)	US- PGPUB; USPAT; USOCR	OR	ON	2011/12/20 16:12
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\$25	3	(("5765241") or ("5817391") or ("6381779")).PN.	US- PGPUB; USPAT; USOCR	OR	OFF	2011/12/20 18:07
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\$28	55	5/482-502.ccls. and spandex	US- PGPUB; USPAT; USOCR		ON	2011/12/21 17:24
********	47	spandex with antimicrobial	US-	OR	ON	2011/12/21

17:38				USPAT; USOCR			
17:38	S30	0	spandex with circumference with gauge	PGPUB; USPAT;	OR	ON	2011/12/21 17:38
S33 41	S31	4	spandex same circumference same gauge	PGPUB; USPAT;	OR	ON	2011/12/21 17:38
Microbial PGPUB; USPAT; USCOR PGPUB; USCOR PGPUB; USCOR PGPUB; USCOR PGPUB;	S32	0	(11/759586).APP.			OFF	2011/12/21 20:35
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PGPUB; USPAT; USOCR	S37	1	"13271884"	PGPUB; USPAT;	OR	ON	2012/05/21 16:25
PGPUB; USPAT; USOCR	S38	4054	(circle or circular) near2 knit\$3	PGPUB; USPAT;	OR	ON	2012/05/21 16:28
PGPUB; 16:29 USPAT;	S39	384230	gauge	PGPUB; USPAT;	OR	ON	2012/05/21 16:28
· · · · · · · · · · · · · · · · · · ·	S40	574970	bed or mattress	PGPUB; USPAT;	OR	ON	2012/05/21 16:29

S41	147	\$38 and \$39 and \$40	US- PGPUB; USPAT; USOCR	OR	ON	2012/05/21 16:29
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S44	3	(("5765241") or ("5817391") or ("6381779")).PN.	US- PGPUB; USPAT; USOCR	OR	OFF	2012/05/22 11:42

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Index of Claims Application/Control No. Applicant(s)/Patent Under Reexamination WALVIUS ET AL. Examiner NICHOLAS POLITO Applicant(s)/Patent Under Reexamination WALVIUS ET AL.

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	Application/Control No.	Applicant(s)/Patent Under Reexamination
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	NICHOLAS POLITO	3673

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Substitute Form PTO-1449 (Modified)	U.S. Department of Commerce Patent and Trademark Office	Attorney Docket No. 29712-0002003	Application No. 13/272,977	
	losure Statement plicant	Applicant Susan Walvius et al.		
(Use several she (37 CFR §1.98(b))	eets if necessary)	Filing Date October 13, 2011	Group Art Unit 3673	

			U.S. Pate	ent Documents			
Examiner Initial	Desig. ID	Document Number	Publication Date	Patentee	Class	Subclass	Filing Date If Appropriate
	1	5,765,241	1998-06-16	Macdonald			
	2	5,817,391	1998-10-06	Rock et al.			
	3	6,381,779	2002-05-07	Thompson			
	4	2011/0000020	01-2011	Walvius et. al.			
	5	2012/0024013	02-2012	Walvius et. al.			
	6	4,648,186	03-1987	Dolman et al.			
	7	5,092,088	03-1992	Way			
	8	5,636,380	06-1997	Schindler et al.			
	9	7,117,695	10-2006	Laycock et al.			
	10	2008/0028523	02-2008	Robertson et al.			
	11	2007/0266495	11-2007	Stribling			
	12	2004/0172754	09-2004	Brooks et al.			

	Foreign Patent Documents or Published Foreign Patent Applications							
Examiner	Desig.	Document	Document Publication Country or				Translation	
Initial	ID	Number	Date	Patent Office	Class	Subclass	Yes	No
	13	CN102245822A	11/16/2011	China			X	
	14	JP 11-309183	11/9/1999	Japan			X	

	Other D	ocuments (include Author, Title, Date, and Place of Publication)		
Examiner Initial	Desig. ID	Document		
	15	Canadian office action issued January 16, 2012 in Canadian application no. 2,738,658 (4 pages).		
	16	European communication mailed May 27, 2011 from European application no. 09817024.4 (2 pages).		
	17	Response to European communication mailed May 27, 2011 from European application no. 09817024.4 filed November 22, 2011 (12 pages).		
	18	Pending claims of U.S. application no. 12/569,659 as of February 15, 2012.		
	19	Pending claims of U.S. application no. 13/271,884 as of February 15, 2012.		
	Transaction history from PAIR of U.S. application no. 12/569,659 as of February 15, 2012.			
	21	Transaction history from PAIR of U.S. application no. 13/271,884 as of February 15, 2012.		

Examiner Signature /Nicholas Polito/	Date Considered 05/22/2012				
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next communication to applicant.

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	closure Statement	Applicant Susan Walvius et al.		
(Use several sh	eets if necessary)	Filing Date October 13, 2011	Group Art Unit 3673	

	Other Documents (include Author, Title, Date, and Place of Publication)							
Examiner Initial	Desig. ID	Document						
	22	International Preliminary Report on Patentability from PCT application no. PCT/US2009/058716 mailed April 7, 2011 (6 pages).						
	23	International Search Report from PCT application no. PCT/US2009/058716 mailed April 29, 2010 (3 pages).						
	24	Written Opinion from PCT application no. PCT/US2009/058716 mailed April 29, 2010 (4 pages).						
	25	European Communication mailed February 16, 2012 from European application no. 09817024.4 (4 pages).						

Examiner Signature /Nicholas Polito/	Date Considered 05/22/2012			
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EXAMINER: Initials citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Substitute Form PTO-1449 (Modified)	U.S. Department of Commerce Patent and Trademark Office	Attorney Docket No. 29712-0002003	Application No. 13/272,977	
Information Disclo by Appl		Applicant Susan Walvius et al.		
(Use several sheets if necessary)		Filing Date October 13, 2011	Group Art Unit 3673	

	U.S. Patent Documents								
Examiner	Desig.	Document	Publication				Filing Date		
Initial	ID	Number	Date	Patentee	Class	Subclass	If Appropriate		

Foreign Patent Documents or Published Foreign Patent Applications							าร
Examiner	Desig.	Document	Publication	Country or			Translation
Initial	ID	Number	Date	Patent Office	Class	Subclass	Yes No

	Other Documents (include Author, Title, Date, and Place of Publication)						
Examiner Desig.							
Initial ID Document							
	1	European Communication mailed May 9, 2012 from European application no. 09817024.4 (4 pages).					
	2	Transaction history from PAIR of U.S. application no. 12/569,659 as of May 23, 2012.					
	3	Transaction history from PAIR of U.S. application no. 13/271,884 as of May 23, 2012.					

Examiner Signature	Date Considered		

Electronic Patent Application Fee Transmittal					
Application Number:	13272977				
Filing Date:	13	13-Oct-2011			
Title of Invention:	Fabric System				
First Named Inventor/Applicant Name:	Susan Walvius				
Filer:	Frank L. Gerratana/jennifer franco				
Attorney Docket Number:	29	712-0002003			
Filed as Large Entity					
Utility under 35 USC 111(a) Filing Fees					
Description		Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Basic Filing:					
Pages:					
Claims:					
Miscellaneous-Filing:					
Petition:					
Patent-Appeals-and-Interference:					
Post-Allowance-and-Post-Issuance:					
Extension-of-Time:					

Description	Fee Code Quantity		Amount	Sub-Total in USD(\$)
Miscellaneous:				
Submission- Information Disclosure Stmt	1806	1	180	180
	Tot	al in USD	(\$)	180

Electronic Acknowledgement Receipt					
EFS ID:	12853023				
Application Number:	13272977				
International Application Number:					
Confirmation Number:	4915				
Title of Invention:	Fabric System				
First Named Inventor/Applicant Name:	Susan Walvius				
Customer Number:	26161				
Filer:	Frank L. Gerratana/jennifer franco				
Filer Authorized By:	Frank L. Gerratana				
Attorney Docket Number:	29712-0002003				
Receipt Date:	24-MAY-2012				
Filing Date:	13-OCT-2011				
Time Stamp:	09:18:32				
Application Type:	Utility under 35 USC 111(a)				
Payment information:					

Payment Type Deposit Account	
Payment was successfully received in RAM \$180	
RAM confirmation Number 9752	
Deposit Account 061050	
Authorized User	

File Listing:

Document Description	00068 Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
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This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

Attorney Docket No.: 29712-0002003

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Susan Walvius et al. Art Unit: 3673

Serial No.: 13/272,977 Examiner: Nicholas F. Polito

Filed : October 13, 2011 Conf. No. : 4915

Title : FABRIC SYSTEM

MAIL STOP AMENDMENT

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT

Please consider the references listed on the attached PTO-1449 form.

Copies of United States patent documents will be provided upon request. Copies of all non-U.S. patent documents and other documents are enclosed.

The United States patent applications and/or patents listed below contain material related to material in this application. Copies of the applications and/or patents, their current claims (in the case of patents), and their transaction histories from the patent office public PAIR website are enclosed (or were provided previously with information disclosure statements identified in the table).

The applicant invites the examiner to consider the claims and claim amendments of these other applications and/or patents, and the positions of the examiners and the applicant that appear in their prosecution histories. The applicant understands that the examiner has direct access to these papers at the patent office, but will be happy to provide copies to the examiner upon request.

Applicant: Susan Walvius et al. Attorney's Docket No.: 29712-0002003

Serial No.: 13/272,977 Filed: October 13, 2011

Page : 2 of 2

US serial number and filing date/ status	Examiner and group art unit	Is patent or application attached and listed on form 1449 and/or what is the date of a prior information disclosure statement with which it was submitted	In the case of an application, are claims attached or what is the date of a prior information disclosure statement with which they were submitted	Is current PAIR transaction history attached and listed on form 1449
61/101,049 09/29/2008 Expired	N/A	No	No	No
12/569,659 09/29/2009 Pending	Nicholas F. Polito GAU 3673	No - publication 2011/0000020 submitted 2/16/12	No – submitted 4/11/12	Yes
13/271,884 10/12/2011 Pending	Nicholas F. Polito GAU 3673	No - publication 2012/0024013 submitted 2/16/12	No – submitted 4/11/12	Yes

This statement is being filed after a first Office action on the merits, but before receipt of a final Office action or a Notice of Allowance. The fees in the amount of \$180 in payment of the late submission fee of \$1.17(p) are being paid concurrently herewith. In addition, please apply any other necessary charges or credits to Deposit Account 06-1050, referencing the above attorney docket number.

Respectfully submitted,

Reg. No. 62,653

Date: May 24, 2012	/Frank L. Gerratana/
•	Frank L. Gerratana

Customer Number 26161 Fish & Richardson P.C. Telephone: (617) 542-5070

Facsimile: (877) 769-7945

22849330.doc

Substitute Form PTO-1449 (Modified)	U.S. Department of Commerce Patent and Trademark Office	Attorney Docket No. 29712-0002003	Application No. 13/272,977	
Information Disclo by Appl		Applicant Susan Walvius et al.		
(Use several sheet	ts if necessary)	Filing Date October 13, 2011	Group Art Unit 3673	

U.S. Patent Documents							
Examiner	Desig.	Document	Publication				Filing Date
Initial	ID	Number	Date	Patentee	Class	Subclass	If Appropriate

Foreign Patent Documents or Published Foreign Patent Applications						าร	
Examiner	Desig.	Document	Publication	Country or			Translation
Initial	ID	Number	Date	Patent Office	Class	Subclass	Yes No

(Other Documents (include Author, Title, Date, and Place of Publication)					
Examiner	Desig.					
Initial	ID	Document				
	1	Response to Office Action dated January 16, 2012 from Canadian Application No. 2738658, filed April 16, 2012 (25 pages).				
	2	Voluntary Amendment filed in Australian Application No. 2009296195 filed April 24, 2012 (12 pages).				
	3	Copy of Publication Notice of Hong Kong Application No. 11108432.6 dated April 25, 2012 (1 page).				

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Examiner Signature	Date Considered
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Electronic Patent Application Fee Transmittal					
Application Number:	13272977				
Filing Date:	13	-Oct-2011			
Title of Invention:	Fabric System				
First Named Inventor/Applicant Name:	Susan Walvius				
Filer:	Fra	nk L. Gerratana/jen	nifer franco		
Attorney Docket Number:	29712-0002003				
Filed as Large Entity					
Utility under 35 USC 111(a) Filing Fees					
Description		Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Basic Filing:					
Pages:					
Claims:	Claims:				
Miscellaneous-Filing:					
Petition:					
Patent-Appeals-and-Interference:					
Post-Allowance-and-Post-Issuance:					
Extension-of-Time:					

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Miscellaneous:				
Submission- Information Disclosure Stmt	1806	1	180	180
	Tot	al in USD	(\$)	180

Electronic Acknowledgement Receipt				
EFS ID:	12724793			
Application Number:	13272977			
International Application Number:				
Confirmation Number:	4915			
Title of Invention:	Fabric System			
First Named Inventor/Applicant Name:	Susan Walvius			
Customer Number:	26161			
Filer:	Frank L. Gerratana/jennifer franco			
Filer Authorized By:	Frank L. Gerratana			
Attorney Docket Number:	29712-0002003			
Receipt Date:	08-MAY-2012			
Filing Date:	13-OCT-2011			
Time Stamp:	10:06:33			
Application Type:	Utility under 35 USC 111(a)			
Payment information:	•			

Submitted with Payment	yes
Payment Type	Deposit Account
Payment was successfully received in RAM	\$180
RAM confirmation Number	8182
Deposit Account	061050
Authorized User	

File Listing:

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Attorney Docket No.: 29712-0002003

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Susan Walvius et al. Art Unit: 3673

Serial No.: 13/272,977 Examiner: Nicholas F. Polito

Filed : October 13, 2011 Conf. No. : 4915

Title : FABRIC SYSTEM

MAIL STOP AMENDMENT

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT

Please consider the references listed on the enclosed PTO-1449 form. Non-patent literature is enclosed.

This statement is being filed after a first Office action on the merits, but before receipt of a final Office action or a Notice of Allowance. The fees in the amount of \$180 in payment of the late submission fee of \$1.17(p) are being paid concurrently herewith. In addition, please apply any other necessary charges or credits to Deposit Account 06-1050, referencing the above attorney docket number.

Respectfully submitted,

Date: May 7, 2012	/Frank L. Gerratana/
•	Frank L. Gerratana
	Reg. No. 62,653

Customer Number 26161 Fish & Richardson P.C. Telephone: (617) 542-5070 Facsimile: (877) 769-7945

22839607.doc

Substitute Form PTO-1449 (Modified)	U.S. Department of Commerce Patent and Trademark Office	Attorney Docket No. 29712-0002003	Application No. 13/272,977
Information Disclosure Statement by Applicant		Applicant Susan Walvius et al.	
(Use several shee	ts if necessary)	Filing Date	Group Art Unit
(37 CFR §1.98(b))		October 13, 2011	3673

U.S. Patent Documents							
Examiner	Desig.	Document	Publication				Filing Date
Initial	ID	Number	Date	Patentee	Class	Subclass	If Appropriate

Foreign Patent Documents or Published Foreign Patent Applications							
Examiner	Desig.	Document	Publication	Country or			Translation
Initial	ID	Number	Date	Patent Office	Class	Subclass	Yes No

Other Documents (include Author, Title, Date, and Place of Publication)						
Examiner	Desig.					
Initial	ID	Document				
	1	European Communication mailed March 12, 2012 from European application no. 09817024.4 (5 pages).				
	2	Pending claims of U.S. application no. 12/569,659 as of April 10, 2012.				
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	4	Transaction history from PAIR of U.S. application no. 12/569,659 as of April 10, 2012.				
	5	Transaction history from PAIR of U.S. application no. 13/271,884 as of April 10, 2012.				

Examiner Signature	Date Considered
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Electronic Patent Application Fee Transmittal						
Application Number:	13272977					
Filing Date:	13-Oct-2011					
Title of Invention:	Fabric System					
First Named Inventor/Applicant Name:	Susan Walvius					
Filer:	Frank L. Gerratana/jennifer franco					
Attorney Docket Number: 29712-0002003						
Filed as Large Entity						
Utility under 35 USC 111(a) Filing Fees						
Description		Fee Code	Quantity	Amount	Sub-Total in USD(\$)	
Basic Filing:						
Pages:						
Claims:						
Miscellaneous-Filing:						
Petition:						
Patent-Appeals-and-Interference:						
Post-Allowance-and-Post-Issuance:						
Extension-of-Time:						